

А.С. ЛЕЛЕЙ

КАТАЛОГ ОС-НЕМОК
(HYMENOPTERA, MUTILLIDAE)
ОРИЕНТАЛЬНОЙ ОБЛАСТИ



РОССИЙСКАЯ АКАДЕМИЯ НАУК
ДАЛЬНЕВОСТОЧНОЕ ОТДЕЛЕНИЕ
БИОЛОГО-ПОЧВЕННЫЙ ИНСТИТУТ

А. С. Лелей

**КАТАЛОГ ОС-НЕМОК
(HYMENOPTERA, MUTILLIDAE)
ОРИЕНТАЛЬНОЙ ОБЛАСТИ**



Владивосток
Дальнаука
2005

RUSSIAN ACADEMY OF SCIENCES
FAR EASTERN BRANCH
INSTITUTE OF BIOLOGY AND SOIL SCIENCE

A. S. Lelej

**CATALOGUE OF THE
MUTILLIDAE (HYMENOPTERA)
OF THE ORIENTAL REGION**



Vladivostok
Dalnauka
2005

УДК 595.794.21(5-014)

Лелей А. С. Каталог ос-немок (Hymenoptera, Mutillidae) Ориентальной области. – Владивосток: Дальнаука, 2005. – 252 с. ISBN 5–8044–0491–1

Книга является первым современным каталогом ос-немок Ориентальной области. За 250-летнюю историю исследований ос-немок для 637 видов, 42 подвигов и варитетов было предложено 779 номинальных названий. Описанные таксоны видового и подвигового ранга классифицированы по 10 подсемействам, 8 трибам и 64 родам. Для каждого названия дается ссылка на первоначальное описание, кроме того для родовых – типовой вид и способ его фиксации, для видовых и инфраподвидовых – синонимия и детальное распространение по странам. Даны определительные таблицы подсемейств, триб и родов; описано 11 новых родов и 16 новых видов, предложено 13 новых названий взамен преокупированных, обозначены лектотипы для 2 видов, синонимизировано 14 видовых и инфраподвидовых названий. Предложены новые комбинации для 233 видовых названий.

Библ. 319 назв., илл. 257, табл. 2.

Lelej A. S. Catalogue of the Mutillidae (Hymenoptera) of the Oriental region. – Vladivostok: Dalnauka, 2005. – 252 p. ISBN 5–8044–0491–1

This book is the first modern catalogue of the Mutillidae of the Oriental region. During 250 years of extensive work, 779 nominal names have been proposed for 637 species, 42 subspecies and varieties of Oriental Mutillidae. The described specific and infraspecific taxa are classified into ten subfamilies, eight tribes and 64 genera. Primary citing is given for each name, additionally for generic names – fixation of the type species; for specific and infraspecific names – synonymy and detail distribution. Keys to the Oriental subfamilies, tribes and genera are given. Eleven new genera and 16 new species are described, and 13 new names are proposed for preoccupied ones. Lectotypes are designated for two species. Fourteen specific and infraspecific names are synonymized. New combinations are proposed for 233 specific names.

Book includes 319 titles of references, 257 Figures, and two text tables.

Ответственный редактор
С. Ю. Стороженко

Рецензенты:
С. А. Белокобыльский, Н. В. Курзенко

На обложке: *Radoszkowskitilla ceylonica* (Lelej, 1993), ♀, голотип.

ISBN 5–8044–0491–1

© Лелей А.С., 2005 г.

© Дальнаука, 2005 г.

ПРЕДИСЛОВИЕ

Содержание, структура и форма настоящего каталога соответствуют Каталогу ос-немок Палеарктической области (Lelej, 2002). Северная граница Ориентальной области, соответствует южной границе Палеарктики, принятой в Catalogue of Palaearctic Diptera (Soós, Papp, 1988). По западной границе Пакистана она поднимается на север и по границе Индии спускается до 30° с.ш. В Китае и Японии северная граница Ориентальной области проходит по 30° с.ш. В настоящем Каталоге граница между Ориентальной и Австралийской зоогеографическими областями принимается по линии Лидеккера (рис. 1), которая является крупным рубежом в распространении подсемейства Sphaerophthalminae, доминирующего в Австралийской области (западнее этой линии встречаются единичные виды этого подсемейства).

Описанные таксоны видового и подвидового ранга классифицированы и каталогизированы по 10 подсемействам, 8 трибам и 64 родам. Подсемейства расположены по системе и завершаются группой видов неясного систематического положения (Mutillidae incertae sedis). Роды внутри подсемейств и триб, подроды внутри родов и виды внутри родов расположены по алфавиту, а синонимы внутри вида – по хронологии. Валидные подвиды и несинонимизированные вариететы, даются внутри видовой группы, по типу синонимов. Валидные названия в заголовках и начале абзаца даны **жирным** шрифтом, синонимы – *курсивом*; внутри текста и при описаниях родовые и видовые названия выделены *курсивом*. В квадратных скобках даны таксоны, встречающиеся вне Ориентальной области. Для каждого названия дается ссылка на первоначальное описание, кроме того, для родовых – типовой вид и способ его фиксации, для видовых и инфраподвидовых – синонимия и детальное распространение по странам. Внутри стран распространение дается по провинциям (Китай – рис. 2), административным районам (Индия – рис. 3, Малайзия – рис. 4, индонезийская часть острова Борнео), островам (Япония, Филиппины, Индонезия). В книге используются современные названия стран, административных районов и городов.

Работа по изучению ос-немок была предложена мне чл.-корр. РАН П.А. Лером, которому я бесконечно благодарен за постоянное внимание и поддержку. Многие коллеги щедро делились со мной своими сборами и материалами и я сердечно благодарю их. Я искренне признателен кураторам коллекций Зоологического института РАН, Санкт-Петербург (В.И. Тобиас, С.А. Белокобыльский) и Зоологического музея Московского государственного университета (Е.М. Антонова, А.В. Антропов, А.Л. Озеров), которые позволили изучить старейшие и богатейшие коллекции ос-немок в России, а также И.М. Кержнеру за многочисленные советы и консультации по номенклатуре. С.А. Белокобыльский и Н.В. Курзенко любезно согласились рецензировать книгу. Г.А. Синельникова помогла в изготовлении рисунков. Особенно я благодарен С.Ю. Стороженко, взявшему на себя труд редактирования книги.

Работа поддержана грантом Дальневосточного отделения РАН (проект № 04-3-А-06-034), Научным Советом Программы Президиума РАН "Научные основы сохранения биоразнообразия России", краткосрочным грантом Смитсоновского Института (Вашингтон, США).

PREFACE

The content, structure and form of this catalogue follow the Catalogue of the Mutillidae of Palaearctic region (Lelej, 2002). The northern border of the Oriental region follows the southern Palaearctic border accepted in the Catalogue of Palaearctic Diptera (Soós, Papp, 1988). The border follows Central Asia by the western and northern political borders of Pakistan and by the Indian border southwards up to 30° North Latitude and by Northern Latitude 30° in China and Japan. The Lydekker's line is used for the border between Oriental and Australian regions (Fig. 1). This line limits the distribution of subfamily Sphaerophthalminae which dominate the Australian mutillid fauna (westwards of this line a few sphaerophthalmine species are known).

I thank Prof. V.I. Tobias and Dr. S.A. Belokobylskij (Zoological Institute, St. Petersburg), Drs. E.M. Antonova, A.V. Antropov, A.L. Ozerov (Zoological Museum of Moscow State University), Dr. Sk. Yamane (Kagoshima University, Japan), Dr. A. Shinohara [National Science Museum (Nat. Hist.), Tokyo, Japan], G. Pagliano (Museo Regionale di Scienze Naturali, Turin, Italy), P. Lo Cascio (Museo Storia Naturale, Florence, Italy), Dr. T. Osten (Staatliches Museum für Naturkunde in Stuttgart, Germany), Dr. Ch. Schmid-Egger (Germany), Dr. W. Pulawski (California Academy of Sciences, San Francisco, USA) kindly for loaned specimens. Profs Pang Xiongfei, Li Liying and Dr. Pang Hong kindly helped in the study of the mutillid collection in South China Agricultural University (Guangzhou, China). Dr. G.S. Medvedev, Dr. S.A. Belokobylskij, Dr. V.N. Kuznetsov, O.N. Kabakov, and many other entomologists kindly donated material. K.V. Krombein and B.B. Norden (National Museum of Natural History, Washington, D.C., USA) collected mutillid specimens and made notes on natural history of some species in Sri Lanka. I am much indebted to many colleagues who generously provided me with valuable exchange material: late Dr. B. Petersen (Denmark), late Prof. G. Nonveiller (Yugoslavia), Dr. D.J. Brothers (South Africa, Pietermaritzburg), and Prof. K.V. Krombein (Washington, D.C., USA). Dr. G.C. McGavin (Oxford University, UK) kindly provided me the list of P. Cameron's types of Oriental Mutillidae deposited in the Museum of Natural History, Oxford, UK). G. Pagliano kindly sent me the list of homonymous names in Mutillidae from his database. N.V. Kurzenko kindly helped me in the identification of current taxonomic positions of vespids hosts. I thank Prof. A.P. Rasnitsyn (Paleontological Institute, Moscow) for the critical comments on mutillid phylogeny. D.J. Bennett (University of Kansas, Lawrence, USA) partly read and commented on an earlier manuscript and improved English grammar. Special thanks are due to reviewers S.A. Belokobylskij (Zoological Institute, St. Petersburg) and N.V. Kurzenko (Institute of Biology and Soil Science, Vladivostok). The artist G.A. Sinelnikova helped in the preparation of figures. I am much indebted Dr. S. Yu. Storozhenko (Institute of Biology and Soil Science, Vladivostok) for editing of this work.

This work has been supported by a grant from the Far Eastern Branch of Russian Academy of Sciences (N 04-3-A-06-034), by the Program of Russian Academy of Sciences "Conservation of biodiversity of Russia". The Smithsonian Insect Project in Sri Lanka, 1969-1975, has been supported by grants SFG-0-2854 and SFG-0-6955 (K.V. Krombein principal investigator). The study of Oriental Mutillidae in the National Museum of Natural History collection, Washington, D.C. has been supported by a Short-Term Visitor travel grant from the Smithsonian Institution (Washington, D.C., USA).

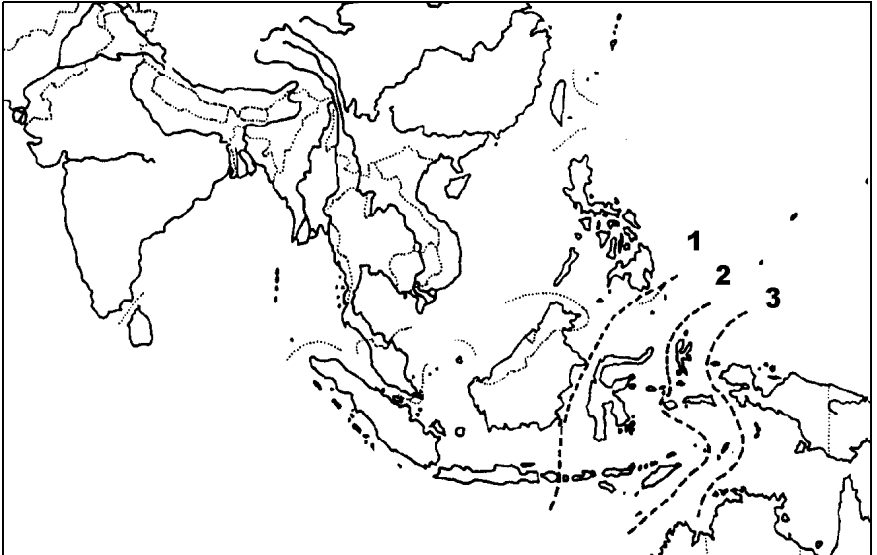


Fig. 1. The Oriental and Papuan-Australian area of faunal transition and the important zoogeographic lines (from: Baehr, 2003). 1 – Wallace's line, 2 – Weber's line, 3 – Lydekker's line.

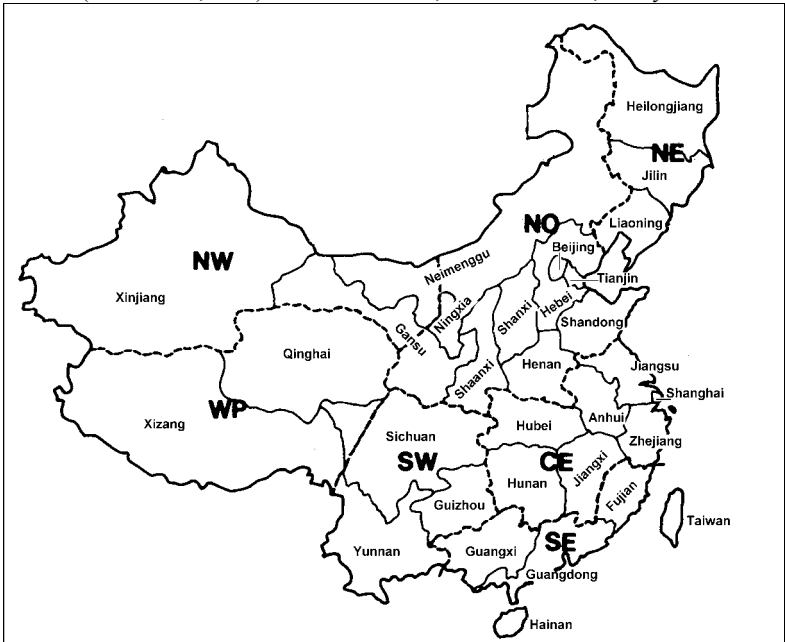


Fig. 2. Subdivision of China (From: Aukema, Rieger, 2001). NW – North-western Territory, NO – Northern Territory, NE – North-eastern Territory, WP – the Western Plateau, SW – South-western Territory, CE – Central Territory, SE – South-eastern Territory.

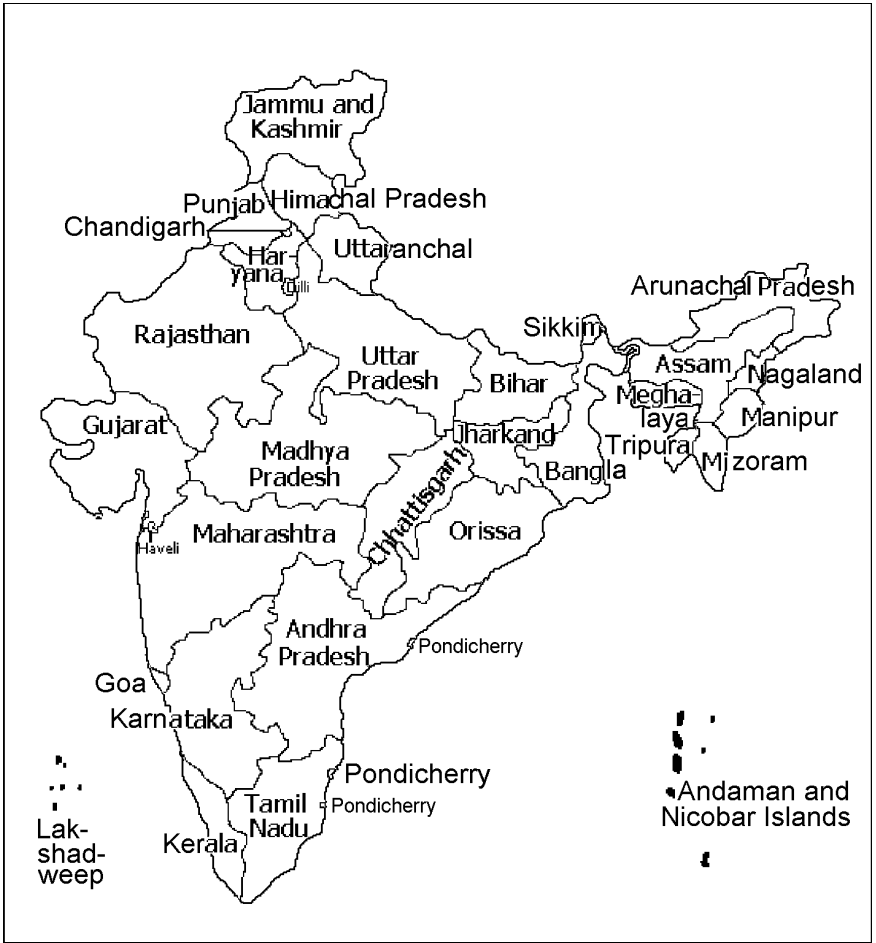


Fig. 3. Map of Administrative Divisions of India (from: www.world-gazetteer.com).

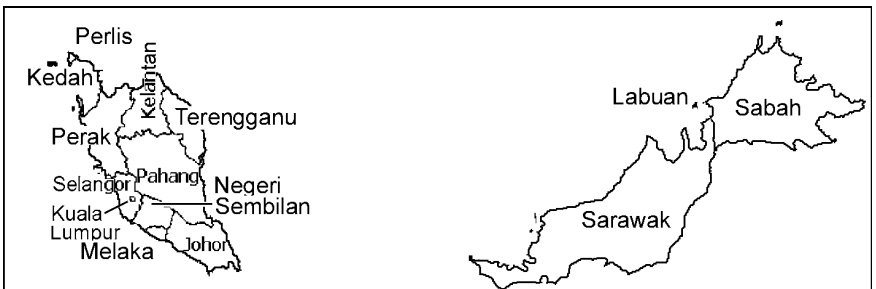


Fig. 4. Map of Administrative Divisions of Malaysia (from: www.world-gazetteer.com).

INTRODUCTION

During almost 250 (1758–2004) years of extensive work by 41 entomologists, 779 nominal names have been proposed for 637 species and 42 subspecies and varieties of Oriental Mutillidae. The species diversity in Oriental region is more than in Palaearctic, Australian and Nearctic region and approximately two times less than that in the Afrotropical and Neotropical region (table 1). During the last century, the number of Oriental species increased by more than two times.

T a b l e 1

Diversity of described Mutillidae species in the World

Subfamilies and tribes	Pal	Afr	Ori	Nea	Net	Aus	Total
I. Myrmosinae	31	0	2	6	0	0	39
II. Kudakrumiinae	13	0	2	10	0	0	25
III. Pseudophotopsidinae	24	2	3	0	0	0	29
IV. Ticoplinae	6	21	6	0	0	0	33
V. Myrmillinae	68	71	82	0	0	0	221
VI. Mutillinae	256	761	465	30	173	7	1692
Mutillini	31	300	20	0	0	1	352
Smicromyrmini	191	115	182	0	0	0	488
Peterseniidiini	5	?	97	0	0	0	102
Trogaspidiini	29	346	166	30	173	6	750
VII. Rhopalomutillinae	0	12	3	0	0	0	15
VIII. Sphaerophthalminae	2	0	9	360	817	289	1477
Sphaerophthalmini	2	0	7	316	391	289	1005
Pseudomethocini	0	0	2	44	426	?	472
IX. Dasylabrinae	103	207	20	0	0	1	331
X. Ephutinae	4	42	36	29	222	9	342
Ephutini	0	0	0	29	222	0	251
Odontomutillini	4	42	36	0	0	9	91
XI. Mutillidae incertae sedis	17	0	9	0	0	0	26
Total	524	1116	637	435	1212	306	4230
André, 1903 from Skorikov, 1935	122	361	276	239	695	155	1848

Pal – Palaearctic region, data from Lelej (2002); **Afr** – Afrotropical region, data from Bischoff (1920–1921), Bradley, Bequert (1928), Suárez (1963, 1969, 1977, 1994), Krombein (1972), Brothers (1971a), Bayliss, Brothers (1996), Mitchel, Brothers (1998, 2002), Nonveiller (1973a,b,c,d, 1974, 1975, 1977, 1978, 1980a,b,c,d,e, 1987a,b, 1993, 1994a,b,c,d, 1995a,b,c, 1996a,b,c,d,e, 1997a,b,c, 1998, 1999), Nonveiller, Četković (1995, 1996a,b), Nonveiller, Petersen (1995, 1996); **Ori** – Oriental region, data from current catalogue; **Nea** – Nearctic region, data from Krombein (1979b), Manley, Pitts (2002), Pitts, McHugh, 2000, 2002); **Net** – Neotropical region, data from Nonveiller (1990), Cambra, Quintero (1992, 1993, 1996), Quintero, Cambra (1994, 1996, 2001); **Aus** – Australian region, data from André (1899b, 1901), Zavattari (1913a), Krombein (1971), Brothers (1971b, 1983b).

C. Linnaeus (1707-1778) described *Mutilla indica* in 1758 (erroneously cited from "Indiis", it is actually from South America), which was transferred later into the genus *Traumatomutilla* André. J.C. Fabricius (1745-1808) described the first Oriental Mutillidae. In "Systema Entomologiae" (1775) he described *Sphex villosa* from South India, which was transferred later into the genus *Trogaspidia* Ashmead. In "Entomologia Systematica" (1793) J.C. Fabricius described *Mutilla erythrocephala* (erroneously cited from "America meridionali", it is actually from Sri Lanka), which is currently regarded as *Trogaspidia intermedia* (Saussure, 1867). Two species were described in "Systema Piezatorum" (Fabricius, 1804) from China. N.S. Swederus (1751-1833) described *Mutilla sexmaculata* in 1787 from "Bengal" (India) (currently transferred into the genus *Radoszkowskii* Ashmead).

M.J.K. Megerle (1765-1832), in "Catalogus insectorum ..." (1802, 1803), described five species from Bengalia. His descriptions of species were very short and published in a catalogue for the sale. Nevertheless, Megerle's names are valid. Unfortunately they are not listed by C. Dalla Torre (1897) or E. André (1903) and were never revised. A.G. Olivier (1756-1814) described two Oriental mutillids in "Encyclopédie méthodique" (1811): *Mutilla rugosa* from "Les Indes Orientales" and the enigmatic *Myrmosa macrocephala* from Java, which belongs to Tiphidae. Four species have been described by A. Lepeletier (1770-1845) from India and Java (Lepeletier, 1845).

A very important period for the description of Oriental Mutillidae was associated with F. Smith (1805-1879), Assistant Keeper of the Department of Entomology of the British Museum in London, who published 15 papers (1855-1879) on Hymenoptera, where 72 Oriental mutillids were described in the genus *Mutilla* (15 of which were later synonymized). The famous Russian entomologist V. Motschulsky (1810-1871) described two species from Sri Lanka and South India (Motschulsky, 1863) and H. Saussure (1829-1905) described ten Oriental mutillids mainly from Sri Lanka (Saussure, 1867). O. Radoszkowski (1820-1895) alone or jointly with J. Sichel (1802-1862) described ten Oriental species. P. Magretti (1854-1913) studied Hymenoptera collected in Myanmar (Burma) (Magretti, 1892) and described 27 species in the genus *Mutilla*.

The author of an important number of contributions on Hymenoptera from different parts of the World, P. Cameron (1847-1912), studied Oriental Mutillidae also. In 17 papers (1892-1909) he described 146 species in the genus *Mutilla*, mainly from India and Sri Lanka (later 20 of them were synonymized). C. Mickel and B. Petersen have studied most of the types of Cameron's Oriental species. Very important is Petersen's note (Petersen, in litt., 1980), which states that several of Cameron's mutillid species described from Sri Lanka are very likely based on material from outside of Sri Lanka. Recently this was supported by another case in which the label of a type specimen of the bee *Lasioglossum alphenum* (Cameron, 1897) was very likely was missattached to a Srilankan specimen (Sakagami et al., 1996). At least in some cases the type locality of

Cameron's species is wrong. C. Bingham (1848-1908) in "The Fauna of British India" (1897) listed and keyed 119 species which were known at that time from India, Sri Lanka and Myanmar. He includes all species in the genus *Mutilla*.

In volume VIII (Fossores) of the famous "Catalogus Hymenopterorum" (1897) C.G. Dalla Torre (1850-1928) included in the family Mutillidae 175 described Oriental species. In spite of different genera proposed by different authors C. Dalla Torre placed all species in the genus *Mutilla*. He proposed many new names for eliminating homonyms that resulted from his procedure, and later some of them became synonyms.

W.H. Ashmead (1855-1908) proposed the classification of Aculeata Hymenoptera (Ashmead, 1899, 1900-1904) including the family Mutillidae. He has described 31 new mutillid genera in these papers, seven of which also belong to the Oriental fauna: *Ephutomma* Ashmead, 1899, *Eurymutilla* Ashmead, 1899, *Trogaspidia* Ashmead, 1899, *Odontomutilla* Ashmead, 1899, *Spilomutilla* Ashmead, 1903, *Pristomutilla* Ashmead, 1903, and *Radoszkowskius* Ashmead, 1903. E. André critically analyzed Ashmead's new classification (André, 1904) and rejected some of the genera, but later many of these genera were resurrected by subsequent authors.

E. André (1838-1914), who was a world authority of Mutillidae, described 50 Oriental species in 13 papers (1894-1909). In volume 11 of Wytzman's famous "Genera insectorum" (1903), E. André classified World Mutillidae into 28 genera, some of which were described by him. A total 270 Oriental species were listed in this volume as follows: *Myrmosa* Latreille, 1796 (1 species), *Odontomutilla* Ashmead, 1899 (19), *Promecilla* André, 1903 (11), *Mutilla* Linnaeus, 1758 (148), *Cystomutilla* André, 1896 (1), *Dasytabris* Radoszkowski, 1885 (6), *Stenomutilla* André, 1896 (3), species incertae sedis (81).

E. Zavattari (1883-1972) published five papers on Mutillidae, where he described 38 Oriental species (1909-1922).

C. Mickel (1892-1982) has made considerable contribution to the study of Oriental Mutillidae. He studied Mutillidae of Taiwan, Philippine Islands, Eastern Asia and then produced a single paper (Mickel, 1935). All the types of previously described species were examined him and keys were proposed. A total of 277 species and subspecies from Pacific Islands (including New Guinea) are listed and keyed as follows: *Myrmilla* Wesmael, 1852 (1 species), *Squamulotilla* Bischoff, 1920 (39), *Cystomutilla* André, 1896 (1), *Rhopalomutilla* André, 1901 (1), *Mutilla* Linnaeus, 1758 (1), *Odontomutilla* Ashmead, 1899 (23), *Timulla* Ashmead, 1899 (subg. *Trogaspidia* Ashmead, 1899) (129), *Smicromyrme* Thomson, 1870 (58), and *Ephutomorpha* André, 1903 (24).

Among the more recent authors who studied Oriental Mutillidae are C. Chen, who described 58 new species and subspecies of Chinese Mutillidae (Chen, 1957), and K. Hammer (1871-1958), who described 44 species mainly from India (Hammer, 1962). After examination of Hammer's species in Kolikata (Calcutta), B. Petersen noted that many of them "will fall as synonyms" (Petersen, in

litt., 1978). K. Tsuneki (1908-1994) studied the Mutillidae from Japan, Taiwan and Philippines and described 32 species.

B. Petersen (1925-1996) planned to revise the Indian Mutillidae and prepare a large paper. For these purposes he revised all relevant types and additional material from the European and Asian Museums. B. Petersen examined the types of Oriental species described by J.C. Fabricius (including the enigmatic *Sphex villosa*), F. Smith, V. Motschulsky, P. Cameron, C.T. Bingham, C.G. Nurse, R.E. Turner, C. Chen, K. Hammer and probably E. André. B. Petersen accumulated in the Zoological Museum of Copenhagen University ca. 60000 mutillid specimens collected mainly in the Old World (Heie, 1996). He published three valuable papers on Palaearctic Mutillidae (Petersen, 1988, 1994; Schmid-Egger, Petersen, 1993) and two papers on Afrotropical Mutillidae (Nonveiller, Petersen, 1995, 1996). Unfortunately B. Petersen published nothing on Oriental Mutillidae. His results can be seen on the Website of Zoological Museum, University of Copenhagen <http://www.zmuc.dk/EntoWeb/collections-databaser/Hymenoptera/Hymenoptera.htm> where among 1050 listed mutillid species there are 330 Oriental and 310 Palaearctic species identified by B. Petersen. After the death of B. Petersen, loaned material was returned to many Museums and Institutions. The taxonomy of Oriental and Palaearctic species was fruitfully discussed by me in correspondences with B. Petersen for a long time (1980-1995). In some cases, synonymy proposed the current Catalogue are based on the B. Petersen's conclusion ("teste Petersen" in the text).

I have had extensive contacts since 1975 with Prof. K. Krombein as well. We discussed many questions on Oriental Mutillidae. I received from him valuable exchange material and requested old references. Thanks to K. Krombein, I studied the vast material collected in Sri Lanka (approximately three thousand specimens) of Oriental Mutillidae in the Smithsonian Institution (Washington, D.C.). Based on this rich material we prepared joint papers (Krombein, Lelej, 1999; Lelej, Krombein, 1999; 2001).

The history of described specific and infraspecific taxa by decade is given in Fig. 5. The contributions of 13 senior authors for the descriptions of generic names is given in Fig. 6, and 41; authors for descriptions of specific and ifraspecific taxa are given in Fig. 7. Among 779 nominal names, 100 specific and infra-specific names have been synonymized by subsequent authors. Table 2 and Fig. 8 show the distribution of nominal names among ten subfamilies and four tribes of subfamily Mutillinae as Mutillidae incertae sedis.

213 species are known from India, 86 species from Sri Lanka, 138 species from Oriental China (southwards of 30° N), 94 species from Malaysia, 93 species from Indonesia, and 80 species from the Philippines. From each other countries far fewer species are known.

The subfamilies and tribes are given in systematic order and ended by Mutillidae incertae sedis. The genera and species are given in alphabetical order. The synonyms within species are chronological. Valid subspecies and unsynonymized varieties within species-groups are given as synonym style. New combi-

nations are proposed for species after examination of specimens or when it is evident from the original description. If the original species description is not complete it is placed in the genus as doubtful, and a new combination is not proposed. The figures are original and made by author if references not cited.

All valid names in the heads and beginnings of paragraphs are given in **bold**, the synonyms and invalid names – in *italics*; generic and specific names within paragraphs are given in *italics*. Species outside the Oriental region are given in square brackets. Primary citation is given for each name, additionally for genera and subgenera – the type species; for specific and infraspecific names – synonyms and detailed distribution data. Distributions within countries are given by provinces (China – Fig. 2), by administrative area (India – Fig. 3, Malaysia – Fig. 4 and Indonesian part of Borneo) or by islands (Japan, Philippines, Indonesia except Borneo). New distribution records are asterisked (*). The current names are used for the countries, administrative areas and cities. The following list of renamed places may be useful for understanding type localities.

Former name	Current name	Country
Annam	Vietnam (southwards of Red River to Ho Chi Minh)	Vietnam
Bombay	Mumbai	India
Burma	Myanmar	Myanmar
Calcutta	Kolkata	India
Canton	Guangdong	China
Ceylon	Sri Lanka	Sri Lanka
Cochin Chine	Vietnam (southwards of Ho Chi Minh)	Vietnam
Formosa	Taiwan	China
Inner Mongolia	Neimenggu	China
Madras	Chennai	India
Siam	Thailand	Thailand
West Bengal	Bangla	India

This paper is based on the references, as well as on studied original material collected by Soviet-Chinese expeditions in 1955-1957 (several hundred specimens); by Dr. Sk. Yamane in Indonesia, Malaysia, Myanmar, Thailand (around five hundred specimens); by Russian entomologists in Vietnam, Thailand and India; by K.V. Krombein and B.B. Norden in Sri Lanka during the Smithsonian Insect Project, 1969-1981 and two visits in 1993 and 1997 (around three thousands specimens). Institutions and colleagues (see acknowledgements) have loaned many Oriental mutillid specimens for the study. Valuable comparative exchange material has been received from B. Petersen, G. Nonveiller, D. Brothers. New descriptions of tribes, genera and species are based on this rich material. Tribe Pseudomethocini has been recorded firstly in the Oriental fauna.

In this Catalogue I used the classification of Mutillidae based on a recent phylogenetic system (Fig. 9) (Lelej, Nemkov, 1997). This classification and

phylogeny differs from Brothers' (1975, 1999). I divided the family Mutillidae into ten subfamilies, four of them (Myrmosinae, Kudakrumiinae, Pseudophotopsidinae, and Ticoplinae) belong to lower mutillids, another six to higher mutillids. Higher Mutillidae diverged in two branches: 1) female mesosoma with concave mesopleura, more or less a rectangle and the propodeum wider than mesonotum (Myrmillinae + Mutillinae); 2) female mesosoma with convex mesopleura and with the mesonotum much wider than the propodeum (Rhopalomutillinae + Dasylabrinae + Ephutinae + Sphaerophthalminae). The classification of Oriental Mutillidae for subfamily, tribe and generic levels is as follows.

Family MUTILLIDAE Latreille, 1802

I. Subfamily MYRMOSINAE Fox, 1894

1. *Erimyrmosa* Lelej, 1984
2. *Taimyrmosa* Lelej, gen. n.

II. Subfamily KUDAKRUMIINAE Krombein, 1979

3. *Kudakrumia* Krombein, 1979
4. *Nothomyrmosa* Krombein, 1979

III. Subfamily PSEUDOPHOTOPSIDINAE Bischoff, 1920

5. *Pseudophotopsis* André, 1896

IV. Subfamily TICOPLINAE Nagy, 1970

Tribe Smicromyrmillini Argaman, 1988

6. *Cameronilla* Lelej, 2001
7. *Eosmicromyrmilla* Lelej et Krombein, 2001
8. *Hindustanilla* Lelej, 2001

V. Subfamily MYRMILLINAE Bischoff, 1920

9. *Bethsmyrmilla* Krombein et Lelej, 1999
10. *Bischoffitilla* Lelej, 2002
11. *Brahmatilla* Lelej, gen. n.
12. *Myrmilla* Wesmael, 1852
13. *Spilomutilla* Ashmead, 1903

VI. Subfamily MUTILLINAE Latreille, 1802

Tribe Mutillini Latreille, 1802

14. *Ctenotilla* Bischoff, 1920
15. *Kurzenkotilla* Lelej, gen. n.
16. *Lehritilla* Lelej, gen. n.
17. *Mutilla* Linnaeus, 1758

18. *Pristomutilla* Ashmead, 1903
19. *Storozhenkotilla* Lelej, gen. n.
20. *Strangulotilla* Nonveiller, 1978
21. *Zeugomutilla* Chen, 1957

Tribe Smicromyrmini Bischoff, 1920

22. *Andreimyrmex* Lelej, 1995
23. *Dentilla* Lelej, 1980
24. *Ephucilla* Lelej, 1995
25. *Ephutomma* Ashmead, 1899
26. *Indratilla* Lelej, 1993
27. *Karunaratnea* Lelej, gen. n.
28. *Mickelomyrmex* Lelej, 1995
29. *Nemka* Lelej, 1985
30. *Nordeniella* Lelej, gen. n.
31. *Physetopoda* Schuster, 1949
32. *Promecilla* André, 1903
33. *Sinotilla* Lelej, 1995
34. *Smicromyrme* Thomson, 1870
35. *Tsunekimyrmex* Lelej, 1995

Tribe Peterseniini Lelej, 1996

36. *Krombeinidia* Lelej, 1996
37. *Orientidia* Lelej, 1996
38. *Pagdenidia* Lelej, 1996
39. *Peterseniidia* Lelej, 1992
40. *Radoszkowskitilla* Lelej, gen. n.
41. *Taiwanomyrmex* Tsuneki, 1993
42. *Zavatilla* Tsuneki, 1993

Tribe Trogaspidiini Bischoff, 1920

43. *Eotrogaspidia* Lelej, 1996
44. *Karlissaidia* Lelej, gen. n.
45. *Neotrogaspidia* Lelej, 1996
46. *Nonveilleridia* Lelej, 1996
47. *Promecidia* Lelej, 1996
48. *Protrogaspidia* Lelej, 1996
49. *Radoszkowskivus* Ashmead, 1903
50. *Serendibiella* Lelej, gen. n.
51. *Trispilotilla* Bischoff, 1920
52. *Trogaspidia* Ashmead, 1899

VII. Subfamily RHOPALOMUTILLINAE Schuster, 1949

53. *Rhopalomutilla* André, 1901

VIII. Subfamily SPHAEROPHTHALMINAE Ashmead, 1903

Tribe Pseudomethocini Schuster, 1947

54. *Cockerellidia* Lelej et Krombein, 1999
 55. *Karlidia* Lelej, 1999
 56. *Standfussidia* Lelej, gen. n.

Tribe Sphaerophthalmini Ashmead, 1903

57. *Cystomutilla* André, 1896
 58. *Ephutomorpha* André, 1903
 59. *Eurymutilla* Ashmead, 1899

IX. Subfamily DASYLABRINAE Invrea, 1964

60. *Dasylabris* Radoszkowski, 1885
 61. *Orientilla* Lelej, 1979
 62. *Tricholabiodes* Radoszkowski, 1885

X. Subfamily EPHUTINAE Ashmead, 1903

Tribe Odontomutillini Lelej, 1983

63. *Odontomutilla* Ashmead, 1899
 64. *Yamanetilla* Lelej, 1996

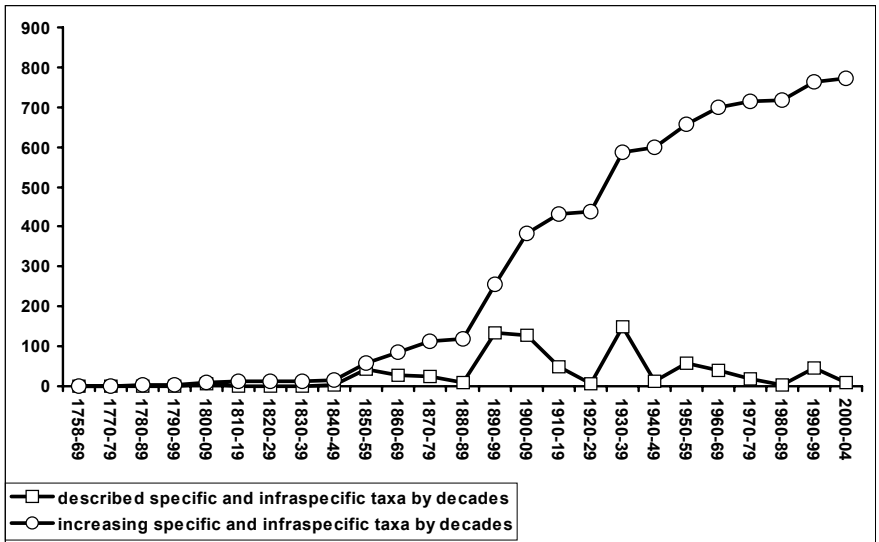


Fig. 5. Oriental Mutillidae: History of described specific and infraspecific taxa by the decades (1758-2004 – 779 nominal names).

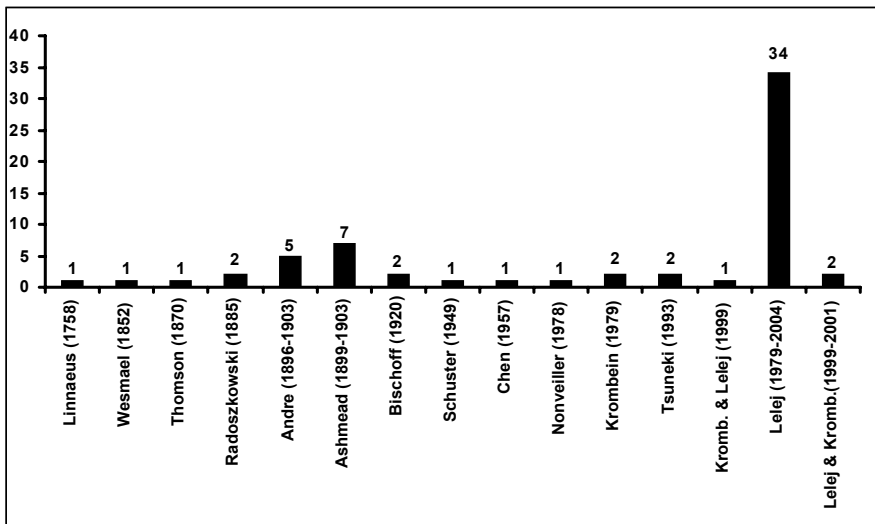


Fig. 6. Oriental Mutillidae: History of described generic names, which belong to the Oriental fauna, by 13 authors (1758-2004 – 64 valid names).

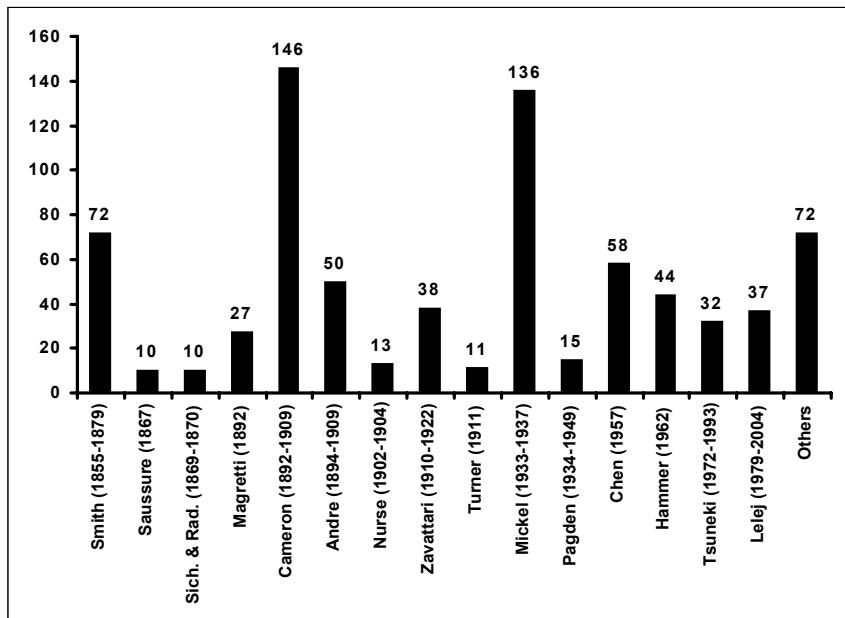


Fig. 7. Oriental Mutillidae: History of described specific and infraspecific taxa by 41 authors (1758-2004 – 779 nominal names).

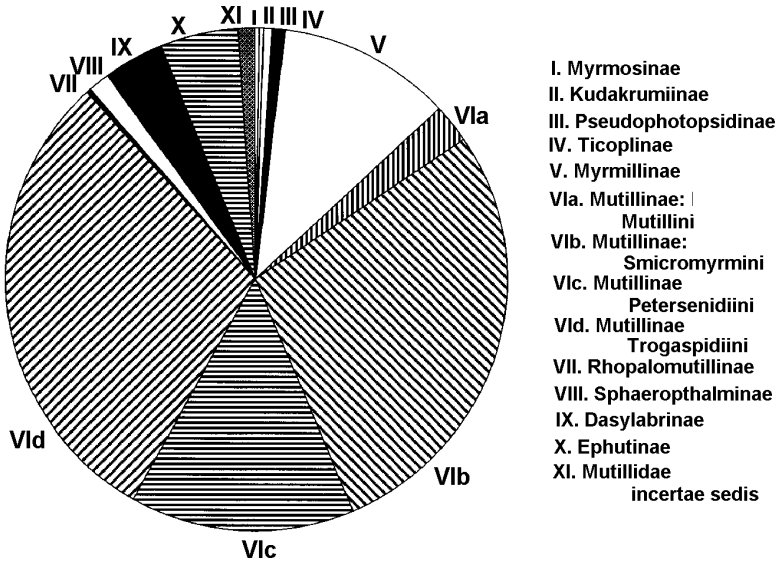


Fig. 8. Oriental Mutillidae: Distribution of 779 nominal specific and infraspecific names among ten subfamilies and Mutillidae incertae sedis.

T a b l e 2

Distribution of 779 nominal specific and infraspecific names of Oriental Mutillidae among the subfamilies and tribes

Subfamilies and tribes	Synonyms and invalid names	Valid names		Total
		Subspecies	Species	
I. Myrmosinae	0	0	2	2
II. Kudakrumiinae	0	0	2	2
III. Pseudophotopsidinae	2	0	3	5
IV. Ticoplinae	0	0	6	6
V. Myrmillinae	5	3	82	90
VI. Mutillinae	82	37	465	584
Mutillini	1	0	20	21
Smicromyrmini	22	11	182	215
Petersenidiini	12	6	97	115
Trogaspidiini	47	20	166	233
VII. Rhopalomutillinae	0	0	3	3
VIII. Sphaerophthalminae	0	0	9	9
IX. Dasylabrinae	11	0	20	31
X. Ephutinae	0	2	36	38
XI. Mutillidae incertae sedis	0	0	9	9
Total	100	42	637	779

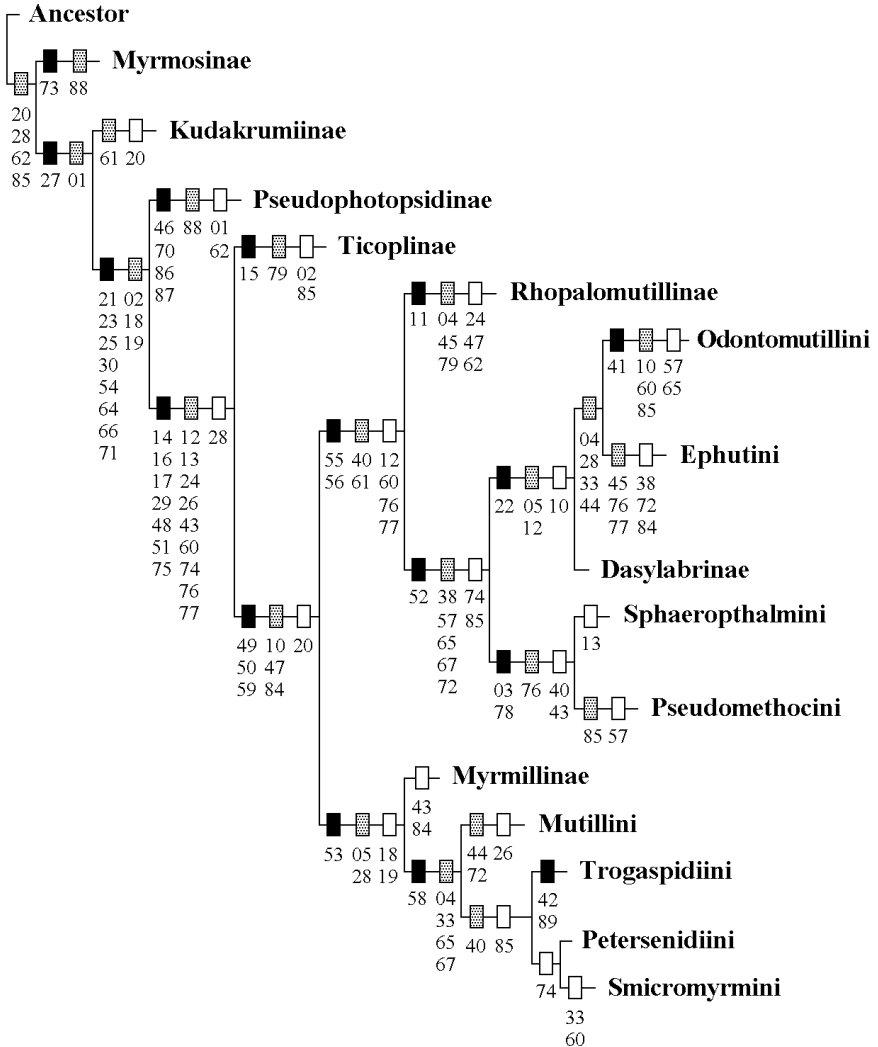


Fig. 9. Cladogram of relationships for the fifteen higher taxa of Mutillidae and Ancestor as outgroup generated by the program PAUP and based on 71 characters (length = 196 steps, CI = 0.62, RI = 0.81, HI = 0.38). Mutillini + Trogaspidiini + Peterseniidiini + Smicromyrmini = Mutillinae; Odontomutillini + Ephutini = Ephutinae; Sphaerophthalmini + Pseudomethocini = Sphaerophthalminae. ■ - synapomorphies or autapomorphies, ▨ - homoplasies (convergences, parallelisms), □ - reversals. (From: Lelej, Nemkov, 1997 with corrigenda).

CATALOGUE OF ORIENTAL MUTILLIDAE

Family MUTILLIDAE Latreille, 1802

Mutillariae Latreille, 1802: Histoire naturelle 3: 347.

I. Subfamily MYRMOSINAE Fox, 1894

Myrmosini (as tribe) Fox, 1894: Proc. Acad. Nat. Sci. Philad. 1-3: 293.

1. Genus *Erimyrmosa* Lelej, 1984

Erimyrmosa Lelej, 1984: Zool. Zhurn. 63(9): 1432. Type species: *Erimyrmosa burmanensis* Lelej, 1984 (original designation).

burmanensis Lelej, 1984 (*Erimyrmosa*): Zool. Zhurn. 63(9): 1432, ♂, type locality: "Rangoon" (Myanmar), holotype in Zool. Inst., St. Petersburg. – Distribution: Myanmar.

2. Genus *Taimyrmosa* Lelej, gen. n. (description see p. 161)

Type species: *Myrmosa eos* Lelej, 1981 (designated here). [Not Oriental.]

cara Lelej, sp. n. (*Taimyrmosa*): type locality: "Taiwan" (China), holotype – ♂ in Kagoshima Univ. **New Species** (description see p. 161). – Distribution: China: SE (Taiwan).

II. Subfamily KUDAKRUMIINAE Krombein, 1979

Kudakrumiinae Krombein, 1979: Trans. Amer. Entomol. Soc. 105: 71.

3. Genus *Kudakrumia* Krombein, 1979

Kudakrumia Krombein, 1979: Trans. Amer. Entomol. Soc. 105: 74. Type species: *Kudakrumia mirabilis* Krombein, 1979 (original designation).

mirabilis Krombein, 1979 (*Kudakrumia*): Trans. Amer. Entomol. Soc. 105: 74, Figs 1-16, ♂, ♀, type locality: "Palatupana Tank" (Sri Lanka), holotype – ♀, in National Mus. Nat. Hist., Washington, D.C. – Distribution: Sri Lanka.

4. Genus *Nothomyrmosa* Krombein, 1979

Nothomyrmosa Krombein, 1979: Trans. Amer. Entomol. Soc. 105: 80. Type species: *Protomutilla microsoma* Brothers, 1974 (original designation).

microsoma (Brothers, 1974) (*Protomutilla*): Psyche 81(2): 270, ♀, type locality: "Nilgiri Hills" (India: Kerala), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: India Kerala).

III. Subfamily PSEUDOPHOTOPSISIDINAE Bischoff, 1920

Pseudophotopsidinae (as tribe) Bischoff, 1920: Arch. Naturgesch. 86A(1-3): 22.

5. Genus *Pseudophotopsis* André, 1896

Pseudophotopsis (as subgenus of *Mutilla* Linnaeus, 1758) André, 1896: Mem. Soc. Zool. France 9: 266. Type species: *Agama komarovii* Radoszkowski, 1885 (designated by Ashmead, 1903: 305). [Not Oriental.]

Alloneurion Ashmead, 1899: J. N. Y. Entomol. Soc. 7: 59. Type species: *Agama kokpetica* Radoszkowski, 1885 (original designation). [Not Oriental.]
Synonymized by André, 1903: 21.

binghami Bischoff, 1920 (*Pseudophotopsis*): Arch. Naturgesch. 86A(1-3): 96, ♂, type locality: "Perso-Baluch[estan]" (Iran), holotype in Mus. Naturk. Humboldt-Univ., Berlin. – Distribution: India (Rajasthan), Afghanistan, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan (south).

zarudnyi Skorikov, 1935 (*Pseudophotopsis*, as subspecies of *komarovii*): Tr. Tadh. basy AN SSSR 5: 292, ♂, type locality: "Kerman" (Iran), lectotype in Zool. Inst., St. Petersburg (designated by Lelej, 1980: 639). Synonymized by Lelej, 1985: 83.

indica Lelej, 1995 (*Pseudophotopsis*): Far East. entomol. 20: 2, ♂, type locality: "65 km W Jodhpur" (India: Rajasthan), holotype in Zool. Mus., Moscow Univ. – Distribution: India (Rajasthan). – Remark: B. Petersen wrote me: "My opinion in that *P. indica* [Lelej, 1995] is quite close to *P. kermana* [Skorikov, 1935] and it may be even a synonym of *P. kermana*. In many characters states *P. indica* fit *P. kermana* when we allow for some variation. Both *P. kermana* and *P. indica* have a few unique character states in the genitalia, e. g. the weak dorsal arcuation subdistally on the penial valves, and the ventral lobes of the genital capsule are the same in the two taxa" (Petersen, in litt., 1995).

irana (Skorikov, 1935) (*Ephutomma*): Tr. Tadh. basy AN SSSR 5: 324, ♀, type locality: "Khorasan" (Iran), lectotype in Zool. Inst., St. Petersburg (designated by Lelej, 1980: 640). Distribution: India (Rajasthan), Afghanistan, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan (south).

cithara (Skorikov, 1935) (*Ephutomma*): Tr. Tadh. basy AN SSSR 5: 323, ♀, type locality: "Bampur" (Iran), holotype in Zool. Inst., St. Petersburg. Synonymized by Lelej, 1980: 640.

[**kermana** Skorikov, 1935 (*Pseudophotopsis*): Tr. Tadh. basy AN SSSR 5: 291, ♂, type locality: "Kerman, strana Bampur, Karavandar" (south-east Iran), lectotype in Zool. Inst., St. Petersburg (designated by Lelej, 1980: 640). – Distribution: Iran.]

IV. Subfamily TICOPLINAE Nagy, 1970

Ticoplinae Nagy, 1970: Entomol. Mitt. Zool. Mus. Hamburg 4(69): 84.

Nanomutillinae Suárez, 1975: Arch. Inst. Aclimat. 20: 114. Synonymized by Argaman, 1988: 33.

Tribe Smicromyrmillini Argaman, 1988

Smicromyrmillini Argaman, 1988: Fragm. Balc. Mus. Maced. Sci. Nat. 14(5): 36.

6. Genus *Cameronilla* Lelej, 2001

Cameronilla Lelej, 2001: Far East. entomol. 99: 12. Type species: *Mutilla oedipus* Cameron, 1897 (original designation).

oedipus (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 53, tab. 4, Fig. 13, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla).

7. Genus *Eosmicromyrmilla* Lelej et Krombein, 2001

Eosmicromyrmilla Lelej et Krombein, 2001: Far East. entomol. 99: 4. Type species: *Eosmicromyrmilla srilankiensis* Lelej et Krombein, 2001 (original designation).

chinensis Lelej, 2001 (*Eosmicromyrmilla*): Far East. entomol. 99: 11, ♀, type locality: "50 km SW Mojiang" (China: Yunnan), holotype in Zool. Mus., Moscow Univ. – Distribution: China: SW (Yunnan).

pulawskii Lelej, **sp. n.** (*Eosmicromyrmilla*): type locality: "Krishnagiri Upavan National Park" (India: Maharashtra), holotype – ♀, in Calif. Acad. Sci., San Francisco. **New Species** (description see p. 162). – Distribution: India (Maharashtra).

srilankiensis Lelej et Krombein, 2001 (*Eosmicromyrmilla*): Far East. entomol. 99: 6, ♀, ♂, type locality: "Dehiattেকandiya" (Sri Lanka), holotype – ♂, in National Mus. Nat. Hist., Washington, D.C. – Distribution: Sri Lanka.

8. Genus *Hindustanilla* Lelej, 2001

Hindustanilla Lelej, 2001: Far East. entomol. 99: 13. Type species: *Hindustanilla indica* Lelej, 2001 (original designation).

indica Lelej, 2001 (*Hindustanilla*): Far East. entomol. 99: 15, ♂, type locality: "N of Peyar Nat. Reserve" (India: Tamil Nadu), holotype in Mus. Stor. Nat., Florence. – Distribution: India (Karnataka, Tamil Nadu).

nathani Lelej, 2001 (*Hindustanilla*): Far East. entomol. 99: 16, ♀, type locality: "Nilgiri Hills" (India: Kerala), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: India (Kerala).

V. Subfamily MYRMILLINAE Bischoff, 1920

Myrmillinae (as tribe) Bischoff, 1920: Arch. Naturgesch. 86A(1-3): 22.

9. Genus *Bethsmymilla* Krombein et Lelej, 1999

Bethsmymilla Krombein et Lelej, 1999: Proc. Entomol. Soc. Wash. 101(1): 144. Type species: *Bethsmymilla alticola* Krombein et Lelej, 1999 (original designation).

alticola Krombein et Lelej, 1999 (*Bethsmymilla*): Proc. Entomol. Soc. Wash. 101(1): 147, ♀, type locality: "Hakgala Botanical Garden" (Sri Lanka), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Sri Lanka. – Host: *Lasioglossum (Sudila) alphenum* (Cameron, 1897) (Hymenoptera: Halictidae) (Krombein, Lelej, 1999).

10. Genus *Bischoffitilla* Lelej, 2002

Bischoffitilla Lelej, 2002: Catalogue Mutillidae Palaearct.: 126. Type species: *Squamulotilla exilipunctata* Chen, 1957 (original designation).

Squamulotilla (non Bischoff, 1920): Mickel, 1933d: 383; 1934: 99; 1935: 183; Chen, 1957: 140; Krombein, Lelej, 1999: 144.

acasta (Cameron, 1902) (*Mutilla*): J. Bombay Nat. Hist. Soc. 14: 269, ♂, type locality: "Simla" (India, Himachal Pradesh), syntypes in Nat. Hist. Mus., London. – Distribution: India (Himachal Pradesh).

aesyca (Cameron, 1902) (*Mutilla*): Entomologist 35: 208, ♀, type locality: "Borneo" (Malaysia), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sarawak, Sabah), Indonesia (Java).

[**afghanica** (Lelej, 1980) (*Myrmilla*): Entomol. Obozr. 59(1): 182, ♀, type locality: Afghanistan, province Lagman, Shamakat, holotype in Zool.

Inst., St. Petersburg. – Distribution: Afghanistan. – Remark: B. Petersen wrote me: "*Myrmilla afghanica* [Lelej, 1980] is very close to *M. puerilis* [Cameron, 1897]. It seems to me that *M. afghanica* could be a colour form of *M. puerilis* (with almost black head and the white spot on tergum 3). I was glad to see that *M. afghanica* has two small subapical teeth just as in *M. puerilis*" (Petersen, in litt., 1981).]

ardescens (Smith, 1873) (*Mutilla*): Trans. Entomol. Soc. London: 182, ♀, type locality: "Nagasaki" (Japan), holotype lost. – Distribution: Japan (Honshu, Kyushu, Amami-oshima).

pungens (Smith, 1873) (*Mutilla*): Trans. Entomol. Soc. London: 182, ♀, type locality: "Hiogo" (Japan), holotype in Nat. Hist. Mus., London. Synonymized by Mickel, 1935: 194.

pungens (Smith, 1874) (*Mutilla*): Trans. Entomol. Soc. London: 407, ♀, type locality: "Hiogo" (Japan), holotype in Nat. Hist. Mus., London. Synonymized by Mickel, 1935: 194.

militans (Dalla Torre, 1897) (*Mutilla*): Cat. Hymenopt. 8: 62. New name for *Mutilla pungens* Smith, 1874. Synonymized by Mickel, 1935: 194.

arundinacea (Pagden, 1934) (*Squamulotilla*): J. Fed. Malay States Mus. 17: 445, Figs 15, 16, ♀, type locality: "Parit Buntar" (Malaysia: Perak), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Perak), *Vietnam.

aspera (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 45, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. – Distribution: Sri Lanka.

aversa (Nurse, 1903) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 11: 397, ♀, type locality: "Deesa" (India, Gujarat), syntypes in Nat. Hist. Mus., London. – Distribution: India (Gujarat).

brachynota (Chen, 1957) (*Squamulotilla*): Quart. J. Taiwan Mus. 10(3-4): 148, ♀, type locality: "Taitung" (China: Taiwan), holotype in Taiwan Agric. Res. Inst., Taipei. – Distribution: China: SE (Taiwan).

byblis (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 101, ♀, type locality: "Mt. Makiling" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon, Sibuyan).

calliopeia (Mickel, 1935) (*Squamulotilla*): Trans. Roy. Entomol. Soc. London 83(2): 188, ♂, type locality: "Sarawak" (Malaysia), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Malaysia (Sabah, Sarawak).

cardea (Mickel, 1935) (*Squamulotilla*): Trans. Roy. Entomol. Soc. London 83(2): 192, ♀, type locality: "Bettotan near Sandakan" (Malaysia:

Sabah), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sabah, Sarawak).

carinulifera (André, 1908) (*Mutilla*): Ann. Mus. Nat. Hung. 6: 377, ♀, type locality: "Takao" (China: Taiwan), holotype in Hung. National Mus., Budapest. – Distribution: China: SE (Taiwan).

cebuensis (Tsuneki, 1993) (*Squamulotilla*): SPJHA 41: 9, Figs 2-8, ♂, type locality: "Cantabaco" (Philippines: Cebu), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Cebu).

clypealis (Mickel, 1935) (*Squamulotilla*): Trans. Roy. Entomol. Soc. London 83(2): 189, ♂, type locality: "Bettotan near Sandakan" (Malaysia: Sabah), holotype in Univ. Minnesota, St. Paul. – Distribution: Malaysia (Sabah, Sarawak).

concava (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 120, ♂, type locality: "Tangcolan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Mindanao).

denticollis (Motschulsky, 1863) (*Mutilla*): Boll. Soc. Imp. Nat. Moscou 36(3): 22, ♀, type locality: "Des Montagnes de Nura-Ellia" (Sri Lanka), holotype in Zool. Mus., Moscow Univ. – Distribution: Sri Lanka. – Remark: Holotype of *Mutilla denticollis* Motschulsky, 1863 partly destroyed and contains metasomal tergum 5, metasomal segment 6 and fore tarsus [examined].

deserta (Smith, 1879) (*Mutilla*): Descr. n. spec. Hymen.: 200, ♀, type locality: "Celebes" (Indonesia), holotype in Nat. Hist. Mus., London. – Distribution: Indonesia (Celebes, Kangean Islands, Java), Philippines (Luzon).

dictynna (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 115, ♂, type locality: "Tangcolan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Mindanao).

disjuncta (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 118, ♂, type locality: "Baguio" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon).

duplisquamata (Chen, 1957) (*Squamulotilla*): Quart. J. Taiwan Mus. 10(3-4): 145, ♀, type locality: "Taoyuan" (China: Taiwan), holotype in Taiwan Agric. Res. Inst., Taipei. – Distribution: China: Taiwan.

edolata (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 41, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. – Distribution: Sri Lanka.

eminula (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 128, ♂, type locality: "Mt. Makiling" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon).

- erdae** (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 26, ♀, type locality: "Hoozan" (China: Taiwan), lectotype in Mus. Naturk. Humboldt-Univ., Berlin (designated by Mickel, 1933: 386). – Distribution: China: SE (Taiwan).
- ernesti** (Cameron, 1898) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 42(11): 12, ♀, type locality: "Trincomali, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. – Distribution: Sri Lanka.
- exilipunctata** (Chen, 1957) (*Squamulotilla*): Quart. J. Taiwan Mus. 10(3-4): 141, 146, ♀, type locality: "Nanking" (China: Jiangsu), holotype in T. Maa's coll., Taiwan. – Distribution: China: NO (Hebei), CE (Jiangsu, Zhejiang), SE (Fujian); Korea.
- facilis** (Smith, 1860) (*Mutilla*): J. Proc. linn. Soc., Zool. 5: 76, ♂, type locality: "Makassar" (Indonesia, Celebes), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Indonesia (Celebes).
- formosana** (Zavattari, 1913) (*Myrmilla*): Arch. Naturgesch. 79A(3): 21, ♂, type locality: "Kankau" (China: Taiwan), lectotype in Deutsch. Entomol. Inst., Müncheberg (designated by Mickel, 1933: 386). – Distribution: China: SE (Taiwan).
- fucosa** (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 11, ♀, type locality: "Surigao" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Mindanao).
- galatea** (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 106, ♀, type locality: "Mt. Makiling" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon).
- imparilis** (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 117, ♂, type locality: "Mt. Makiling" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon).
- indecora** (Cameron, 1898) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 42(11): 10, tab. 4, Fig. 1, ♀, type locality: "Trincomali, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: Sri Lanka.
- indocila** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 47, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. – Distribution: Sri Lanka.
- kohli** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 217, tab. 5, Fig. 5, ♀, type locality: "Bhamo" (Upper Myanmar), syntypes in Mus. Civ. Stor. Nat., Genoa. – Distribution: Upper Myanmar.

- koxiana** (Chen, 1957) (*Squamulotilla*): Quart. J. Taiwan Mus. 10(3-4): 149, ♀, type locality: "Taipei" (China: Taiwan), holotype in Taiwan Agric. Res. Inst., Taipei. – Distribution: China: SE (Taiwan).
- lamellata** (Mickel, 1933) (*Squamulotilla*): Lingnan Sci. J. 12(3): 295, ♀, type locality: "Canton" (China: Guangdong), holotype in Univ. Minnesota, St. Paul. – Distribution: China: SE (Guangdong, *Aomen), *Vietnam, *Thailand.
- lethargia** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 48, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla).
- lunarifasciata** (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 466, 470, ♀, type locality: "Kolaba" (India: Maharashtra), holotype in Mus. National d'Hist. Nat., Paris. – Distribution: India (Maharashtra).
- malica** (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 83, ♀, type locality: "Perak" (Malaysia), holotype in Mus. Civ. Stor. Nat., Genoa. – Distribution: Malaysia (Perak).
- mammalifera** (Chen, 1957) (*Squamulotilla*): Quart. J. Taiwan Mus. 10(3-4): 143, Fig. 4, ♂, type locality: "Tienmushan" (China: Zhejiang), holotype in Zool. Inst., Shanghai. – Distribution: China: CE (Zhejiang).
- maximinae** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 218, tab. 5, Fig. 2, ♀, type locality: "Carin-Cheba" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. – Distribution: Myanmar.
- mickeli** (Chen, 1957) (*Squamulotilla*): Quart. J. Taiwan Mus. 10(3-4): 149, ♀, type locality: "Taipei" (China, Taiwan), holotype in Taiwan Univ., Taipei. – Distribution: China: SE (Taiwan).
- muiiri** (Mickel, 1935) (*Squamulotilla*): Trans. Roy. Entomol. Soc. London 83(2): 186, ♂, type locality: "Buitenzorg" (Indonesia: Java), holotype in Univ. Minnesota, St. Paul. – Distribution: Indonesia (Java).
- multidentata** (André, 1896) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 17: 76, ♀, type locality: "Si-Rambe" (Indonesia: Sumatra), holotype in Mus. Civ. Stor. Nat., Genoa. – Distribution: Malaysia (Perak), Indonesia (Sumatra).
- murotai** (Tsuneki, 1993) (*Squamulotilla*): SPJHA 41: 51, Figs 1-6, ♀, type locality: "Okinawa" (Japan: Ryukyus), holotype in Mus. Nat. Human Activity, Hyogo. **New Combination**. – Distribution: Japan (Okinawa).
- oblectabilis** (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 109, ♀, type locality: "Mt. Makiling" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon).

- ocypote** (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 114, ♂, type locality: "Malinao" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon).
- opipara** (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 81, ♀, type locality: "Perak" (Malaysia), holotype in Mus. Civ. Stor. Nat., Genoa. – Distribution: Malaysia (Perak).
- palaca** (Cameron, 1902) (*Mutilla*): J. Straits Br. Roy. Asiat. Soc. 37: 80, ♂, type locality: "Kuching" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sarawak).
- perakensis** (Pagden, 1934) (*Squamulotilla*): J. Fed. Malay States Mus. 17: 448, Figs 17-20, ♀, type locality: "Parit Buntar" (Malaysia: Perak), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Perak).
- persuasa** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 43, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. – Distribution: Sri Lanka.
- perversa** (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 61, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla).
- puerilis** (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 73, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: Sri Lanka, *India (Karnataka). – Remark: B. Petersen wrote me: "In the [*Myrmilla*] *afghanica* / *puerilis* problem I have seen all relevant types. The type series of [*Mutilla*] *puerilis* consist of two different species, one is new; *M. puerilis* is probably not from Sri Lanka as several other taxa treated by Cameron and said by him to come from this island; *M. puerilis* is the same as *M. rufiventris* Smith [1855] [currently *Bischoffitilla smithi* Lelej, nom. n.] and [*Mutilla*] *edolata* Cameron [1900]" (Petersen, in litt., 1981).
- puliensis** (Tsuneki, 1972) (*Squamulotilla*): Etizenia 64: 2, Figs 1-6, ♀, type locality: "Puli" (China: Taiwan), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: China: SE (Taiwan).
- roxane** (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 122, ♂, type locality: "Cuernos Mts." (Philippines: Negros), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Negros).
- saffica** (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 68, ♀, type locality: "Minahassa" (Indonesia; Celebes), syntypes in Mus. Civ. Stor. Nat., Genoa. – Distribution: Indonesia (Celebes).

- sauteri** (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 27, ♀, type locality: "Taihorin" (China: Taiwan), lectotype in Deutsch. Entomol. Inst., Müncheberg (designated by Mickel, 1933: 386). – Distribution: China: CE (Jiangxi), SE (Taiwan, Hainan, Fujian).
- sauteri sauteri** (Zavattari, 1913). – Distribution: China: SE (Taiwan).
- sauteri lingnani** (Mickel, 1933) (*Squamulotilla*): Lingnan Sci. J. 12(3): 297, ♀, type locality: "Hainan" (China), holotype in Univ. Minnesota, St. Paul. – Distribution: China: CE (Jiangxi), SE (Hainan, Fujian).
- selangorensis** (Pagden, 1934) (*Squamulotilla*): J. Fed. Malay States Mus. 17: 452, ♀, type locality: "Bukit Kutu" (Malaysia: Selangor), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Selangor).
- serratula** (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 122, 133, fig. 12, ♀, type locality: "Poona" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. – Distribution: India (Maharashtra).
- smithi** Lelej, **nom. n.** (*Bischoffitilla*). New name for *Mutilla ruficeps* Smith, 1856. – Distribution: India (Maharashtra, Karnataka). – Etymology: The specific name is dedicated to outstanding hymenopterist Frederick Smith (1805-1879), pioneer of Oriental mutillid fauna.
- rufiventris* (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 36, ♀ (nom. praeocc., non Klug, 1821), type locality: "India", syntypes in Mus. Nat. Hist., Oxford Univ. Synonymized by Smith, 1856: 478.
- ruficeps* (Smith, 1856) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 4: 478 (nom. praeocc., non Smith, 1855). New name for *Mutilla rufiventris* Smith, 1855.
- strangulata** (Smith, 1879) (*Mutilla*): Descr. n. spec. Hymen.: 200, ♀, type locality: "North China", holotype in Brit. Mus. Nat. Hist., London. – Distribution: China: NO (Shanxi), CE (Jiangxi, Jiangsu, Anhui, Zhejiang), SE (Fujian, Guangdong).
- subdebilis** (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 123, ♂, type locality: "Los Banos" (Philippines: Luzon), holotype in Univ. Minnesota, St. Paul. – Distribution: Philippines (Luzon).
- subtriangularis** (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 104, ♀, type locality: "Iligan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Mindanao).
- sulpicilla** (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 125, ♂, type locality: "Dapitan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Mindanao), Malaysia (Sabah).

- taylori** (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 467, 469, ♀, type locality: "Orissa" (India), holotype in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: India (Assam, Bangla, Orissa).
- teuta** (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 126, ♂, type locality: "Los Banos" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon, Negros, Mindanao).
- teuta teuta** (Mickel, 1934) (*Squamulotilla*, as subspecies of *teuta*). – Distribution: Philippines (Luzon).
- teuta vicinaria** (Mickel, 1934) (*Squamulotilla*, as subspecies of *teuta*): Philipp. J. Sci. 54(1): 128, ♂, type locality: "Cuernos Mts." (Philippines: Negros), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Negros).
- teuta mindanaonis** (Tsuneki, 1993) (*Squamulotilla*, as subspecies of *teuta*): SPJHA 41: 8, Fig. 1, ♂, type locality: "Bukidnon" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Mindanao).
- trifida** (Chen, 1957) (*Squamulotilla*): Quart. J. Taiwan Mus. 10(3-4): 144, Fig. 3, ♂, type locality: "Chungan" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian).
- trituberculata** (Mickel, 1933) (*Squamulotilla*): Ann. Entomol. Soc. Amer. 26(2): 386, ♀, type locality: "Hoozan" (China: Taiwan), holotype in Mus. Naturk. Humboldt-Univ., Berlin. – Distribution: China: SE (Taiwan).
- tuberosterna** (Chen, 1957) (*Squamulotilla*): Quart. J. Taiwan Mus. 10(3-4): 142, Fig. 2, ♂, type locality: "Kuling" (China: Jiangxi), holotype in Heude Mus., Shanghai. – Distribution: China CE (Jiangxi), SE (Fujian).
- tumidula** (Mickel, 1933) (*Squamulotilla*): Ann. Entomol. Soc. Amer. 26(2): 384, ♂, type locality: "Taihorin" (China: Taiwan), holotype in Mus. Naturk. Humboldt-Univ., Berlin. – Distribution: China: CE (Zhejiang), SE (Taiwan).
- umbrosa** (Mickel, 1934) (*Squamulotilla*): Philipp. J. Sci. 54(1): 130, ♂, type locality: "Mt. Banahao" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon).
- veda** (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 123, 130, ♀, type locality: "Poona" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: India (Maharashtra).

venatrix (Mickel, 1935) (*Squamulotilla*): Trans. Roy. Entomol. Soc. London 83(2): 190, ♀, type locality: "Sandakan" (Malaysia: Sabah), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Malaysia (Sabah, Sarawak).

11. Genus *Brahmatilla* Lelej, gen. n. (description see p. 163)

Type species: *Brahmatilla krishna* Lelej, sp. n. (designated here).

krishna Lelej, sp. n. (*Brahmatilla*): type locality: "Thekkady, Periyar-W.L.S." (India: Kerala), holotype – ♀, in Staatl. Mus. Naturk., Stuttgart.
New Species (description see p. 164). – Distribution: India (Kerala).

12. Genus *Myrmilla* Wesmael, 1852

Myrmilla (as subgenus of *Mutilla* Linnaeus, 1758) Wesmael, 1852: Bull. Acad. R. Sci. Belg. 18(2): 365. Type species: *Mutilla distincta* Lepeletier, 1845, junior synonym of *Mutilla calva* Villers, 1789 (designated by Ashmead, 1903: 324). [Not Oriental.]

Rudia Costa, 1856: Fauna regno Napoli: 7. Type species: *Rudia megacephala* Costa, 1858, junior synonym of *Mutilla erythrocephala* Latreille, 1792 (designated by Bischoff, 1920: 54). Synonymized by André, 1903: 24. [Not Oriental.]

Subgenus *Myrmilla* Wesmael, 1852

[**kabulensis** Lelej, 1980 (*Myrmilla*): Entomol. Obozr. 59(1): 183, ♀, type locality: "Afghanistan, province Vardak, Tshak-i-Vardak", holotype in Zool. Inst., St. Petersburg. – Distribution: Afghanistan.]

[**rostriformis** Lelej, 1980 (*Myrmilla*): Entomol. Obozr. 59(1): 186, ♀, type locality: "Afghanistan, province Gazni, Alagzar NW of Mukur, 2250 m", holotype in Zool. Inst., St. Petersburg. – Distribution: Afghanistan (east).]

zarudnyi Skorikov, 1927 (*Myrmilla*): Ezhegodnik Zool. Mus. AN SSSR 28(1): 38, ♀, type locality: "Seistan" (Iran), lectotype in Zool. Inst., St. Petersburg (designated by Lelej, 1995: 5). – Distribution: India (Rajasthan), Iran (Sistan-Baluchistan).

Subgenus *Pseudomotilla* Costa, 1885

Pseudomotilla Costa, 1885: Rend. Accad. Sci. fis. mat., Napoli 23: 169. Type species: *Pseudomotilla sardiniensis* Costa, 1885, junior synonym of *Mutilla capitata* Lucas, 1849 (monotypy). [Not Oriental.]

Edrionotus Radoszkowski, 1885: Horae Soc. Entomol. Ross. 19(1/2): 33. Type species: *Mutilla capitata* Lucas, 1849 (designated by Ashmead, 1903: 332). Synonymized by André, 1903: 24. [Not Oriental.]

[**badchysiana** Lelej, 1980 (*Myrmilla*): Entomol. Obozr. 59(1): 184, ♀, type locality: Badkhyz reserve (Turkmenistan), holotype in Zool. Inst., St. Petersburg. – Distribution: Turkmenistan, Tajikistan, Afghanistan.]

glabrata (non Fabricius, 1775): Smith, 1855 (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 33, ♀. – Remark: Recorded under this name from India (Smith, 1855). *Myrmilla glabrata* (Fabricius, 1775) is widely distributed Palaearctic species (Lelej, 2002).

[**lagmana** Lelej, 1980 (*Myrmilla*): Entomol. Obozr. 59(1): 185, ♀, type locality: Afghanistan, province Lagman, Shamakat, 1200 m, holotype in Zool. Inst., St. Petersburg. – Distribution: Afghanistan.]

pakistanensis Lelej, **sp. n.** (*Myrmilla*): type locality: "Pakistan, Makran Prov., 23 mi E Turbat", holotype – ♀, in National Mus. Nat. Hist., Washington, D.C. **New Species** (description see p. 165). – Distribution: Pakistan.

13. Genus *Spilomutilla* Ashmead, 1903

Spilomutilla Ashmead, 1903: Can. Entomol. 35: 324. Type species: *Mutilla perfecta* Sichel et Radoszkowski, 1870 (original designation). [Not Oriental.]

Remark: Redescription of the male and female as the key to the species of Sri Lanka and India see p. 166.

consolidata (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 16, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: *India (Tamil Nadu), Sri Lanka. – Remark: B. Petersen wrote me: "Junior synonym of *Mutilla eltola* Cameron [1898] is *M. consolidata* Cameron [1900], the type of *M. consolidata* belongs to a taxon from the northern parts of India. Several Cameron's species described from Ceylon very likely is based on material from outside of Ceylon" (Petersen, in litt., 1980).

cotesii (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 76, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla, *Karnataka, *Tamil Nadu).

eltola (Cameron, 1898) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 42(11): 3, ♀, type locality: "Trincomali, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: Sri Lanka. – Re-

mark: Quite possible that B. Petersen saw the types of *Mutilla eltola* Cameron, 1898 and *M. consolidata* Cameron, 1900 among the Cameron's types. Nevertheless he identified all four *Spilomutilla* species, distributed in Sri Lanka, as *S. eltola* (Cameron, 1898). I conserved this name for one of them which is more correspond to detail original description of P. Cameron (1898).

lanka Lelej, **sp. n.** (*Spilomutilla*): type locality: "Thawalamtenne" (Sri Lanka, Kandy District), holotype – ♀, in National Mus. Nat. Hist., Washington, D.C. **New Species** (description see p. 168). – Distribution: Sri Lanka.

[**perfecta** (Sichel et Radoszkowski, 1870) (*Mutilla*): Horae Soc. Entomol. Ross. 6(4): 278, ♂, type locality: "Perse meridionale" (southern Iran), holotype in Inst. Syst. Exper. Zool., Krakow. – Distribution: Asia: Iran (south). – Remark: The male of *Spilomutilla perfecta* Sichel et Radoszkowski, 1870 is similar to male of *S. cotesii* (Cameron, 1897) by having pale spot on vertex, by having the same body coloration and gastral pale design. *S. cotesii* distributed in India from Bangla to Tamil Nadu and can be discovered outside India also.]

rothneyi (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 77, tab. 4, Fig. 14, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla, Orissa, *Karnataka).

sri Lelej, **sp. n.** (*Spilomutilla*): type locality: "Dehiatttekandiya" (Sri Lanka, Amparai District), holotype – ♀, in National Mus. Nat. Hist., Washington, D.C. **New Species** (description see p. 167). – Distribution: Sri Lanka.

Spilomutilla doubtful species

contracta (Bingham, 1897) (*Mutilla*): Fauna Brit. India 1: 27, ♂, type locality: "India". **Nomen nudum.**

humilis (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 72, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla).

VI. Subfamily MUTILLINAE Latreille, 1802

Tribe Mutillini Latreille, 1802

14. Genus *Ctenotilla* Bischoff, 1920

Ctenotilla Bischoff, 1920: Arch. Naturgesch. 86A(1-3): 28. Type species: *Mutilla pectinifera* André, 1893, junior synonym of *Mutilla caeca* Radoszkowski, 1879 (original designation). [Not Oriental.]

Remark: Except type species the genus includes two Oriental species. Numerous Afrotropical species previously included in *Ctenotilla* by Bischoff (1920) currently transferred to the genera *Smicromyrmilla* Suárez, 1965, *Clinotilla* Arnold, 1965; *Montanomutilla* Nonveiller, 1978; *Cephalotilla* Bischoff, 1920; *Strangulotilla* Nonveiller, 1978; *Chaetomutilla* Nonveiller, 1978 and the genera of subfamily Myrmillinae.

guangdongensis Lelej, 1992 (*Ctenotilla*): Entomofauna 13(19): 282, ♀, type locality: "Ding Hu Shan" (China: Guangdong), holotype in South China Agric. Univ., Guangzhou – Distribution: China: SE (Guangdong), *Thailand. – Remark: B. Petersen wrote me: "*Ctenotilla guangdongensis* [Lelej, 1992], a species I have from Laos, Cambodia, Vietnam and Thailand. I may have the undescribed male of this species also; very peculiar and close to *Mutilla pauli* [André, 1898]" (Petersen, in litt., 1993).

porcella (Turner, 1911) (*Mutilla*): Spolia Zeylanica 7(27): 145, ♀, type locality: "Hambantota, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. – Distribution: Sri Lanka, *South India (Karnataka).

15. *Kurzenkotilla* Lelej, gen. n. (description see p. 170)

Type species: *Artiotilla ariana* Lelej, 1980 (designated here).

annamensis Lelej, sp. n. (*Kurzenkotilla*): type locality: "Con River, Naca" (Vietnam: Khu Bon Cu), holotype – ♀, in Inst. Biol. Soil Sci., Vladivostok. **New Species** (description see p. 171). – Distribution: Vietnam.

[**ariana** (Lelej, 1980) (*Artiotilla*): Entomol. Obozr. 59(1): 191, ♀, type locality: Farah province (Afghanistan), holotype in Zool. Inst., St. Petersburg. **New Combination**. – Distribution: Asia: Afghanistan. – Remark: B. Petersen wrote me: "*Artiotilla ariana* Lelej [1980] must be placed in the Mutillini. Perhaps in a new genus close to *Mutilla* also include Oriental *M. cicatricifera* [André, 1894] and probably male based species like *M. semiviolacea* [André, 1896],

M. rufodorsata [Cameron, 1897] and perhaps *M. harmandi* [André, 1898]" (Petersen, in litt., 1980).]

- niveosignata** (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 465, 480, ♀, type locality: "Poona, Orissa" (India: Maharashtra, Orissa), syntypes in Mus. National d'Hist. Nat., Paris. **New Combination.** – Distribution: India (Maharashtra, Madhya Pradesh, Orissa).
- scrobiculata** (Hammer, 1962) (*Mutilla*): Rec. Indian Mus. 58(1): 4, ♀, type locality: "Bijrani" (India, Uttar Pradesh), holotype in Indian Mus., Kolkata. **New Combination.** – Distribution: India (Uttar Pradesh, Himachal Pradesh).
- visrara** (Cameron, 1898) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 42(11): 1, ♀, type locality: "Trincomali, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: Sri Lanka.

16. Genus *Lehritilla* Lelej, gen. n. (description see p. 172)

Type species: *Lehritilla lanka* Lelej, sp. n. (designated here).

- lanka** Lelej, sp. n. (*Lehritilla*): type locality: "5 mi NE Wilpattu National Park" (Sri Lanka), holotype – ♂, in National Mus. Nat. Hist., Washington, D.C. **New Species** (description see p. 173). – Distribution: Sri Lanka, South India (Kerala).

17. Genus *Mutilla* Linnaeus, 1758

Mutilla Linnaeus, 1758: Systema naturae: 582. Type species: *Mutilla europaea* Linnaeus, 1758 (designated by Latreille, 1810: 437).

- binghami** Lelej, nom. n. (*Mutilla*). New name for *Mutilla valida* Cameron, 1897. – Distribution: India (Bangla). – Etymology: The specific name is dedicated to outstanding hymenopterist Charles Thomas Bingham (1848-1908), who studied Indian mutillids.

valida Cameron, 1897 (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 71, ♀ (nom. praeocc., non Smith, 1855), type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ.

- harmandi** André, 1898 (*Mutilla*): Ann. Soc. Entomol. France 67: 29, ♂, type locality: "Lakhon" (Thailand), holotype in Mus. National d'Hist. Nat., Paris. – Distribution: Thailand.

- mikado** Cameron, 1900 (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44: 75, ♀, type locality: "Japan", syntypes in Nat. Hist. Mus., London. – Distribution: China: NE (Heilongjiang, Jilin), NO (Gansu, Neimenggu, Shanxi), CE (Jiangsu, Zhejiang), Japan (Hokkaido,

Honshu, Kyushu), Korea, Russia (South of Eastern Siberia and Far East).

maesta Chen, 1957 (*Mutilla*, as subspecies of *rugiceps*): Quart. J. Taiwan Mus. 10(3-4): 151, ♀, type locality: "Kaolintze" (China: Heilongjiang), holotype in Heude Mus., Shanghai. Synonymized by Lelej, 1985: 161.

rufodorsata Cameron, 1897 (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 65, ♂, type locality: "Agra" (India: Uttar Pradesh), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Uttar Pradesh).

semivioleacea André, 1896 (*Mutilla*): Termesz. Fuzetek 19: 17, ♂, type locality: "Himalaya" (India), holotype in Hung. National Mus., Budapest. – Distribution: India (Himalaya).

18. Genus *Pristomutilla* Ashmead, 1903

Pristomutilla Ashmead, 1903: Can. Entomol. 35: 329. Type species: *Mutilla pectinata* Sichel et Radoszkowski, 1870 (original designation). [Not Oriental.]

Remark: Redescription of the male based on Afrotropical species and female based on *Pristomutilla ianthis* (Turner, 1911) and *P. locascioi* sp. n. see p. 173.

ianthis (Turner, 1911) (*Mutilla*): Spolia Zeylanica 7(27): 144, ♀, type locality: "Hambantota, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: Sri Lanka, *South India (Karnataka).

locascioi Lelej, **sp. n.** (*Pristomutilla*): type locality: 15 km N Bangalore (India, Karnataka), holotype – ♀, in Mus. Stor. Nat., Florence. **New Species** (description see p. 174). – Distribution: South India (Karnataka, Tamil Nadu).

pauli (André, 1898) (*Mutilla*): Ann. Soc. Entomol. France 67: 23, ♀, ♂, type locality: "Karachi" (Pakistan), syntypes in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: Pakistan.

pectinospinata (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 212, tab. 5, Fig. 4, ♀, type locality: "Rangoon" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar.

spinulosa (André, 1898) (*Mutilla*): Ann. Soc. Entomol. France 67: 26, ♀, type locality: "Karachi" (Pakistan), holotype in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: Pakistan, India (Maharashtra, Karnataka, Kerala).

19. Genus *Storozhenkotilla* Lelej, gen. n. (description see p. 176)

Type species: *Mutilla aurofasciata* André, 1907 (designated here).

aurofasciata (André, 1907) (*Mutilla*): Deutsch. Entomol. Zeitschr. 3: 255, ♀, type locality: "Pankulam" (Sri Lanka), holotype in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: Sri Lanka, *South India (Karnataka, Tamil Nadu).

cicatricifera (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 466, 477, ♀, type locality: "Kanara" (India: Karnataka), holotype in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: India (Karnataka), Sri Lanka.

20. Genus *Strangulotilla* Nonveiller, 1978

Strangulotilla Nonveiller, 1978: Mem. Inst. Prot. Plantes, Belgrad, 13: 26. Type species: *Mutilla thoracosulcata* Magretti, 1905 (original designation). [Not Oriental.]

Remark: B. Petersen wrote me: "I am not at all sure that species [*Strangulotilla krombeini* sp. n. described below] belongs in *Strangulotilla*. I have compared it with relevant material and have found differences in the shape of mandibles, the clypeus, the occipital carina, the hypopygium and in the genitalia. I think that the species is a bit closer to *Zeugomutilla*, but it is certainly and "in between" taxon and probably it is better taxonomically treated together with other species of the same group, from Sri Lanka and elsewhere" (Petersen, in litt., 1995). The genus *Strangulotilla* Nonveiller, 1978 is newly recorded in Oriental region.

krombeini Lelej, **sp. n.** (*Strangulotilla*): type locality: "Kandy" (Sri Lanka), holotype – ♂, in National Mus. Nat. Hist., Washington, D.C. **New Species** (description see p. 177). – Distribution: Sri Lanka.

21. Genus *Zeugomutilla* Chen, 1957

Zeugomutilla Chen, 1957: Quart. J. Taiwan Mus. 10(3-4): 157. Type species: *Zeugomutilla pycnopyga* Chen, 1957 (original designation).

bainbriggei (Turner, 1911) (*Mutilla*): Spolia Zeylanica 7(27): 144, ♀, type locality: "Hambantota, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: Sri Lanka.

horni (André, 1907) (*Mutilla*): Deutsch. Entomol. Zeitschr. 3: 254, ♀, type locality: "Sigiri, Kekirawa" (Sri Lanka), syntypes in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: Sri Lanka.

- pycnopyga** Chen, 1957 (*Zeugomutilla*): Quart. J. Taiwan Mus. 10(3-4): 157, Figs 9, 10, ♂, type locality: "Shaowu" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian), SW (Yunnan).
- recondita** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 44, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: Sri Lanka.
- saepes** (Chen, 1957) (*Pristomutilla*): Quart. J. Taiwan Mus. 10(3-4): 158, ♀, type locality: "Shaowu" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian, Guangdong).

Tribe Smicromyrmini Bischoff, 1920

Smicromyrmini Bischoff, 1920: Arch. Naturgesch. 86A(1-3): 23.

22. Genus *Andreimyrmex* Lelej, 1995

- Andreimyrmex** Lelej, 1995: Far East. entomol. 13: 5. Type species: *Andreimyrmex long* Lelej, 1995 (original designation).
- davidi** (André, 1898) (*Mutilla*): Ann. Soc. Entomol. France 67: 28, ♂, type locality: "Jiangxi" (China), holotype in Mus. National d'Hist. Nat., Paris. – Distribution: China: CE (Jiangxi, Jiangsu), SE (Fujian, Taiwan).
- long** Lelej, 1995 (*Andreimyrmex*): Far East. entomol. 13:7, ♂, type locality: "Mangshi" (China: Yunnan), holotype in Zool. Mus., Moscow Univ. – Distribution: China: SW (Yunnan).
- neaera** (Mickel, 1935) (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 83(2): 278, ♀, type locality: "Sandakan" (Malaysia: Sabah), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Malaysia (Sabah).
- sarawakensis** Lelej, 1996 (*Andreimyrmex*): Tropics 6(1-2): 100, ♀, type locality: "Miri Lambir" (Malaysia: Sarawak), holotype in Kagoshima Univ. – Distribution: Malaysia (Sarawak).
- substriolata** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-9): 181, 209, ♀, type locality: "Kuling" (China: Jiangxi), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Jiangxi, Anhui, Zhejiang), SE (Taiwan).
- tridentiens** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-9): 181, 213, ♀, type locality: "Shaowu" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian), Vietnam (North).

Andreimyrmex doubtful species

- annexa** (Cameron, 1909) (*Mutilla*): Entomologist 42: 146, ♂, type locality: "Kuching" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sarawak, Sabah). – Remark: According to P. Cameron (1909) this species related with *Mutilla attila* Cameron, 1903 [currently *Krombeinidia ira* (Cameron, 1902)].
- virjata** (Mickel, 1934) (*Smicromyrme*): Philipp. J. Sci. 54(1): 195, ♂, type locality: "Iligan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Samar, Luzon, Mindanao, Sibuyan, Panay, Biliran, Negros).
- virjata virjata** (Mickel, 1934) (*Smicromyrme*, as subspecies of *virjata*). – Distribution: Philippines (Samar, Luzon, Mindanao, Sibuyan, Panay, Biliran).
- virjata nitela** (Mickel, 1934) (*Smicromyrme*, as subspecies of *virjata*): Philipp. J. Sci. 54(1): 197, ♂, type locality: "Mt. Makiling" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Samar, Mindanao, Negros).
- volupia** (Mickel, 1935) (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 83(2): 277, ♂, type locality: "Bettotan near Sandakan" (Malaysia: Sabah), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sabah).

23. Genus Dentilla Lelej, 1980

- Dentilla** (as subgenus of *Smicromyrme* Thomson, 1870) Lelej, 1980: Entomol. Obozr. 59(1): 195. Type species: *Mutilla erronea* André, 1902 (original designation). [Not Oriental.]
- kompantsevi** Lelej, 1995 (*Dentilla*): Far East. entomol. 20: 5, ♂, type locality: "Jodhpur" (India: Rajasthan), holotype in Zool. Mus., Moscow Univ. – Distribution: India (Rajasthan).
- malinka** (Nurse, 1903) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 11: 399, ♀, type locality: "Deesa" (India, Gujarat), holotype in Nat. Hist. Mus., London. – Distribution: India (Gujarat).

24. Genus Ephucilla Lelej, 1995

- Ephucilla** Lelej, 1995: Far East. entomol. 13: 10. Type species: *Mutilla naja* Zavattari, 1913 (original designation).
- bacbo** (Lelej, 1996) (*Sinotilla*): Far East. entomol. 13: 24, ♀, type locality: "Trung Trang" (North Vietnam), holotype in Zool. Inst., St. Pe-

tersburg. **New Combination**. – Distribution: Vietnam, Indonesia (Kalimantan Timur).

cheni Lelej, 1995 (*Ephucilla*): Far East. entomol.13: 14, ♂, type locality: "Mt. Qiangshan" (China: Yunnan), holotype in Zool. Mus., Moscow Univ. – Distribution: China: SW (Yunnan).

drola (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 37, ♂, type locality: "Taihorin" (China: Taiwan), lectotype in Mus. Naturk. Humboldt-Univ., Berlin (designated by Mickel, 1933: 417). – Distribution: China: CE (Zhejiang), SE (Taiwan). – Remark: Recorded from India (Sikkim, Assam) by K. Hammer (1962).

drola drola (Zavattari, 1913). – Distribution: China: SE (Taiwan).

drola lodra (Chen, 1957) (*Smicromyrme*, as subspecies of *drola*): Quart. J. Taiwan Mus. 10(3-9): 203, ♂, type locality: "Tienmushan" (China: Zhejiang), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Zhejiang). – Remark: Listed as *Smicromyrme dardanus lodra* Chen (see Website of Zool. Mus., Univ. Copenhagen on p. 12).

drupa (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 41, ♂, type locality: "Kankau" (China: Taiwan), lectotype in Deutsch. Entomol. Inst., Müncheberg (designated by Mickel, 1933: 417). – Distribution: China: SE (Taiwan).

guntheri (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 33, ♂, type locality: "Taihorinsho" (China: Taiwan), lectotype in Deutsch. Entomol. Inst., Müncheberg (designated by Mickel, 1933: 417). – Distribution: China: SE (Taiwan).

guntheri (Mickel, 1933) (*Smicromyrme*): Ann. Entomol. Soc. Amer. 26(2): 417. Not valid emendation according to article 32.5.2.1 of ICZN.

ludovica (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 68, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).

naja (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 38, ♂, type locality: "Taihorin" (China: Taiwan), lectotype in Deutsch. Entomol. Inst., Müncheberg (designated by Mickel, 1933: 417). – Distribution: Japan (Ishigaki-jima), China: SE (Taiwan).

panfilovi Lelej, 1995 (*Ephucilla*): Far East. entomol. 13: 13, ♂, type locality: "Kunmin" (China: Yunnan), holotype in Zool. Mus., Moscow Univ. – Distribution: China: SW (Yunnan).

poonaensis (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 121, 129, ♀, type locality: "Poona" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: Sri Lanka, India (Karnataka, Dilli, Bihar, Orissa, Bangla). –

Host: Reared from broken clay cells of eumenid wasps (Hymenoptera: Vespidae: Eumeninae) (Dutt, 1912). Reared from cells of *Paraleptomenes mephitis* (Cameron, 1901) (Hymenoptera: Vespidae: Eumeninae) [Krombein, 1978, as *Promecilla hesitata* (Cameron), ♀ (B. Petersen det.) and *Smicromyrme ludovica* (Cameron), ♂ (B. Petersen det.)].

hesitata (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 42, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. **New Synonymy**. – Remark: B. Petersen wrote me: "*Mutilla hesitata* [Cameron, 1900] probably is the same as *M. poonaensis* [Cameron, 1892]" (Petersen, in litt., 1978).

thalia (Mickel, 1933) (*Smicromyrme*): Ann. Entomol. Soc. Amer. 26(2): 417, ♀, type locality: "Taihorin" (China: Taiwan), holotype in Deutsch. Entomol. Inst., Müncheberg. **New Combination**. – Distribution: China: SE (Taiwan).

undata (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-9): 179, 198, Fig. 50, ♂, type locality: "Pingtung" (China: Taiwan), holotype in Taiwan Univ., Taipei. – Distribution: China: SE (Taiwan). – Remark: Probably an opposite sex of *Ephucilla thalia* (Mickel, 1933).

viet (Lelej, 1995) (*Sinotilla*): Far East. entomol. 13: 25, ♀, type locality: "Dong Kho" (North Vietnam), holotype in Inst. Biol. Soil Sci., Vladivostok. **New Combination**. – Distribution: Vietnam (North).

yuliana (Tsuneki, 1972) (*Smicromyrme*): Etizenia 64: 23, Figs 85-92, ♂, type locality: "Yuli" (China: Taiwan), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: China: SE (Taiwan).

25. Genus *Ephutomma* Ashmead, 1899

Ephutomma Ashmead, 1899: J. N. Y. Entomol. Soc. 5: 52. Type species: *Mutilla incerta* Radoszkowski, 1877, currently regarded as synonym of *Ephutomma turcestanica* (Dalla Torre, 1897) (original designation). [Not Oriental.]

Eremomyrme Suárez, 1965: Mem. Soc. Entomol. Ital. 44: 51. Type species: *Mutilla incerta* Radoszkowski, 1877, currently regarded as synonym of *Ephutomma turcestanica* (Dalla Torre, 1897) (original designation). Synonymized by Lelej and Kabakov, 1980: 193. [Not Oriental.]

fletcheri (Turner, 1911) (*Mutilla*): Spolia Zeylanica 7(27): 147, ♀, type locality: "Hambantota, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: Sri Lanka.

26. Genus *Indratilla* Lelej, 1993

Indratilla Lelej, 1993: *Spixiana* 16(3): 233. Type species: *Indratilla gynandromorpha* Lelej, 1993 (original designation).

Remark: B. Petersen wrote me: "*Indratilla*" includes two different species. I have the true female to the male, which is wingless "*Smicromyrme*" not belonging to the *Trogaspidia* side. I have several specimens from Sri Lanka and another species from South India" (Petersen, in litt., 1983). Later B. Petersen wrote me: "I also told you that I had the true female of the taxon you described as *I. gynandromorpha*. It is a female with quite the same white pattern as in the male. This is sustained by the probability that the male belongs in the Myrmillinae while the female belongs in Trogaspidiini" (Petersen, in litt., 1993). Redescription of the male and hitherto unknown female see p. 179. Female of *Indratilla ceylonica* Lelej, 1993 currently is the type species of *Radoszkowskitilla* Lelej, gen. n. in the tribe Peterseniini (description see p. 187).

gynandromorpha Lelej, 1993 (*Indratilla*): *Spixiana* 16(3): 234, ♂, type locality: "Wilpattu" (Sri Lanka), holotype in Zool. Inst., St. Petersburg. – Distribution: Sri Lanka.

27. Genus *Karunaratnea* Lelej, gen. n. (description see p. 181)

Type species: *Karunaratnea palatupanae* Lelej, sp. n. (designated here).

dilecta (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 63, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla), Sri Lanka.

laminella (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 215, tab. 5, Fig. 3, ♀, type locality: "Mandalay" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Upper Myanmar.

palatupanae Lelej, **sp. n.** (*Karunaratnea*): type locality: "Palatupana" (Sri Lanka), holotype – ♂, in National Mus. Nat. Hist., Washington, D.C. **New Species** (description see p. 183). – Distribution: Sri Lanka.

poesia (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 67, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).

28. Genus *Mickelomyrme* Lelej, 1995

Mickelomyrme Lelej, 1995: Far East. entomol. 6: 17. Type species: *Mutilla hageni* Zavattari, 1913 (original designation).

abnorma (Chen, 1957) (*Smicromyrme*, as subspecies of *norna*): Quart. J. Taiwan Mus. 10(3-4): 180, 203, ♂, type locality: "Kuling" (China: Jiangxi), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Anhui, Jiangxi, Zhejiang), SE (Fujian), SW (Yunnan), Vietnam (North), *Thailand.

aborlana (Tsuneki, 1993) (*Smicromyrme*): SPJHA 41: 23, ♀, type locality: "Aborlan" (Philippines: Palawan), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Palawan, Mindanao). – Remark: Probably an opposite sex of *Mickelomyrme palawanensis* (Mickel, 1934).

aborlana aborlana (Tsuneki, 1993) (*Smicromyrme*, as subspecies of *aborlana*). – Distribution: Philippines (Palawan).

aborlana zamboangae (Tsuneki, 1993) (*Smicromyrme*, as subspecies of *aborlana*): SPJHA 41: 24, ♀, type locality: "Zamboanga" (Philippines: Mindanao), holotype in Nation. Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Mindanao).

athalia (Pagden, 1949) (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 100(8): 219, ♂, ♀, type locality: "Kuala Lumpur" (Malaysia), holotype – ♂, in Nat. Hist. Mus., London. – Distribution: Malaysia (Kuala Lumpur, Selangor), *Thailand, *Laos.

bidentata (Tsuneki, 1993) (*Smicromyrme*): SPJHA 41: 19, Figs 53-57, ♂, ♀, type locality: "Alaminor" (Philippines: Luzon), holotype – ♂, in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Luzon). – Remark: The female of this species is similar with *Mickelomyrme zebina* (Smith, 1860).

bakeri (Mickel, 1934) (*Smicromyrme*): Philipp. J. Sci. 54(1): 212, ♂, type locality: "Puerto Princesa" (Philippines: Palawan), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Palawan, Balabac), Malaysia (Labuan).

bicristata (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 182, 211, ♀, type locality: "Ryosui" (China: Hainan), holotype in Taiwan Agric. Res. Inst., Taipei. – Distribution: China: SE (Hainan).

exacta (Smith, 1879) (*Mutilla*): Descr. n. spec. Hymen.: 210, ♂, type locality: "Shanghai" (China), holotype in Nat. Hist. Mus., London. – Distribution: China: CE (Shanghai, Jiangsu, Anhui, Jiangxi, Zhejiang), SE (Guangdong), SW (Sichuan).

- exiloides** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 232, tab. 5, Fig. 22, ♂, type locality: "Carin-Cheba" (Myanmar), syntypes in Mus. Civ. Stor. Nat., Genoa. – Distribution: Myanmar, *Laos.
- hageni** (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 32, ♂, type locality: "Kankau" (China: Taiwan), lectotype in Deutsch. Entomol. Inst., Müncheberg (designated by Mickel, 1933: 417). – Distribution: Japan (Okinawa-jima, Ishigaki-jima, Iriomote-jima), China: SE (Taiwan, Fujian, Guangdong), SW (Yunnan). – Remark: I examined paralectotype of *Mutilla hageni* Zavattari, 1913 from China (Taiwan) [Staatl. Mus. Naturk., Stuttgart].
- alberici* (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 31, ♀, type locality: "Tainan" (China: Taiwan), lectotype in Deutsch. Entomol. Inst., Müncheberg (designated by Mickel, 1933: 421). Synonymized by Lelej, Yamane, 1992: 631.
- handlirschi** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 227, ♂, type locality: "Carin-Cheba" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar.
- ilanica** (Tsuneki, 1972) (*Smicromyrme*): Etizenia 61: 16, Figs 65-67, 69-70, ♂, type locality: "Tsukeng" (China: Taiwan), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: China: SE (Taiwan).
- isora** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 8, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Meghalaya), Thailand.
- kuznetsovi** Lelej, 1996 (*Mickelomyrme*): Entomofauna 17(15): 283, ♀, type locality: "Island Phong Vong" (North Vietnam), holotype in Zool. Inst., St. Petersburg. – Distribution: North Vietnam.
- norna** (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 40, ♂, type locality: "Taihorin" (China: Taiwan), lectotype in Mus. Naturk. Humboldt-Univ., Berlin (designated by Mickel, 1933: 417). – Distribution: China: SE (Taiwan). – Remark: Listed as *Mickelomyrme isora norna* (Zavattari) (see Website of Zool. Mus., Univ. Copenhagen on p. 12).
- palawanensis** (Mickel, 1934) (*Smicromyrme*): Philipp. J. Sci. 54(1): 206, ♂, type locality: "Puerto Princesa" (Philippines: Palawan), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Palawan).
- semperi** (Ashmead, 1904) (*Mutilla*): Proc. U.S. Nat. Mus. 28: 135, ♂, type locality: "Manila" (Philippines), holotype in National Mus. Nat.

Hist., Washington, D.C. – Distribution: Philippines (Luzon, Panay, Negros, Palawan).

semperi semperi (Ashmead, 1904). – Distribution: Philippines (Luzon, Panay, Negros).

semperi nigrogastra (Mickel, 1934) (*Smicromyrme*, as subspecies of *semperi*): Philipp. J. Sci. 54(1): 212, ♂, type locality: "Zambales Prov." (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon, Palawan).

tanoi (Tsuneki, 1972) (*Smicromyrme*): Life Study 16(1-2): 19, Figs 12-17, ♂, type locality: "Mt. Kinabalu" (Malaysia: Sabah), holotype in Osaka City Mus. Nat. Hist. – Distribution: Malaysia (Sabah).

yunnanensis Lelej, 1996 (*Mickelomyrme*): Entomofauna 17(15): 280, ♂, ♀, type locality: "Niner-Daijie" (China: Yunnan), holotype – ♂, in Zool. Mus., Moscow Univ. – Distribution: China: SW (Yunnan), Thailand, Laos.

zebina (Smith, 1860) (*Mutilla*): J. Proc. linn. Soc., Zool. 5: 115, ♀, type locality: "Bachian" (Indonesia: Bacan), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Philippines (Luzon, Cebu, Mactan, Negros, Mindanao), Malaysia (Sabah, Sarawak), *Brunei, Indonesia (Kalimantan Timur, Bacan).

Mickelomyrme doubtful species

vincula (Nurse, 1903) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 11: 396, ♀, type locality: "Deesa" (India, Gujarat), syntypes in Nat. Hist. Mus., London. – Distribution: India (Gujarat).

29. Genus Nemka Lelej, 1985

Nemka (as subgenus of *Smicromyrme* Thomson, 1870) Lelej, 1985: Osy-nemki fauny SSSR: 240. Type species: *Mutilla viduata* Pallas, 1773 (original designation). [Not Oriental.]

Horaia (as subgenus of *Smicromyrme* Thomson, 1870) Tsuneki, 1993: SPJHA 41: 43. Type species: *Smicromyrme (Horaia) chihpenchia* Tsuneki, 1993 (original designation). Synonymized by Lelej, 1995: 2.

chihpenchia (Tsuneki, 1993) (*Smicromyrme*): SPJHA 41: 43, Figs 3-6, ♂, type locality: "Chihpenchi (China: Taiwan), holotype in Mus. Nat. Human Activity, Hyogo. – Distribution: China: SE (Taiwan).

conjungenda (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 214, ♀, ♂, type locality: "Schwegoo" (Upper Myanmar), syntypes in Mus. Civ. Stor. Nat., Genoa. **New Combination.** – Distribution: Myanmar.

- curvisquamata** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-9): 183, 214, ♀, type locality: "Taitung" (China: Taiwan), holotype in Taiwan Agric. Res. Inst., Taipei. – Distribution: China: SE (Taiwan).
- horai** (Hammer, 1962) (*Smicromyrme*): Rec. Indian Mus. 58(1): 39, ♀, type locality: "Karunagapalli" (India: Kerala), holotype in Indian Mus., Kolkata. – Distribution: India (Kerala).
- kellyi** (Pagden, 1934) (*Smicromyrme*): J. Fed. Malay States Mus. 17: 439, Figs 12-14, ♂, ♀, type locality: "Bukit Panchor" (Malaysia: Kedah), holotype – ♂, in Nat. Hist. Mus., London. – Distribution: Malaysia (Kedah, Pahang, Selangor, Melaka).
- kedahensis* (Mickel, 1935) (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 83(2): 274, 290, ♀, type locality: "Bukit Panchor" (Malaysia: Kedah), holotype in Nat. Hist. Mus., London. Synonymized by Pagden, 1949: 218.
- limi** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-9): 183, 215, ♀, type locality: "Chusan" (China: Zhejiang), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Zhejiang, Shanghai), SE (Hainan).
- limi limi** (Chen, 1957) (*Smicromyrme*, as subspecies of *limi*). – Distribution: China: CE (Zhejiang, Shanghai).
- limi nanhai** (Chen, 1957) (*Smicromyrme*, as subspecies of *limi*): Quart. J. Taiwan Mus. 10(3-9): 216, ♀, type locality: "San-ah" (China: Hainan), holotype in Taiwan Univ., Taipei. – Distribution: China: SE (Hainan).
- maritima** (Hammer, 1962) (*Smicromyrme*): Rec. Indian Mus. 58(1): 39, ♀, type locality: "Chandipore" (India: Orissa), holotype in Indian Mus., Kolkata. **New Combination.** – Distribution: India (Orissa). – Remark: Listed as *Smicromyrme conjungenda maritima* Hammer (see Website of Zool. Mus., Univ. Copenhagen on p. 12).
- pagdeni** Lelej, 1995 (*Nemka*): Far East. entomol. 6: 11, ♀, ♂, type locality: "30 km SW Jinping" (China: Yunnan), holotype – ♂, in Zool. Mus., Moscow Univ. – Distribution: China: SW (Yunnan), *Thailand. – Remark: The female of *Nemka pagdeni* Lelej, 1995 is very close to the female of *N. conjungenda* (Magretti, 1892) (I have examined the female from South China identified by B. Petersen as *N. conjungenda*), but syntypes of *N. conjungenda* must be revised and lectotype must be designated before the synonymy of these species.
- philippa** (Nurse, 1903) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 11: 394, ♂, type locality: "Deesa" (India, Gujarat), syntypes in Nat. Hist. Mus., London. **New Combination.** – Distribution: India (Gujarat, East India). – Remark: Probably an opposite sex of *Nemka pondiche-*

rensis (Sichel et Radoszkowski, 1870). Recorded as *Mutilla dimidiata* Lepeletier, 1845 from Sri Lanka (Cameron, 1892) and Myanmar (Magretti, 1892). B. Petersen wrote me: "*Smicromyrme philippa* [Nurse, 1903] is widely distributed in the Oriental region (the same as *Trogaspidia orientalis* Mickel [1933] = *Mutilla dimidiata* Lepeletier [1845])" (Petersen, in litt., 1980).

dimidiata (Lepeletier, 1845) (*Mutilla*): Hist. Nat. Ins., Hymenopt., 3: 628, ♂ (nom. praeocc., non Latreille, 1792), type locality: "Indo-Orientale" (East India), lectotype in Mus. Reg. Sci. Nat., Turin (designated by Mickel, 1933: 377). Synonymized under *orientalis* by Mickel, 1933: 377.

orientalis (Mickel, 1933) (*Timulla*): Ann. Entomol. Soc. Amer. 26(2): 377. New name for *Mutilla dimidiata* Lepeletier, 1845. **New Synonymy** (teste B. Petersen).

pondicherensis (Sichel et Radoszkowski, 1870) (*Mutilla*): Horae Soc. Entomol. Ross. 6(4): 204, ♀, type locality: "Pondichery" (India), holotype in Naturhist. Mus., Vienna. Synonymized under *blanda* by André, 1896: 11. – Distribution: India, Sri Lanka, *Pakistan, South Iran. – Remark: Recorded as *Mutilla blanda* Smith, 1855 from India (Cameron, 1892) and Sri Lanka (Bingham, 1897). *Mutilla pondicherensis* Sichel et Radoszkowski, 1870 must be used instead of preoccupied *M. blanda* Smith, 1855. In this case *Mutilla blandula* Dalla Torre, 1897 is unnecessary replacement name. Specimen from Iran identified by B. Petersen also. He wrote me: "It is wide-spread Indian species which I also know from Pakistan. It seems to me that more taxa, than expected by me, go rather westwards" (Petersen, in litt., 1982).

blanda (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 32, ♀ (nom. praeocc., non Erichson, 1842), type locality: "India", syntypes in Nat. Hist. Mus., London. Synonymized under *blandula* by Dalla Torre, 1897: 17.

rufitarsis (Smith, 1879) (*Mutilla*): Descr. n. spec. Hymen.: 199, ♀, type locality: "India", syntypes in Nat. Hist. Mus., London. Synonymized under *pondicherensis* by Turner, 1911: 143.

taprobanae (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 122, 125, ♀, type locality: "Trincomalia" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. Synonymized under *rufitarsis* by Bingham, 1897: 18.

blandula (Dalla Torre, 1897) (*Mutilla*): Cat. Hymenopt. 8: 17. New name for *Mutilla blanda* Smith, 1855. **New Synonymy**.

taiwanensis (Mickel, 1933) (*Timulla*, as subspecies of *orientalis*): Ann. Entomol. Soc. Amer. 26(2): 408, ♂, type locality: "Taihanroku" (China: Taiwan), holotype in Mus. Naturk. Humboldt-Univ.,

Berlin. – Distribution: China: CE (Jiangsu, Anhui, Zhejiang, Jiangxi), SE (Fujian, Taiwan).

wotani (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 27, ♀, type locality: "Tainan" (China: Taiwan), lectotype in Deutsch. Entomol. Inst., Müncheberg (designated by Mickel, 1933: 420). – Distribution: Japan (Honshu, Kyushu, Tanega-shima), Korea, China: NO (Liaoning, Shanxi), SE (Taiwan), Vietnam (North).

yasumatsui (Mickel, 1936) (*Smicromyrme*): Mushi 9(1): 52, ♀, type locality: "Fukuoka" (Japan, Kyushu), holotype in Univ. Minnesota, St. Paul. Synonymized by Lelej, 1995: 10.

Nemka doubtful species

coronata (non Fabricius, 1793): Saussure, 1867 (*Mutilla*): Reise der Nowara, (Zool.) 2: 106, ♀. – Remark: Recorded under this name from Sri Lanka (Saussure, 1867a). *Mutilla coronata* Fabricius, 1793 is junior synonym of *Nemka viduata viduata* (Pallas, 1773), which is widely distributed in Palaearctic region (Lelej, 2002).

fallaciosa (Cameron, 1898) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 42(11): 14, ♀, type locality: "Trincomali, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. Distribution: Sri Lanka.

litigiosa (Cameron, 1898) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 42(11): 13, ♀, type locality: "Trincomali, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: Sri Lanka. – Remark: Similar with *Mutilla pulla* André (Cameron, 1898).

pulla (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 464, 473, ♀, type locality: "Kanara" (India: Karnataka), holotype in Mus. National d'Hist. Nat., Paris. – Distribution: India (Karnataka).

pullula (Dalla Torre, 1897) (*Mutilla*): Cat. Hymenopt. 8: 75. Unnecessary new name for *Mutilla pulla* André, 1894 (nec *Myrmosa pulla* Nylander, 1847). **New Synonymy.**

stulta (Cameron, 1898) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 42(11): 16, ♀, type locality: "Trincomali, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: Sri Lanka.

30. Genus *Nordeniella* Lelej, gen. n. (description see p. 185)

Type species: *Mutilla thermophila* Turner, 1911 (designated here).

atomus (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 463, 473, ♀, type locality: "Kanara" (India: Karnataka), syntypes in Mus. National d'Hist. Nat., Paris. **New Combination.** – Distribution: India (Karnataka).

- pinguicula** (Turner, 1911) (*Mutilla*): Spolia Zeylanica 7(27): 146, ♀, type locality: "Hambantota, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: Sri Lanka. – Remark: I examined 1 ♀ with labels: "Sri Lanka, Trincomalee District, 7 mi W Trincomalee, 15.V 1976 // K. Krombein et al. // *Mutilla pinguicula* Turner. Compared with type. B. Petersen, 1979 // *Promecilla pinguicula* (Turner) [B. Petersen det.]", which stored in National Mus. Nat. Hist., Washington, D.C.
- praestabilis** (André, 1907) (*Promecilla*): Deutsch. Entomol. Zeitschr. 3: 253, ♀, type locality: "Anuradhapura" (Sri Lanka), holotype in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: Sri Lanka. – Remark: I examined 1 ♀ with labels: "Sri Lanka, Amparai District, Lahugala Sanctuary, 13-14.VI 1976 // K. Krombein et al. // Compared with type. B. Petersen // *Promecilla praestabilis* (André), B. Petersen det., 1980", which stored in National Mus. Nat. Hist., Washington, D.C.
- thermophila** (Turner, 1911) (*Mutilla*): Spolia Zeylanica 7(27): 146, ♀, type locality: "Hambantota, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. **New Combination** (material see p. 186). – Distribution: Sri Lanka.
- wickwari** (Turner, 1911) (*Mutilla*): Spolia Zeylanica 7(27): 148, ♀, type locality: "Hambantota, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: Sri Lanka.

[Genus *Nuristanilla* Lelej, 1980]

- Nuristanilla** Lelej, 1980: Entomol. Obozr. 59(1): 193. Type species: *Nuristanilla kabakovi* Lelej, 1980 (original designation).
- [**kabakovi** Lelej, 1980 (*Nuristanilla*): Entomol. Obozr. 59(1): 193, type locality: Lagman province (Afghanistan), holotype in Zool. Inst., St. Petersburg. – Distribution: Asia: Afghanistan.]

31. Genus *Physetopoda* Schuster, 1949

- Physetopoda** Schuster, 1949: Entomol. Amer. (n. s.) 29(3-4): 112. Type species: *Physetopoda insularis* Schuster, 1949, junior synonym of *Mutilla rubrocincta* Lucas, 1849 (original designation). [Not Oriental.]
- Paramyrme* (as subgenus of *Smicromyrme* Thomson, 1870) Lelej, 1977: Insects of Mongolia 5: 531. Type species: *Mutilla montana* Panzer, 1805, junior synonym of *Mutilla halensis* Fabricius, 1787 (original designation). Synonymized by Brothers, 1983: 441. [Not Oriental.]

- consociata** (Cameron, 1898) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 42(11): 9, ♀, type locality: "Trincomali, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: Sri Lanka.
- discreta** (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 64, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Nat. Hist. Mus., London. **New Combination.** – Distribution: India (Bangla). – Recorded from Myanmar, Malaysia, Philippines by Bingham (1897).
- fumigata** (Turner, 1911) (*Mutilla*): Spolia Zeylanica 7(27): 147, ♀, type locality: "Hambantota, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. – Distribution: Sri Lanka. – Host: Quite possible that *Krombeinictus nordenae* Leclercq, 1996 (Hymenoptera: Crabronidae), which nesting in the tree *Humboldtia laurifolia* Vahl (Fabaceae), may be the host of this mutillid (Krombein et al., 1999).
- mirabilis** (Hammer, 1962) (*Smicromyrme*): Rec. Indian Mus. 58(1): 37, ♀, type locality: "Barkuda Id., Chilka Lake" (India, Orissa), holotype in Indian Mus., Kolkata. **New Combination.** – Distribution: India (Orissa), *Sri Lanka.
- oratoria** (Chen, 1957) (*Smicromyrme*, as subspecies of *oratoria*): Quart. J. Taiwan Mus. 10(3-4): 197, Fig. 49, ♂, type locality: "Tsinan" (China: Shandong), holotype in Heude Mus., Shanghai. – Distribution: China: NE (Jilin), NO (Neimenggu, Shandong), Mongolia, Russia (Chitinskaya oblast, Yakutia, Amurskaya oblast, Khabarovskii krai, Primorskii krai). – Remark: B. Petersen wrote me: "About your *Smicromyrme eoa* [Lelej, 1977] based on the male sex I find that it is fine continuation and perhaps only a subspecies of [*Physetopoda*] *halensis* [Fabricius, 1787] (in my sense). It is probably a junior synonym of *S. oratoria* Chen [1957] but this is not proved. Sooner or later I will be allowed to see all the material of Chen. I shall keep you informed about my results, also about [*Smicromyrme*] *bidenticulata* [Chen, 1957], and more about *oratoria*" (Petersen, in litt., 1983).
- vaticinia* (Chen, 1957) (*Smicromyrme*, as subspecies of *oratoria*): Quart. J. Taiwan Mus. 10(3-4): 198, ♂, type locality: "Yangkikaping" (China, Neimenggu), holotype in Heude Mus., Shanghai. Synonymized by Lelej, 2002: 60.
- miscisis* (Chen, 1957) (*Smicromyrme*, as subspecies of *oratoria*): Quart. J. Taiwan Mus. 10(3-4): 198, ♂, type locality: "Yangkikaping" (China, Neimenggu), holotype in Heude Mus., Shanghai. Synonymized by Lelej, 2002: 60.

rectangulata (Chen, 1957) (*Glossotilla*): Quart. J. Taiwan Mus. 10(3-4): 159, ♀, type locality: "Linsi" (China: Neimenggu), holotype in Heude Mus., Shanghai. Synonymized by Lelej, 2002: 60.

*eo*a (Lelej, 1977) (*Smicromyrme*): Insects of Mongolia 5: 531, ♀, ♂, type locality: "Primorskii krai" (Russia: Far East), holotype – ♀, in Zool. Inst., St. Petersburg. Synonymized by Lelej, 2002: 60.

thai Lelej, 1995 (*Physetopoda*): Far East. entomol. 13: 15, ♀, type locality: "Mt. Doi Pui" (North Thailand), holotype in National Sci. Mus., Tokyo. – Distribution: Thailand.

32. Genus *Promecilla* André, 1903

Promecilla André, 1903: Genera Insectorum 11: 14. Type species: *Mutilla regia* Smith, 1855 (original designation).

ariel (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 74, ♀, type locality: unknown, India according André (1903), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India.

calliope (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2: 85, ♀ non ♂, type locality: "Sarawak" (Malaysia), holotype – ♀, in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: Malaysia (Sabah, Sarawak).

comottii (Gribodo, 1884) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova 14: 365, ♀, type locality: "Myanmar", holotype in Mus. Civ. Stor. Nat., Genoa. – Distribution: Myanmar. – Remark: Synonymized under *Mutilla regia* Smith, 1855 by Bingham, 1897: 34 and resurrected by André, 1903: 31.

cyanosoma Turner, 1911 (*Promecilla*): Spolia Zeylanica 7(27): 151, ♀, type locality: "Hambantota, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. – Distribution: Sri Lanka.

delia (Mickel, 1935) (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 83(2): 282, ♀, type locality: "Bettotan near Sandakan" (Malaysia: Sabah), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sabah, Sarawak), Indonesia (Kalimantan Timur).

differens Hammer, 1962 (*Promecilla*): Rec. Indian Mus. 58(1): 47, ♀, type locality: "Baloghni" (India, Orissa), holotype in Indian Mus., Kolkata. – Distribution: India (Orissa). – Remark: B. Petersen wrote me: "*Promecilla differens* Hammer [1962] so close to *P. regia* (Smith, 1855) that I might place it as a subspecies from South India" (Petersen, in litt., 1980).

fusca (André, 1898) (*Mutilla*, as variety of *regia*): Ann. Soc. Entomol. France 67: 35, ♀, type locality: "Karachi" (Pakistan), holotype in Mus. National d'Hist. Nat., Paris. – Distribution: Pakistan.

- gravelyi** Hammer, 1962 (*Promecilla*): Rec. Indian Mus. 58(1): 48, ♀, type locality: "Peshoke, Darjiling" (India, Bangla), holotype in Indian Mus., Kolikata. – Distribution: India (Bangla).
- hyale** (Mickel, 1934) (*Smicromyrme*): Philipp. J. Sci. 54(1): 193, ♀, type locality: "Iligan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Mindanao).
- maculiceps** (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 468, 481, ♀, type locality: "Poona" (India: Maharashtra), holotype in Mus. National d'Hist. Nat., Paris. – Distribution: India (Maharashtra).
- magrettii** Lelej, **nom. n.** (*Promecilla*). New name for *Mutilla funeraria* Smith, 1855. – Distribution: Northern India. – Etymology: The specific name is dedicated to hymenopterist Paolo Magretti (1854-1913), who described Oriental mutillids as well.
funeraria (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 37 (nom. praeocc., non Erichson, 1849), type locality: "Northern India".
- perfecta** Hammer, 1962 (*Promecilla*): Rec. Indian Mus. 58(1): 46, ♀, type locality: "C. Paiva, Katihar" (India, Bihar), holotype in Indian Mus., Kolikata. – Distribution: India (Bihar).
- phaola** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 40, ♀, type locality: "Poona" (India: Maharashtra), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Maharashtra).
- philippinensis** Lelej, **nom. n.** (*Promecilla*). New name for *Mutilla parva* Brown, 1906. – Distribution: Philippines (Luzon, Mindanao). – Etymology. The specific name is a Latin adjective derived from Philippines, the country where the species is distributed.
parva (Brown, 1906) (*Mutilla*): Philipp. J. Sci. 1: 685, ♀ (nom. praeocc., non André, 1902), type locality: "Manila" (Philippines), syntypes unknown.
- [**primana** Skorikov, 1935 (*Promecilla*): Tr. Tadzh. basy AN SSSR 5: 321, ♀, type locality: Khiva (Uzbekistan), lectotype in Zool. Inst., St. Petersburg (designated by Lelej, 1985: 181). – Distribution: Uzbekistan, Tajikistan. – Host: Reared from the nest of *Sceliphron* sp. (Hymenoptera: Sphecidae) in Tajikistan (Lelej, 1985). There are three species of *Sceliphron* in Tajikistan: *deforme* (Smith, 1856), *destillatorium* (Illiger, 1807) and *madraspatanum* (Fabricius, 1781) (Kazenas, 2001).]
- pulchriventris** (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 121, 127, fig. 5, ♀, type locality: "Poona" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. – Distribution: India (Maharashtra). – Remark: B. Petersen wrote me: "*Mutilla metallica* Cameron [1892] probably is the same as *M. pulchriven-*

tris Cameron [1892]. I would prefer to use *metallica* instead of *pulchriventris*" (Petersen, in litt., 1978). Currently *Mutilla metallica* Cameron, 1892 is a junior synonym of *Promecilla yerburghi* (Cameron, 1892).

regia (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 38, ♀, type locality: "Northern India", syntypes in Nat. Hist. Mus., London. – Distribution: India (Northern, Gujarat, Karnataka, Dilli). – Host: Male and female reared from the nest of *Eumenes conica* (Fabricius) [currently *Delta conoideum* (Gmelin, 1790)] (Hymenoptera: Vespidae: Eumeninae) (Dutt, 1912); male and female reared from the nest of *Eumenes esuriens* [currently *Delta campaniforme esuriens* (Fabricius, 1787) (Cameron, 1902d).

officia (Nurse, 1903) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 11: 399, ♂, type locality: "Deesa" (India, Gujarat), syntypes in Nat. Hist. Mus., London. **New Synonymy** (teste B. Petersen). – Remark: B. Petersen wrote me: "This species is widely distributed in India, unknown male of [*Promecilla*] *regia* Smith [1855] or [*P.*] *differens* Hammer [1962]. I still think that [*Promecilla*] *vinuta* Nagy [1972] is a simple synonym of [*Promecilla*] *officia* Nurse [1903]" (Petersen, in litt., 1980).

subglabra (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 464, 472, ♀, type locality: "Kanara" (India: Karnataka), holotype in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: India (Karnataka).

tau (Dalla Torre, 1897) (*Mutilla*): Cat. Hymenopt. 8: 90. New name for *Mutilla trimaculata* Cameron, 1892. **New Combination**. – Distribution: India (Maharashtra).

trimaculata (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 122, 126, ♀ (nom. praeocc., non Lepeletier, 1845), type locality: "Poona" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. Synonymized by Dalla Torre, 1897: 90.

[**vinuta** (Nagy, 1972) (*Smicromyrme*): Bull. Iraq Nat. Hist. Mus. 5(2): 5, ♂, type locality: Afghanistan, holotype in Nagy's coll., Agigea. **New Combination**. – Distribution: Afghanistan.]

yerburghi (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 123, 135, ♂, type locality: "Mahaagang, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Sri Lanka, India (Orissa, Jharkand, Dilli). – Host: Reared from broken clay cells of eumenid wasps (Hymenoptera: Vespidae, Eumeninae) (Dutt, 1912); reared from the cells of *Paraleptomenes mephitis* (Cameron, 1901), *P. humberianus* (Saussure, 1867) (Hymenoptera: Vespidae: Eumeninae) [Krombein, 1978, as *Promecilla metallica* (Cameron), ♀ (B. Petersen

det.) and *P. yerburchi* (Cameron), ♂ (A. Lelej det.)). – Remark: From two names [*yerburchi* (p. 123) and *yerburchi* (p. 135)] published by P. Cameron (1892) and dedicated to Col. Yerbury, *yerburchi* has been accepted by André (1903). The correction of name to *yerburchii* (Dalla Torre, 1897) or *yerburyi* (Bingham, 1897) is not valid.

metallica (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 120, 128, ♀ (nom. praecoc., non Smith, 1855), type locality: "Trincomalia, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. Synonymized by Dalla Torre, 1897: 7.

aenescens (Dalla Torre, 1897) (*Mutilla*): Cat. Hymenopt. 8: 7. New name for *Mutilla metallica* Cameron, 1892. **New Synonymy.**

33. Genus *Sinotilla* Lelej, 1995

Sinotilla Lelej, 1995: Far East. entomol. 13: 18. Type species: *Smicromyrme boheana* Chen, 1957 (original designation).

belokobylskiji Lelej, 1995 (*Sinotilla*): Far East. entomol. 13: 22, ♀, type locality: "Tam Dao" (North Vietnam), holotype in Zool. Inst., St. Petersburg. – Distribution: China: SW (*Yunnan), Vietnam.

boheana (Chen, 1957) (*Smicromyrme*, as subspecies of *cyaneiventris*): Quart. J. Taiwan Mus. 10(3-4): 180, 204, ♂, type locality: "Shaowu" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian), SW (Yunnan), Vietnam (North).

coeruleotincta (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 23, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: India (Meghalaya, Bangla, Darjiling).

contractula (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 212, ♀, type locality: "Shangting" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian).

cyaneiventris (André, 1896) (*Mutilla*): Termesztet. Fuzetek 19: 18, ♂, type locality: "North China", holotype in Hung. National Mus., Budapest. – Distribution: China: NO (Hebei, Shanxi, Neimenggu), CE (Jiangsu, Jiangxi, Zhejiang), SW (*Yunnan).

cyaneiventris cyaneiventris (André, 1896). – Distribution: China: NO (Hebei, Shanxi), CE (Jiangsu, Jiangxi, Zhejiang), SW (*Yunnan).

cyaneiventris gobiana (Chen, 1957) (*Smicromyrme*, as subspecies of *cyaneiventris*): Quart. J. Taiwan Mus. 10(3-4): 204, ♂, type locality: "Yangkikaping" (China, Neimenggu), holotype in Heude Mus., Shanghai. – Distribution: China: NO (Neimenggu).

- decora** (Smith, 1879) (*Mutilla*): Descr. n. spec. Hymen.: 200, ♀, type locality: "Pulo Penang" (Malaysia: Pulau Pinang), holotype in Nat. Hist. Mus., London. **New Combination**. – Distribution: *China: SW (Yunnan), *Thailand, Myanmar, Malaysia (Pulau Pinang, Kuala Lumpur). – Host: Reared from nests of *Pison argentatum* Shuckard, 1838 (Hymenoptera: Crabronidae) in Malaysia (Pagden, 1949). – Remark: Recorded from Myanmar (Magretti, 1892) and Indonesia (Java) (Zavattari, 1913).
- gracillima** (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2: 84, ♂, type locality: "Sarawak" (Malaysia), holotype in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Malaysia (Sarawak). – Remark: This species distributed in Sarawak only (Mickel, 1935).
- gribodoana** (Invrea, 1943) (*Smicromyrme*): Ann. Mus. Civ. Stor. Nat. Genova, 61: 193. New name for *Smicromyrme zavattarii* Mickel, 1935. – Distribution: Indonesia (Kalimantan Tengah).
- gracillima* (non Smith, 1857): Zavattari, 1913 (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 92, ♂. – Remark: Recorded under this name from Indonesia (Kalimantan Tengah). *Smicromyrme gracillima* (Smith, 1857) distributed in Sarawak only (Mickel, 1935).
- zavattarii* (Mickel, 1935) (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 83(2): 282, ♂ (nom. praeocc., non Invrea, 1932), type locality: "Bandjermasin" (Indonesia, Kalimantan Tengah), holotype in Mus. Civ. Stor. Nat., Genoa.
- hong** Lelej, 1995 (*Sinotilla*): Far East. entomol. 13: 20, ♂, type locality: "Yuping" (China: Yunnan), holotype in Zool. Mus., Moscow Univ. – Distribution: China: SW (Yunnan).
- lambirensis** Lelej, 1996 (*Sinotilla*): Tropics 6(1-2): 98, ♀, type locality: "Miri Lambir" (Malaysia: Sarawak), holotype in Kagoshima Univ. – Distribution: Malaysia (Sarawak).
- pekiniana** (André, 1905) (*Mutilla*): Zeit. Hymen. Dipt. 5: 214, ♀, type locality: "Pekin" (=Beijing) (China), lectotype in Mus. National d'Hist. Nat., Paris (designated by Mickel, 1933: 319. – Distribution: China: NO (Hebei, Shanxi), CE (Jiangsu), SE (Fujian).
- petina** (Mickel, 1937) (*Smicromyrme*): Ann. Mag. Nat. Hist., ser. 10, 19: 451, ♀, type locality: "Mt. Matang" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London. **New Combination**. – Distribution: Malaysia (Sarawak).
- runcina** (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 94, ♂, type locality: "Banjermasin" (Indonesia, Kalimantan Tengah), holotype in Mus. Civ. Stor. Nat., Genoa. – Distribution: Indonesia (Kalimantan Tengah), Malaysia (Sabah, Sarawak).
- serpa** (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 39, ♂, type locality: "Taihorinsho" (China: Taiwan), lectotype in Mus. Naturk.

Humboldt-Univ., Berlin (designated by Mickel, 1933: 417). **New Combination.** – Distribution: China: SE (Taiwan). – Remark: Listed as *Smicromyrme coeruleotincta serpa* (Zavattari) (see Website of Zool. Mus., Univ. Copenhagen on p. 12).

- subparallela** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 214, ♀, type locality: "Liencheng" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian, Aomen).
- yakushimensis** (Yasumatsu, 1934) (*Smicromyrme*): Mushi 7(2): 65, ♀, type locality: "Ambo-Funayuki" (Japan: Yaku-shima), holotype in Kyushu Univ., Fukuoka. **New Combination.** – Distribution: Japan (Yaku-shima).

Sinotilla doubtful species

- ansula** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 204, Fig. 63, ♂, type locality: "Tienmushan" (China: Zhejiang), holotype in Zool. Inst., Shanghai. – Distribution: China: CE (Zhejiang).

34. Genus *Smicromyrme* Thomson, 1870

Smicromyrme Thomson, 1870: Opuscula entomologica 2: 208. Type species: *Mutilla rufipes* Fabricius, 1787 (original designation). [Not Oriental.].

Remark: The genus *Smicromyrme* Thomson, 1870 includes in Palaearctic region subgenera *Astomyrme* Schwartz, 1984, *Eremotilla* Lelej, 1985, *Erimyrme* Lelej, 1985, *Rhombotilla* Nagy, 1966, and nominotypical. Oriental species of the genus *Smicromyrme* are not revised still and I included in this genus 68 species without subgeneric classification.

- antennata** (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 31, ♂, type locality: "India", syntypes in Nat. Hist. Mus., London. **New Combination.** – Distribution: India, Myanmar.
- aponis** Tsuneki, 1993 (*Smicromyrme*): SPJHA 41: 10, Figs 9-11, ♂, type locality: "Mt. Apo" (Philippines: Mindanao) holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Mindanao).
- autonoe** Mickel, 1934 (*Smicromyrme*): Philipp. J. Sci. 54(1): 208, ♀, type locality: "Puerto Princesa" (Philippines: Palawan), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Palawan).
- basalis** (Smith, 1879) (*Mutilla*): Descr. n. spec. Hymen.: 200, ♀, type locality: "Sarawak" (Malaysia), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sabah, Sarawak), Indonesia (Kalimantan Timur), Philippines (Mindanao, Luzon).

- basalis basalis** (Smith, 1879). – Distribution: Malaysia (Sabah, Sarawak), Indonesia (Kalimantan Timur), Philippines (Mindanao).
- basalis annularis** Mickel, 1934 (*Smicromyrme*, as subspecies of *basalis*): Philipp. J. Sci. 54(1): 203, ♀, type locality: "Baguio" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon).
- bicolor** Hammer, 1962 (*Smicromyrme*): Rec. Indian Mus. 58(1): 43, ♀, type locality: "Tuppur Forest" (India, Karnataka), holotype in Indian Mus., Kolikata. – Distribution: India (Karnataka).
- bidenticulata** Chen, 1957 (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 199, Fig. 51, ♂, type locality: "Tsinan" (China: Shandong), holotype in Heude Mus., Shanghai. – Distribution: China: NO (Shandong, Neimenggu), CE (Jiangsu), Mongolia (east), Korea, Russia (Primorskii krai).
- hasanensis* Lelej, 1977 (*Smicromyrme*): Nasekomye Dalnego Vostoka: 91, ♀, ♂, type locality: 7 km E Khasan (Russia: Primorskii krai), holotype – ♀, in Zool. Inst., St. Petersburg. Synonymized by Lelej, 1985: 239.
- monopunctata* Lelej, 1977 (*Smicromyrme*, as form of *hasanensis*): Nasekomye Dalnego Vostoka: 94, ♀, type locality: Russia: Primorskii krai. Not valid form according to article 15.2 of ICZN.
- apunctata* Lelej, 1977 (*Smicromyrme*, as form of *hasanensis*): Nasekomye Dalnego Vostoka: 94, ♀, type locality: Russia: Primorskii krai. Not valid form according to article 15.2 of ICZN.
- borneo** Lelej, 1996 (*Smicromyrme*): Tropics 6(1-2): 99, ♀, type locality: "Lahad Datu" (Malaysia: Sabah), holotype in Kagoshima Univ. – Distribution: Malaysia (Sabah).
- caecina** (Cameron, 1903) (*Mutilla*): J. Straits Br. Roy. Asiat. Soc. 39: 153, ♂, type locality: "Lingga" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sabah, Sarawak).
- caerulea** Mickel, 1934 (*Smicromyrme*): Philipp. J. Sci. 54(1): 201, ♂, type locality: "Samar" (Philippines), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Samar).
- calacuasana** Tsuneki, 1993 (*Smicromyrme*): SPJHA 41: 16, Figs 36-44, ♂, type locality: "Calacuasan" (Philippines: Palawan), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Palawan).
- cameroni** Lelej, **nom. n.** (*Smicromyrme*). New name for *Mutilla diomeda* Cameron, 1902. – Distribution: India (Himachal Pradesh). – Etymology: The specific name is dedicated to famous hymenopterist Peter Cameron (1847-1912), who described many Oriental mutillids.

- diomeda* (Cameron, 1902) (*Mutilla*): J. Bombay Nat. Hist. Soc. 14: 270, ♂, (nom. praeocc., non Fox, 1899), type locality: "Simla" (India, Himachal Pradesh), syntypes in Nat. Hist. Mus., London.
- ceylonica* Saussure, 1867 (*Mutilla*): Ann. Soc. Entomol. France 7: 356, ♀, type locality: "Ceylon" (Sri Lanka). **Nomen nudum.**
- chinensis** (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 38, ♀, type locality: "North China", holotype in Nat. Hist. Mus., London. – Distribution: China: NO (Shanxi), CE (Jiangsu, Anhui).
- chuchiana** Tsuneki, 1993 (*Smicromyrme*): SPJHA 41: 40, ♀, type locality: "Chuchi" (China: Taiwan), holotype in Mus. Nat. Human Activity, Hyogo. – Distribution: China: SE (Taiwan).
- circumscribenda** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 233, tab. 5, Fig. 13, ♂, type locality: "Carin-Cheba" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination.** – Distribution: Myanmar.
- columnata** Chen, 1957 (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 205, Fig. 64, ♂, type locality: "Kuling" (China: Jiangxi), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Jiangxi).
- constanceae** (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 118, 134, fig. 10, ♀, type locality: "Poona" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. **New Combination.** – Distribution: India (Maharashtra).
- coromandelica** (Motschulsky, 1863) (*Mutilla*): Boll. Soc. Imp. Nat. Moscou 36(3): 23, ♀, type locality: "Madara" (South India), lectotype ("Ind[ia] or[ient]al Madara") in Zool. Mus., Moscow Univ. (designated here, in order to ensure the name's proper and consistent use). **New Combination.** – Distribution: South India, *Sri Lanka. – Remark: B. Petersen wrote me: "*Smicromyrme coromandelica* [Motschulsky, 1863] is a senior synonym of *S. neglecta* Hammer [1962]" (Petersen, in litt., 1984). The key to the related species see p. 187.
- dardanus** (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2: 86, ♂, type locality: "Sarawak" (Malaysia), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Malaysia (Sarawak, Sabah, Perak).
- dardanus dardanus** (Smith, 1857). – Distribution: Malaysia (Sarawak, Perak).
- dardanus salacia** Mickel, 1935 (*Smicromyrme*, as subspecies of *dardanus*): Trans. Roy. Entomol. Soc. London 83(2): 282, ♂, type locality: "Samawang near Sandakan" (Malaysia: Sabah), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sabah).
- darjilingi** Hammer, 1962 (*Smicromyrme*): Rec. Indian Mus. 58(1): 34, ♀, type locality: "Singla, Darjiling" (India, Bangla), holotype in Indian Mus., Kolkata. – Distribution: India (Bangla).

- deidamia** (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2: 83, ♀, type locality: "Sarawak" (Malaysia), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Malaysia (Sabah, Sarawak). – Remark: Recorded as *Mutilla pandora* Smith from Myanmar (Magretti, 1892).
- pandora* (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2: 85, ♀, type locality: "Sarawak" (Malaysia), holotype in Mus. Nat. Hist., Oxford Univ. Synonymized by Mickel, 1935: 292.
- deidannia* (Dalla Torre, 1897) (*Mutilla*): Cat. Hymenopt. 8: 30, ♀. Not valid emendation according to article 33.3 of ICZN. Synonymized by Mickel, 1935: 292.
- didannia* (Schulz, 1906) (*Mutilla*): Spolia Hymenopt.: 157, ♀, Not valid emendation according to article 33.3 of ICZN. Synonymized by Mickel, 1935:292.
- desiderata** (Turner, 1911) (*Mutilla*): Spolia Zeylanica 7(27): 148, ♀, type locality: "Hambantota, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: Sri Lanka. – Remark: I examined topotype: 1 ♀ "Ceylon; S.P., Hambantota, T.B. F.[letcher], 6.Feb.[19]09 // 421 // *Smicromyrme desiderata* (Turner) B. Petersen det. 1980 // *Mutilla desiderata* Turner. Compared with type. B. Petersen, 1979 // Zool. Museum, DK Copenhagen // Colombo", which temporarily stored in National Mus. Nat. Hist., Washington, D.C. The key to the related species see p. 187.
- devia** (Cameron, 1909) (*Mutilla*): Entomologist 42: 147, ♂, type locality: "Kuching" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London, – Distribution: Malaysia (Sarawak).
- durga** (Bingham, 1897) (*Mutilla*): Fauna Brit. India 1: 18, ♀. New name for *Mutilla dives* Cameron, 1897. **New Combination**. – Distribution: India (Bangla).
- dives* (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 75, ♀ (nom. praecoc., non Smith, 1855), type locality: "Barrackpore" (India: Bangla), holotype in Mus. Nat. Hist., Oxford Univ. Synonymized by Bingham, 1897: 18.
- electra** Mickel, 1935 (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 83(2): 280, ♂, type locality: "Makassar" (Indonesia: Celebes), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Indonesia (Celebes).
- fredericki* Mickel, 1935 (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 83(2): 203, type locality: "Celebes" (Indonesia). **Nomen nudum**.
- frederici** (André, 1898) (*Mutilla*): Ann. Soc. Entomol. France 67: 20. New name for *Mutilla pusilla* Smith, 1855. – Distribution: India (Northern India, Rajasthan). – Remark: B. Petersen wrote me: "The correct

name for *Smicromyrme frederici* [André, 1898] may be *S. coromandelica* [Motschulsky, 1863]. *S. frederici* being a junior synonym. But naming it as *S. neglecta* [Hammer, 1962] may also be considered. These small smicromyrmes are very difficult to deal with" (Petersen, in litt., 1995). The key to the related species see p. 187.

pusilla (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 37, ♀, (nom. praeocc., non Klug, 1835), type locality: "Northern India", syntypes in Mus. Nat. Hist., Oxford Univ. Synonymized by André, 1898: 20.

fura Mickel, 1934 (*Smicromyrme*): Philipp. J. Sci. 54(1): 198, ♀, type locality: "Tangcolan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon, Samar, Sibuyan, Panay, Negros, Mindanao, Basilan).

fura fura Mickel, 1934 (*Smicromyrme*, as subspecies of *fura*). – Distribution: Philippines (Luzon, Samar, Sibuyan, Panay, Negros, Mindanao, Basilan).

fura anthracipes Mickel, 1934 (*Smicromyrme*, as subspecies of *fura*): Philipp. J. Sci. 54(1): 200, ♀, type locality: "Baguio" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon).

granulata Hammer, 1962 (*Smicromyrme*): Rec. Indian Mus. 58(1): 38, ♀, type locality: "Kurseong" (India, Bangla), holotype in Indian Mus., Kolkata. – Distribution: India (Bangla).

hammeri Lelej, **nom. n.** (*Smicromyrme*). New name for *Mutilla niobe* Cameron, 1900. – Distribution: India (Meghalaya). – Etymology: The specific name is dedicated to hymenopterist Karl Hammer (1871-1958), who described many Indian mutillids.

niobe (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 22, ♂ (nom. praeocc., non Peringuey, 1898), type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ.

herophile Mickel, 1935 (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 83(2): 275, ♂, type locality: "Pekalongan" (Indonesia: Java), holotype in Univ. Minnesota, St. Paul. – Distribution: Indonesia (Java).

hilaris Hammer, 1962 (*Smicromyrme*): Rec. Indian Mus. 58(1): 44, ♂, type locality: "Kousanie, Kumaon" (India, Uttaranchal), holotype in Indian Mus., Kolkata. – Distribution: India (Himalaya: Uttaranchal, Bangla).

hombuceiana Tsuneki, 1982 (*Smicromyrme*): SPJHA 23: 43, Figs 50-52, ♂, type locality: "Pempuchi" (China: Taiwan), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: China: SE (Taiwan).

- ilerda** (Cameron, 1902) (*Mutilla*): J. Straits Br. Roy. Asiat. Soc. 37: 78, ♂, type locality: "Kuching" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London. – Distribution: Philippines (Mindanao), Malaysia (Sabah, Sarawak).
- ilerda ilerda** (Cameron, 1902). – Distribution: Malaysia (Sabah, Sarawak).
- ilerda sparsilis** Mickel, 1934 (*Smicromyrme*, as subspecies of *ilerda*): Philipp. J. Sci. 54(1): 101, ♂, type locality: "Dapitan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Mindanao).
- jacobsoni** (André, 1907) (*Mutilla*): Zeit. Hymen. Dipt. 7(3): 207, ♂, type locality: "Semarang" (Indonesia: Java), holotype in Mus. Nat. Hist. Leyden, – Distribution: Indonesia (Java).
- kashmirensis** Hammer, 1962 (*Smicromyrme*): Rec. Indian Mus. 58(1): 35, ♀, type locality: "Kashmir" (India, Jammu and Kashmir), holotype in Indian Mus., Kolikata. – Distribution: India (Jammu and Kashmir).
- khasiana** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 20, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Meghalaya).
- kirbyi** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 216, ♀, type locality: "Carin-Cheba" (Myanmar), syntypes in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar.
- kuanfuana** Tsuneki, 1972 (*Smicromyrme*): Etizenia 64: 23, Fig. 84, ♀, type locality: "Kuanfu" (China: Taiwan) holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: China: SE (Taiwan).
- lavinia** Mickel, 1934 (*Smicromyrme*): Philipp. J. Sci. 54(1): 214, ♂, type locality: "Mt. Banahao" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon, Mindanao, Palawan, Samar).
- lavinia lavinia** Mickel, 1934 (*Smicromyrme*, as subspecies of *lavinia*). – Distribution: Philippines (Luzon, Mindanao, Palawan).
- lavinia atrata** Mickel, 1934 (*Smicromyrme*, as subspecies of *lavinia*): Philipp. J. Sci. 54(1): 216, ♂, type locality: "Samar" (Philippines), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Samar).
- lepcha** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 19, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: India (Meghalaya).
- levinaris** Chen, 1957 (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 207, Fig. 66, ♂, type locality: "Yungan" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian).

- lochiae** Mickel, 1937 (*Smicromyrme*): Ann. Mag. Nat. Hist., ser. 10, 19: 452, ♀, type locality: "Mt. Matang" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sarawak, Pulau Pinang).
- maculofasciata** (Saussure, 1867) (*Mutilla*): Reise der Nowara (Zool.) 2: 107, ♀, type locality: "Ceylon" (Sri Lanka), lectotype in Naturhist. Mus., Vienna (designated by Mickel, 1935: 270). – Distribution: Sri Lanka. – Remark: This species distributed in Sri Lanka only, the specimens from Timor and Luzon are not conspecific (Mickel, 1935).
- meator** Mickel, 1935 (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 83(2): 285, ♂, type locality: "Sandakan" (Malaysia: Sabah), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Malaysia (Sabah, Sarawak).
- minahassae** (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 95, ♂, type locality: "Minahassa" (Indonesia: Celebes), syntypes in Mus. Civ. Stor. Nat., Genoa. – Distribution: Indonesia (Celebes).
- mindanaonis** Tsuneki, 1993 (*Smicromyrme*): SPJHA 41: 12, Figs 18-22, ♂, type locality: "Bukidnon" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Mindanao).
- montanata** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 24, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: India (Meghalaya).
- nana** Hammer, 1962 (*Smicromyrme*): Rec. Indian Mus. 58(1): 42, ♀, type locality: "Katihar" (India, Bihar), holotype in Indian Mus., Kolkata. – Distribution: India (Bihar).
- neglecta** Hammer, 1962 (*Smicromyrme*): Rec. Indian Mus. 58(1): 41, ♀, type locality: "Barkuda, Chilka Lake" (India, Orissa), holotype in Indian Mus., Kolkata. – Distribution: India (Orissa, *Karnataka), *Sri Lanka. – Remark: B. Petersen wrote me: "*Smicromyrme coromandelica* [Motschulsky, 1863] is a senior synonym of *S. neglecta* Hammer [1962]" (Petersen, in litt., 1984). The key to the related species see p. 187.
- nepalensis** Hammer, 1962 (*Smicromyrme*): Rec. Indian Mus. 58(1): 36, ♀, type locality: "Chandragiri" (Nepal), holotype in Indian Mus., Kolkata. – Distribution: Nepal.
- nigrigena** (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 464, 471, ♀, type locality: "Kanara" (India: Karnataka), syntypes in Mus. National d'Hist. Nat., Paris. – Distribution: India (Karnataka, Bangla).
- ocellata** (Saussure, 1867) (*Mutilla*): Ann. Soc. Entomol. France 7: 356, tab. 8, fig. 5, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Natur-

- hist. Mus., Vienna. **New Combination**. – Distribution: Sri Lanka, India (Karnataka). – Remark: The key to the related species see p. 187.
- palacala** Tsuneki, 1993 (*Smicromyrme*): SPJHA 41: 15, Fig. 31, ♂, type locality: "Calacuasan" (Philippines: Palawan), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Palawan).
- parthenia** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 42, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla, *Karnataka).
- peregrina** (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 76, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla). – Remark: Similar with *Mutilla discreta* Cam. (Cameron, 1897).
- posthuma** (Cameron, 1898) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 42(11): 8, ♀, type locality: "Trincomali, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Sri Lanka.
- provida** (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 66, ♂, type locality: "Bombay Presidency" (India: Maharashtra), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Maharashtra).
- punctinota** Mickel, 1935 (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 83(2): 286, ♂, type locality: "Bettotan near Sandakan" (Malaysia: Sabah), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sabah, Sarawak).
- pusillaeformis** Hammer, 1962 (*Smicromyrme*): Rec. Indian Mus. 58(1): 34, ♀, type locality: "Mergui" (Lower Myanmar), holotype in Indian Mus., Kolkata. – Distribution: Lower Myanmar.
- scitula** Mickel, 1935 (*Smicromyrme*): Trans. Roy. Entomol. Soc. London 83(2): 279, ♂, type locality: "Sandakan" (Malaysia: Sabah), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Malaysia (Sabah).
- sexmaculata** Hammer, 1962 (*Smicromyrme*): Rec. Indian Mus. 58(1): 41, ♀, type locality: "Chiplun, Vashishti valley" (India, Maharashtra), holotype in Indian Mus., Kolkata. – Distribution: India (Maharashtra, *Karnataka, *Tamil Nadu), *Sri Lanka. – Remark: The key to the related species see p. 187.
- sonata** (Nurse, 1902) (*Mutilla*): J. Bombay Nat. Hist. Soc. 14: 79, Fig. 2, ♂, type locality: "Simla" (India, Himachal Pradesh), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: India (Himachal Pradesh).

- spinicauda** Chen, 1957 (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 210, ♀, type locality: "Tienmushan" (China: Zhejiang), holotype in T. Maa's coll., Taiwan. – Distribution: China: CE (Zhejiang).
- strandii** (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 36, ♂, type locality: "Taihorin" (China: Taiwan), lectotype in Mus. Naturk. Humboldt-Univ., Berlin (designated by Mickel, 1933: 416). – Distribution: China: NO (Shanxi), CE (Jiangsu, Zhejiang), SE (Fujian, Guangdong, Taiwan).
- substituta** (André, 1896) (*Mutilla*): Termesztet. Fuzetek 19: 11, ♀, type locality: "Inde Orientale" (India), holotype in Hung. National Mus., Budapest. **New Combination**. – Distribution: India, *China: SW (Yunnan).
- tenasserimica** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 214, ♀, type locality: "Meetan (Tenasserim)" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar, Thailand. – Remark: B. Petersen wrote me: "You place a species in *Nemka* on the basis of a female received in exchange from me in 1980. At that time I thought that the female belonged to *S. tenasserimica* [Magretti, 1892] but that is an error. What do you got in 1980 seems in fact to a female of *S. conjungenda* [Magretti, 1892]. To my judgement the true *M. tenasserimica* does not belong to *Nemka* at all" (Petersen, in litt., 1995). I changed my opinion about generic position of *Mutilla tenasserimica* Magretti, 1892 (Lelej, 1995a) according to B. Petersen's letter and replaced this species from *Nemka* Lelej, 1985 to *Smicromyrme* Thomson, 1870.
- thia** Mickel, 1933 (*Smicromyrme*): Ann. Entomol. Soc. Amer. 26(2): 420, ♀, type locality: "Koroton" (China: Taiwan), holotype in Mus. Naturk. Humboldt-Univ., Berlin. – Distribution: China: (Taiwan).
- triguttata** Mickel, 1933 (*Smicromyrme*): Ann. Entomol. Soc. Amer. 26(2): 421, ♀, type locality: "Taihorin" (China: Taiwan), holotype in Mus. Naturk. Humboldt-Univ., Berlin. – Distribution: China: CE (Jiangxi), SE (Taiwan, Fujian), Vietnam (North).
- triguttata triguttata** Mickel, 1933. – Distribution: China: SE (Taiwan).
- triguttata latisquamula** Chen, 1957 (*Smicromyrme*, as subspecies of *triguttata*): Quart. J. Taiwan Mus. 10(3-4): 182, 209, ♀, type locality: "Kuling" (China: Jiangxi), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Jiangxi), SE (Fujian), Vietnam (North).
- trisecta** Chen, 1957 (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 206, Fig. 65, ♂, type locality: "Chusan" (China: Zhejiang), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Zhejiang).

35. Genus *Tsunekimyrm* Lelej, 1995

Tsunekimyrm Lelej, 1995: Far East. entomol. 13: 16. Type species: *Mutilla fluctuata* Smith, 1865 (original designation).

fluctuata (Smith, 1865) (*Mutilla*): J. Proc. linn. Soc., Zool. 8: 80, ♂, type locality: "Morty II." (Indonesia), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Indonesia (Morty II.), *Brunei, Philippines (Samar, Negros, Mindanao, Tawi Tawi).

Tribe *Peterseniidiini* Lelej, 1996

Peterseniidiini (as subtribe *Peterseniidiina*) Lelej, 1996: Far East. entomol. 30: 6.

[Genus *Artiotilla* Invrea, 1950]

Artiotilla Invrea, 1950: Mem. Soc. Entomol. Ital. 29: 22. Type species: *Mutilla biguttata* Costa, 1858 (original designation). [Not Oriental.]

Glossomyrm Suárez, 1979: Nouv. Rev. Entomol. 9(1): 72. Type species: *Glossomyrm afgghanica* Suárez, 1979 (original designation). Synonymized by Lelej and Kabakov, 1980: 191.

[**afghanica** (Suárez, 1979) (*Glossomyrm*): Nouv. Rev. Entomol. 9(1): 74, ♂, type locality: "Darunta" (Afghanistan), holotype in Mus. Brno. – Distribution: Asia: Afghanistan.]

36. Genus *Krombeinidia* Lelej, 1996

Krombeinidia Lelej, 1996: Far East. entomol. 30: 11. Type species: *Krombeinidia peterseni* Lelej, 1996 (original designation).

agnata (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 466, 479, ♀, type locality: "Kanara" (India: Karnataka), syntypes in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: India (Maharashtra, Karnataka, Kerala, Tamil Nadu). – Remark: Recorded also from Egypt by E. André (1905).

albopunctata (André, 1907) (*Mutilla*): Deutsch. Entomol. Zeitschr. 3: 256, ♀, type locality: "Nalanda, Weligama" (Sri Lanka), syntypes in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: Sri Lanka.

bagrada (Cameron, 1902) (*Mutilla*): J. Straits Br. Roy. Asiat. Soc. 37: 76, ♂, type locality: "Kuching" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sarawak), Indonesia (Kalimantan Timur).

- depressicornis** (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 264, ♂, type locality: "Sandakan" (Malaysia: Sabah), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Malaysia (Sabah, Sarawak).
- griseomaculata** (André, 1898) (*Mutilla*): Ann. Soc. Entomol. France 67: 22, ♀, type locality: "Cochin China" (South Vietnam), holotype in Mus. National d'Hist. Nat., Paris. – Distribution: China: CE (Zhejiang); South Vietnam, North Thailand, Indonesia (Java).
- himalayana** (Hammer, 1962) (*Trogaspidia*): Rec. Indian Mus. 58(1): 11, ♀, type locality: "Soom, Darjiling" (India: Bangla), holotype in Indian Mus., Kolikata. **New Combination**. – Distribution: India (Bangla).
- ira** (Cameron, 1902) (*Mutilla*): J. Straits Br. Roy. Asiat. Soc. 37: 74, ♂, type locality: "Sarawak" (Malaysia), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (*Pahang, Sabah, Sarawak), Indonesia (*Sumatra, Java), Philippines (Palawan).
- ira ira** (Cameron, 1902) (*Mutilla*). – Distribution: Malaysia (*Pahang, Sabah, Sarawak), Indonesia (*Sumatra, Java).
- attila* (Cameron, 1903) (*Mutilla*): J. Straits Br. Roy. Asiat. Soc. 39: 152, ♂, type locality: "Sarawak" (Malaysia), holotype in Nat. Hist. Mus., London. Synonymized by Mickel, 1935: 265.
- ira palawana** (Mickel, 1934) (*Timulla*, as subspecies of *ira*): Philipp. J. Sci. 54(1): 177, ♂, type locality: "Puerto Princesa" (Philippines: Palawan), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Palawan).
- lilliputiana** (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 465, 476, ♀, type locality: "Kolaba" (India: Maharashtra), holotype in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: India (Maharashtra, Karnataka, Tamil Nadu), Sri Lanka. – Remark: Recorded from Sri Lanka by André (1907). The male (taken in copula with female) described by Dutt (1919).
- margheritae** (Hammer, 1962) (*Trogaspidia*): Rec. Indian Mus. 58(1): 22, ♀, type locality: "Margherita" (Lower Myanmar), holotype in Indian Mus., Kolikata. **New Combination**. – Distribution: Lower Myanmar.
- nallinia** (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 100, ♂, type locality: "Tjibodas" (Indonesia: Java), syntypes in Zool. Mus., Univ. Turin. – Distribution: Indonesia (Java, Bali).
- pandara** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 6, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Meghalaya).

- peterseni** Lelej, 1996 (*Krombeinidia*): Far East. entomol. 30: 11, ♂, ♀, type locality: "Kandy" (Sri Lanka), holotype – ♂, in National Mus. Nat. Hist., Washington, D.C. – Distribution: Sri Lanka.
- pulchrinella** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 212, ♀, type locality: "Carin-Cheba" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar.
- responsaria** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 9, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Meghalaya).
- rutilipes** (Hammer, 1962) (*Trogaspidia*): Rec. Indian Mus. 58(1): 21, ♀, type locality: "Kalimpong, Darjiling" (India, Bangla), holotype in Indian Mus., Kolikata. **New Combination**. – Distribution: India (Bangla). – Remark: Similar with *Trogaspidia subintrans* (Sichel et Radoszkowski, 1870) (Hammer, 1926).
- subfossata** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 178, 188, Figs 39, 40, ♂, type locality: "Shaowu" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian), SW (Yunnan), Thailand, Vietnam, *Malaysia (Sarawak). – Remark: Probably an opposite sex of *Krombeinidia griseomaculata* (André, 1898).
- trebia** (Cameron, 1904) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 13: 280, ♂, type locality: "Northern India", syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Northern India.
- unifasciata** (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 38, ♂, type locality: "Northern India", syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: Northern India. – Remark: Recorded from Celebes by Smith (1859).
- versicolor** (Hammer, 1962) (*Trogaspidia*): Rec. Indian Mus. 58(1): 12, ♀, ♂, type locality: "Singla, Darjinig" (India: Bangla), holotype – ♀, in Indian Mus., Kolikata. **New Combination**. – Distribution: India (Bangla).
- vicinissima** (Gribodo, 1884) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova 14: 364, ♀, type locality: "Minhla" (Upper Myanmar), syntypes in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar, India (Bangla).

Krombeinidia doubtful species

- foveata** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 72, ♂, type locality: "Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. – Distribution: Sri Lanka.

- illa** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 71, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla).
- ogлана** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 70, ♂, type locality: "Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. – Distribution: Sri Lanka, India (Dilli). – Host: Reared from the cells of *Sceliphron madraspatanum* (Fabricius, 1781) (Hymenoptera: Sphecidae) in India (Dilli) (Dutt, 1912). – Remark: Regarded in genus *Stenomutilla* André, 1896 (Dutt, 1912).

37. Genus *Orientidia* Lelej, 1996

- Orientidia** Lelej, 1996: Far East. entomol. 30: 10. Type species: *Mutilla proserpina* Smith, 1858 (original designation).
- cavicola** (Tsuneki, 1993) (*Smicromyrme*): SPJHA 41: 24, Figs 77-79, ♂, type locality: "Cagayan de Oro" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Mindanao).
- circumcincta** (André, 1896) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 17: 71, ♀, type locality: "Balighe" (Indonesia: Sumatra), lectotype in Mus. Civ. Stor. Nat., Genoa (designated by Mickel, 1933: 314). **New Combination.** – Distribution: Indonesia (Sumatra), Malaysia (Melaka, Selangor), China: SE (Fujian, Taiwan, Guangdong). – Remark: Male described by E. André (1905).
- dayak** (Lelej, 1996) (*Petersenidia*): Tropics 6(1-2): 93, ♀, type locality: "Miri Lambir" (Malaysia: Sarawak), holotype in Kagoshima Univ. – Distribution: Malaysia (Sarawak).
- emarginata** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 196, ♀, type locality: "Kienyang" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian).
- nigerrima** (Mickel, 1934) (*Timulla*): Philipp. J. Sci. 54(1): 184, ♂, type locality: "Surigao" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon, Samar, Biliran, Mindanao).
- obscurilamina** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 195, ♀, type locality: "Shanghai" (China), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Jiangsu, Shanghai), SE Fujian).
- proserpina** (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2: 85, ♀, type locality: "Sarawak" (Malaysia), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Malaysia (Sabah, Sarawak), Indonesia

(Kalimantan Timur), Philippines (Panay, Negros, Mindanao, Basilan, Sibuyan, Palawan).

proserpina proserpina (Smith, 1857). – Distribution: Malaysia (Sabah, Sarawak), Indonesia (Kalimantan Timur), Philippines (Panay, Negros, Mindanao, Basilan).

nebulosa (Mickel, 1935) (*Timulla*, as subspecies of *fortuita*): Trans. Roy. Entomol. Soc. London 83(2): 263, ♂, type locality: "Sandakan" (Malaysia: Sabah), holotype in National Mus. Nat. Hist., Washington, D.C. Synonymized by Mickel, 1937: 448.

proserpina sibuyanensis (Mickel, 1934) (*Timulla*, as subspecies of *proserpina*): Philipp. J. Sci. 54(1): 177, ♀, type locality: "Sibuyan" (Philippines), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Sibuyan).

proserpina tibiata (Mickel, 1934) (*Timulla*): Philipp. J. Sci. 54(1): 176, ♀, type locality: "Mt. Makiling" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Sibuyan, Negros, Mindanao, Basilan, Palawan), Malaysia (Sarawak).

fortuita (Mickel, 1934) (*Timulla*, as subspecies of *fortuita*): Philipp. J. Sci. 54(1): 181, ♂, type locality: "Tangcolan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. Synonymized under *tibiata* by Mickel, 1937: 449.

38. Genus *Pagdenidia* Lelej, 1996

Pagdenidia Lelej, 1996: Far East. entomol. 30: 7. Type species: *Timulla (Trogaspidia) mickeli* Pagden, 1949 (original designation).

bicornuta (Hammer, 1962) (*Trogaspidia*): Rec. Indian Mus. 58(1): 30, Fig. b, ♂, type locality: "Sikkim" (India), holotype in Indian Mus., Kollikata. – Distribution: India (Sikkim).

erato (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 241, ♂, type locality: "Sandakan" (Malaysia: Sabah), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Malaysia (Sabah, Sarawak).

hymalajensis (Radoszkowski, 1885) (*Mutilla*): Horae Soc. Entomol. Ross. 19(1/2): 13, Fig. 9, ♂, type locality: "Hymalaja" (India), holotype in Inst. Syst. Exper. Zool., Krakow. **New Combination**. – Distribution: China: SW (Yunnan), North India (Himalaya), Myanmar (Karen), *Thailand.

hymalayensis (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 119. Not valid emendation according to article 32.5.2.1 of ICZN.

- stephani* (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12 : 227, tab. 5, Fig. 15, ♂, type locality: "Carin-Cheba" (Myanmar), lectotype in Mus. Civ. Stor. Nat., Genoa (designated by Pagden, 1949: 205). Synonymized by André, 1899: 30.
- mickeli** (Pagden, 1949) (*Timulla*): Trans. Roy. Entomol. Soc. London 100(8): 201, ♂, ♀, type locality: "Peninjau" (Malaysia: Pahang), holotype in Nat. Hist. Mus., London. – Distribution: South Thailand, Malaysia (Kedah, Pahang, Selangor).
- sceva** (Cameron, 1904) (*Mutilla*): Zeit. Hymen. Dipt. 4(1-6): 6, ♂, type locality: "Khasia Hills" (India: Meghalaya), lectotype in Mus. Nat. Hist., Oxford Univ. (designated by Pagden, 1949: 206). – Distribution: India (Meghalaya); Myanmar (Bago).
- selene** (Pagden, 1949) (*Timulla*): Trans. Roy. Entomol. Soc. London 100(8): 200, ♂, type locality: "Jampang" (Indonesia: Java), holotype in Nat. Hist. Mus., London. – Distribution: Indonesia (Java).
- sondaica** (Pagden, 1949) (*Timulla*): Trans. Roy. Entomol. Soc. London 100(8): 208, ♂, type locality: "Soekaboemi" (Indonesia: Java), holotype in Nat. Hist. Mus., London. – Distribution: Indonesia (Java).

39. Genus *Petersenidia* Lelej, 1992

- Petersenidia** Lelej, 1992: Jpn. J. Entomol. 60(3): 628. Type species: *Smicromyrme fukudai* Tsuneki, 1972 (original designation).
- dercetis** (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 261, ♂, type locality: "Bettotan near Sandakan" (Malaysia: Sabah), holotype in Nat. Hist. Mus., London. **New Combination**. – Distribution: Malaysia (Sabah, Sarawak).
- dorsispinata** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 192, ♀, type locality: "Kienyang" (China: Fujian), holotype in T. Maa's coll., Taiwan. **New Combination**. – Distribution: China: SE (Fujian, *Guangdong), *Vietnam. – Remark: Probably an opposite sex of *Petersenidia scaphella* (Chen, 1957).
- fukudai** (Tsuneki, 1972) (*Smicromyrme*): Etizenia 61: 16, Figs 46-51, ♂, type locality: "Yakushima" (Japan, Ryukyus), holotype in Mus. Nat. Human Activity, Hyogo. – Distribution: Japan (Yaku-shima, Amami-oshima, Kakeroma-jima, Tokuno-shima, Okinawa-jima).
- fukudai* (Tsuneki, 1972) (*Trogaspidia*): Etizenia 61: 14, Figs 41-45, ♀, type locality: "Yakushima" (Japan, Ryukyus), holotype in Mus. Nat. Human Activity, Hyogo. Synonymized by Lelej, Yamane, 1992: 630.
- tokunosimana* (Tsuneki, 1973) (*Trogaspidia*, as subspecies of *fukudai*): Etizenia 65: 24, ♀, type locality: "Tokunoshima" (Japan, Ryu-

kyus), holotype in Mus. Nat. Human Activity, Hyogo. Synonymized by Lelej, Yamane, 1992: 630.

tokunosimana (Tsuneki, 1973) (*Smicromyrme*, as subspecies of *fukudai*): Etizenia 65: 24, ♂, type locality: "Tokunoshima" (Japan, Ryukyus), holotype in Mus. Nat. Human Activity, Hyogo. Synonymized by Lelej, Yamane, 1992: 630.

hylonome (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 288, ♂, type locality: "Sandakan" (Malaysia: Sabah), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Malaysia (Sabah, Sarawak).

javanica (Dalla Torre, 1897) (*Mutilla*): Cat. Hymenopt. 8: 49. New name for *Mutilla fuscipennis* Lepeletier, 1845. **New Combination**. – Distribution: Indonesia (Java).

fuscipennis (Lepeletier, 1845) (*Mutilla*): Hist. Nat. Ins., Hymenopt. 3: 602, ♂ (nom. praeocc., non Fabricius, 1804), type locality: "Java" (Indonesia), syntypes unknown. Synonymized by Dalla Torre, 1897: 49.

macassarica (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 80, ♀, type locality: "Makassar" (Indonesia: Celebes), lectotype in Mus. Civ. Stor. Nat., Genoa (designated by Mickel, 1935: 255). – Distribution: Indonesia (Celebes).

meeungensis (Cockerell, 1928) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 10, 2: 599, ♀, type locality: "Siam" (Thailand), syntypes in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: North Thailand, *China: SW (Yunnan).

nedyme (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 259, ♂, type locality: "Sandakan" (Malaysia: Sabah), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Malaysia (Sabah, Sarawak).

neglecta (Smith, 1860) (*Mutilla*): J. Proc. linn. Soc., Zool. 5: 76, ♂, type locality: "Makassar" (Indonesia: Celebes), holotype in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Indonesia (Celebes).

olbia (Cameron, 1902) (*Mutilla*): J. Straits Br. Roy. Asiat. Soc. 37: 75, ♂, type locality: "Penrissen" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London. **New Combination**. – Distribution: Malaysia (Sarawak).

pfafneri (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 30, ♀, type locality: "Taihorin" (China: Taiwan), lectotype in Mus. Naturk. Humboldt-Univ., Berlin (designated by Mickel, 1933: 413). **New Combination**. – Distribution: China: SE (Taiwan).

psecas (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 268, ♀, type locality: "Sandakan" (Malaysia: Sabah), holotype in Na-

tional Mus. Nat. Hist., Washington, D.C. – Distribution: Malaysia (Sabah, Sarawak).

- rapa** (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 36, ♂, type locality: "Taihorin" (China: Taiwan), lectotype in Mus. Naturk. Humboldt- Univ., Berlin (designated by Mickel, 1933: 408). – Distribution: Japan (Okinawa), China: CE (Zhejiang), SE (Taiwan).
- scaphella** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 178, 187, Fig. 46, ♂, type locality: "Shaowu" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: CE (Jiangxi, Zhejiang), SE (Fujian), Vietnam (North).
- spatale** (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 260, ♂, type locality: "Samawang near Sandakan" (Malaysia: Sabah), holotype in Nat. Hist. Mus., London. **New Combination**. – Distribution: Malaysia (Sabah).
- spiracularis** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 194, ♀, type locality: "Tienmushan" (China: Zhejiang), holotype in Zool. Inst., Shanghai. – Distribution: China: CE (Zhejiang), SE (Fujian, Taiwan).
- spiracularis spiracularis** (Chen, 1957) (*Smicromyrme*, as subspecies of *spiracularis*). – Distribution: China: CE (Zhejiang), SE (Fujian). – Remark: Probably an opposite sex of *Petersenidia scaphella* (Chen, 1957).
- spiracularis dilutemacula** (Chen, 1957) (*Smicromyrme*, as subspecies of *spiracularis*): Quart. J. Taiwan Mus. 10(3-4): 181, 195, ♀, type locality: "Taitung" (China: Taiwan), holotype in Taiwan Agric. Res. Inst., Taipei. – Distribution: China: SE (Taiwan). – Remark: Probably an opposite sex of *Petersenidia rapa* (Zavattari, 1913).
- stella** (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 96, ♂, type locality: "Marang" (Indonesia: Sumatra), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Indonesia (Sumatra).
- sticticornis** (Mickel, 1934) (*Timulla*): Philipp. J. Sci. 54(1): 186, ♂, type locality: "Kolambungan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Samar, Mindanao).
- sticticornis sticticornis** (Mickel, 1934) (*Timulla*, as subspecies of *sticticornis*). – Distribution: Philippines (Samar, Mindanao).
- sticticornis nigridia** (Mickel, 1934) (*Timulla*, as subspecies of *sticticornis*): Philipp. J. Sci. 54(1): 188, ♂, type locality: "Iligan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Samar, Mindanao).

- sumatrensis** (André, 1896) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 17: 79, ♂, type locality: "Si-Rambe" (Indonesia: Sumatra), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Indonesia (Sumatra).
- temeraria** (Mickel, 1934) (*Timulla*): Philipp. J. Sci. 54(1): 179, ♂, type locality: "Mt. Makiling" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Luzon).
- thoracica** (Smith, 1860) (*Mutilla*): J. Proc. linn. Soc., Zool. 5: 76, ♂, type locality: "Makassar" (Indonesia: Celebes), holotype in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Indonesia (Celebes).

Petersenidia doubtful species

- aglaia** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 16, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Meghalaya).
- auronotata** (André, 1898) (*Mutilla*): Ann. Soc. Entomol. France 67: 21, ♀, type locality: "Karachi" (Pakistan), syntypes in Mus. National d'Hist. Nat., Paris. – Distribution: Pakistan.
- biserrata** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 191, ♀, type locality: "Kuling" (China: Jiangxi), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Jiangxi).
- boopis** (Kohl, 1882) (*Mutilla*): Verh. zool.-bot. Ges. Wien 32: 478, ♀, type locality: "Celebes" (Indonesia), holotype in Naturhist. Mus., Vienna. – Distribution: Indonesia (Celebes).
- compactilis** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 32, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla).
- confucii** (André, 1896) (*Mutilla*): Termesztet. Fuzetek 19: 10, ♀, type locality: "Inde Orientale", "Bombay" (India), syntypes in Hung. National Mus., Budapest and Mus. National d'Hist. Nat., Paris. – Distribution: India.
- diploglossata** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 191, ♀, type locality: "Tienmushan" (China: Zhejiang), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Zhejiang).
- dohertyi** (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 78, ♀, type locality: "Sumbawa" (Indonesia), holotype in Mus. Civ. Stor. Nat., Genoa. – Distribution: Indonesia (Sumbawa).

- gnoma** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 38, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla).
- gribodoi** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 229, tab. 5, Fig. 20, ♂, type locality: "Palon, Carin-Cheba" (Myanmar), syntypes in Mus. Civ. Stor. Nat., Genoa. – Distribution: Myanmar.
- honorata** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 12, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Meghalaya).
- josephi** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 228, tab. 5, Fig. 21, ♂, type locality: "Carin-Cheba" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. – Distribution: Myanmar.
- lathonia** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 18, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Meghalaya, Bangla, Uttar Pradesh).
- lyrata** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 17, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Meghalaya).
- marcia** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 37, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla).
- martialis** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 33, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla).
- micropunctata** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 190, ♀, type locality: "Kuling" (China: Jiangxi), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Jiangxi, Anhui).
- onara** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 11, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Meghalaya).
- paglianoi** Lelej, **nom. n.** (*Petersenidia*). New name for *Mutilla elmira* Cameron, 1900. – Distribution: India (Meghalaya). – Etymology: The specific name is dedicated to my colleague, hymenopterist Guido Pagliano, world authority in bradynobaenid wasps.
- elmira* (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 14, ♂ (nom. praeocc., non Peringuey, 1899), type locality:

"Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ.

- pamphia** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 35, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla).
- ptorthodonta** (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 193, ♀, type locality: "Kuling" (China: Jiangxi), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Jiangxi).
- subanalis** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 223, tab. 5, Fig. 17, ♂, type locality: "Schwegoo" (Upper Myanmar), syntypes in Mus. Civ. Stor. Nat., Genoa. – Distribution: Myanmar. – Remark: Recorded from Sri Lanka by Wickwar (1908).
- tirhootensis** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 34, ♀, type locality: "Tirhoot, Bengal" (India, Bihar), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bihar).
- tornatorei** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 230, tab. 5, Fig. 14, ♂, type locality: "Palon" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. – Distribution: Myanmar.

40. Genus *Radoszkowkitilla* Lelej, gen. n. (description see p. 187)

Type species: *Indratilla ceylonica* Lelej, 1993 (designated here).

Remark: Original combination of male and female of genus *Indratilla* Lelej, 1993 was mistaken. Currently apterous male of *I. gynandromorpha* Lelej, 1993 and hitherto unknown female (description see p. 180) belong to the tribe Smicromyrmini. Female of *I. ceylonica* Lelej, 1993 belongs to the tribe Peterseniidiini and together with related species regard as new genus *Radoszkowkitilla*. Description of male and female of this genus as the key to the species of Sri Lanka and South India see p. 192.

- ceylonica** (Lelej, 1993) (*Indratilla*): Spixiana 16(3): 235, ♀, type locality: "Anuradhapura" (Sri Lanka), holotype in Zool. Inst., St. Petersburg. **New Combination**. – Distribution: Sri Lanka, *South India (Karnataka). – Remark: B. Petersen wrote me: "I told you that the female (now *I. ceylonica* [Lelej, 1993]) is the same as *Trogaspidia aulica* (Smith, 1855) and you *ceylonica* is a junior synonym" (Petersen, in litt., 1993). The female of *Mutilla aulica* Smith, 1855 easily differs from the female of *Radoszkowkitilla ceylonica* (Lelej, 1993) by having spots of bright silvery pubescence on each side of metasomal terga 3 and 4, and basal ones on tergum 2

(Smith, 1855: 37) (silver lateral spots on metasomal tergum 2 posterad, tergum 3, and basal ones on tergum 2 in *ceylonica*). The female, identified by B. Petersen as *Trogaspidia aulica* (Smith, 1855) from Pakistan [National Mus. Nat. His., Washington, D.C., examined] disagree with original description of this species (Smith, 1855).

karnataka Lelej, sp. n. (*Radoszkowskitilla*): type locality: 15 km N Bangalore (India: Karnataka), holotype – ♀, in Mus. Stor. Nat., Florence. **New Species** (description see p. 190). – Distribution: India (Karnataka).

sinhala Lelej, sp. n. (*Radoszkowskitilla*): type locality: Kitulgala (Sri Lanka), holotype – ♂, in National Mus., Colombo. **New Species** (description see p. 191). – Distribution: Sri Lanka.

tamila Lelej, sp. n. (*Radoszkowskitilla*): type locality: Wilpattu National Park (Sri Lanka), holotype – ♂, in National Mus. Nat. Hist., Washington, D.C. **New Species** (description see p. 189). – Distribution: Sri Lanka.

41. Genus *Taiwanomyrme* Tsuneki, 1993

Taiwanomyrme (as subgenus of *Smicromyrme* Thomson, 1870) Tsuneki, 1993: SPJHA 41: 44. Type species: *Smicromyrme taiwana* Tsuneki, 1993 (original designation).

basirufa (Chen, 1957) (*Trogaspidia*): Quart. J. Taiwan Mus. 10(3-4): 184, Fig. 41, ♂, ♀, type locality: "Tienmushan" (China: Zhejiang), holotype in T. Maa's coll., Taiwan. – Distribution: China: CE (Jiangxi, Zhejiang), SE (Fujian), SW (Sichuan).

friekae (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 35, ♂, type locality: "Formosa" (China: Taiwan), lectotype in Mus. Naturk. Humboldt-Univ., Berlin (designated by Mickel, 1933: 410). – Distribution: China: CE (Jiangsu, Anhui, Zhejiang), SE (Fujian, Taiwan).

discrepans (Mickel, 1933) (*Timulla*, as subspecies of *friekae*): Ann. Entomol. Soc. Amer. 26(2): 410, ♂, type locality: "Taihorinsho" (China: Taiwan), holotype in Mus. Naturk. Humboldt-Univ., Berlin. Synonymized by Chen, 1957: 183.

impressa (Chen, 1957) (*Trogaspidia*): Quart. J. Taiwan Mus. 10(3-4): 136, Figs 44, 45, ♂, type locality: "Kuling" (China: Jiangxi), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Jiangxi).

taiwana (Tsuneki, 1993) (*Smicromyrme*): SPJHA 41: 45, Figs 7-19, ♂, type locality: "Pempuchi" (China: Taiwan), holotype in Mus. Nat. Human

Activity, Hyogo. – Distribution: China: SE (Taiwan). – Remark: Probably the junior synonym of *Mutilla friekae* Zavattari, 1913.

42. Genus *Zavatilla* Tsuneki, 1993

Zavatilla (as subgenus of *Smicromyrme* Thomson, 1870) Tsuneki, 1993: SPJHA 41: 42. Type species: *Mutilla gutrunae* Zavattari, 1913 (original designation).

gutrunae (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 34, ♂, type locality: "Taihorin" (China: Taiwan), lectotype in Deutsch. Entomol. Inst., Müncheberg (designated by Mickel, 1933: 410). – Distribution: China: SE (Taiwan), CE (Zhejiang, Jiangxi), SE (Fujian).

gutrunae gutrunae (Zavattari, 1913). – Distribution: China: SE (Taiwan).

gutrunae flavotegula (Chen, 1957) (*Smicromyrme*, as subspecies of *gutrunae*): Quart. J. Taiwan Mus. 10(3-4): 184, ♂, type locality: "Kuling" (China: Jiangxi), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Zhejiang, Jiangxi), SE (Fujian).

logei (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 30, ♀, type locality: "Hoozan" (China: Taiwan), lectotype in Deutsch. Entomol. Inst., Müncheberg. **New Combination**. – Distribution: China: SE (Taiwan).

recessa (Chen, 1957) (*Smicromyrme*): Quart. J. Taiwan Mus. 10(3-4): 185, Figs 42, 43, ♂, type locality: "Kuling" (China: Jiangxi), holotype in Heude Mus., Shanghai. **New Combination**. – Distribution: China: CE (Jiangxi).

Tribe Trogaspidiini Bischoff, 1920

Trogaspidiini Bischoff, 1920: Arch. Naturgesch. 86A(1-3): 23.

Timullini (as Timulline complex) Schuster, 1947: Ann. Entomol. Soc. Amer. 39(4): 700; Krombein, 1972: Ann. mus. r. Afr. cen. 199: 1. Synonymized by Brothers, 1975: 626.

43. Genus *Eotrogaspidia* Lelej, 1996

Eotrogaspidia Lelej, 1996: Far East. entomol. 30: 21. Type species: *Mutilla auroguttata* Smith, 1855 (original designation),

amans (André, 1909) (*Mutilla*): Notes Leyden Mus. 31: 173, ♀, ♂, type locality: "Tandjong Priok" (Indonesia: Java), lectotype – ♀, in Leyden Mus.

(designated by Mickel, 1935: 236). – Distribution: Indonesia (Java, Kangean Islands), Malaysia (Perak).

amans amans (André, 1909). – Distribution: Indonesia (Java, Kangean Islands).

amans oryzae (Pagden, 1934) (*Timulla*): J. Fed. Malay States Mus. 17: 426, ♂, ♀, type locality: "Simpang Lima" (Malaysia: Perak), holotype – ♂, in Nat. Hist. Mus., London. – Distribution: Malaysia (Perak).

auroguttata (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 53, ♀, type locality: "Brasil", actually Xianggang (=Hong Kong, China). – Distribution: China: CE (Jiangsu, Zhejiang, Hunan), SE (Fujian, Guangdong, Xianggang, Hainan, Taiwan), SW (Sichuan), North Thailand. – Remark: I examined the female identified by E. Zavattari (1913b) as *Mutilla repraesentans* Smith, 1855 from China (Taiwan) [Staatl. Mus. Naturk., Stuttgart], which currently belongs to *Eotrogaspidia auroguttata* (Smith, 1855) (= *repraesantoides* Mickel, 1933).

disparilis (Mickel, 1933) (*Timulla*): Ann. Entomol. Soc. Amer. 26(2): 398, ♂, type locality: "Taihorin" (China: Taiwan), holotype in Mus. Naturk. Humboldt-Univ., Berlin. Synonymized by Lelej, 1996: 22 (teste Petersen).

repraesentoides (Mickel, 1933) (*Timulla*): Ann. Entomol. Soc. Amer. 26(2): 411, ♀, type locality: "Hoozan" (China: Taiwan), holotype in Deusch. Entomol. Inst., Müncheberg. Synonymized by Mickel, 1939: 192.

dives (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 32, ♀, type locality: "India", syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Gujarat, Bihar), Pakistan (Punjab), Iran (Sistan-Baluchistan, Hormozgan).

adscripta (Nurse, 1903) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 11: 396, ♀, type locality: "Deesa" (India, Gujarat), syntypes in Nat. Hist. Mus., London. Synonymized by Lelej, Osten, 2004: 258.

fumipennis (Bingham, 1898) (*Mutilla*): J. Bombay Nat. Hist. Soc. 12: 118, tab. A, Fig. 6, ♂, type locality: "Deesa" (India, Gujarat), Synonymized by Lelej, Osten, 2004: 258.

ekka (Nurse, 1902) (*Mutilla*): J. Bombay Nat. Hist. Soc. 14: 80, Fig. 4, ♀, type locality: "Deesa" (India, Gujarat), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: India (Gujarat).

44. Genus *Karlissaidia* Lelej, gen. n. (description see p. 193)

Type species: *Karlissaidia medvedevi* Lelej, sp. n. (designated here).

- medvedevi** Lelej, **sp. n.** (*Karlissaidia*): type locality: "Wilpattu" (Sri Lanka), holotype – ♂, in Zool. Inst., St. Petersburg. **New Species** (description and key to the related species see p. 194). – Distribution: Sri Lanka.
- nana** (Hammer, 1962) (*Trogaspidia*): Rec. Indian Mus. 58(1): 17, ♀, type locality: "Balighai near Puri" (India, Orissa), holotype in Indian Mus., Kolkata. **New Combination**. – Distribution: India (Orissa, *Tamil Nadu, *Karnataka).
- turneri** Lelej, **nom. n.** (*Karlissaidia*). New name for *Mutilla melanota* Turner, 1911. – Distribution: Sri Lanka. – Etymology: The specific name is dedicated to hymenopterist Rowland Edwards Turner (1863-1945), who studied Ceylonese Mutillidae as well.
- melanota* (Turner, 1911) (*Mutilla*): Spolia Zeylanica 7(27): 150, ♀ (nom. praeocc., non André, 1896), type locality: "Hambantota, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London.

45. Genus *Neotrogaspidia* Lelej, 1996

- Neotrogaspidia** Lelej, 1996: Far East. entomol. 30: 20. Type species: *Mutilla pustulata* Smith, 1873 (original designation).
- haemarrhoa** (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 101, ♂, type locality: "Sumbawa" (Indonesia), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Indonesia (Sumbawa, *Lombok). – Remark: Probably an opposite sex of *Neotrogaspidia serafica* (Zavattari, 1913). Three males of *N. haemarrhoa* (Zavattari, 1913) and two females of *N. serafica* (Zavattari, 1913) have been collected in Lombok [Kagoshima Univ.].
- pustulata** (Smith, 1873) (*Mutilla*): Trans. Entomol. Soc. London: 182, ♂, type locality: "Hiogo" (Japan, Honshu), holotype lost. – Distribution: Japan (Honshu, Kyushu, Tsushima, Yaku-shima, Tanegashima, Amami-oshima, Bonin Is.), Korea, China: CE (Jiangsu, Anhui, Zhejiang, Jiangxi), SE (Fujian, Guangdong, Taiwan, Hunan), SW (Sichuan).
- insidiator* (Smith, 1873) (*Mutilla*): Trans. Entomol. Soc. London: 182, ♀, type locality: "Hiogo" (Japan, Honshu), holotype in Nat. Hist. Mus., London. Synonymized under *pustulata* by Chen, 1957:164.
- insidiator* (Smith, 1874) (*Mutilla*): Trans. Entomol. Soc. London: 408, ♀, type locality: "Hiogo" (Japan, Honshu), holotype in Nat. Hist. Mus., London. Synonymized under *insidiator* Smith, 1873 by Mickel, 1935: 255.
- petulans* (Smith, 1874) (*Mutilla*): Trans. Entomol. Soc. London: 408, ♀, type locality: "Hiogo" (Japan, Honshu), holotype in Nat. Hist.

Mus., London. Synonymized under *pustulata* by Mickel, 1935: 248.

japonica (Dalla Torre, 1897) (*Mutilla*): Cat. Hymenopt. 8: 48. New name for *Mutilla insidiator* Smith, 1874. Synonymized under *insidiator* Smith, 1873 by Mickel, 1935: 255.

insidiatrix (Schulz, 1906) (*Mutilla*): Spolia Hymenopt.: 158. Nomen emendatum. Synonymized under *insidiator* Smith, 1873 by Mickel, 1935: 255.

elpinice (Mickel, 1933) (*Timulla*): Ann. Entomol. Soc. Amer. 26(2): 395, ♂, type locality: "Takao" (China: Taiwan), holotype in Mus. Naturk. Humboldt-Univ., Berlin. Synonymized under *pustulata* by Chen, 1957:164.

aestivalis (Hammer, 1949) (*Trogaspidia*): Ark. Zool. 42A(8): 8, ♂, type locality: "Kiangsu" (China: Jiangsu), holotype in Naturhist. Mus., Stockholm. Synonymized under *pustulata* by Chen, 1957:164.

serafica (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 77, ♀, type locality: "Tambora" (Indonesia: Sumbawa), lectotype in Mus. Civ. Stor. Nat., Genoa (designated by Mickel, 1935: 251). **New Combination.** – Distribution: Indonesia (Sumbawa, Solor, Ambon, *Lombok).

46. Genus *Nonveilleridia* Lelej, 1996

Nonveilleridia Lelej, 1996: Far East. entomol. 30: 20. Type species: *Mutilla bataviana* André, 1909 (original designation).

bataviana (André, 1909) (*Mutilla*): Notes Leyden Mus. 31: 177, ♂, type locality: "Java" (Indonesia), holotype in Leyden Mus. – Distribution: Indonesia (Java), South Vietnam, *Thailand.

47. Genus *Promecidia* Lelej, 1996

Promecidia Lelej, 1996: Far East. entomol. 30: 15. Type species: *Promecidia yamanei* Lelej, 1996 (original designation).

Remark: Description of hitherto unknown male and redescription of female see p. 195.

birmanica (Dalla Torre, 1897) (*Mutilla*): Cat. Hymenopt. 8: 16. New name for *Mutilla schlettereri* Magretti, 1892. **New Combination.** – Distribution: Myanmar. – Remark: Probably an opposite sex of *Promecidia ninnii* (Magretti, 1892).

schlettereri (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 230, tab. 5, Fig. 19, ♂ (nom. praeocc., non Morawitz,

1890), type locality: "Carin-Cheba" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. Synonymized by Dalla Torre, 1897: 16.

- bonthainensis** (André, 1896) (*Mutilla*): Termeszet. Fuzetek 19: 14, ♂, type locality: "Bonthain" (Indonesia: Celebes), holotype in Hung. National Mus., Budapest. **New Combination**. – Distribution: Indonesia (Celebes).
- mambli** (Cameron, 1902) (*Mutilla*): J. Straits Br. Roy. Asiat. Soc. 37: 79, ♀, type locality: "Kuching" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sabah, Sarawak, Perak).
- ninnii** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 211, ♀, type locality: "Carin-Cheba" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar, *Vietnam, *Laos, *India (Assam).
- rubrocyanea** (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 256, ♂, type locality: "Bettotan near Sandakan" (Malaysia: Sabah), holotype in Univ. Minnesota, St. Paul. **New Combination**. – Distribution: Malaysia (Sabah).
- saturnia** (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 256, ♂, type locality: "Mt. Ophir" (Malaysia: Melaka), holotype in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Malaysia (Malay Peninsula, Sabah, Sarawak), Singapore.
- saturnia saturnia** (Mickel, 1935) (*Timulla*, as subspecies of *saturnia*). – Distribution: Malaysia (Malay Peninsula), Singapore.
- saturnia samawangensis** (Mickel, 1935) (*Timulla*, as subspecies of *saturnia*): Trans. Roy. Entomol. Soc. London 83(2): 256, ♂, type locality: "Samawang near Sandakan" (Malaysia: Sabah), holotype in Univ. Minnesota, St. Paul. **New Combination**. – Distribution: Malaysia (Sabah, Sarawak).
- yamanei** Lelej, 1996 (*Promecidia*): Far East. entomol. 30: 15, type locality: "Miri Lambir" (Malaysia: Sarawak), holotype in Kagoshima Univ. – Distribution: Malaysia (Sarawak). – Remark: Probably an opposite sex of *Promecidia rubrocyanea* (Mickel, 1935).

48. Genus *Protrogaspidia* Lelej, 1996

Protrogaspidia Lelej, 1996: Far East. entomol. 30: 18. Type species: *Mutilla volatilis* Smith, 1858 (original designation).

- celebensis** (André, 1905) (*Mutilla*): Zeit. Hymen. Dipt. 5: 215, 265, ♂, ♀, type locality: "Bua-kraeng" (Indonesia: Celebes), lectotype – ♂, in Hung. National Mus., Budapest (designated by Mickel, 1935: 266). **New Combination**. – Distribution: Indonesia (Celebes).

- volatilis** (Smith, 1858) (*Mutilla*): J. Proc. linn. Soc., Zool. 3: 9, ♂, type locality: "Celebes" (Indonesia), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Indonesia (Celebes).
- maura* (Smith, 1860) (*Mutilla*): J. Proc. linn. Soc., Zool. 5: 75, ♂ (nom. praeocc., non Linnaeus, 1758), type locality: "Celebes" (Indonesia), holotype in Mus. Nat. Hist., Oxford Univ. Synonymized by Mickel, 1935: 266.
- mariae* (Dalla Torre, 1897) (*Mutilla*): Cat. Hymenopt. 8: 57, ♂. New name for *Mutilla maura* Smith, 1860. Synonymized by Mickel, 1935: 266.

49. Genus *Radoszkowskius* Ashmead, 1903

Radoszkowskius Ashmead, 1903: Can. Entomol. 35: 328. Type species: *Mutilla simplicifascia* Sichel et Radoszkowski, 1870, ♀ non ♂, junior synonym of *Mutilla merops* Smith, 1860 (original designation).

Remark: *Radoszkowskius* is masculine gender and ending of specific name changed if necessary. In spite of that male of *humbertianus* group differs from other species by having another genitalia shape, by having projection on metasomal tergum 7 and hypostomal bridge but male mandible shape and female pygidial area sculpture are the same as in other species.

- aeruginosus** (Hammer, 1962) (*Trogaspidia aeruginosa*): Rec. Indian Mus. 58(1): 19, ♂, type locality: "Singla, Darjiling" (India, Bangla), holotype in Indian Mus., Kolikata. **New Combination.** – Distribution: India (Sikkim, Bangla). – Remark: Similar with the male of [*Radoszkowskius*] *sexmaculatus* (Swederus, 1787) (Hammer, 1962).
- cona** (Cameron, 1899) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 4: 60, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: India (Bangla).
- conversus** (Chen, 1957) (*Trogaspidia conversa*): Quart. J. Taiwan Mus. 10(3-4): 165, Figs 15, 16, ♂, type locality: "Shanghai" (China), holotype in Heude Mus., Shanghai. – Distribution: China: NO (Shanghai, Anhui), SE (Fujian, Taiwan).
- humbertianus** (Saussure, 1867) (*Mutilla humbertiana*): Ann. Soc. Entomol. France 7: 353, tab. 8, fig. 2, ♀, type locality: "Trincomali" (Sri Lanka), syntypes in Naturhist. Mus., Vienna. **New Combination.** – Distribution: Sri Lanka, South India.
- itambusa** (Cockerell, 1927) (*Trogaspidia*): Philipp. J. Sci. 33: 275, ♂, type locality: "Lucban" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon).

- kangeanus** (Pagden, 1949) (*Timulla kangeana*, as subspecies of *philippinensis*): Trans. Roy. Entomol. Soc. London 100(8): 214, ♂, ♀, type locality: "Kangean IIs." (Indonesia), holotype – ♂, in Nat. Hist. Mus., London. – Distribution: Indonesia (Kangean IIs.).
- laratensis** (Mickel, 1935) (*Timulla*, as subspecies of *vicina*): Trans. Roy. Entomol. Soc. London 83(2): 252, ♀, type locality: "Larat Il." (Indonesia), holotype in Univ. Minnesota, St. Paul. – Distribution: Indonesia (Larat).
- leytensis** (Tsuneki, 1993) (*Trogaspidia*): SPJHA 41: 28, Figs 93-99, ♂, type locality: "Lake Imerda" (Philippines: Leyte), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Leyte).
- mandersi** (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 70, ♀, type locality: "Shan States" (Myanmar), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: North Myanmar, India (Meghalaya).
- antera* (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 3, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. Synonymized by O'Toole, 1975: 234.
- empirica* (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 1, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. Synonymized by O'Toole, 1975: 234.
- melmorus** (Cameron, 1905) (*Mutilla melmora*): Tijdschr. Entomol. 48: 49, ♀, type locality: "Ardjuno" (Indonesia: Java), holotype in Zool. Mus., Amsterdam, – Distribution: Indonesia (Java, Sumatra, Krakatau, Kalimantan).
- javanica* (Cameron, 1905) (*Mutilla*): Tijdschr. Entomol. 48: 48, ♀ (nom. praeocc., non Dalla Torre, 1897), type locality: "Ardjuno" (Indonesia: Java), holotype in Zool. Mus., Amsterdam. Synonymized by O'Toole, 1975: 236.
- cameroni* (Schulz, 1906) (*Mutilla*): Spolia Hymenopt.: 158. New name for *Mutilla javanica* Cameron, 1905. Synonymized by O'Toole, 1975: 236.
- sunda* (Mickel, 1935) (*Timulla*, as subspecies of *philippinensis*): Trans. Roy. Entomol. Soc. London 83(2): 229, ♂, type locality: "Java" (Indonesia), holotype in Cornell Univ., Ithaca, New York. Synonymized by O'Toole, 1975: 236.
- merops** (Smith, 1860) (*Mutilla*): J. Proc. linn. Soc., Zool. 5: 115, ♀ non ♂, type locality: "Bachian" (Indonesia: Bacan), lectotype – ♀, in Mus. Nat. Hist., Oxford Univ. (designated by Mickel, 1935: 250). – Distribution: Indonesia (North Moluccas).

- simplicifascia* (Sichel et Radoszkowski, 1870) (*Mutilla*): Horae Soc. Entomol. Ross. 6(4): 192, Fig. 3, ♀ non ♂, type locality: "Gilolo" (Indonesia: Halmahera Il.), lectotype – ♀ in Mus. National d'Hist. Nat., Paris (designated by Mickel, 1935: 204). **New Synonymy.**
- oculatus** (Fabricius, 1804) (*Mutilla oculata*): Systema piezatorum: 432, ♀, type locality: "China", holotype in Zool. Mus., Copenhagen Univ. – Distribution: China: NO (Beijing), CE (Jiangsu, Jiangxi, Zhejiang, Hunan), SE (Fujian, Guangdong, Xianggang, Taiwan, Hainan), SW (Yunnan), Vietnam, Laos, Thailand, Myanmar, Cambodia, Malaysia (Malay Peninsula).
- novarae* (Saussure, 1867) (*Mutilla*): Reise der Nowara (Zool.) 2: 106, fig. 63, ♀, type locality: "Hong Kong" (Xianggang, China), holotype in Naturhist. Mus., Vienna. Synonymized by Mickel, 1933: 308.
- malayana* (Cameron, 1901) (*Mutilla*): Proc. zool. Soc. London 2(2): 16, ♂, type locality: "Bukit Besar" (Malaysia: Kedah), holotype in Nat. Hist. Mus., London. Synonymized by O'Toole, 1975: 232.
- skeati* (Cameron, 1901) (*Mutilla*): Proc. zool. Soc. London 2(2): 17, ♀, type locality: "Kuala Aring" (Malaysia: Kelantan), holotype in Nat. Hist. Mus., London. Synonymized by O'Toole, 1975: 232.
- amartana* (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 28, ♂, type locality: "Taihanroku" (China: Taiwan), lectotype in Mus. Naturk. Humboldt-Univ., Berlin (designated by Mickel, 1933: 391). Synonymized by Hammer, 1949: 4.
- opulentus** (Smith, 1855) (*Mutilla opulenta*): Cat. Hymenopt. Brit. Mus. 3: 34, ♂, type locality: "India", syntypes in Nat. Hist. Mus., London. **New Combination.** – Distribution: India, Sri Lanka.
- paloeanus** (Pagden, 1949) (*Timulla paloeana*, as subspecies of *philippinensis*): Trans. Roy. Entomol. Soc. London 100(8): 215, ♂, ♀, type locality: "Paloe" (Indonesia: West Celebes), holotype – ♂, in Rijksmus. Natuur. Hist., Leiden. – Distribution: Indonesia (Celebes).
- philippinensis** (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 40, ♀, type locality: "Philippine Islands" (Philippines), holotype in Nat. Hist. Mus., London. – Distribution: Philippines (Luzon, Polillo, Cebu, Negros, Panay, Mindanao, Mindoro, Balabac, Palawan), Indonesia (Kalimantan Timur).
- accedens* (Sichel et Radoszkowski, 1870) (*Mutilla*): Horae Soc. Entomol. Ross. 6(4): 227, ♀, type locality: "Manila" (Philippines), syntypes in Mus. Naturk. Humboldt-Univ., Berlin and Inst. Syst. Exper. Zool., Krakow. Synonymized by Mickel, 1934: 147.
- bicolor* (Ashmead, 1905) (*Trogaspidia*): Proc. U.S. Nat. Mus. 28: 962, ♂, type locality: "Philippines", holotype in National Mus. Nat. Hist., Washington, D.C. Synonymized by Mickel, 1934: 147.

- williamsi* (Mickel, 1934) (*Timulla*, as subspecies of *philippinensis*): Philipp. J. Sci. 54(1): 149, ♀, type locality: "Los Banos" (Philippines: Luzon), holotype in Univ. Minnesota, St. Paul. Synonymized by O'Toole, 1975: 238.
- quadricarinatus** (Cameron, 1900) (*Mutilla quadricarinata*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 51, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Bangla).
- retinulus** (Chen, 1957) (*Trogaspidia retinula*): Quart. J. Taiwan Mus. 10(3-4): 174, ♀, type locality: "Taipei" (China: Taiwan), holotype in Taiwan Agric. Res. Inst., Taipei. **New Combination**. – Distribution: China: CE (Shanghai), SE (Fujian, Taiwan). – Remark: Probably an opposite sex of *Radoszkowskius conversus* (Chen, 1957).
- rosemariae** (O'Toole, 1975) (*Timulla*, as subspecies of *oculata*): Zool. scr. 4: 240, ♂, ♀, type locality: "Lombok" (Indonesia), holotype – ♂, in Mus. Naturk. Humboldt-Univ., Berlin. – Distribution: Indonesia: Lesser Sunda IIs. (Soembava, Lombok, Flores).
- sexmaculatus** (Swederus, 1787) (*Mutilla sexmaculata*): Vetensk. Acad. nya Handl., 8: 286, ♀, type locality: "Bengal" (India: ? Bangla), syntypes unknown. **New Combination**. – Distribution: India (Uttar Pradesh, Madhya Pradesh, Bangla, Bihar, Orissa, Kerala), *Nepal, Bangladesh, Pakistan (Punjab).
- singaporus** (Mickel, 1935) (*Timulla singapora*, as subspecies of *philippinensis*): Trans. Roy. Entomol. Soc. London 83(2): 229, ♂, type locality: "Singapore", holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Malaysia (Kuala Lumpur), Singapore.
- sumbanus** (Pagden, 1949) (*Timulla sumbana*, as subspecies of *philippinensis*): Trans. Roy. Entomol. Soc. London 100(8): 216, ♀, type locality: "Mao Marroe" (Indonesia: Sumba), holotype in Rijksmus. Natuur. Hist., Leiden. – Distribution: Indonesia (Sumba).
- timorensis** (O'Toole, 1975) (*Timulla*, as subspecies of *oculata*): Zool. scr. 4: 242, ♂, ♀, type locality: "Timor" (Indonesia or East Timor), holotype – ♂, in Nat. Hist. Mus., London. – Distribution: Indonesia (Timor), East Timor.
- vicinus** (Sichel et Radoszkowski, 1870) (*Mutilla vicina*): Horae Soc. Entomol. Ross. 6(4): 228, ♀, type locality: "Amboina" (Indonesia: Ambon), lectotype in Mus. Naturk. Humboldt-Univ., Berlin (designated by Mickel, 1935: 251). – Distribution: Indonesia (Ambon), India (Uttar Pradesh). – Remark: Male described by O'Toole (1975). Recorded from India by André, 1894.

50. *Serendibiella* Lelej, gen. n. (description see p. 197)

Type species: *Mutilla trunconomalica* Radoszkowski, 1885 (designated here).

trunconomalica (Radoszkowski, 1885) (*Mutilla*): Horae Soc. Entomol. Ross. 19(1/2): 26, 49, Fig. 27, ♂, type locality: "Trunconomalie" (incorrect spelling of Trincomalee, Sri Lanka), holotype in Inst. Syst. Exper. Zool., Krakow. **New Combination.** – Distribution: Sri Lanka. – Remark: In spite of incorrect spelling of type locality I choose here from two spellings of specific name: *Mutilla trunconomalica* (p. 26) and *M. truncomalica* (p. 49) (Radoszkowski, 1885) the name *trunconomalica* already used (Dalla Torre, 1897; André, 1899, 1903).

[Genus *Timulla* Ashmead, 1899]

Timulla Ashmead, 1899: J. N. Y. Entomol. Soc. 7: 55. Type species: *Mutilla dubitata* Smith, 1855 (original designation). [Not Oriental.]

[**rufogastra** (Lepeletier, 1845) (*Mutilla*): Hist. Nat. Ins., Hymenopt. 3: 629, ♂, type locality: unknown, actually South America (Mickel, 1938: 598). – Distribution: Central and South America.]

rufogastra (non Lepeletier, 1845): Smith, 1855 (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 36, ♂. – Remark: Recorded under this name from Nepal, China (Smith, 1855).

51. Genus *Trispilotilla* Bischoff, 1920

Trispilotilla Bischoff, 1920: Arch. Naturgesch. 86A(1-3): 24, 27. Type species: *Mutilla africana* André, 1894 (original designation). [Not Oriental.]

indostana (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 33, ♂, type locality: "Madras" (India: Tamil Nadu), syntypes in Nat. Hist. Mus., London. **New Combination.** – Distribution: India (Tamil Nadu, Orissa), Sri Lanka.

kauthellae (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 119, 124, ♀, type locality: "Kauthella, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. **New Synonymy.**

52. Genus *Trogaspidia* Ashmead, 1899

Trogaspidia Ashmead, 1899: J. N. Y. Entomol. Soc. 7: 58. Type species: *Mutilla medon* Smith, 1855 (original designation). [Not Oriental.]

Timulla (non Ashmead, 1899): Mickel, 1933d: 388; 1934: 143; 1935: 218.

Remark: The genus *Trogaspidia* includes subgenera *Acutitropidia* Nonveiller, 1995, *Arcuatotropidia* Nonveiller, 1995, *Chilotropidia* Nonveiller, 1995, *Inflatispidia* Nonveiller, 1995, *Lobotropidia* Nonveiller, 1995, and nomenclotypal proposed for Afrotropical species (Nonveiller, 1995a). Some of them acceptable for Oriental species as well. *Trogaspidia* is most abundant genus in Oriental region and its species are not revised still. I included in this genus 123 species without subgeneric classification.

[**aestuans** (Gerstaecker, 1858) (*Mutilla*): Monatsber. akad. wiss. Berlin: 511, ♀, type locality: Inhambane (Mozambique), syntypes in Mus. Naturk. Humboldt-Univ., Berlin. – Distribution: Mozambique, South Africa.]

aestuans (non Gerstaecker, 1857): Cameron, 1892 (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 116. – Remark: Recorded under this name from Sri Lanka (Cameron, 1892).

agapeta (Cameron, 1902) (*Mutilla*): J. Straits Br. Roy. Asiat. Soc. 37: 77, ♂, type locality: "Borneo", holotype in Nat. Hist. Mus., London. **New Combination**. – Distribution: Malaysia (Borneo), Indonesia (Sumatra).

agelia (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 29, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).

albertisi (André, 1896) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 17: 70, ♀, type locality: "Fly River" (New Guinea), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Indonesia (Aru), New Guinea.

nigra (Smith, 1859) (*Mutilla*): J. Proc. linn. Soc., Zool. 3: 151, ♂ (nom. praeocc., non Rossi, 1792), type locality: "Aru IIs." (Indonesia), holotype in Mus. Nat. Hist., Oxford Univ. Synonymized by Krombein, 1971: 48.

wallacei (Cockerell, 1907) (*Mutilla*): Entomologist 40: 50, ♂. New name for *Mutilla nigra* Smith, 1859. Synonymized by Krombein, 1971: 48.

albibrunnea Chen, 1957 (*Trogaspidia*): Quart. J. Taiwan Mus. 10(3-4): 175, ♀, type locality: "Hong Kong" (Xianggang, China), holotype in Taiwan Agric. Res. Inst., Taipei. – Distribution: China: SE (Taiwan, Xianggang).

- aliena** Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 28, ♂, type locality: "Mergui" (Lower Myanmar), holotype in Indian Mus., Kolkata. – Distribution: Lower Myanmar.
- analis** (Lepeletier, 1845) (*Mutilla*): Hist. Nat. Ins., Hymenopt. 3: 360, ♂, type locality: "Indo-Orientalis", holotype in Spinola coll., Mus. Reg. Sci. Nat., Turin. **New Combination**. – Distribution: India, Sri Lanka. – Remark: Distributed in India only (Mickel, 1935). Recorded from Sri Lanka by E. André (1907a). I examined the male identified by E. Zavattari (1913b) as *Mutilla analis* Lepeletier, 1845 from China (Taiwan) [Staatl. Mus. Naturk., Stuttgart], which currently belongs to *Trogaspidia formosana* (Matsumura, 1911) (= *denotata* Mickel, 1933).
- andamana** Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 26, ♀, type locality: "Port Blair, Andaman" (India), holotype in Indian Mus., Kolkata. – Distribution: India (Andaman Islands).
- anthylla** (Smith, 1860) (*Mutilla*): J. Proc. linn. Soc., Zool. 5: 115, ♂, type locality: "Bachian" (Indonesia, Bacan), holotype in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Indonesia (Bacan).
- arciformis** Chen, 1957 (*Trogaspidia*): Quart. J. Taiwan Mus. 10(3-4): 173, ♀, type locality: "Ouyuen" (China: Anhui), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Zhejiang, Anhui).
- artaxa** (Cameron, 1904) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 13: 280, ♂, type locality: "Simla" (India: Himachal Pradesh), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Himachal Pradesh).
- aulica** (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 37, ♀, type locality: "Northern India", syntypes in Nat. Hist. Mus., London. – Distribution: India (Northern, Maharashtra). **New Combination**. – Remark: Recorded from Sri Lanka by Bingham (1897).
- aureotaeniata** Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 24, ♂, type locality: "N[orth] Kanara" (India, Karnataka), holotype in Indian Mus., Kolkata. – Distribution: India (Karnataka).
- aurifrons** (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 31, ♀, type locality: "India", syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India.
- bakeri** (Mickel, 1934) (*Timulla*): Philipp. J. Sci. 54(1): 168, ♂, type locality: "Kolambugan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Samar, Mindanao, Basilan).
- bangla** Lelej, **nom. n.** (*Trogaspidia*). New name for *Mutilla bengalensis* Lepeletier, 1845. – Distribution: India (Bangla). – Etymology: The

specific name is a noun Bangla, the state of India where the species is distributed.

bengalensis (Lepelletier, 1845) (*Mutilla*): Hist. Nat. Ins., Hymenopt. 3: 637, ♀ (nom. praeocc., non Megerle, 1802), type locality: "Bengal" (India: ? Bangla), holotype in coll. Spinola, Mus. Reg. Sci. Nat., Turin.

bicincta (Saussure, 1867) (*Mutilla*): Ann. Soc. Entomol. France 7: 355, tab. 8, fig. 4, ♀, type locality: "Paradinia, Trincomalee" (Sri Lanka), syntypes in Naturhist. Mus., Vienna. **New Combination**. – Distribution: Sri Lanka.

bidens (Cameron, 1899) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 4: 59, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).

bilobata Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 31, Fig. c, ♀, type locality: "Pashok, Darjiling" (India, Bangla), holotype in Indian Mus., Kolikata. – Distribution: India (Bangla).

boniensis (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 242, ♂, type locality: "Makassar" (Indonesia: Celebes), holotype in Univ. Minnesota, St. Paul. **New Combination**. – Distribution: Indonesia (Celebes).

brothersi Lelej, **nom. n.** (*Trogaspidia*). New name for *Mutilla serena* Cameron, 1900. – Distribution: India (Bangla). – Etymology: The specific name is dedicated to my colleague, hymenopterist Denis Brothers.

serena (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 63, ♂ (nom. praeocc., non Gerstaecker, 1874), type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ.

bryanti (Mickel, 1937) (*Timulla*): Ann. Mag. Nat. Hist., ser. 10, 19: 446, ♀, type locality: "Mt. Matang" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London. **New Combination**. – Distribution: Malaysia (Sarawak).

caliginosa Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 18, ♀, type locality: "Calcutta" (India: Bangla), holotype in Indian Mus., Kolikata. – Distribution: India (Bangla).

cara (Cameron, 1899) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 4: 66, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: India (Bangla).

castellana (Mercet, 1903) (*Mutilla*): Bol. Soc. Esp. Hist. Nat. 3: 173, ♀, type locality: "Madrid", actually Luzon (Philippines), holotype in Inst. Esp. Entomol., Madrid. – Distribution: Philippines (Luzon, Mindanao, Polillo, Samar, Biliran, Basilan, Palawan, Panay, Batbatan, Sibuyan, Negros, Cebu), Malaysia (Sabah, Sarawak).

- castellana castellana** (Mercet, 1903). – Distribution: Philippines (Luzon). – Host: *Tiphia lucida* Crawford, 1910 (Hymenoptera: Tiphidae) (Mickel, 1934), *Campsomeris annulata* (Fabricius, 1793), *C. asiatica* (Saussure, 1858), *C. aureicollis* Lepeletier, 1845, *C. aurlenta* (Smith, 1855), *C. luctuosa* (Smith, 1855), *C. marginella modesta* (Smith, 1855), *C. reticulata* (Cameron, 1892), *Liacos analis* (Fabricius, 1804), *Scolia scutellaris* (Gribodo, 1893) (Hymenoptera: Scoliidae), *Tiphia segregata* Crawford, 1910 (Hymenoptera: Tiphidae) (Thompson, 1944; Baltazar, 1966).
- minor* Ashmead, 1905 (*Trogaspidia*): Proc. U.S. Nat. Mus. 28: 963, ♂, type locality: "Manila" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. Synonymized under *castellana* by Suárez, 1969: 122.
- browni* (Rohwer, 1910) (*Mutilla*): Proc. U.S. Nat. Mus. 37: 658, ♀, type locality: "Luzon" (Philippines), holotype in National Mus. Nat. Hist., Washington, D.C. Synonymized under *minor* by Mickel, 1934: 150.
- castellana islandica** (Mickel, 1934) (*Timulla*, as subspecies of *minor*): Philipp. J. Sci. 54(1): 155, ♀, ♂, type locality: "Surigao" (Philippines: Mindanao), holotype – ♂, in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Samar, Biliran, Mindanao, Basilan).
- castellana princesa** (Mickel, 1934) (*Timulla*, as subspecies of *minor*): Philipp. J. Sci. 54(1): 156, ♂, type locality: "Puerto Princesa" (Philippines: Palawan), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Palawan).
- castellana tayabasensis** (Mickel, 1934) (*Timulla*, as subspecies of *minor*): Philipp. J. Sci. 54(1): 152, ♂, type locality: "Polillo" (Philippines), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon, Polillo).
- castellana visayensis** (Mickel, 1934) (*Timulla*, as subspecies of *minor*): Philipp. J. Sci. 54(1): 153, ♂, ♀, type locality: "Panay" (Philippines), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Panay, Batbatan, Sibuyan, Negros, Cebu). – Host: *Scolia* sp. (Hymenoptera: Scoliidae) (Lopez, 1931).
- castellana whiteheadi** (Mickel, 1934) (*Timulla*, as subspecies of *minor*): Philipp. J. Sci. 54(1): 152, ♂, type locality: "Cape Engano" (Philippines: Luzon), holotype in Nat. Hist. Mus., London. – Distribution: Philippines (Luzon).
- castellana sandakanensis** (Mickel, 1935) (*Timulla*, as subspecies of *minor*): Trans. Roy. Entomol. Soc. London 83(2): 233, ♀, ♂, type locality: "Kudat" (Malaysia: Sabah), holotype – ♂, in Nat. Hist. Mus., London. – Distribution: Malaysia (Sabah, Sarawak).

- chiaiensis** Tsuneki, 1993 (*Trogaspidia*): SPJHA 41: 49, Fig. 1, ♀, type locality: "Chuchi" (China: Taiwan), holotype in Mus. Nat. Human Activity, Hyogo. – Distribution: China: SE (Taiwan).
- chota** (Nurse, 1902) (*Mutilla*): J. Bombay Nat. Hist. Soc. 14: 80, Fig. 3, ♀, type locality: "Simla" (India, Himachal Pradesh), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: India (Himachal Pradesh).
- chrysophthalma* (non Klug, 1829): Sichel, Radoszkowski, 1870 (*Mutilla*): Horae Soc. Entomol. Ross. 6(4): 232, ♀. – Remark: Recorded under this name from Sri Lanka (Sichel, Radoszkowski, 1870). *Macromyrme chrysophthalma* (Klug, 1829), **comb. n.** is distributed in Yemen (Klug, 1829; André, 1899-1903).
- cleonyma** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 64, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).
- cressida** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 52, ♂, type locality: "Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Sri Lanka.
- cunjugata** Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 14, ♀, ♂, type locality: "Siripur, Saran" (India, Bihar), holotype – ♀, in Indian Mus., Kolkata. – Distribution: India (Bihar).
- cydippe** (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 239, ♂, type locality: "Pontianak" (Indonesia: Kalimantan Barat), holotype in Univ. Minnesota, St. Paul. – Distribution: Malaysia (Sarawak), Indonesia (Kalimantan Barat). – Remark: Probably the junior synonym of *Trogaspidia agapeta* (Cameron, 1902).
- depressula** (Mickel, 1934) (*Timulla*): Philipp. J. Sci. 54(1): 166, ♂, type locality: "Mt. Makiling" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Luzon).
- dissimilanda** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 219, tab. 5, Fig. 8, ♀, type locality: "Carin-Cheba" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar. – Remark: The female of this species has not pale spots or band on basal half of metasomal tergum 2.
- [**doricha** (Smith, 1860) (*Mutilla*): J. Proc. linn. Soc., Zool. 5: 116, ♀, type locality: "Dory" (New Guinea), holotype in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: New Guinea.
- lalokia* (Mickel, 1935) (*Timulla*, as subspecies of *wallacei*): Trans. Roy. Entomol. Soc. London 83(2): 231, ♂, type locality: "Laloki" (New

- Guinea), holotype in Univ. Minnesota, St. Paul. Synonymized by Krombein, 1971: 46.]
- dryta** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 31, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).
- emancipata** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 39, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).
- emergenda** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 222, tab. 5, Fig. 25, ♂, type locality: "Schwegoo" (Upper Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar.
- emeryi** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 225, tab. 5, Fig. 23, ♂, type locality: "Bhamo" (Upper Myanmar), syntypes in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar.
- eremita** (Mickel, 1934) (*Timulla*): Philipp. J. Sci. 54(1): 156, ♂, ♀, type locality: "Tangcolan" (Philippines: Mindanao), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Luzon, Samar, Biliran, Negros, Panay, Mindanao, Basilan, Polillo).
- eremita eremita** (Mickel, 1934) (*Timulla*, as subspecies of *eremita*). – Distribution: Philippines (Luzon, Samar, Biliran, Negros, Panay, Mindanao, Basilan).
- eremita umbra** (Mickel, 1934) (*Timulla*, as subspecies of *eremita*): Philipp. J. Sci. 54(1): 161, ♂, ♀, type locality: "Mt. Manahao" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Philippines (Luzon, Polillo).
- erxia** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 74, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).
- erythrocerca** (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 118, 131, ♀, type locality: "Poona" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: India (Maharashtra, Karnataka).
- exilis** (Smith, 1859) (*Mutilla*): J. Proc. linn. Soc., Zool. 3: 151, ♂, type locality: "Kei Il." (Indonesia), holotype in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Indonesia (Kei IIs, Ambon).

- fae** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 210, tab. 5, Fig. 7, ♀, type locality: "Bhamo" (Upper Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination.** – Distribution: Upper Myanmar.
- fervida** (Smith, 1860) (*Mutilla*): J. Proc. linn. Soc., Zool. 5: 76, ♂, ♀, type locality: "Celebes" (Indonesia), holotype – ♀, in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: Indonesia (Celebes).
- fianna** (Cameron, 1899) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 4: 65, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: India (Bangla).
- fimbriata** Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 29, Fig. a, ♂, type locality: "Margherita" (Lower Myanmar), holotype in Indian Mus., Kolkata. – Distribution: Lower Myanmar.
- formosana** (Matsumura, 1911) (*Mutilla*): Thousand Ins. Japan, Suppl. 3: 140, tab. 16, Fig. 14, ♀, type locality: "Formosa" (China: Taiwan), lectotype "Formosa, Matsumura / 11.VII 1906, Ako" in Hokkaido Univ. Museum, Sapporo (designated here, in order to ensure the name's proper and consistent use). – Distribution: China: SE (Taiwan, *Guangdong), SW (*Yunnan), *Vietnam. – Remark: I examined the male identified by E. Zavattari (1913b) as *Mutilla analis* Lepeletier, 1845 from China (Taiwan) [Staatl. Mus. Naturk., Stuttgart], which currently belongs to *Trogaspidia formosana* (Matsumura, 1911) (= *denotata* Mickel, 1933).
- denotata* (Mickel, 1933) (*Timulla*): Ann. Entomol. Soc. Amer. 26(2): 400, ♂, type locality: "Formosa" (China: Taiwan), holotype in Mus. Naturk. Humboldt-Univ., Berlin. Synonymized by Chen, 1957: 170.
- fortinata** (Cameron, 1899) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 4: 63, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: India (Bangla). – Remark: Recorded from Sri Lanka by E. André (1903).
- foveiscutis** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 49, ♂, type locality: "Poona" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. **New Combination.** – Distribution: India (Maharashtra).
- funebra** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 61, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: India (Bangla).
- fuscipennis** (Fabricius, 1804) (*Mutilla*): Systema piezatorum: 436, ♂, type locality: "China", lectotype in Zool. Mus., Univ. Copenhagen, desig-

nated by Mickel, 1933: 306. – Distribution: China: NO (Hebei), CE (Jiangsu, Anhui, Zhejiang), SE (Fujian, Guangdong, Taiwan).
– Remark: Distributed in China only (Mickel, 1933).

fuscipennis fuscipennis (Fabricius, 1804). – Distribution: China: NO (Hebei), CE (Jiangsu, Anhui, Zhejiang), SE (Fujian, Guangdong).

fuscipennis concava (Mickel, 1933) (*Timulla concava*): Ann. Entomol. Soc. Amer. 26(2): 402, ♂, type locality: "Kagi" (China: Taiwan), holotype in Mus. Naturk. Humboldt-Univ., Berlin. – Distribution: China: SE (Taiwan).

gnatia (Cameron, 1904) (*Mutilla*): Zeit. Hymen. Dipt. 4(1-6): 7, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Meghalaya).

greeni Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 9, ♀, type locality: "Peradenyia" (Sri Lanka), holotype in Indian Mus., Kollikata. – Distribution: Sri Lanka.

hoffmanni (Mickel, 1933) (*Timulla*): Lingnan Sci. J. 12(3): 312, ♂, type locality: "Hainan" (China), holotype in Univ. Minnesota, St. Paul. – Distribution: China: CE (Jiangsu), SE (Fujian, Hainan).

ianthea (Smith, 1860) (*Mutilla*): J. Proc. linn. Soc., Zool. 5: 115, ♂, ♀, type locality: "Bachian" (Indonesia: Bacan), holotype – ♀, in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Indonesia (Halmahera Il., Ceram, Ambon).

ianthea ianthea (Smith, 1860). – Distribution: Indonesia (Halmahera Il.).

janthea Kohl, 1882 (*Mutilla*): Verh. zool.-bot. Ges. Wien 32: 478. Lapsus calami.

ianthea rubiginosa (André, 1896) (*Mutilla*): Termesztet. Fuzetek 19: 16, ♂, type locality: "Ceram" (Indonesia), holotype in Hung. National Mus., Budapest. **New Combination**. – Distribution: Indonesia (Ceram, Ambon).

idyia (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 55, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).

implicata (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 238, ♀, type locality: "Gorontalo" (Indonesia: Celebes), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Indonesia (Celebes).

indagatrix (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 237, ♂, type locality: "Amboina" (Indonesia, Ambon), holotype in Univ. Minnesota, St. Paul. **New Combination**. – Distribution: Indonesia (Ambon, Celebes).

indagatrix indagatrix (Mickel, 1935). – Distribution: Indonesia (Ambon).

- indagatrix menadoensis** (Mickel, 1935) (*Timulla*, as subspecies of *indagatrix*): Trans. Roy. Entomol. Soc. London 83(2): 238, ♂, type locality: "Gorontalo" (Indonesia: Celebes), holotype in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Indonesia (Celebes).
- indefensa** (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 62, ♂, type locality: "Bombay District" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. **New Combination**. – Distribution: India (Maharashtra, Uttar Pradesh).
- indefrusa* (Bingham, 1908) (*Mutilla*): Rec. Indian Mus. 2: 350, ♂. Not valid emendation according to article 33.3 of ICZN.
- inoa** (Cameron, 1904) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 13: 279, ♂, type locality: "Northern India", syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Northern India.
- intermedia** (Saussure, 1867) (*Mutilla*): Ann. Soc. Entomol. France 7: 354, ♀, type locality: "Ceylon" (Sri Lanka), holotype in Naturhist. Mus., Vienna. **New Combination**. – Distribution: Sri Lanka, South India.
- erythrocephala* (Fabricius, 1793) (*Mutilla*): Entomol. Syst. II: 371, N 24 (nom. praecoc., non Latreille, 1792), type locality: "in America meridionali", actually Sri Lanka, holotype in Zool. Mus., Univ. Copenhagen. Synonymized under *intermedia* by Bischoff, 1931: 92.
- aureotrifasciata* (Sichel et Radoszkowski, 1869) (*Mutilla*): Horae Soc. Entomol. Ross. 6(3): 168. New name for *Mutilla erythrocephala* Fabricius, 1793. Synonymized under *intermedia* by Bischoff, 1931: 92.
- simplicata* (Cameron, 1898) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 42(11): 5, ♀, type locality: "Mahaganay, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. **New Synonymy**.
- amitina* (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 26, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. **New Synonymy**.
- interrupta* (non Olivier, 1811): Bingham, 1897 (*Mutilla*): Fauna Brit. India 1: 14, ♀. – Remark: Recorded under this name from India, Myanmar, China (Bingham, 1897, 1908) and Sri Lanka (Wickwar, 1908). *Mutilla interrupta* Olivier, 1811 (type locality "se trouve en Arabie" is a synonym of Afrotropical *Trogaspidia floralis* (Klug, 1829), which is distributed in North Africa and South Arabia as well (Nonveiller, Petersen, 1995).
- iphis** (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 234, ♂, type locality: "Pekalongan" (Indonesia: Java), holotype in Univ.

- Minnesota, St. Paul. **New Combination**. – Distribution: Indonesia (Java).
- kauarae** (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 119, 134, fig. 11, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Karnataka, Tamil Nadu, Kerala), Sri Lanka.
- kinabalensis** Tsuneki, 1972 (*Trogaspidia*): Life Study 16(1-2): 17, Figs 1-11, ♂, type locality: "Mt. Kinabalu" (Malaysia: Sabah), holotype in Osaka City Mus. Nat. Hist. – Distribution: Malaysia (Sabah).
- kolabensis** (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 465, 475, ♀, type locality: "Kolaba" (India: Maharashtra), holotype in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: India (Maharashtra).
- kolthoffi** Hammer, 1949 (*Trogaspidia*): Ark. Zool. 42A(8): 6, ♀, type locality: "Kiangsu" (China: Jiangsu), holotype in Naturhist. Mus., Stockholm. – Distribution: China: CE (Jiangsu).
- labiena** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 58, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).
- laeta** (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 72, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).
- lanceolata** Chen, 1957 (*Trogaspidia*): Quart. J. Taiwan Mus. 10(3-4): 172, ♀, type locality: "Taipei" (China: Taiwan), holotype in Taiwan Agric. Res. Inst., Taipei. – Distribution: China: SE (Taiwan).
- lena** (Cameron, 1899) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 4: 64, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).
- lindstromi** Hammer, 1949 (*Trogaspidia*): Ark. Zool. 42A(8): 7, ♀, type locality: "Mt. Kuling" (China: Jiangxi), holotype in Naturhist. Mus. Stockholm. – Distribution: China: CE (Jiangxi).
- lodina** (Cameron, 1905) (*Mutilla*): Tijdschr. Entomol. 48: 50, ♀, type locality: "Barabei" [Barabai] (Indonesia: Kalimantan Selatan), holotype in Zool. Mus., Amsterdam. **New Combination**. – Distribution: Indonesia (Kalimantan Selatan).
- luzonica** (Radoszkowski, 1885) (*Mutilla*): Horae Soc. Entomol. Ross. 19(1/2): 27, Fig. 28, ♂, type locality: "Luzon" (Philippines), holotype in Inst. Syst. Exper. Zool., Krakow. – Distribution: Philippines (Luzon, Panay, Negros, Sibuyan).

- luzonica luzonica** (Radoszkowski, 1885). – Distribution: Philippines (Luzon).
- luzonica panayensis** (Mickel, 1934) (*Timulla*, as subspecies of *luzonica*): Philipp. J. Sci. 54(1): 162, ♂, type locality: "Culasi" (Philippines: Panay), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Panay, Negros, Sibuyan).
- mackieae** (Cockerell, 1928) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 10, 2: 597, ♂, ♀, type locality: "Siam" (Thailand), syntypes in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: North Thailand.
- maculicornis** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 65, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).
- manilensis** (Brown, 1906) (*Mutilla*): Philipp. J. Sci. 1: 685, ♀, type locality: "Manila" (Philippines: Luzon), syntypes unknown. – Distribution: Philippines (Luzon, Panay, Negros, Mindanao, Basilan, Palawan), Indonesia (Kalimantan Timur).
- maritima** Chen, 1957 (*Trogaspidia*): Quart. J. Taiwan Mus. 10(3-4): 177, ♀, type locality: "Mokanshan" (China: Zhejiang), holotype in Heude Mus., Shanghai. – Distribution: China: CE (Zhejiang, Jiangsu, Anhui).
- mithila** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 30, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).
- morna** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 60, ♂, type locality: "Tirhoot, Bengal" (India: Bihar), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bihar).
- neréis** (Kohl, 1882) (*Mutilla*): Verh. zool.-bot. Ges. Wien 32: 476, ♀, type locality: "Java" (Indonesia), holotype in Naturhist. Mus., Vienna. **New Combination**. – Distribution: Indonesia (Java).
- niveofimbriata** Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 25, ♂, type locality: "Khewra, Salt Range, Punjab" (Pakistan), holotype in Indian Mus., Kolkata. – Distribution: Pakistan.
- nudiceps** (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 466, 480, ♀, type locality: "Poona, Kanara" (India: Maharashtra, Karnataka), syntypes in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: India (Maharashtra, Karnataka).
- [**oceanica** (André, 1896) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 17: 73, ♀, ♂, type locality: "New Guinea", holotype – ♀, in Mus. Civ.

Stor. Nat., Genoa. **New Combination.** – Distribution: New Guinea, Solomon Islands, Australia.

oceanica oceanica (André, 1896). – Distribution: New Guinea, Australia.

novobritannica (Cameron, 1901) (*Mutilla*): Proc. zool. Soc. London 1:

235, ♂, type locality: "Gazelle Peninsula, New Britain" (Australia), holotype in Nat. Hist. Mus., London. Synonymized by Krombein, 1971: 34.

oceanica papuana (Krombein, 1971) (*Timulla*): Entomol. Essays. Tokyo:

41, ♀ ♂, type locality: "Milne Bay" (Papua New Guinea), holotype – ♀ in National Mus. Nat. Hist., Washington, D.C. **New Combination.** – Distribution: New Guinea.

oceanica tulagiensis (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol.

Soc. London 83(2): 232, ♀, type locality: "Tulagi" (Solomon Islands), holotype in Univ. Minnesota, St. Paul. **New Combination.** – Distribution: Solomon Il.]

oceanitis (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2):

253, ♀, type locality: "Amboina" (Indonesia: Ambon), holotype in Univ. Minnesota, St. Paul. – Distribution: Indonesia (Celebes, Ambon).

ovatula (Mickel, 1934) (*Timulla*): Philipp. J. Sci. 54(1):163, ♀, type locality:

"Sibuyan" (Philippines), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination.** – Distribution: Philippines (Sibuyan, Luzon).

ovatula ovatula (Mickel, 1934) (*Timulla*, as subspecies of *ovatula*). – Distribution: Philippines (Sibuyan).

ovatula aurifera (Mickel, 1934) (*Timulla*, as subspecies of *ovatula*):

Philipp. J. Sci. 54(1): 165, ♀, type locality: "Balbalan" (Philippines: Luzon), holotype in Univ. Minnesota, St. Paul. **New Combination.** – Distribution: Philippines (Luzon).

pacifica Tsuneki, 1972 (*Trogaspidia*): Etizenia 64: 10, Figs 36-45, ♂, type locality:

"Chihpenchi" (China: Taiwan) holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: China: SE (Taiwan).

pagdeni (Mickel, 1933) (*Timulla*): Lingnan Sci. J. 12(3): 284, ♂, ♀, type locality:

"Serdang" (Malaysia, Selangor), holotype – ♂, in Nat. Hist. Mus., London. – Distribution: Malaysia (Malay Peninsula), China: CE (Anhui), SE (Fujian, Guangdong, Hainan).

pagdeni pagdeni (Mickel, 1933). – Distribution: Malaysia (Malay Peninsula).

pagdeni nodoa (Mickel, 1933) (*Timulla*, as subspecies of *pagdeni*):

Lingnan Sci. J. 12(3): 288, ♂, ♀, type locality: "Hainan" (China), holotype – ♀, in Univ. Minnesota, St. Paul. – Distribution: China: CE (Anhui), SE (Fujian, Guangdong, Hainan).

- pendleburyi** (Pagden, 1934) (*Timulla*): J. Fed. Malay States Mus. 17: 421, Figs 1, 2, ♂, ♀, type locality: "Kuala Lumpur" (Malaysia), holotype – ♂, in Nat. Hist. Mus., London. **New Combination**. – Distribution: Malaysia (Kuala Lumpur, Selangor).
- pentheus** (Smith, 1860) (*Mutilla*): J. Proc. linn. Soc., Zool. 5: 116, ♀, type locality: "Bachian" (Indonesia: Bacan), holotype in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Indonesia (Bacan).
- perdita** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 4, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Meghalaya).
- phaenna** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 54, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).
- pilosella** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 220, tab. 5, Fig. 24, ♂, type locality: "Schwegoo" (Upper Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar (Upper, Yangon). – Remark: Recorded from Sri Lanka by Wickwar (1908).
- probabilis** Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 27, ♂, type locality: "Port Blair, Andaman" (India), holotype in Indian Mus., Kolkata. – Distribution: India (Andaman Islands).
- pulchriceps** (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 121, 130, fig. 17, ♀, type locality: "Poona" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. – Distribution: India (Maharashtra, Karnataka, Kerala), Sri Lanka. – Recorded from Sri Lanka by Wickwar (1908).
- pulchricom**a (André, 1894) (*Mutilla*, as variety of *pulchriceps*): J. Bombay Nat. Hist. Soc. 8: 477, ♀, type locality: "Poona" (India: Maharashtra), holotype in Mus. National d'Hist. Nat., Paris. **New Combination**. – Distribution: India (Maharashtra).
- recticarinata** Chen, 1957 (*Trogaspidia*): Quart. J. Taiwan Mus. 10(3-4): 167, Figs 17, 18, ♂, type locality: "Lungchi" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian).
- redacta** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 28, ♀, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Bangla).
- regina** Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 7, ♀, type locality: "Kangra Valley" (India, Himachal Pradesh), holotype in Indian Mus., Kolkata. – Distribution: India (Himachal Pradesh, Bangla).

- repraesentans** (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 35, ♀, type locality: "India", holotype in Nat. Hist. Mus., London. – Distribution: India. – Remark: Distributed in India only (Mickel, 1935). Recorded under this name from Myanmar (Magretti, 1892; Hammer, 1962) and China (Taiwan) (Zavattari, 1913b). I examined the female identified by E. Zavattari (1913b) as *Mutilla repraesentans* Smith, 1855 from China (Taiwan) [Staatl. Mus. Naturk., Stuttgart], which currently belongs to *Eotrogaspidia auroguttata* (Smith, 1855) (= *repraesentoides* Mickel, 1933).
- rhea** (Mickel, 1933) (*Timulla*): Ann. Entomol. Soc. Amer. 26(2): 406, ♂, type locality: "Hoozan" (China: Taiwan), holotype in Mus. Naturk. Humboldt-Univ., Berlin. – Distribution: China: CE (Anhui, Zhejiang), SE (Fujian, Guangdong, Taiwan), Japan. – Remark: Probably the recording of this species in Japan belongs to China (Taiwan). – Remark: I examined the female identified by E. Zavattari (1913b) as *Mutilla subintrans* Sichel et Radoszkowski, 1870 from China (Taiwan) [Staatl. Mus. Naturk., Stuttgart], which currently belongs to *Trogaspidia rhea* (Mickel, 1933) (= *repraesentans taihorina* Mickel, 1933).
- rhea rhea** (Mickel, 1933). – Distribution: China: SE (Taiwan), Japan.
- nipponica* (Mickel, 1933) (*Timulla*, as subspecies of *taihorina*): Ann. Entomol. Soc. Amer. 26(2): 254, ♀, type locality: "Japan", holotype in Univ. Minnesota, St. Paul. Synonymized by Chen, 1957: 168.
- taihorina* (Mickel, 1933) (*Timulla*, as subspecies of *repraesentans*): Ann. Entomol. Soc. Amer. 26(2): 414, ♀, type locality: "Kankau" (China: Taiwan), holotype in Deutsch. Entomol. Inst., Müncheberg. Synonymized by Chen, 1957: 168.
- rhea gaea** Chen, 1957 (*Trogaspidia*, as subspecies of *rhea*): Quart. J. Taiwan Mus. 10(3-4): 168, ♀, ♂, type locality: "Shaowu" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: CE (Anhui, Zhejiang), SE (Fujian, Guangdong).
- ruficrus** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 205, ♀, type locality: "Bhamo, Carin-Cheba" (Myanmar), syntypes in Mus. Civ. Stor. Nat., Genoa. **New Combination.** – Distribution: Upper Myanmar, India (Bangla).
- rufocarinata** Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 6, ♀, type locality: "Myawadi" (Lower Myanmar), holotype in Indian Mus., Kolkata. – Distribution: Lower Myanmar.
- sabellica** (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 56, ♂, type locality: "Barrackpore" (India: Bangla), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: India (Bangla).

- sarawaka** (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 249, ♂, type locality: "Kuching" (Malaysia: Sarawak), holotype in Cornell Univ., Ithaca. **New Combination**. – Distribution: Malaysia (Sarawak).
- saussurei** Lelej, **nom. n.** (*Trogaspidia*). New name for *Mutilla luxuriosa* Cameron, 1897. – Distribution: Sri Lanka. – Etymology: The specific name is dedicated to famous entomologist Henri Louis Frédéric de Saussure (1829-1905), who studied Ceylonese mutillids as well.
- luxuriosa* (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 67, ♀ (nom. praeocc., non Smith, 1879), type locality: "Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ.
- scapus** (Mickel, 1937) (*Timulla*): Ann. Mag. Nat. Hist., ser. 10, 19: 443, ♂, type locality: "Mt. Dulit" (Malaysia: Sarawak), holotype in Nat. Hist. Mus., London. **New Combination**. – Distribution: Malaysia (Sarawak).
- selma** (Cameron, 1899) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 4: 62, ♂, type locality: "Mussooree, NW Himalayas" (India, Uttaranchal), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: India (Uttaranchal).
- shelfordi** (Mickel, 1935) (*Timulla*): Trans. Roy. Entomol. Soc. London 83(2): 244, ♂, type locality: "Kuching" (Malaysia: Sarawak), holotype in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Malaysia (Sarawak).
- sibylla** (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2: 86, ♀, type locality: "Sarawak" (Malaysia), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Malaysia (Sabah, Sarawak), Indonesia (Bacan, Ambon, Aru, Celebes, Kalimantan Timur), China: CE (Jiangsu, Anhui, Zhejiang), SE (Fujian, Taiwan, Hainan). – Remark: F. Smith (1860a) synonymized *Mutilla suspiciosa* Smith, 1857 under *M. sibylla* Smith, 1857 and according to article 24.2.2 of ICZN *M. sibylla* Smith has priority over *M. suspiciosa* Smith.
- sibylla sibylla** (Smith, 1857). – Distribution: Malaysia (Sabah, Sarawak), Indonesia (Bacan, Ambon, Aru, Celebes, Kalimantan Timur).
- suspiciosa* (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2: 84, ♂, type locality: "Sarawak" (Malaysia), holotype in Mus. Nat. Hist., Oxford Univ. Synonymized by Smith, 1860: 75. – Remark: I examined 1 ♂ with the labels "Sandakan Borneo, Baker // Compared with type *Mutilla suspiciosa* Smith, ♂, Mickel 1931 // *Timulla (Trogaspidia) suspiciosa* (Smith), ♂. Det. C.E. Mickel, 1933", which stored in National Mus. Nat. Hist., Washington, D.C.

- casiphia* (Cameron, 1902) (*Mutilla*): Entomologist 35: 207, ♂, type locality: "Borneo", syntypes in Nat. Hist. Mus., London. Synonymized under *suspiciosa* by Mickel, 1935: 243.
- gispa* (Cameron, 1902) (*Mutilla*): J. Straits Br. Roy. Asiat. Soc. 37: 139, ♀, type locality: "Borneo" (? Malaysia), syntypes in Nat. Hist. Mus., London. Synonymized under *sibylla* by Mickel, 1935: 244. – Remark: I examined 1 ♀ with the labels "Sandakan Borneo, Baker // Compared with type *Mutilla gispa* Cameron, ♀, Mickel 1931 // Compared with type *Mutilla sibylla* Smith, ♀, Mickel 1931 // *Timulla (Trogaspidia) sibylla* (Smith), ♀. Det. C.E. Mickel, 1933", which stored in National Mus. Nat. Hist., Washington, D.C.
- sibylla minae** (Zavattari, 1913) (*Mutilla*): Arch. Naturgesch. 79A(3): 29, ♀, type locality: "Taihorinsho" (China: Taiwan), lectotype in Deutsch. Entomol. Inst., Müncheberg. – Distribution: China: SE (Taiwan).
- discolor* (Mickel, 1933) (*Timulla*, as subspecies of *suspiciosa*): Ann. Entomol. Soc. Amer. 26(2): 404, ♂, type locality: "Taihorinsho" (China: Taiwan), holotype in Mus. Naturk. Humboldt- Univ., Berlin. Synonymized under *minae* by Chen, 1957: 170.
- sibylla lingnani** (Mickel, 1933) (*Timulla*, as subspecies of *suspiciosa*): Lingnan Sci. J. 12(3): 310, ♂, type locality: "Beggar Village" (China: Hainan), holotype in Univ. Minnesota, St. Paul. – Distribution: China: CE (Jiangsu, Anhui, Zhejiang), SE (Fujian, Hainan).
- similis** Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 5, ♀, type locality: "Kamaing" (Myanmar), holotype in Indian Mus., Kolkata. – Distribution: Upper Myanmar.
- simulans** Hammer, 1962 (*Trogaspidia*): Rec. Indian Mus. 58(1): 17, ♀, type locality: "Barkuda, Chilka Lake" (India, Orissa), holotype in Indian Mus., Kolkata. – Distribution: India (Orissa, Jharkhand).
- soror** (Saussure, 1867) (*Mutilla*): Ann. Soc. Entomol. France 7: 354, tab. 8, fig. 3, ♀, type locality: "Habourenne" (Sri Lanka), holotype in Naturhist. Mus., Vienna. **New Combination**. – Distribution: Sri Lanka.
- insularis* (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 119, 133, ♀, type locality: "Sober Il., Trincomalia, Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. **New Synonymy** (teste B. Petersen).
- subintrans** (Sichel et Radoszkowski, 1870) (*Mutilla*): Horae Soc. Entomol. Ross. 6(4): 228, ♀, type locality: "Ceylon" (Sri Lanka), lectotype in Naturhist. Mus., Vienna (designated by Hammer, 1962: 10). – Distribution: Sri Lanka. – Remark: Recorded from Myanmar by

(Magretti, 1892). I examined the female identified by E. Zavattari (1913b) as *Mutilla subintrans* Sichel et Radoszkowski, 1870 from China (Taiwan) [Staatl. Mus. Naturk., Stuttgart], which currently belongs to *Trogaspidia rhea* (Mickel, 1933) (= *repraesentans taihorina* Mickel, 1933).

- subzonalis** Chen, 1957 (*Trogaspidia*): Quart. J. Taiwan Mus. 10(3-4): 176, ♀, type locality: "Shaowu" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian).
- takasago** Tsuneki, 1972 (*Trogaspidia*): Etizenia 64: 8, Figs 31-35, ♀, type locality: "Yangmei" (China: Taiwan), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: China: SE (Taiwan).
- tegularia** (Mickel, 1934) (*Timulla*): Philipp. J. Sci. 54(1): 169, ♂, type locality: "Los Banos" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon, Sibuyan, Samar, Negros, Panay, Mindanao).
- tethys** (Mickel, 1934) (*Timulla*): Philipp. J. Sci. 54(1): 172, ♂, type locality: "Puerto Princesa" (Philippines: Palawan), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Negros, Palawan), China: SE (Taiwan), Malaysia (Perak, Sabah, Sarawak), Indonesia (Ambon).
- tethys tethys** (Mickel, 1934). – Distribution: Philippines (Negros, Palawan), China: SE (Taiwan).
- tethys krianae** (Pagden, 1934) (*Timulla*): J. Fed. Malay States Mus. 17: 433, Figs 7-11, ♂, type locality: "Selinsing" (Malaysia: Perak), holotype in Nat. Hist. Mus., London. **New Combination**. – Distribution: Malaysia (Perak).
- tethys melanesia** (Mickel, 1935) (*Timulla*, as subspecies of *tethys*): Trans. Roy. Entomol. Soc. London 83(2): 249, ♂, type locality: "Amboina" (Indonesia, Ambon), holotype in Univ. Minnesota, St. Paul. **New Combination**. – Distribution: Indonesia (Ambon).
- tethys prodiga** (Mickel, 1935) (*Timulla*, as subspecies of *tethys*): Trans. Roy. Entomol. Soc. London 83(2): 249, ♂, type locality: "Sandakan" (Malaysia: Sabah), holotype in National Mus. Nat. Hist., Washington, D.C. **New Combination**. – Distribution: Malaysia (Sabah, Sarawak).
- tetraops** (Sichel et Radoszkowski, 1870) (*Mutilla*): Horae Soc. Entomol. Ross. 6(4): 257, ♀, type locality: "China, India (Punjab)", syntypes probably in Nat. Hist. Mus., London. and Naturhist. Mus., Vienna. Synonymized under *Radoszkowskiius sexmaculatus* (Swederus, 1787) by Smith, 1878: 13. **New Combination**. – Distribution: India (Punjab), Pakistan (Punjab). – Remark: C. Mickel did not find the syntypes of this species (Mickel, 1933c). Disposition of four pale spots on metasomal terga 3 and 4 in the female of *Mutilla*

tetraops Sichel et Radoszkowski, 1870 disagree with ones of *Radoszkowskiius sexmaculatus* (Swederus, 1787) (on metasomal tergum 2 posterad and tergum 3) and can not permit me to accept the F. Smith's (1878) synonymy.

tiza (Cameron, 1904) (*Mutilla*): Zeit. Hymen. Dipt. 4(1-6): 8, ♂, type locality: "Khasia Hills" (India: Meghalaya), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: India (Meghalaya).

[**tricarinata** (Zavattari, 1907) (*Mutilla*): Boll. Mus. Zool. Anat. comp. 22: 1, ♂, type locality: "Australia", holotype in coll. Spinola, Mus. Reg. Sci. Nat., Turin. **New Combination.** – Distribution: Australia. – Remark: Two males [Zool. Inst., St. Petersburg] with wrong label "Владивосток" have been identified by B. Petersen as *Trogaspidia tricarinata* (Zavattari, 1907).]

tridepressa Tsuneki, 1993 (*Trogaspidia*): SPJHA 41: 31, Figs 101-107, ♂, type locality: "Pagsanjan" (Philippines: Luzon), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Luzon).

tridungulata (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 209, tab. 5, Fig. 1, ♀, type locality: "Palon, Carin-Cheba" (Myanmar), syntypes in Mus. Civ. Stor. Nat., Genoa. **New Combination.** – Distribution: Myanmar.

vallicola Tsuneki, 1993 (*Trogaspidia*): SPJHA 41: 48, Fig. 20, ♀, type locality: "Suchungchi" (China: Taiwan), holotype in Mus. Nat. Human Activity, Hyogo. – Distribution: China: SE (Taiwan).

villosa (Fabricius, 1775) (*Sphex*): Systema Entomologiae: 352, ♂, type locality: "Habitat in littora Malabarica" (South India), syntypes in Zool. Mus., Univ. Copenhagen. – Distribution: Sri Lanka, India (South, Karnataka, Maharashtra, Bangla). – Remark: B. Petersen and C. O'Toole revised the syntypes of *Sphex villosa* Fabricius. I examined 69 ♂ and 21 ♀ (two pairs have the label "flying in copula"), identified by them in National Mus. Nat. Hist., Washington, D.C. as *Trogaspidia villosa* (Fabricius, 1775). Most males have the label "Comp. with holotype *Trogaspidia villosa* (Fabr.), ♂, C. O'Toole det., 1987". *T. villosa* (Fabricius, 1775) belongs to subgenus *Acutitropidia* Nonveiller, 1995 (Lelej, Osten, 2004).

hexaops (Saussure, 1867) (*Mutilla*): Ann. Soc. Entomol. France 7: 356, tab. 8, fig. 6, ♀, type locality: "Nattan" (Sri Lanka), holotype in Naturhist. Mus., Vienna. **New Synonymy.**

ceylanensis (Sichel et Radoszkowski, 1870) (*Mutilla*): Horae Soc. Entomol. Ross. 6(4): 247, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Inst. Syst. Exper. Zool., Krakow. Synonymized under *hexaops* by André, 1899: 34.

acidalia (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 56, ♀, ♂, type locality: "Trincomali, Ceylon" (Sri Lanka), syntypes in Nat. Hist. Mus., London. Synonymized under *ceylanensis* by André, 1899: 34.

violenta (Cameron, 1900) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 44(15): 35, ♀, type locality: "Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. **New Synonymy.**

wroughtoni (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 123, 127, fig. 15, ♀, type locality: "Poona" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. **New Combination.** – Distribution: India (Maharashtra).

yuliensis Tsuneki, 1972 (*Trogaspidia*): Etizenia 64: 12, Figs 46-56, ♂, type locality: "Yuli" (China: Taiwan), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: China: SE (Taiwan).

zodiaca (Cameron, 1899) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 4: 67, ♂, type locality: "Allahabad" (India: Uttar Pradesh), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: India (Uttar Pradesh).

VII. Subfamily RHOPALOMUTILLINAE Schuster, 1949

Rhopalomutillinae Schuster, 1949: Entomol. Amer. (n. s.) 29(3-4): 119, 123, 125.

53. Genus *Rhopalomutilla* André, 1901

Rhopalomutilla (as subgenus of *Mutilla* Linnaeus, 1758) André, 1901: Zeit. Hymen. Dipt. 1: 323. Type species: *Mutilla* (*Rhopalomutilla*) *clavicornis* André, 1901 (original designation). [Not Oriental.]

japhia (Cameron, 1902) (*Mutilla*): J. Bombay Nat. Hist. Soc. 14: 268, ♂, type locality: "Deesa" (India: Gujarat), syntypes in Nat. Hist. Mus., London. – Distribution: India (Gujarat). – Remark: Recorded from Myanmar by André (1904b).

javana Pagden, 1938 (*Rhopalomutilla*): J. Fed. Malay States Mus. 18(2): 213, ♂, ♀, type locality: "Wadjak" (Indonesia: Java), holotype – ♂, in Nat. Hist. Mus., London. – Distribution: Indonesia (Java).

oceanica Mickel, 1935 (*Rhopalomutilla*): Trans. Roy. Entomol. Soc. London 83(2): 197, ♀, ♂, type locality: "Bettotan near Sandakan" (Malaysia: Sabah), holotype – ♂, in Nat. Hist. Mus., London. – Distribution: Malaysia (Sabah, Sarawak).

VIII. Subfamily SPHAEROPHTHALMINAE Ashmead, 1903

Sphaerophthalmini (as tribe) Ashmead, 1903: Can. Entomol. 35: 304; 1904: Can. Entomol. 36: 6.

Sphaerophthalminae: Schuster, 1947: Ann. Entomol. Soc. Amer. 39(4): 692.

Sphaerophthalminae: Schuster, 1949: Entomol. Amer. (n. s.) 29(3-4): 82.

Photopsidini Ashmead, 1903: Can. Entomol. 35: 304. Synonymized by Schuster, 1947: 692.

Photopsidinae: Bradley, Bequert, 1928: Bull. American Mus. Nat. Hist. 58: 67; Schuster, 1945: Bull. Brooklyn Entomol. Soc. 39: 139; Schuster, 1947: Ann. Entomol. Soc. Amer. 39(4): 692.

Cystomutillinae Invrea, 1964: Mutillidae – Myrmosidae: 49, 50, 94. Synonymized by Lelej, 1985: 112.

Remark: The date of publication of family level group name Sphaerophthalmini is 1903 (ICZN, 1999, article 12.2.4 – for the names published before 1931). Incorrect spelling of Sphaerophthalminae Ashmead, 1903 based on type genus *Sphaerophthalma* Blake, 1888 has been corrected to Sphaerophthalminae based on type genus *Sphaerophthalma* Blake, 1871 by R. Schuster (1949) but the author of the name Sphaerophthalminae retain W. Ashmead (ICZN, 1999, articles 35.4.1, 35.4.2). R. Schuster (1947) was the first reviser who synonymized Photopsidini.

Tribe Pseudomethocini Schuster, 1947

Pseudomethocini (as Pseudomethocine complex) Schuster, 1947: Ann. Entomol. Soc. Amer. 39(4): 701.

Remark: A. Lelej and K. Krombein (1999) recorded this tribe in Oriental region.

54. Genus Cockerellidia Lelej et Krombein, 1999

Cockerellidia Lelej et Krombein, 1999: Far East. entomol. 79: 2. Type species: *Mutilla sohmi* Cockerell, 1928 (original designation).

sohmi (Cockerell, 1928) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 10, 2: 597, ♀, type locality: "Siam near Mecatin" (Thailand), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: North Thailand.

55. Genus Karlidia Lelej, 1999

Karlidia Lelej, 1999: Far East. entomol. 79: 4. Type species: *Karlidia peterseni* Lelej, 1999 (original designation).

peterseni Lelej, 1999 (*Karlidia*): Far East. entomol. 79: 6, ♀, type locality: "Doi Suther-Pui natn. Park" (Thailand), holotype in Zool. Mus., Univ. Copenhagen. – Distribution: North Thailand.

56. Genus *Standfussidia* Lelej, gen. n. (description see p. 197)

Type species: *Standfussidia taprobane* Lelej, sp. n. (designated here).

taprobane Lelej, sp. n. (*Standfussidia*): type locality: "Angunakolapelessa" (Sri Lanka), holotype – ♂, in National Mus. Nat. Hist., Washington, D.C. **New Species** (description see p. 198). – Distribution: Sri Lanka.

Tribe Sphaerophthalmini Ashmead, 1903

[Genus *Ascetotilla* Brothers, 1971]

Ascetotilla Brothers, 1971: Pacific Insects 13(3-4): 471. Type species: *Mutilla carinata* Smith, 1859. [Not Oriental.]

[**carinata** (Smith, 1859) (*Mutilla*): J. Proc. linn. Soc., Zool. 3: 150, ♂, ♀, type locality: "Aru IIs." (Indonesia), lectotype – ♀, in Mus. Nat. Hist., Oxford Univ. (designated by Brothers, 1971: 473). – Distribution: Indonesia (Aru, Irian Jaya), Papua New Guinea, Solomon IIs.]

57. Genus *Cystomutilla* André, 1896

Cystomutilla (as subgenus of *Mutilla* Linnaeus, 1758) André, 1896: Mem. Soc. Zool. France 9: 263. Type species: *Mutilla ruficeps* Smith, 1855 (original designation). [Not Oriental.]

bifurcata (Chen, 1957) (*Cystomutilla*): Quart. J. Taiwan Mus. 10(3-4): 152, ♀, type locality: "Shaowu" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: SE (Fujian).

hoozana (Zavattari, 1913) (*Myrmilla*): Arch. Naturgesch. 78A(3): 22, ♂, type locality: "Hoozan" (China: Taiwan), lectotype in Mus. Naturk. Humboldt-Univ., Berlin (designated by Mickel, 1933: 383). – Distribution: China: CE (Zhejiang), SE (Taiwan).

[Genus *Dasymutilla* Ashmead, 1899]

Dasymutilla Ashmead, 1899: J. N. Y. Entomol. Soc. 7: 57. Type species: *Mutilla (Sphaerophthalma) gorgon* Blake, 1871 (original designation). [Not Oriental.]

- [**nigripes** (Fabricius, 1787) (*Mutilla*): Mantissa insectorum 1: 313, ♀, type locality: "Habitat in Oriente", actually North America (Mickel, 1936: 43). – Distribution: North America (from Massachusetts to Florida in the east and from Alberta to Arizona in the west).]
- nigripes* (non Fabricius, 1787): Cameron, 1892: 120 (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 120. – Remark: Recorded under this name from India (Cameron, 1892).

58. Genus *Ephutomorpha* André, 1903

- Ephutomorpha** André, 1903: Genera Insectorum 11: 48. Type species: *Mutilla aurata* Fabricius, 1775, by original designation. [Not Oriental.]
- damia** (Smith, 1863) (*Mutilla*): J. Proc. linn. Soc., Zool. 7: 24, ♂, type locality: "Ceram" (Indonesia), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Indonesia (Ceram).
- fausta** (Smith, 1863) (*Mutilla*): J. Proc. linn. Soc., Zool. 7: 25, ♀, type locality: "Mysol" (Indonesia), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Indonesia (Mysol).
- melanota** (André, 1896) (*Mutilla*, as variety of *ferruginata*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 17: 82, ♀, type locality: "Somerset" (Australia, Queensland), syntypes in Mus. Civ. Stor. Nat., Genoa, – Distribution: Indonesia (Morotai), Australia (Queensland).
- [**mirabilis** (Smith, 1863) (*Mutilla*): J. Proc. linn. Soc., Zool. 7: 24, ♂, type locality: "Waigiou" (Indonesia, Waigeo), lectotype in Mus. Nat. Hist., Oxford Univ. (designated by Mickel, 1935: 299). – Distribution: Indonesia (Waigeo, New Guinea).]

59. Genus *Eurymutilla* Ashmead, 1899

- Eurymutilla** Ashmead, 1899: J. N. Y. Entomol. Soc. 7: 56. Type species: *Mutilla affinis* Westwood, 1843, designated by Ashmead, 1903: 307. [Not Oriental.].

Remark: This genus is newly recorded in Oriental region.

- curta** (André, 1896) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 17: 92, ♀, type locality: "Amboina" (Indonesia: Ambon), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Indonesia (Ambon, Ceram), New Guinea.
- sumbawae** (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 85, ♀, type locality: "Sumbawa" (Indonesia), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Indonesia (Sumbawa).

thera (Smith, 1863) (*Mutilla*): J. Proc. linn. Soc., Zool. 7: 24, ♀, type locality: "Ceram" (Indonesia), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Indonesia (Ceram). **New Combination.**

[**Genus Traumatomutilla André, 1901**]

Traumatomutilla (as subgenus of *Mutilla* Linnaeus, 1758) André, 1901: Zeit. Hymen. Dipt. 1: 257. Type species: *Mutilla indica* Linnaeus, 1758 (designated by André, 1903: 54). [Not Oriental.]

[**indica** (Linnaeus, 1758) (*Mutilla*): Systema Naturae: 583, ♀, type locality: "Habitat in Indiis", actually South America (Gerstaecker, 1874: 72). – Distribution: Central and South America. – Remark: Listed under this name for India (Cameron, 1892).]

IX. Subfamily DASYLABRINAE Invrea, 1964

Dasylabrinae Skorikov, 1935: Tr. Tadzh. basy AN SSSR 5: 293.

Dasylabrinae Invrea, 1964: Mutillidae – Myrmosidae: 49, 50, 247.

Remark: Although A. Skorikov (1935) was the first to propose family level group name Dasylabrinae he did not characterize the subfamily. F. Invrea (1964) was the first who made this name available (ICZN, article 13.1.1 – for the names published after 1930).

60. Genus *Dasylabris* Radoszkowski, 1885

Dasylabris Radoszkowski, 1885: Horae Soc. Entomol. Ross. 19(1/2): 28. Type species: *Mutilla arenaria* Fabricius, 1787, junior synonym of *Mutilla atrata* Linnaeus, 1767 (designated by Ashmead, 1904: 7). [Not Oriental.]

Allomutilla Ashmead, 1899: J. N. Y. Entomol. Soc. 7: 57. Type species: *Mutilla melicerta* Smith, 1855 (original designation). [Not Oriental.] Synonymized by André, 1903: 65.

Remark: The genus *Dasylabris* Radoszkowski, 1885 includes in Palaearctic region subgenera *Baltilla* Lelej, 1976, *Craspedopyga* Lelej, 1976, nomino-typical, and *Inbaltilla* Lelej, 1976. Oriental species of the genus *Dasylabris* are not revised still and I included in this genus 6 species without subgeneric classification.

arenaria (non Fabricius, 1787): Bingham, 1897 (*Mutilla*): Fauna Brit. India 1: 30, ♀. – Remark: Recorded under this name from Pakistan and India (Bingham, 1897). *Mutilla arenaria* Fabricius, 1787 is a junior synonym of *Dasylabris atrata* (Linnaeus, 1767), which is distributed in Iberian Peninsula and North Africa (Lelej, 2002).

- argentipes** (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 31, ♀, type locality: "India", syntypes in Nat. Hist. Mus., London. – Distribution: India (Karnataka, *Karnataka, Andhra Pradesh), *Sri Lanka.
- climia** (Cameron, 1902) (*Mutilla*): J. Bombay Nat. Hist. Soc. 14: 267, ♂, type locality: "Deesa" (India: Gujarat), syntypes in Nat. Hist. Mus., London. – Distribution: India (Gujarat).
- suspecta* (Nurse, 1903) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 11: 395, ♂ (nom. praeocc., non André, 1902), type locality: "Deesa" (India, Gujarat), syntypes in Nat. Hist. Mus., London.
- nursei* André, 1904 (*Dasylabris*): Ann. Soc. Entomol. France 72: 427. New name for *Mutilla suspecta* Nurse, 1903. **New Synonymy.**
- [**indra** Lelej, 1980 (*Dasylabris*): Entomol. Obozr. 59(1): 189, ♀, type locality: Afghanistan, province Lagman, Shamakat, holotype in Zool. Inst., St. Petersburg. – Distribution: Asia: Afghanistan (east).]
- intermedia** Skorikov, 1935 (*Dasylabris*, as variety of *siberica*): Tr. Tadz. basy AN SSSR 5: 295, ♀, type locality: "Transbaicalia" (Russia), lectotype in Zool. Inst., St. Petersburg (designated by Lelej, 1976: 268). – Distribution: Russia (south Buryatia), Afghanistan, Mongolia, Korea, China: NO (Neimenggu, Hebei, Shandong), CE (Jiangsu, Zhejiang), SE (Fujian).
- ypsilon* Chen, 1957 (*Dasylabris*, as subspecies of *rubrosignata*): Quart. J. Taiwan Mus. 10(3-4): 219, ♀, type locality: "Chungan" (China: Fujian), holotype in T. Maa's coll., Taiwan. Synonymized by Lelej, 1976: 268.
- kraciva** (Nurse, 1903) (*Mutilla*): Ann. Mag. Nat. Hist., ser. 7, 11: 400, ♂, type locality: "Deesa" (India, Gujarat), holotype in Nat. Hist. Mus., London. **New Combination.** – Distribution: India (Gujarat).
- [**mitra** Lelej, 1980 (*Dasylabris*): Entomol. Obozr. 59(1): 188, ♀, type locality: Afghanistan, Lagman province, Alisheng river, holotype in Zool. Inst., St. Petersburg. – Distribution: Afghanistan (east). – Remark: B. Petersen wrote me: "*Dasylabris mitra* [Lelej, 1980] is a junior synonym of *D. argentipes* (Smith, 1855), a common species in India. More material from Afghanistan may prove that this population perhaps could be regarded as a subspecies of *argentipes* due to the absence of some white hairs transversely at the margin of tergum 2. However, these hairs are not even constantly present in Indian material. I am going to redefine [*D.*] *argentipes* of Smith as there is a great confusion about this species and [*D.*] *argenteomaculata* [Smith, 1879], [*D.*] *rugosa* [Olivier, 1811] (= *willeyi* [Wickwar, 1908]) and a new species from South India / Sri Lanka" (Petersen, in litt., 1981). The female of *D. mitra* Lelej, 1980 differs from the female of *D. argentipes* (Smith, 1855) by having pygidial area with strong lateral carina and 12 longitudinal rugae which do

not touch pygidial apex (with weak lateral carina and dense longitudinal rugae in *argentipes*), by lacking of medial longitudinal carina in basal half of metasomal tergum 2 (with strong medial longitudinal carina in basal half of metasomal tergum 2 in *argentipes*.)]

optima (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 34, ♀, type locality: "India", syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India (Rajasthan, Gujarat).

rugosa (Olivier, 1811) (*Mutilla*): Encycl. method. Ins. 8: 60, ♀, type locality: "Les Indes Orientales" (India), holotype in Mus. National d'Hist. Nat., Paris. – Distribution: India (Maharashtra, Karnataka, Gujarat), Sri Lanka.

argenteomaculata (Smith, 1879) (*Mutilla*): Descr. n. spec. Hymen.: 199, ♀, ♂, type locality: "Bombay Presidency" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. **New Synonymy.**

auropalliata (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 467, 482, ♀, type locality: "Poona" (India: Maharashtra), holotype in Mus. National d'Hist. Nat., Paris. **New Synonymy.**

willeyi (Wickwar, 1908) (*Mutilla*): Spolia Zeylanica 5: 119, Fig. 7, ♀, type locality: "Delft" (Sri Lanka), holotype in National Mus., Colombo. **New Synonymy.**

61. Genus *Orientilla* Lelej, 1979

Orientilla Lelej, 1979: Zool. Zhurn. 58(7): 1066. Type species: *Orientilla vietnamica* Lelej, 1979 (original designation).

aureorubra (Sichel et Radoszkowski, 1870) (*Mutilla*): Horae Soc. Entomol. Ross. 6(4): 304, ♀, type locality: "Trincomali" (Sri Lanka), syntypes in Naturhist. Mus., Vienna. **New Combination.** – Distribution: India, Sri Lanka.

egregia (Saussure, 1867) (*Mutilla*): Ann. Soc. Entomol. France 7: 351, tab. 8, fig. 1, ♀ (nom. praeocc., non Klug, 1829), type locality: "Trincomali" (Sri Lanka), syntypes in Naturhist. Mus., Vienna. Synonymized under *aureorubra* by Cameron, 1892: 117.

placida (Smith, 1879) (*Mutilla*): Descr. n. spec. Hymen.: 198, ♀, type locality: "Bombay Presidency" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. Synonymized under *egregia* by Turner, 1911: 151.

croma (Zavattari, 1913) (*Mutilla*): Boll. Soc. Entomol. Ital. 45: 97, ♂, type locality: "Chan Pons" (Upper Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination.** – Distribution: Upper Myanmar.

desponsa (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 38, ♂, type locality: "North China" syntypes in Nat. Hist. Mus., London. – Dis-

tribution: China: CE (Jiangsu, Anhui, Hunan, Zhejiang), SE (Fujian, Guangdong, Guangxi, Hainan, Taiwan), Vietnam. – Remark: E. André (1909) synonymized *Mutilla variegata* Smith, 1855 under *M. desponsa* Smith, 1855 and according to article 24.2.2 of ICZN *M. desponsa* Smith has priority over *M. variegata* Smith. Recorded from Myanmar by C. Bingham (1897).

variegata (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 39, ♀, type locality: "North China", syntypes in Nat. Hist. Mus., London. Synonymized by André, 1909: 179.

chinensis (Zavattari, 1922) (*Stenomutilla*): Entomol. Mitteil. 11(4): 192, ♂, type locality: "Sud-China, Pingshiang" (China, Guangxi), syntypes in Deutsch. Entomol. Inst., Müncheberg. Synonymized under *desponsa* by Mickel, 1933: 324.

kallata (Nurse, 1902) (*Mutilla*): J. Bombay Nat. Hist. Soc. 14: 80, Fig. 1, ♂, type locality: "Deesa" (India, Gujarat), syntypes in Nat. Hist. Mus., London. **New Combination.** – Distribution: India (Gujarat, Kerala), *Sri Lanka.

aurolutea (Hammer, 1962) (*Stenomutilla*): Rec. Indian Mus. 58(1): 49, ♂, type locality: "Nilgiri Hills, Tepukadu" (India, Kerala), holotype in Indian Mus., Kolkata. **New Synonymy.**

krombeini Lelej, 1996 (*Orientilla*): Mem. Soc. Entomol. Wash. 17: 105, ♀, ♂, type locality: "Culao Cham" (Vietnam), holotype – ♀, in Inst. Biol. Soil Sci., Vladivostok. – Distribution: Vietnam.

nobilis (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 33, ♂, type locality: "Madras" (India: Tamil Nadu), syntypes in Nat. Hist. Mus., London. **New Combination.** – Distribution: India (Tamil Nadu).

remota (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 69, ♀, type locality: "Trincomali" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination.** – Distribution: Sri Lanka.

schmideggeri Lelej, **nom. n.** (*Orientilla*). New name for *Mutilla vesta* Nurse, 1904. – Distribution: India (Himachal Pradesh). – Etymology: The specific name is dedicated to my colleague, hymenopterist Christian Schmid-Egger.

vesta (Nurse, 1904) (*Mutilla*): J. Bombay Nat. Hist. Soc. 16: 24, ♀ (nom. praeocc., non Cresson, 1865), type locality: "Bajjnath, Kangra Valley" (India: Himachal Pradesh), syntypes in Nat. Hist. Mus., London.

sejugoides (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 234, ♂, type locality: "Bhamo, Carin-Cheba" (Myanmar), syntypes in Mus. Civ. Stor. Nat., Genoa. **New Combination.** – Distribution: Myanmar.

- tausignata** (Chen, 1957) (*Stenomutilla*): Quart. J. Taiwan Mus. 10(3-4): 221, ♀, type locality: "Kienyang" (China: Fujian), holotype in T. Maa's coll., Taiwan. – Distribution: China: CE (Anhui, Hunan, Jiangxi, Zhejiang), SE (Fujian, Guangdong).
- vietnamica** Lelej, 1979 (*Orientilla*): Zool. Zhurn. 58(7): 1066, ♀, type locality: "Nha Trang" (Vietnam), holotype in Zool. Inst., St. Petersburg. – Distribution: Vietnam (Nha Trang), *Thailand, *Myanmar.

62. Genus *Tricholabiodes* Radoszkowski, 1885

- Tricholabiodes** Radoszkowski, 1885: Horae Soc. Entomol. Ross. 19(1/2): 35.
Type species: *Mutilla pedunculata* Klug, 1829, junior synonym of *Mutilla semistriata* Klug, 1829 (designated by Ashmead, 1903: 305). [Not Oriental.]
- apicipennis** (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 55, ♂, type locality: "Trincomali" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. **New Combination**. – Distribution: Sri Lanka.
- nursei** Lelej, 1995 (*Tricholabiodes*): Far East. entomol. 20: 8, ♂, ♀, type locality: "Jodhpur" (India: Rajasthan), holotype – ♂, in Zool. Mus., Moscow Univ. – Distribution: India (Rajasthan).
- pedunculata* (non Klug, 1829): Bingham, 1897 (*Mutilla*): Fauna Brit. India 1: 51, ♂. – Remark: Recorded under this name from Western India and Sri Lanka (Bingham, 1897). *Mutilla pedunculata* Klug, 1829 is a junior synonym of *Tricholabiodes semistriatus* (Klug, 1829), which is distributed in North Africa, South Arabia and Israel (Lelej, 2002).
- tharensis** Lelej, 1995 (*Tricholabiodes*): Far East. entomol. 20: 10, ♂, ♀, type locality: "Jhunjhunun" (India: Rajasthan), holotype – ♂, in Zool. Mus., Moscow Univ. – Distribution: India (Rajasthan).

X. Subfamily EPHUTINAE Ashmead, 1903

Ephutinae Ashmead, 1903: Can. Entomol. 35: 304.

Tribe *Odontomutillini* Lelej, 1983

Odontomutillini Lelej, 1983: Entomol. Obozr. 62(3): 612.

63. Genus *Odontomutilla* Ashmead, 1899

- Odontomutilla** Ashmead, 1899: J. N. Y. Entomol. Soc. 7: 55, 58. Type species: *Mutilla saussurei* Sichel et Radoszkowski, 1870 (designated by André, 1901: 329). [Not Oriental.]
- apiastra** Mickel, 1935 (*Odontomutilla*): Trans. Roy. Entomol. Soc. London 83(2): 208, ♂, type locality: "Bachian" (Indonesia: Bacan), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Indonesia (Halmahera II.).
- aspratilis** Mickel, 1935 (*Odontomutilla*): Trans. Roy. Entomol. Soc. London 83(2): 210, ♂, type locality: "Bettotan near Sandakan" (Malaysia: Sabah), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sabah, Malay Peninsula).
- assamensis** Hammer, 1962 (*Odontomutilla*): Rec. Indian Mus. 58(1): 2, ♀, type locality: "Garo Hills" (India, Meghalaya), holotype in Indian Mus., Kolkata. – Distribution: India (Meghalaya).
- aurifex** (Smith, 1879) (*Mutilla*): Descr. n. spec. Hymen.: 198, ♀, ♂, type locality: "Bombay Presidency" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. – Distribution: India (Maharashtra).
- buddha** (Cameron, 1892) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 117, 132, fig. 9, ♀, type locality: "Poona" (India: Maharashtra), syntypes in Nat. Hist. Mus., London. – Distribution: India (Maharashtra). – Remark: Regarded as *Mutilla urania* race *buddha* Cam. (Cameron, 1905).
- ceramensis** Mickel, 1935 (*Odontomutilla*): Trans. Roy. Entomol. Soc. London 83(2): 206, ♂, type locality: "Ceram" (Indonesia), holotype in Univ. Minnesota, St. Paul. – Distribution: Indonesia (Ceram).
- [**chrysococcina** (Sichel et Radoszkowski, 1870) (*Mutilla*): Horae Soc. Entomol. Ross. 6(4): 236, tab. 8, Fig. 8, ♀, type locality: "Perse" (Iran), syntypes in Mus. d'Hist. Nat., Paris. Synonymized under *speciosa* by André, 1898: 32. – Distribution: Iran. – Remark: Regarded as distinct species by Mickel (1933). Omitted in the Catalogue of Palaearctic species (Lelej, 2002).]
- cordigera** (Sichel et Radoszkowski, 1870) (*Mutilla*): Horae Soc. Entomol. Ross. 6(4): 202, ♀, type locality: "Cochin China" (South Vietnam), holotype in Mus. National d'Hist. Nat., Paris. – Distribution: Malaysia (Perak, Borneo), *Thailand (North), Vietnam (*North, South), Indonesia (Sumatra, Java).
- familiaris** (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2: 81, ♀, type locality: "Singapore", holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Malaysia (Malay Peninsula, Sabah, Sarawak), Singapore, *Brunei, Indonesia (Sumatra, Kalimantan Timur, Kalimantan

Tengah), Philippines (Luzon, Samar, Negros, Mindanao, Basilan), Lower Myanmar.

familiaris familiaris (Smith, 1857) (*Mutilla*). – Distribution: Malaysia (Malay Peninsula, Sabah, Sarawak), Singapore, *Brunei, Indonesia (*Sumatra, Kalimantan Timur, Kalimantan Tengah), Philippines (Luzon, Samar, Negros, Mindanao, Basilan).

familiaris anonyma (Kohl, 1882) (*Mutilla*): Verh. zool.-bot. Ges. Wien 32: 482, ♀, type locality: "Sumatra" (Indonesia), holotype in Naturhist. Mus., Vienna. – Distribution: Indonesia (Sumatra).

familiaris trimaculata Hammer, 1962 (*Odontomutilla*, as subspecies of *familiaris*): Rec. Indian Mus. 58(1): 4, ♀, type locality: "Margherita" (Lower Myanmar), holotype in Indian Mus., Kolkata. – Distribution: Lower Myanmar.

grossa Mickel, 1935 (*Odontomutilla*): Trans. Roy. Entomol. Soc. London 83(2): 214, ♀, type locality: "Mowong" (Indonesia: Kalimantan Barat), holotype in Univ. Minnesota, St. Paul. – Distribution: *Malaysia (Sarawak, Sabah), Indonesia (Kalimantan Barat).

haematocephala (André, 1896) (*Mutilla*, as variety of *simplicifascia*): Termeszet. Fuzetek 19: 16, ♂, type locality: "Perak" (Malaysia), holotype in Mus. National d'Hist. Nat., Paris. – Distribution: Malaysia (Perak, Pahang, Pulau Pinang), Indonesia (Sumatra). – Remark: Probably an opposite sex of *Odontomutilla urania* (Smith, 1857) (Mickel, 1935).

herpa (Cameron, 1902) (*Mutilla*): J. Straits Br. Roy. Asiat. Soc. 37: 73, ♂, type locality: "Sarawak" (Malaysia), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sarawak).

[**inanis** Mickel, 1935 (*Odontomutilla*): Trans. Roy. Entomol. Soc. London 83(2): 204, ♀, ♂, type locality: "Laloki" (New Guinea), holotype – ♀, in Univ. Minnesota, St. Paul. – Distribution: New Guinea.]

indiga (Bingham, 1908) (*Mutilla*): Rec. Indian Mus. 2: 351, ♂, type locality: "Jhansi" (India, Uttar Pradesh), syntypes probably in Indian Mus., Kolkata. **New Combination**. – Distribution: India (Uttar Pradesh).

laminata (André, 1898) (*Mutilla*): Ann. Soc. Entomol. France 67: 33, ♀, type locality: "Asia", holotype in Mus. National d'Hist. Nat., Paris. – Distribution: Asia. – Remark: Type locality of this species restricted by Oriental Asia, because it not discovered in Palaearctic region (Lelej, 2002).

[**manifesta** (Smith, 1859) (*Mutilla*): J. Proc. linn. Soc., Zool. 3: 150, ♀, ♂, type locality: "Aru IIs." (Indonesia), holotype – ♀, in Mus. Nat. Hist., Oxford Univ. – Distribution: Indonesia (Aru Islands), New Guinea.]

- mickeli** Lelej, **nom. n.** (*Odontomutilla*). New name for *Mutilla unimaculata* Smith, 1857. – Distribution: Malaysia (Sarawak), Indonesia (Kalimantan Timur). – Etymology: The specific name is dedicated to famous hymenopterist Clarence Eugene Mickel (1892-1982), who made important contribution to study of Oriental Mutillidae.
- unimaculata* (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2: 87, ♀ (nom. praeocc., non Lucas, 1846), type locality: "Sarawak" (Malaysia), holotype in Mus. Nat. Hist., Oxford Univ.
- miranda** (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 33, ♀, type locality: "India", syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India.
- perelegans** (Cameron, 1897) (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 41(4): 59, ♀, ♂, type locality: "Ceylon" (Sri Lanka), syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: Sri Lanka, India (Punjab), Pakistan (Punjab).
- pompalis** Mickel, 1935 (*Odontomutilla*): Trans. Roy. Entomol. Soc. London 83(2): 212, ♀, type locality: "Bettotan near Sandakan" (Malaysia: Sabah), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sarawak, Sabah).
- pulchrina** (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 34, ♀, type locality: "Madras" (India: Tamil Nadu), syntypes in Nat. Hist. Mus., London. – Distribution: India (Tamil Nadu, *Kerala, Karnataka).
- rubrocapitata** Mickel, 1935 (*Odontomutilla*): Trans. Roy. Entomol. Soc. London 83(2): 208, ♂, type locality: "Sandakan" (Malaysia: Sabah), holotype in National Mus. Nat. Hist., Washington, D.C. – Distribution: Malaysia (Sabah, Perak, Selangor).
- semifasciata** (André, 1896) (*Mutilla*, as variety of *simplicifascia*): Termesz. Fuzetek 19: 15, ♂, type locality: "Bonthain" (Indonesia: Celebes), holotype in Hung. National Mus., Budapest. – Distribution: Indonesia (Celebes). – Remark: Listed as *Odontomutilla familiaris semifasciata* (André) (see Website of Zool. Mus., Univ. Copenhagen on p. 12).
- sikkimensis** André, 1904 (*Odontomutilla*): Ann. Soc. Entomol. France 67: 426, ♀, type locality: "Sikkim" (India), holotype in Mus. National d'Hist. Nat., Paris. – Distribution: India (Sikkim).
- sinensis** (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 39, ♀, ♂, type locality: "North China", holotype – ♀, in Brit. Mus. Nat. Hist., London, – Distribution: China: CE (Jiangsu, Zhejiang, Anhui), SE (Fujian); *Vietnam (North).
- smithi** Mickel, 1935 (*Odontomutilla*): Trans. Roy. Entomol. Soc. London 83(2): 202, ♀, type locality: "Makassar" (Indonesia: Celebes), holotype

in Mus. Nat. Hist., Oxford Univ. – Distribution: Indonesia (Celebes).

speciosa (Smith, 1855) (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 40, ♀, type locality: "Hong Kong" (Xianggang, China), holotype in Nat. Hist. Mus., London. – Distribution: China: SE (Xianggang, Guangdong).

spectra (Bingham, 1908) (*Mutilla*): Rec. Indian Mus. 2: 350, ♀, type locality: "Oncha near Naini Tal" (India, Uttar Pradesh), syntypes probably in Indian Mus., Kolikata. **New Combination**. – Distribution: India (Uttar Pradesh).

subinterrupta Zavattari, 1910 (*Odontomutilla*, as variety of *simplicifascia*): Ann. Mus. Zool. Univ. Napoli 3(9): 4, ♂, type locality: "Java" (Indonesia), syntypes in Zool. Mus. Univ. Naples. – Distribution: Indonesia (Java).

[**tamensis** (Cameron, 1906) (*Mutilla*): Res. Exped. Sci. neerland. Nouv.-Guinee 1903, Hymen. 5(1): 50, ♀, type locality: "New Guinea", holotype in Zool. Mus., Amsterdam. – Distribution: New Guinea.

papuana Zavattari, 1913 (*Odontomutilla*): Boll. Soc. Entomol. Ital. 45: 67, ♀, type locality: "New Guinea", holotype in Mus. Civ. Stor. Nat., Genoa. Synonymized by Mickel, 1935: 208.]

thymele Mickel, 1935 (*Odontomutilla*): Trans. Roy. Entomol. Soc. London 83(2): 211, ♀, type locality: "Bettotan near Sandakan" (Malaysia: Sabah), holotype in Nat. Hist. Mus., London. – Distribution: Malaysia (Sarawak, Sabah).

trichocondyla (André, 1894) (*Mutilla*): J. Bombay Nat. Hist. Soc. 8: 468, 483, ♀, type locality: "Kanara" (India: Karnataka), holotype in Mus. National d'Hist. Nat., Paris – Distribution: India (Karnataka), *Sri Lanka.

urania (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2: 83, ♀ non ♂, type locality: "Sarawak", actually "Mt. Ophir" (Malaysia: Melaka), holotype – ♀, in Mus. Nat. Hist., Oxford Univ. – Distribution: Malaysia (Perak, Kedah, Melaka).

uranioides Mickel, 1933 (*Odontomutilla*): Lingnan Sci. J. 12(3): 304, ♀, type locality: "Hong Kong" (Xianggang, China), holotype in Univ. Minnesota, St. Paul. – Distribution: China: SE (Xianggang, Guangdong), *Vietnam (North).

64. Genus *Yamanetilla* Lelej, 1996

Yamanetilla Lelej, 1996: Tropics 6(1-2): 101. Type species: *Odontomutilla nipponica* Tsuneki, 1972 (original designation). [Not Oriental.]

- andromeda** (Mickel, 1934) (*Odontomutilla*): Philipp. J. Sci. 54(1): 139, ♀, ♂, type locality: "Mt. Makiling" (Philippines: Luzon), holotype – ♂, in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Mindanao, Luzon, Samar, Negros).
- cariana** (Magretti, 1892) (*Mutilla*): Ann. Mus. Civ. Stor. Nat. Genova, ser. 2, 12: 231, tab. 5, Fig. 18, ♂, type locality: "Carin-Cheba" (Myanmar), holotype in Mus. Civ. Stor. Nat., Genoa. **New Combination**. – Distribution: Myanmar.
- cassiope** (Smith, 1857) (*Mutilla*): J. Proc. linn. Soc., Zool. 2 : 86, ♀, type locality: "Sarawak" (Malaysia), holotype in Mus. Nat. Hist., Oxford Univ. – Distribution: Malaysia (Perak, Selangor, Sabah, Sarawak), Indonesia (Kalimantan Timur). – Remark: Recorded from Myanmar by Magretti (1892).
- [**nipponica** (Tsuneki, 1972) (*Odontomutilla*, as subspecies of *taiwaniana*): Etizenia 61: 7, Figs 13-23, ♀, ♂, type locality: "Arashi" (Japan: Honshu), holotype – ♂, in Mus. Nat. Human Activity, Hyogo. – Distribution: Japan (Honshu).]
- pedaria** (Mickel, 1934) (*Odontomutilla*): Philipp. J. Sci. 54(1): 135, ♂, ♀, type locality: "Iligan" (Philippines, Mindanao), holotype – ♂ in National Mus. Nat. Hist., Washington, D.C. – Distribution: Philippines (Mindanao, Basilan, Palawan), Vietnam, *Malaysia (Kuala Lumpur).
- quadruplex** (Chen, 1957) (*Odontomutilla*): Quart. J. Taiwan Mus. 10(3-4): 155, ♂, ♀, type locality: "Nanking" (China: Jiangsu), holotype – ♂, in Heude Mus., Shanghai. – Distribution: China: CE (Jiangsu).
- taiwaniana** (Zavattari, 1913) (*Odontomutilla*): Arch. Naturgesch. 79A(3): 24, ♀, ♂, type locality: "Taihorin" (China: Taiwan), holotype – ♀, in Mus. Naturk. Humboldt-Univ., Berlin. – Distribution: China: SE (Taiwan), *Nepal.

XI. MUTILLIDAE INCERTAE SEDIS

Genus *Mutilla* Linnaeus, 1758

- bengalensis** Megerle, 1802 (*Mutilla*): Catalogus Insectorum: 23, ♀, type locality: India: ? Bangla, syntypes unknown. – Distribution: India. – Original description: "Atra, thor. rufo, Abdo. punct. 7 alb. 2,2,2,1".
- bistriguttata** Megerle, 1803 (*Mutilla*): Appendix ad Catalogum Insectorum: 16, ♀, type locality: "ex Beng[alia]" (India: ? Bangla), syntypes unknown. – Distribution: India. – Original description: "Aff. 6. gutt. sed alia, min. et thor. toto ruf."

diversa Smith, 1855 (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 32, ♀, type locality: "India", syntypes in Nat. Hist. Mus., London. – Distribution: India. – Original description: "Female. Length 4½ lines [9.5 mm]. Head and thorax red, the former rounded at the sides and narrowed anteriorly; antennae and mandible red; the legs red, and having a thin pale glittering pubescence; the head, and the thorax above thinly covered with erect black hairs. Abdomen black; the basal segment having a patch, and the second and the third segments an ovate spot on each side on their apical margins, of pale golden pubescence; beneath obscure red. Hab. India. (Coll. F. Smith)".

interrupta Megerle, 1803 (*Mutilla*): Appendix ad Catalogum Insectorum: 16, ♀ (nom. praeocc., non Latreille, 1792), type locality: "ex Beng[alia]" (India: ? Bangla), syntypes unknown. – Distribution: India. – Original description: "Aff. bis 3. gutt. min. Abd. gutt. 2 et fasc. 2 interr." – Remark: In spite of that Megerle's name is preoccupied I do not propose new name here.

mahaganayensis Cameron, 1892 (*Mutilla*): Mem. Proc. Manchester Lit. Phil. Soc. 35: 120, type locality: "Mahaganay, Ceylon" (Sri Lanka).

Nomen nudum.

reticulata Smith, 1855 (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 35, ♀, type locality: "India", syntypes in Nat. Hist. Mus., London. – Distribution: India. – Original description: "Female. Length 4½ lines [9.5 mm]. Black, the head as wide as the thorax, subquadrate, the posterior angles rounded. Thorax obscurely ferruginous above, covered with large shallow octagonal fossulets, forming a regular octagonal reticulation. Abdomen: the apical margin of the basal segment fringed with bright yellowish-white pubescence, the second segment has a narrow marginal fringe, a central spot uniting with the fringe, and the third segment covered laterally with pale yellow pubescence. Hab. India".

semiaurata Smith, 1855 (*Mutilla*): Cat. Hymenopt. Brit. Mus. 3: 36, ♀, type locality: "India", syntypes in Mus. Nat. Hist., Oxford Univ. – Distribution: India. – Original description: "Female. Length 5 lines [10.6 mm]. Black, the head, mesothorax anteriorly, metathorax and legs clothed with silvery-white pubescence; the abdomen densely clothed with bright pale golden pubescence, except the apical segment, which is black and has a central silvery-white pubescent spot; beneath, the margins of the segments are fringed with silvery hairs, the second segment coarsely punctured and having a central longitudinal carina. Male. Clothed as in the other sex, the eyes ovate, wings dark fuscous, palest towards their base. Hab. India (Coll. W.W. Saunders, Esq.)".

- septemguttata** Megerle, 1803 (*Mutilla*): Appendix ad Catalogum Insectorum: 16, ♀, type locality: "ex Beng[alia]" (India: ? Bangla), syntypes unknown. – Distribution: India. – Original description: "Apt. nig. Cap. et Thor. ruf. Abd. gutt. 1.3.1.1.1 alb."
- sexguttata** Megerle, 1803 (*Mutilla*): Appendix ad Catalogum Insectorum: 16, ♀, type locality: "ex Beng[alia]" (India: ? Bangla), syntypes unknown. – Distribution: India. – Original description: "Stat. Europ. Apt. nig. Thor. disc. ruf. Abd. gutt. 2.2.2 alb."

Genus *Myrmosa* Latreille, 1796

- macrocephala** Olivier, 1811 (*Myrmosa*): Encycl. method. Ins. 8: 130, ♂, type locality: "Java. (Bosc)" (Indonesia), syntypes probably in Mus. National d'Hist. Nat., Paris. – Distribution: Indonesia (Java). – Original description: "*Myrmosa hirta*, nigra, capite crasso, antennis thorace longioribus. Elle est un peu plus grande que le precedente [*Myrmosa ephippium* – 10 mm]. Les antennes son filiformes, quere plus longues que le corcelet. Celui-ci est noir, pointille, un peu velu. L'abdomen est noir, ovale-alonge, un peu deprime. Le premier anneau est etroite a sa base, un peu allonge, bien distinct. Les pattes sont noires. Les ailes sont transparentes. Elle se trouve a Java. Du cabinet de M. Bosc". – Remark: By the filiform antennae, which are much longer than mesosoma and by the transparent wings this species rather belongs to genus *Methocha* Latreille, 1804 (family Tiphiiidae) than *Myrmosa*.

APPENDIX

KEY TO THE ORIENTAL SUBFAMILIES, TRIBES AND GENERA

KEY TO THE SUBFAMILIES

Males

1. Fully winged forms 2
- Apterous or subapterous forms 11
2. Metasomal segment 2 without lateral felt line on tergum or sternum. Eye with setae, sometimes very short, visible under large magnification. Veins of fore wing touch the wing apex 3
- Metasomal segment 2 with lateral felt line on tergum or sternum, if without felt line (tribe Ticoplini) than eyes haired. Eyes without setae. Veins of fore wing not touch the wing apex 4
3. Hypopygium (sternum 8) with two or four lateral lobes or processes. Metasomal terga basally constricted I. **Myrmosinae**
- Hypopygium (sternum 8) without lateral lobes or processes. Metasomal terga basally not constricted II. **Kudakrumiinae**
4. Hind wing with anal lobe. Claws with denticle. – Only one genus *Pseudophotopsis* (p. 21). (Figs 14, 15) III. **Pseudophotopsidinae**
- Hind wing without anal lobe. Claws without denticle 5
5. Second radio-medial cell petiolate or absent. Eyes haired. – Genus *Eosmicromyrmilla* IV. **Ticoplinae**
- Second radio-medial cell not petiolate, always developed. Eyes never haired 6
6. Inner eye margin without any notch 7
- Inner eye margin with deep notch, when sometimes notch not so deep (some Mutillini) than tegula shortened 9
7. Metasomal segment 1 not constricted posterad. Gonostylus curved down (lateral view) V. **Myrmillinae**
- Metasomal segment 1 usually constricted posterad. Gonostylus straight or curved up (lateral view) 8
8. Eyes hemispherical. Gonostylus strongly curved up (lateral view) VII. **Sphaerophthalminae**
- Eyes weakly convex, oval. Gonostylus straight or slightly curved up apically (lateral view) IX. **Dasylabrinae**
9. Hypopygium (sternum 8) much modified, being reduced and often with complex of protuberances. Metasomal segment 2 without any lateral felt line on tergum or sternum. – Only one genus *Rhopalomutilla* (p. 105) VII. **Rhopalomutillinae**
- Hypopygium (sternum 8) simple, not reduced. Metasomal segment 2 usually with lateral felt line on tergum and sometimes on sternum 10

10. Posterolateral scutellar angle produced or dentate or metasomal segment 1 cylindrical X. **Ephutinae**
 – Posterolateral scutellar angle not produced, nor dentate. Metasomal segment 1 wide or campanuliform but not cylindrical VI. **Mutillinae**
11. Apterous or entirely without wings 12
 – Subapterous or with rudimentary wings 16
12. Mesosoma without any suture traces 13
 – Mesosoma with distinct sutures 14
13. Mesosoma with concave mesopleura, propodeum widest. Lateral felt line located on metasomal sternum 2. – Genera *Cameronilla* and *Hindustanilla* IV. **Ticoplinae**
 – Mesosoma with convex mesopleura, mesothorax widest. Lateral felt line located on metasomal tergum 2. – Genus *Brachymutilla* André, 1901. [Not Oriental.] IX. **Dasylabrinae**
14. Mesosoma with concave mesopleura, mesothorax narrowest 15
 – Mesosoma with convex mesopleura, mesothorax widest. – Genera *Aptero-*
mutilla Ashmead, 1903 and *Stenomutilla* André, 1896. [Not Oriental.] IX. **Dasylabrinae**
15. Longer lateral felt line located on metasomal sternum 2. – Genus *Smicro-*
myrmilla Suárez, 1965, part. [Not Oriental.] IV. **Ticoplinae**
 – Lateral felt line located on metasomal tergum 2. – Genus *Spilomutilla* V. **Myrmillinae**
16. Head large, quadrate, usually much broader than mesosoma 17
 – Head usual, not elongated behind the eyes, a little bit wider than mesosoma. – *Gynandrotilla* Arnold, 1946 [not Oriental] and *Indratilla* . . . VI. **Mutillinae**
17. Head armed with a large tooth on each side beneath, the upper hind angle acute. – Genus *Myrmilloides* André, 1903. [Not Oriental.] VIII. **Sphaerophthalminae**
 – Head unarmed, the upper hind angle not acute. – Genera *Myrmilla* Wesmael, 1851; *Blakeius* Ashmead, 1903, *Labidomilla* André, 1903, *Odontotilla* Bischoff, 1920, *Omotilla* Invrea, 1943. [All are not Oriental.] V. **Myrmillinae**

F e m a l e s

1. Eyes haired, sometimes the setae rare and visible under large magnification 2
 – Eyes not haired 4
2. Pronotum movable, dorsally it distinctly separated from other mesosoma part 3
 – Pronotum not movable, at most dorsally there is suture trace between pronotum and other mesosoma part IV. **Ticoplinae**
3. Ocelli developed. Clypeus basally with medial tubercle or longitudinal carina I. **Myrmosinae**

- Ocelli lacking. Clypeus basally without any medial tubercle or carina II. **Kudakrumiinae**
- 4. Claws with denticle. Mesosoma dorsally with suture traces. – In Oriental region genus *Pseudophotopsis* only (p. 21) III. **Pseudophotopsidinae**
- Claws without denticle. Mesosoma dorsally without suture traces 5
- 5. Maxillary and labial palps number 2+2. – In Oriental region genus *Rhopalomutilla* only (p. 105) VII. **Rhopalomutillinae**
- Maxillary and labial palps number 6+4 6
- 6. Mesosoma with convex mesopleura, mesothorax widest 7
- Mesosoma with concave mesopleura, mesothorax not widest 9
- 7. Eyes hemispherical VIII. **Sphaerophthalminae**
- Eyes flattened, oval 8
- 8. Metasomal segment 1 petiolate (but not cylindrical). Flagellomeres usually not shortened, flagellomere 2 1.5-2.0 times longer than pedicel IX. **Dasylabrinae**
- Metasomal segment 1 very wide or cylindrical. Flagellomeres shortened, flagellomere 2 equal in length to pedicel X. **Ephutinae**
- 9. Mesopleural suture ends at mid spiracle tubercle. Usually head shape modified; head elongated behind the eyes and remarkably wider than pronotum V. **Myrmillinae**
- Mesopleural suture ends at anterior spiracle. Usually head shape not modified or head weakly wider than pronotum VI. **Mutillinae**

KEYS TO THE TRIBES AND GENERA

I. Subfamily MYRMOSINAE

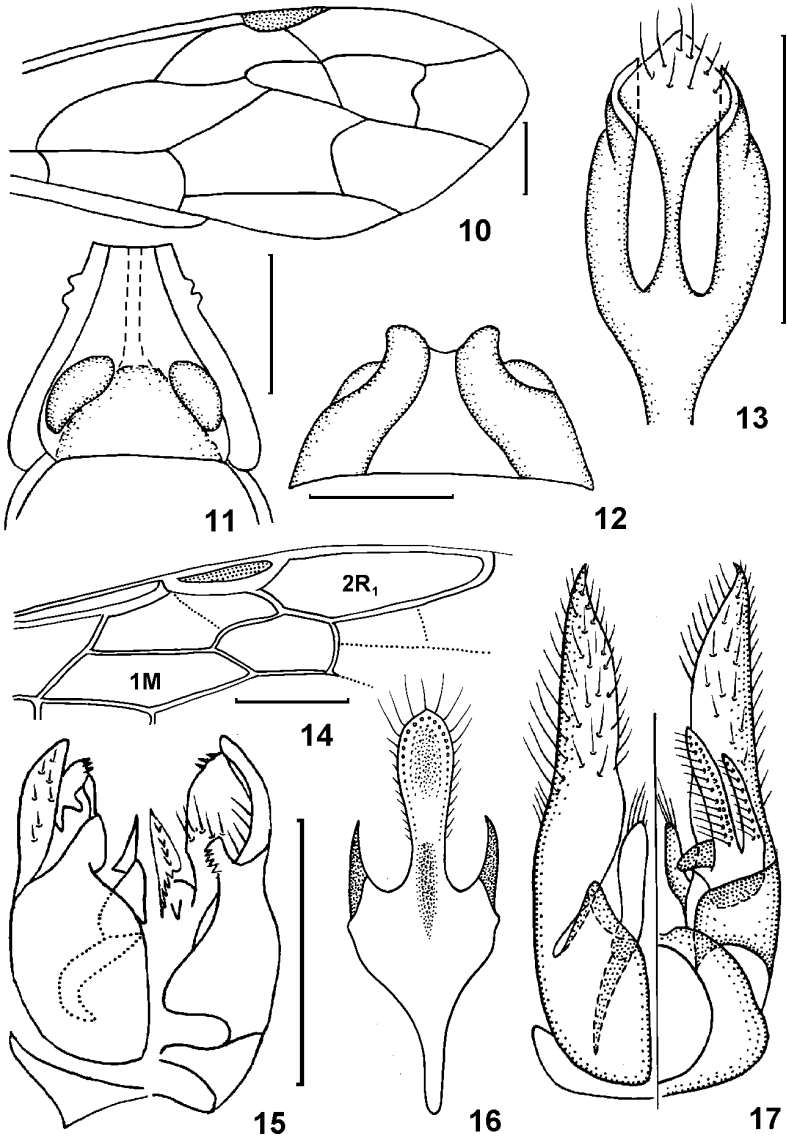
M a l e s (females unknown for *Erimyrmosa*)

- 1. Metasomal tergum 7 laterad without preapical tooth. Metasomal sternum 1 with two large deep pits 2. **Tainyrmosa gen. n.** (p. 20, 161)
- Metasomal sternum 7 laterad with preapical tooth. Metasomal sternum 1 without deep pits. (Figs 16, 17) 1. **Erimyrmosa** (p. 20)

II. Subfamily KUDAKRUMIINAE

F e m a l e s (males unknown for *Nothomyrmosa*)

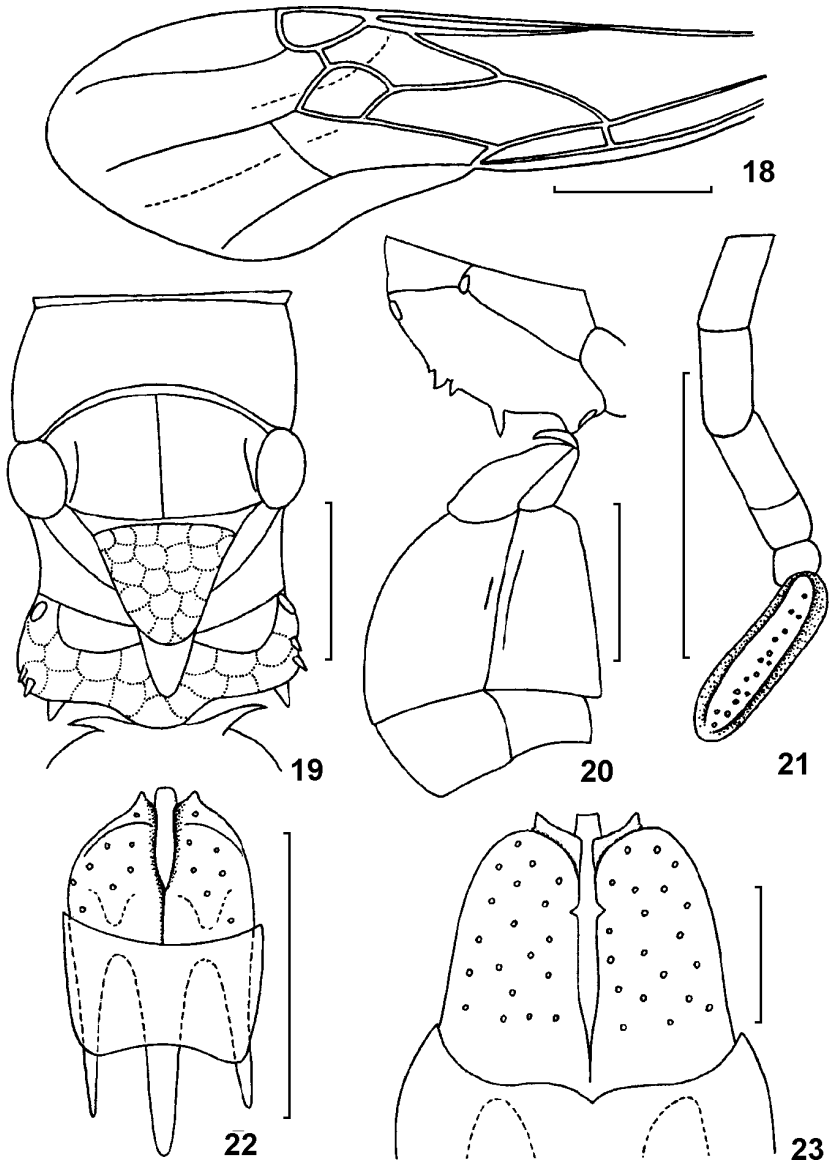
- 1. The distance between posterior eye margin and posterior vertex margin equal to longitudinal eye diameter. Eye microsetae very short scarcely visible under large magnification 3. **Kudakrumia** (p. 20)
- The distance between posterior eye margin and posterior vertex margin more than two times shorter than longitudinal eye diameter. Eye microsetae long, well visible 4. **Nothomyrmosa** (p. 20)



Figs 10-17. Myrmosinae (10-13, 16, 17), Pseudophotopsidinae (14, 15).

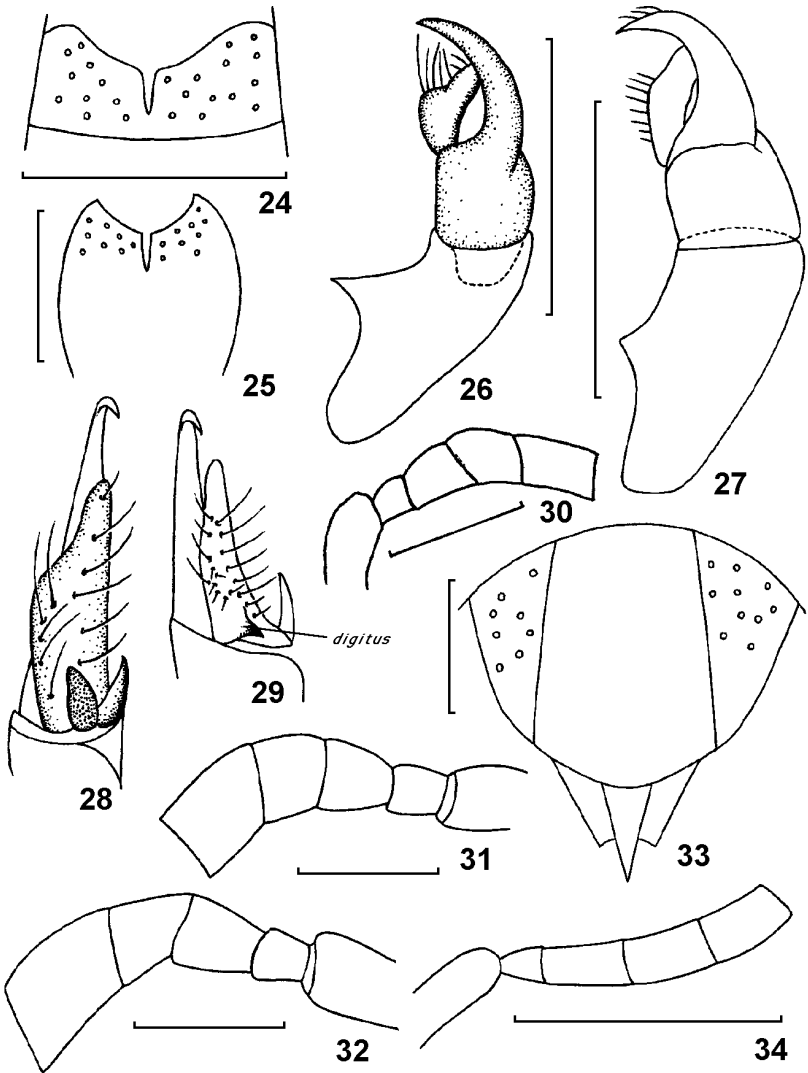
(14, 15 from Lelej, 1995c, 16, 17 from Lelej, 1985).

10-13 – *Taimyrmosa cara* sp. n., holotype, ♂; 14, 15 – *Pseudophotopsis indica*, holotype, ♂; 16, 17 – *Erimyrmosa burmanensis*. 10, 14 – fore wing, 11 – metasomal sternum 1, ventral view, 12 – sternum 7, ventral view, 13, 16 – sternum 8 ventral view, 15, 17 – genitalia, dorsal view at left and ventral view at right. Scale line 1 mm for figs 10, 11, 13, 14, 15 and 0.5 mm for figs 12.



Figs 18-23. Ticoplineae. (From: Lelej, Krombein, 2001).

18-22 – *Eosmicromyrmilla srilankiensis*, paratypes, ♂; 23 – *Hindustanilla indica*, holotype, ♂. 18 – fore wing; 19 – mesosoma, dorsal view; 20 – propodeum and metasomal segments 1-3, lateral view; 21 – scape, pedicel and flagellomeres 1-4; 22, 23 – metasomal sterna 7 and 8, ventral view. Scale line 1 mm for figs 18-22 and 0.25 mm for fig. 23.



Figs 24-34. Ticoplinae. (From Lelej, Krombein, 2001).

24, 27, 29, 34 – *Hindustanilla indica*, ♂; 25, 26, 28, 31 – *Eosmicromyrmilla srilankiensis* (25, 26, 28 – ♂, 31 – ♀); 30, 33 – *H. nathani*, ♀; 32 – *E. chinensis*, ♀. 24, 25 – sternum 6, ventral view; 26, 27 – genitalia, lateral view, 28, 29 – volsella and apical part of gonostylus, ventral view; 30-32, 34 – pedicel and flagellomeres 1-3; 33 – metasomal tergum 6. Scale line 1 mm for figs 24-27, 34 and 0.25 mm for figs 30-33.

IV. Subfamily TICOPLINAE

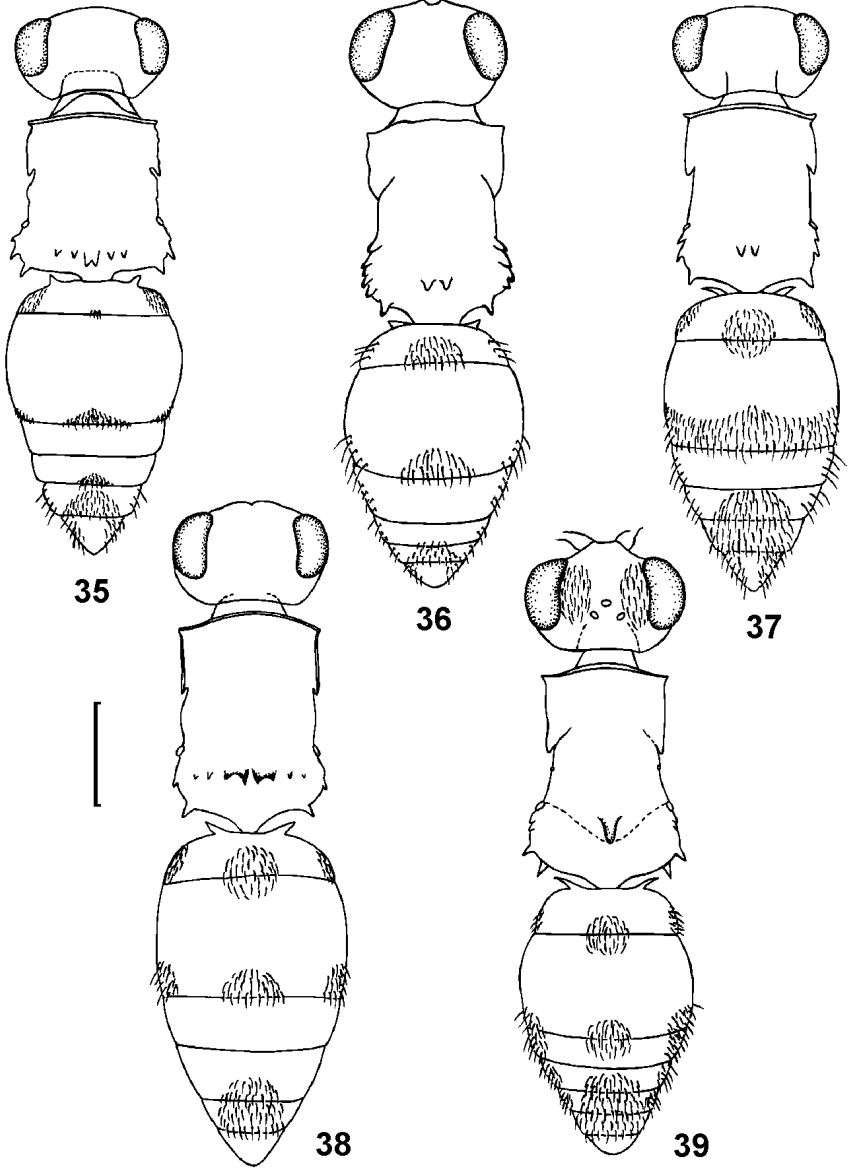
Tribe SMICROMYRMILLINI

M a l e s

1. Alate 2
 - Apterous. – Mesosoma dorsally without evident suture, propodeum dorsally with long medial spine 3
2. Ratio of flagellomeres 1-3 1.1:2.0:2.3 (Fig. 21). Propodeum laterally with one longer (basal) and two shorter teeth (Fig. 20). Metasomal sternum 6 with medial narrow emargination (Fig. 25). Wide part of medial hypopygium emargination 2/3 of hypopygium medial length (Fig. 22). Body black with mesosoma mostly red. (Figs 18-22, 25, 26, 28)
 - 7. *Eosmicromyrmilla* (p. 22)
 - Ratio of flagellomeres 1-3 1.0:1.5:2.0. Propodeum laterally without teeth. Metasomal sternum 6 without medial emargination. Wide part of medial hypopygium emargination 5/6 of hypopygium medial length. Body black [*Smicromyrmilla* Suárez, 1965]
3. Head large with small eyes, not narrowed behind the eyes, the part behind the eyes more than 2 times longer their length. Ocelli probably absent. Lateral propodeal sides with three longer and one shorter spines
 - 6. *Cameronilla* (p. 22)
 - Head usual with large eyes, strongly narrowed behind the eyes, the part behind the eyes more than 2 times shorter their length. Ocelli developed. Lateral propodeal sides with two large spines and two small tubercles. (Figs 23, 24, 27, 29, 34, 39) 8. *Hindustanilla* (p. 23)

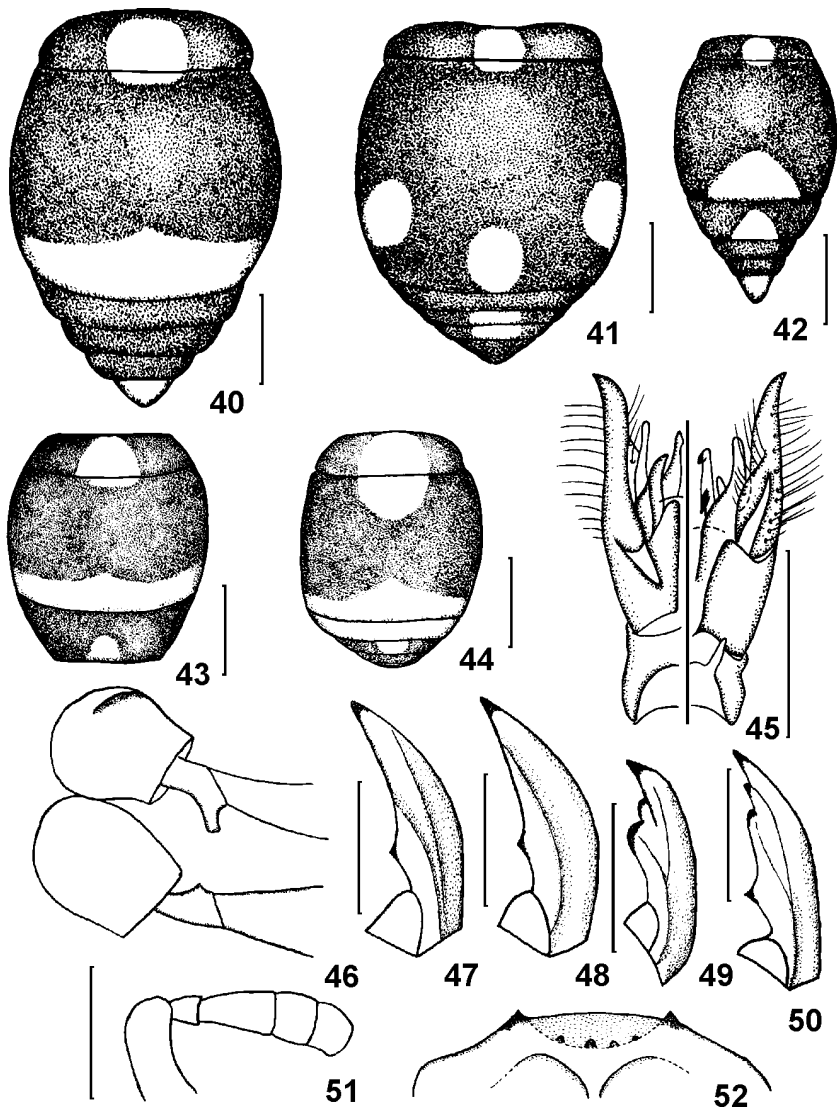
F e m a l e s (unknown for *Cameronilla*)

1. Smooth medial part of metasomal tergum 6 not touch the base (tergum punctured basally and laterally). Lateral pronotal border shorter than mesonotal one. Metasomal tergum 1 laterally without silver patch
 - [*Smicromyrmilla* Suárez, 1965]
 - Smooth medial part of metasomal tergum 6 touch the base (tergum punctured laterally only). Lateral pronotal border longer than mesonotal one. Metasomal tergum 1 laterally with silver patch 2
2. Medial smooth part of metasomal tergum 6 laterally weakly bordered and narrowed basally. Lateral propodeal sides strongly reticulate. Mid and hind tibia dorsally with stronger spines. (Figs 30, 33, 38)
 - 8. *Hindustanilla* (p. 23)
 - Medial smooth shiny part of metasomal tergum 6 laterally not bordered. Lateral propodeal sides microsculptured, not reticulate. Mid and hind tibia dorsally with weak spines. (Figs 31, 32, 35-37)
 - 7. *Eosmicromyrmilla* (p. 22)



Figs 35-39. Ticoplinae. (35, 37-39 from Lelej, Krombein, 2001).

35 – *Eosmicromyrmylla srilankiensis*; 36 – *E. pulawskii* sp. n., holotype; 37 – *E. chinensis*; 38 – *Hindustanilla nathani*, ♀; 39 – *H. indica*, ♂. 35-38 – female habitus, dorsal view, 39 – male habitus, dorsal view. Scale line 1 mm.



Figs 40-52. Myrmillinae. (40-44, 46-52 from Krombein, Lelej, 1999; 45 from Lelej et al., 2001). 40 – *Bischoffitilla strangulata*, ♀; 41, 49 – *Spilomutilla consolidata*, ♀; 42, 50 – *B. puerilis*, ♀; 43, 46, 47, 51, 52 – *Bethsmymilla alticola*, ♀; 44, 48 – *B. lamellata*, ♀; 45 – *Bischoffitilla exilipunctata*, ♂. 40-44 – patterns of pale pubescence on metasomal terga (43 – terga 1-3 only); 45 – genitalia, dorsal view at left, ventral view at right; 46 – coxa, trochanter, base of femur, mid leg above, hind leg below; 47-50 – mandible; 51 – pedicel, and flagellomeres 1-3; 52 – clypeus, frontal view. Scale line 1 mm for Figs 40-45, 49 and 0.5 mm for Figs 46-49, 50-52.

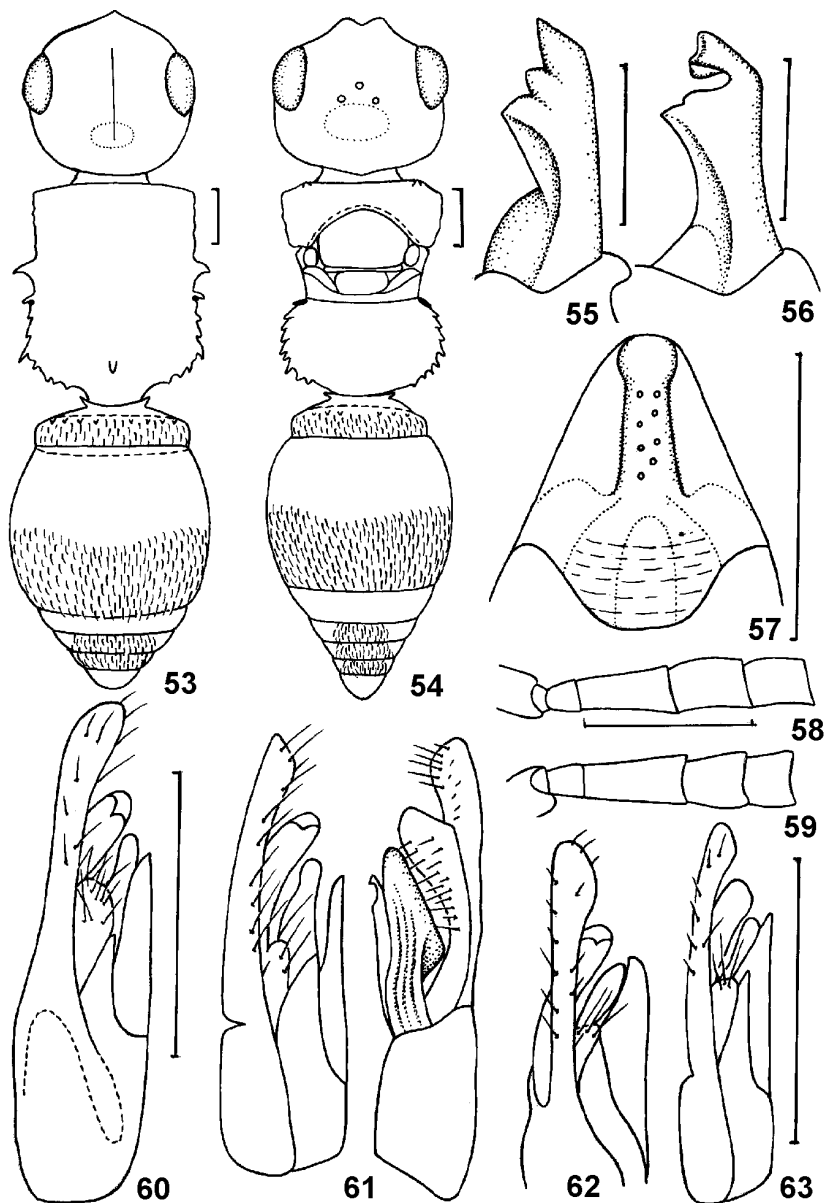
V. Subfamily MYRMILLINAE

M a l e s (unknown for *Bethsmyrmilla* and *Brahmatilla*)

1. Apterous 2
- Alate 3
2. Mandible extremely widened apically, with deep preapical emargination (Fig. 56). Hind coxa ventrally with postero-lateral small sharp denticle. Metasomal sternum 8 without longitudinal lateral projection (Fig. 57). Metasomal tergum 1 with distinct anterior and dorsal surfaces divided by sharp transverse carina, dorsally with wide pale band or medial pale spot (Fig. 54) 13. *Spilomutilla* (p. 32)
- Mandible elongated, weakly widened apically, without deep preapical emargination. Hind coxa ventrally without denticle. Metasomal sternum 8 with longitudinal lateral projection. Metasomal tergum 1 without distinct anterior and dorsal surfaces, rounded, without transverse carina, dorsally posterad with pale fringe. (Subgenus *Pseudomutilla* Costa) 12. *Myrmilla* (p. 31)
3. Mandible not widened apically, inner border with strong subbasal tubercle. (Fig. 45) 10. *Bischoffitilla* (p. 23)
- Mandible widened apically, inner border at most with weak subbasal tubercle 12. *Myrmilla* (p. 31)

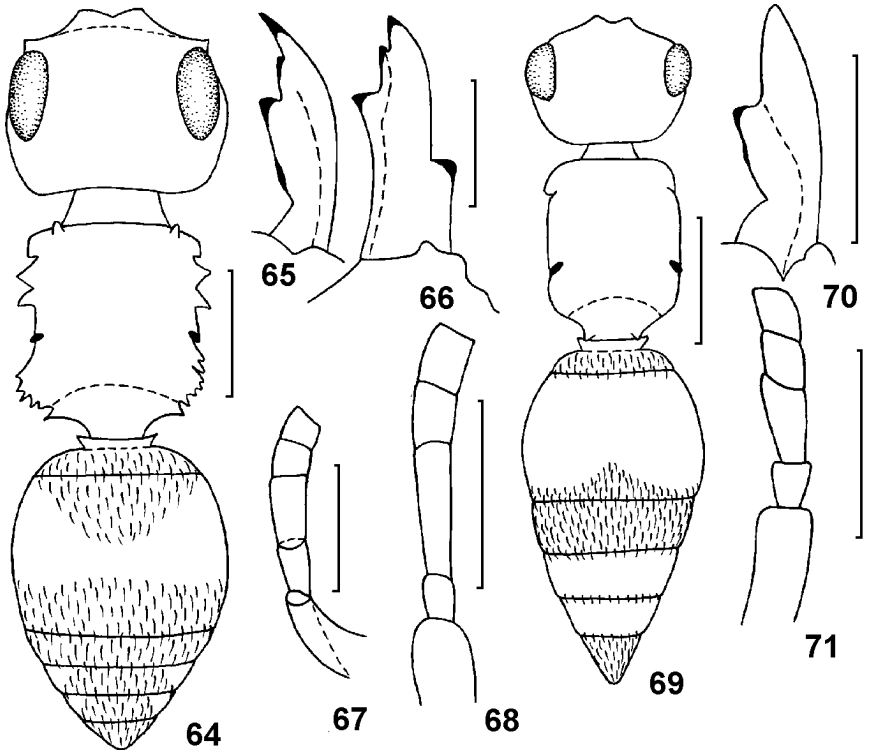
F e m a l e s

1. Mandible excised beneath, and with a large tooth at the base beneath. (Fig. 64-67) 11. *Brahmatilla* **gen. n.** (p. 31, 163)
- Mandible with the ventral margin straight, not at all excised, and without a tooth at the base beneath 2
2. Mandible widened apically, without inner subbasal tubercle (Figs 49, 55). Metasomal sternum 6 with two basal and two preapical small tubercles. Metasomal tergum 2 posteriorly with three spots (Fig. 41) or a wide band of pale pubescence shallowly concave medially. Metasomal sternum 2 with medial longitudinal carina ending usually in acute tubercle . . 13. *Spilomutilla* (p. 32)
- Mandible not widened apically, with subbasal tooth on inner margin (Figs 47, 48, 50). Metasomal sternum 6 not tuberculate. Metasomal tergum 2 posteriorly with a band of pale pubescence that widens medially to an obtuse angle (Figs 40, 43, 44) or with a large medial spot (Fig. 42). Metasomal sternum 2 carinate not sending in a tubercle 3
3. Mid trochanter with narrow apical process (Fig. 46); posterolateral angle of head tuberculate behind eye; mesosoma gently sloping posteriorly. (Figs 43, 46, 47, 51, 52) 9. *Bethsmyrmilla* (p. 23)
- Mid trochanter without process; posterolateral angle of head not tuberculate but gena tuberculate below eye in *Bischoffitilla lamellata* and *B. arundinacea*; mesosoma abruptly sloping posteriorly 4



Figs 53-63. Myrmillinae.

53-59, 61 - *Spilomutilla sri* sp. n. (53, 55, 59 - ♀, 54, 56-58, 61 - ♂); 60 - *S. lanka* sp. n., ♂; 62 - *S. eltola*, ♂; 63 - *S. consolidata*, ♂. 53, 54 - habitus, dorsal view; 55, 56 - mandible; 57 - metasomal sternum 8; 58, 59 - pedicel and flagellomeres 1-3; 60-63 - genitalia, dorsal view (61 - ventral view at right). Scale line 1 mm.



Figs 64-71. Myrmillinae.

64-67 – *Brahmatilla krishna* sp. n., holotype, ♀; 68 – *Myrmilla lagmana*, paratype, ♀; 69-71 – *M. pakistanensis* sp. n., holotype, ♀. 64, 69 – habitus, dorsal view; 65, 66, 70 – mandible (65, 70 – dorsal view, 66 – lateral view); 67, 68, 71 – pedicel and flagellomeres 1-3. Scale line 1 mm for figs 64, 69 and 0.5 mm for figs 65-68, 70, 71.

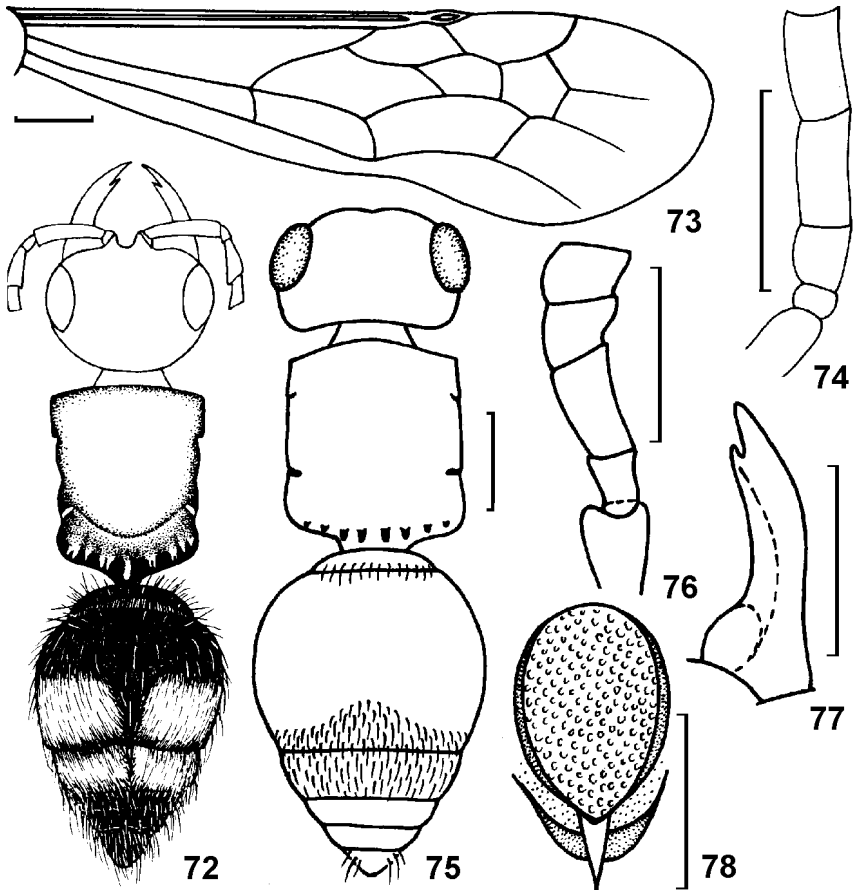
4. Mesosoma not dentate posterad nor laterad (Fig. 69). Mandible more or less widened apically. Metasomal tergum 1 posterad with band of pale pubescence; metasomal tergum 2 posterad with band of pale pubescence shallowly widened medially; metasomal tergum 3 with band of pale pubescence. Flagellomere 1 two times longer than flagellomere 2. (Figs 69-71) 12. *Myrmilla* (p. 31)
- Mesosoma usually dentate posterad and laterad, if not dentate at all posterad (*B. puerilis* and *B. afghanica*), than metasomal tergum 2 with large spot of pale pubescence on posterior margin and metasomal tergum 3 with such but smaller spot. Mandible acuminate apically. Metasomal tergum 1 posterad with medial spot of pale pubescence; metasomal tergum 2 posterad with band of pale pubescence shallowly widened medially; metasomal tergum 3 black. Flagellomere 1 1.5 times longer than flagellomere 2. (Figs 40, 42, 50) 10. *Bischofftiilla* (p. 23)

VI. Subfamily MUTILLINAE

KEY TO THE TRIBES

Males

1. Tegula long, projecting over mesoscuto-scutellar suture, if much shorter, than eye notch weak. Metasomal segment 1 more or less transverse, wide
 **Mutillini**



Figs 72-78. Mutillinae. Mutillini. (72 from Lelej, 1992).

72 – *Ctenotilla guangdongensis*, ♀; 72-78 – *C. porcella* (73, 74 – ♂; 75-78 – ♀). 72, 75 – habitus, dorsal view; 73 – fore wing, 74, 76 – pedicel and flagellomeres 1-3; 77 – mandible 78 – pygidial area. Scale line 1 mm for figs 73-75, 77 and 0.5 mm for figs 76, 78.

- Tegula usually not projecting over mesoscuto-scutellar suture. Metasomal segment 1 different shape, but not transverse, narrow 2
- 2. Fore wing: distance between origin of *RS* on vein *SC* and the base of stigmatic cell almost 2 times stigmatic cell length or more than 2 times first abscissa *RS* length. Flagellomere 1 1.5–2.0 times shorter than flagellomere 2 **Smicromyrmini**
- Fore wing: distance between origin of *RS* on vein *SC* and the base of stigmatic cell more or less equal to stigmatic cell length or first abscissa *RS* length. Usually flagellomere 1 more or less equal to flagellomere 2 or longer than it does 3
- 3. Penial valves of genitalia symmetrical. Mesoscutellum not gibbous, usually without medial carina. Metasomal sternum 8 (hypopygium) usually without a pair of strong lateral carinae **Petersenidiini**
- Penial valves of genitalia more or less asymmetrical. Mesoscutellum gibbous, usually with medial longitudinal carina or narrow smooth line. Metasomal sternum 8 usually with a pair of strong lateral carinae **Trogaspidiini**

F e m a l e s

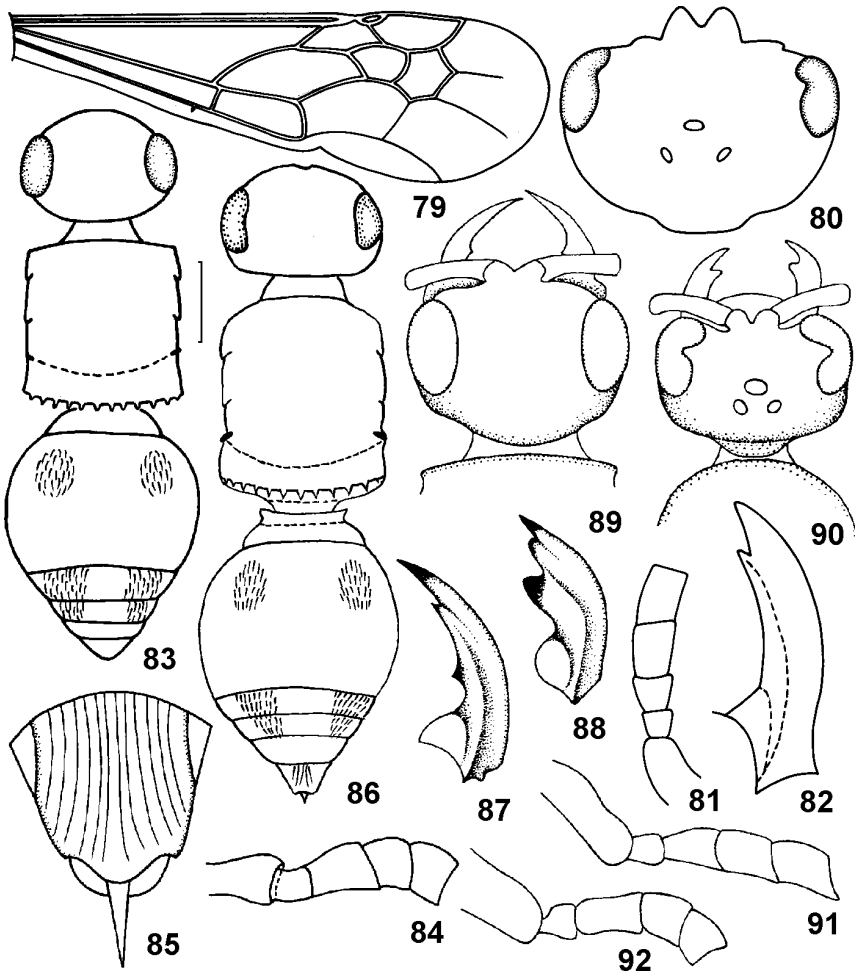
- 1. Metasomal tergum 1 very wide, slightly narrower than tergum 2 or mesosoma posterad with transverse row of denticles or tubercles. Head usually enlarged. Metasomal tergum 2 usually without basal pale spots . . . **Mutillini**
- Metasomal tergum 1 not so wide, much narrower than tergum 2, mesosoma posterad without transverse row of denticles or tubercles. Head not enlarged. Metasomal tergum 2 usually with one, three or two basal pale spots disposed transversely 2
- 2. Metasomal tergum 2 with one or three basal spots of pale pubescence disposed transversely, rarely with basal band of pale pubescence (some *Dentilla*), if without basal spots of pale pubescence (*Promecilla*), than mesosoma remarkably convergent posterad and approximately two times as long as wide **Smicromyrmini**
- Metasomal tergum 2 with two basal spots of pale pubescence disposed transversely, rarely without such spots (some *Radoszkowskius* and *Trogaspidia*) 3
- 3. Mesosoma broadest in pronotum or pronotal and propodeal width equal. Pygidial area usually weakly developed **Petersenidiini**
- Mesosoma definitely broadest in propodeum. Pygidial area usually well developed **Trogaspidiini**

KEYS TO THE GENERA

Tribe MUTILLINI

Males (unknown for *Kurzenkotilla*)

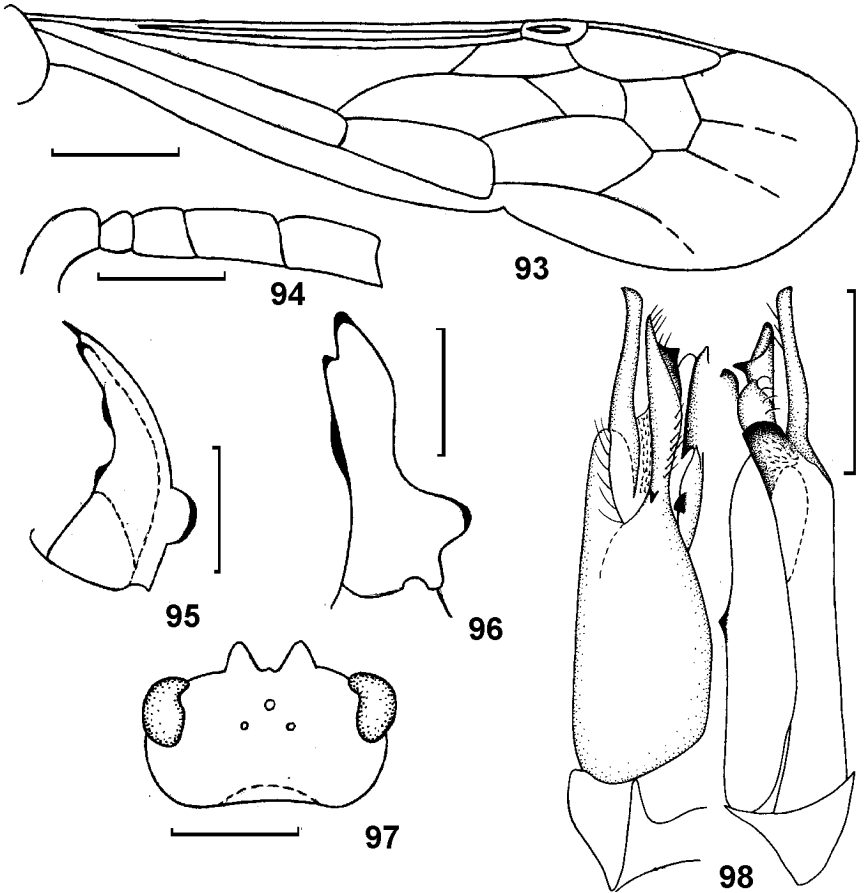
1. Mandible beneath with rounded lobe 2
 – Mandible beneath without any lobe or tooth 4



Figs 79-92. Mutillinae. Mutillini. (9-14 from Lelej, 1992).

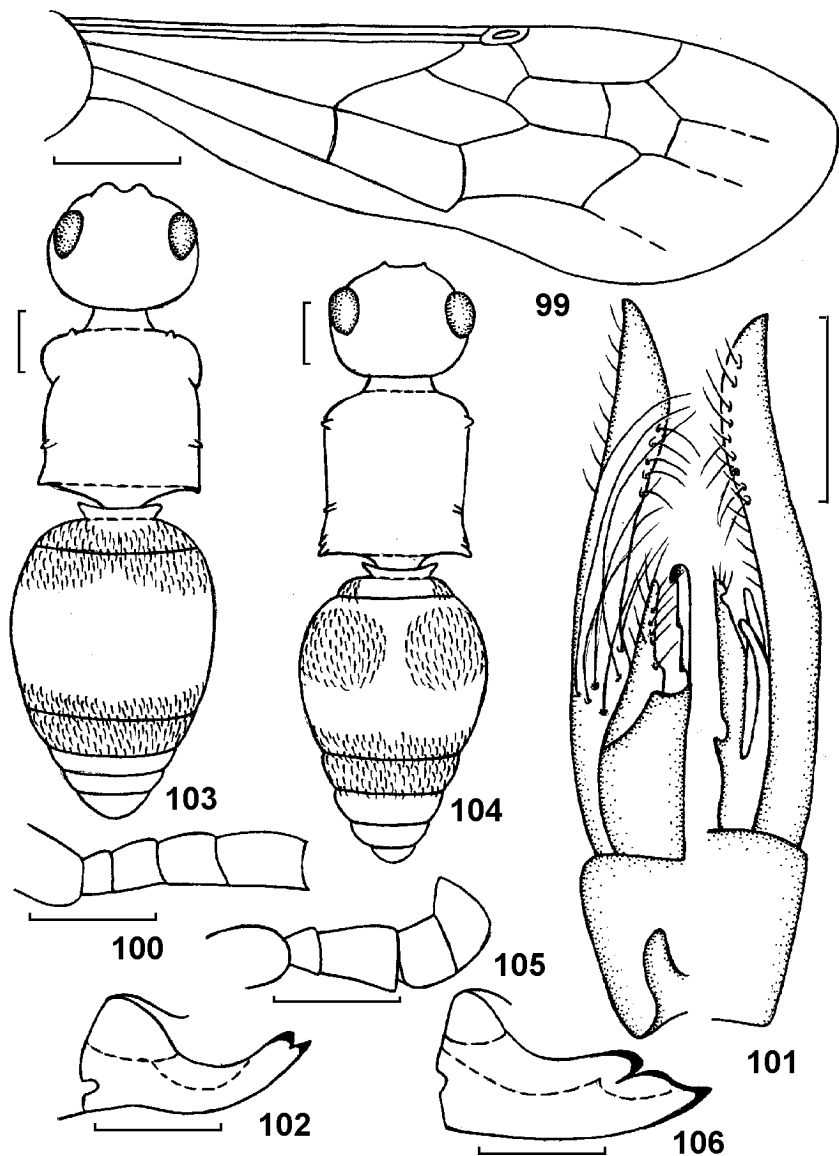
79-82 – *Pristomutilla* sp., ♂ (Ethiopia); 83-85 – *P. ianthis*, ♀ (Sri Lanka); 86 – *P. locascioi* sp. n., holotype, ♀; 87, 89, 92 – *Zeugomutilla saepes*, ♀; 88, 90, 91 – *Z. pycnopyga*, ♂. 79 – fore wing; 80, 89, 90 – head; 81, 84, 91, 92 – pedicel and flagellomeres 1-3; 82, 87, 88 – mandible; 83, 86 – habitus, dorsal view; 85 – pygidial area.

2. Metasomal sternum 2 with strong medial longitudinal carina which widened posterad to tooth. Preoccipital carina dorsally extremely developed and projecting over head. (Figs 88, 90, 91) 21. *Zeugomutilla* (p. 37)
- Metasomal sternum 2 at most with weak medial longitudinal ridge. Preoccipital carina dorsally usual and not projecting over head 3



Figs 93-98. Mutillinae. Mutillini.

93-98 – *Lehitilla lanka* sp. n., holotype, ♂. 93 – fore wing, 94 – pedicel and flagellomeres 1-3; 95, 96 – mandible (95 – dorsal view, 96 – lateral view), 97 – head, 98 – genitalia (dorsal view at right, ventral view at left). Scale line 1 mm for figs 93, 97 and 0.5 mm for figs 94-96, 98.



Figs 99-106. Mutillinae. Mutillini.

99-102 – *Storozhenkotilla aurofasciata*, ♂; 103 – *S. cicatricifera*, ♀; 104-106 – *Kurzenkotilla annamensis* sp. n., holotype, ♀. 99 – fore wing; 100, 105 – pedicel and flagellomeres 1-3; 101 – genitalia (dorsal view at right, ventral view at left); 102, 106 – mandible; 103, 104 – habitus, dorsal view. Scale line 1 mm for figs 99, 103, 104 and 0.5 mm for figs 100-102, 105, 106.

3. Metasomal sternum 8 (hypopygium) with strong medial carina, sternum 7 with lateral tubercle. Gonostylus bilobed, with strong basal lobe curved dorsally and narrow short distal lobe. Mandible bidentate, with weak subbasal inner tooth. (Figs 93-98) 16. **Lehritilla gen. n.** (p. 35, 172)
- Metasomal sterna 8 and 7 without any carina or tubercle. Gonostylus usual, not bilobed, much longer than volsella, rather straight. Mandible with strong subbasal inner tooth. (Figs 107, 108, 110, 112) 20. **Strangulotilla** (p. 37)
4. Tegula short, not touch mesoscuto-scutellar suture, weakly sculptured. (Figs 79-82) 18. **Pristomutilla** (p. 36)
- Tegula longer, much projecting over mesoscuto-scutellar suture, strongly sculptured 5
5. Metasomal terga 3-7 with medial longitudinal carina. Metasomal sternum 8 with deep shining fovea surrounded laterally by tuft of setae. Prementum tuberculate. (Figs 73, 74) 14. **Ctenotilla** (p. 34)
- Metasomal terga 3-7 without medial longitudinal carina. Metasomal sternum 8 not modified. Prementum not tuberculate 6
6. Mandible widened apically, spatulate. Flagellomere 1 longer or equal flagellomere 2. Clypeus with medial projection. Metasomal tergum 7 tuberculate or carinate. Gonostylus ventro-basally densely setose 17. **Mutilla** (p. 35)
- Mandible not widened apically, bidentate. Flagellomere 1 shorter than flagellomere 2. Clypeus with lateral projections. Metasomal tergum 7 not tuberculate or carinate. Gonostylus ventro-basally with a few long setae. (Figs 99-102) 19. **Storozhenkotilla gen. n.** (p. 37, 176)

F e m a l e s (unknown for *Lehritilla*)

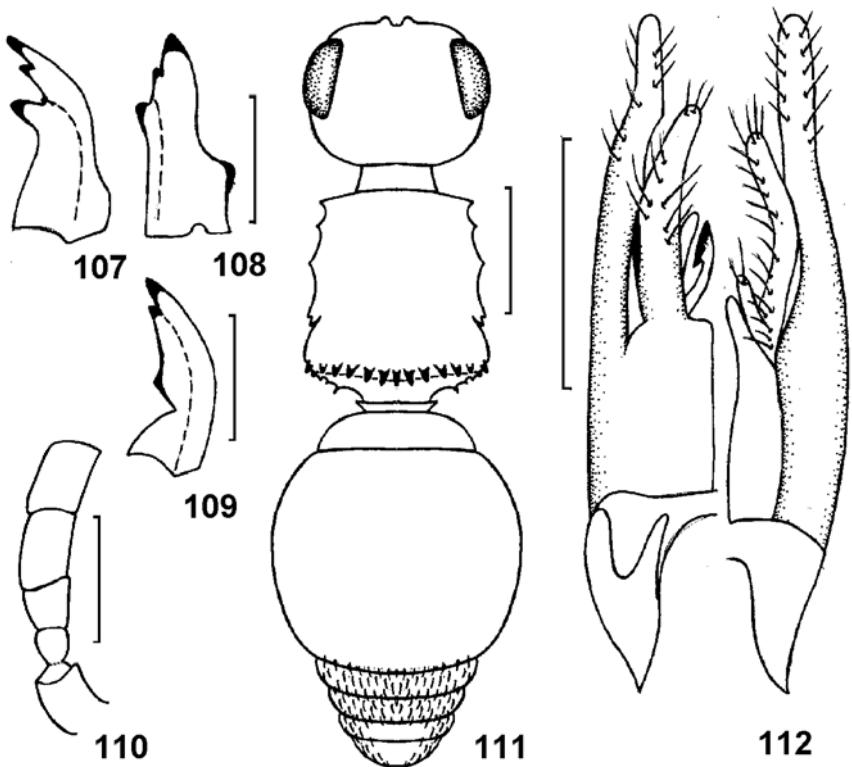
1. Mesosoma with transverse propodeal row of denticles 2
- Mesosoma without transverse propodeal row of denticles 5
2. Inner margin of mandible with small subbasal denticle 4
- Inner margin of mandible without subbasal denticle 3
3. Metasomal tergum 2 with two pale spots in basal half. Pygidial area longitudinally striated. (Figs 83-86) 18. **Pristomutilla** (p. 36)
- Metasomal tergum 2 without pale spots in basal half. Pygidial area granulated. (Figs 72, 75-78) 14. **Ctenotilla** (p. 34)
4. Metasomal tergum 2 with two pale spots located transversely near the middle. (Figs 87, 89, 92) 21. **Zeugomutilla** (p. 37)
- Metasomal tergum 2 without pale spots located transversely, posterad without (*S. krombeini*) or with pale band (Afrotropical species). (Figs 109, 111) 20. **Strangulotilla** (p. 37)
5. Metasomal tergum 2 anterad with pale transverse band, which emarginated posterad or with two ovate pale spots disposed transversely 6
- Metasomal tergum 2 basally without any band or spots 17. **Mutilla** (p. 35)

6. Eyes large, distance behind eye less than eye length. Metasomal tergum 2 basally with two ovate pale spots disposed transversely. (Figs 104-106) 15. *Kurzenkotilla* **gen. n.** (p. 34, 170)
- Eyes small, distance behind eye more than eye length. Metasomal tergum 2 basally with pale transverse band which emarginated posterad. (Fig. 103) 19. *Storozhenkotilla* **gen. n.** (p. 37, 176)

Tribe SMICROMYRMINI

Males

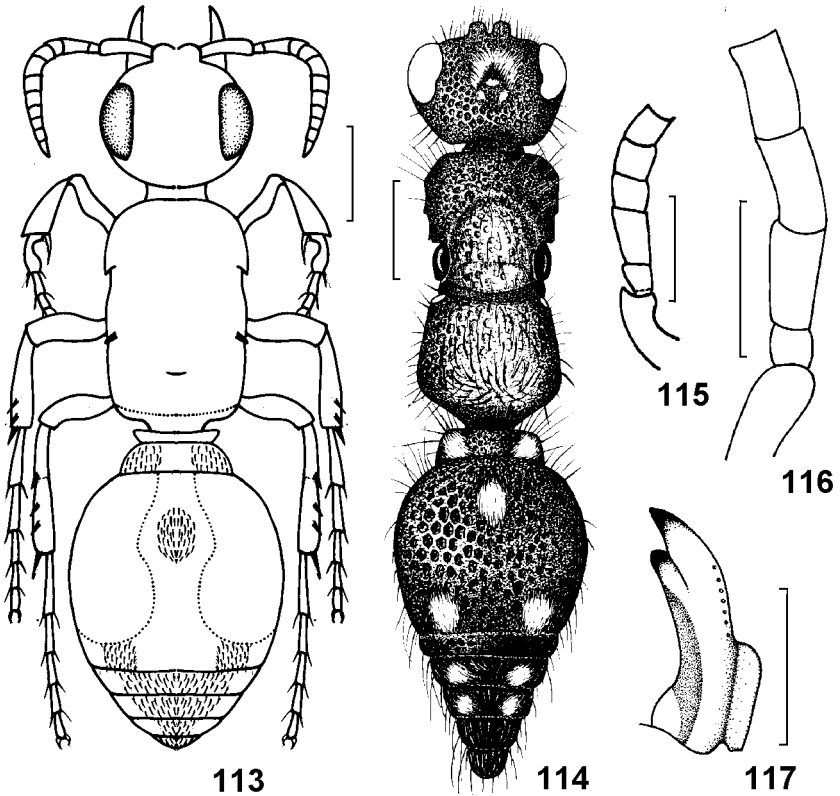
1. Apterous. – Gonostylus apically curved down (lateral view). Volsella short, a half of gonostylus length, ventrally with dense hairs which longer than basal



Figs 107-112. Mutillinae. Mutillini.

107-112 – *Strangulotilla krombeini* sp. n., paratypes (107, 108, 110, 112 – ♂; 109, 111 – ♀). 107-109 – mandible (107, 109 – dorsal view, 108 – lateral view); 110 – pedicel and flagellomeres 1-3; 111 – habitus, dorsal view; 112 – genitalia (dorsal view at right, ventral view at left). Scale line 1 mm for fig. 111 and 0.5 mm for figs 107-110, 112.

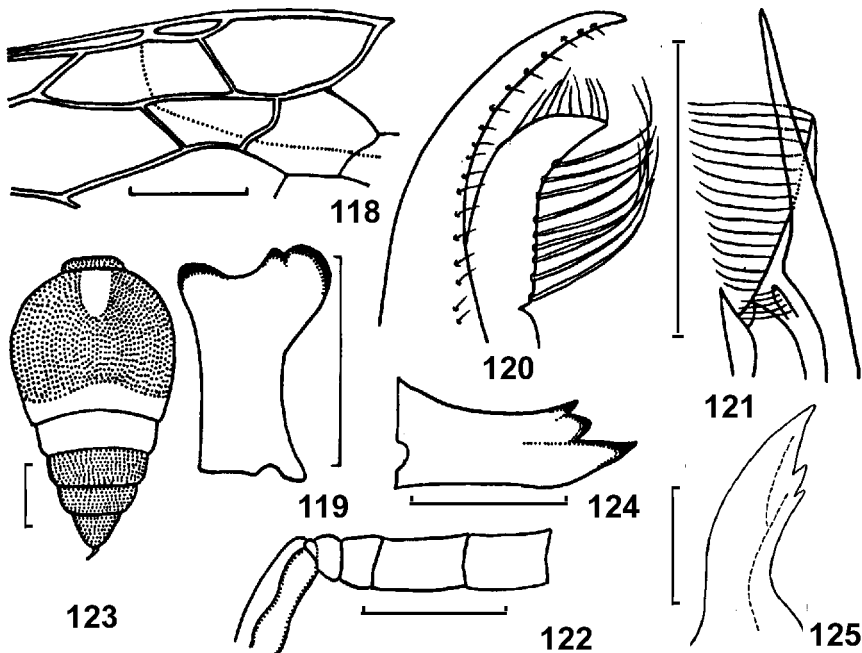
- gonostylus width. Metasomal sternum 8 without any carina. Metasomal tergum 1 with distinct short dorsum. (Figs 114, 116, 117) 26. *Indratilla* (p. 42)
- Alates 2



Figs 113-117. Mutillinae. Smicromyrmini. (114, 116, 117 from Lelej, 1993).
 113-117 – *Indratilla gynandromorpha* (113, 115 – ♀; 114, 116, 117 – ♂. 113, 114 – habitus, dorsal view; 115, 116 – pedicel and flagellomeres 1-3; 117 – mandible. Scale line 1 mm for figs 113, 114 and 0.5 mm for figs 115-117.

2. Flagellomere 1 0.5-0.6 times its maximum width, 0.3-0.4 times flagellomere 2. Maxillary palp very long, approximately equal in length to antenna. – Metasomal sternum 2 usually with short lateral felt line, rarely without any traces. (Figs 171-177, 179) 33. *Sinotilla* (p. 54)
- Flagellomere 1 equal its maximum width, 0.6 times flagellomere 2. Maxillary palp much shorter than antenna 3

3. Metasomal sternum 2 with short lateral felt line, sometimes reduced to a few small punctures 4
 – Metasomal sternum 2 without any trace of lateral felt line 8
4. Mandible strongly widened to apex, preapical inner teeth equal to apical one or larger it 5
 – Mandible narrowed to apex, preapical inner teeth distinctly smaller than apical one 6

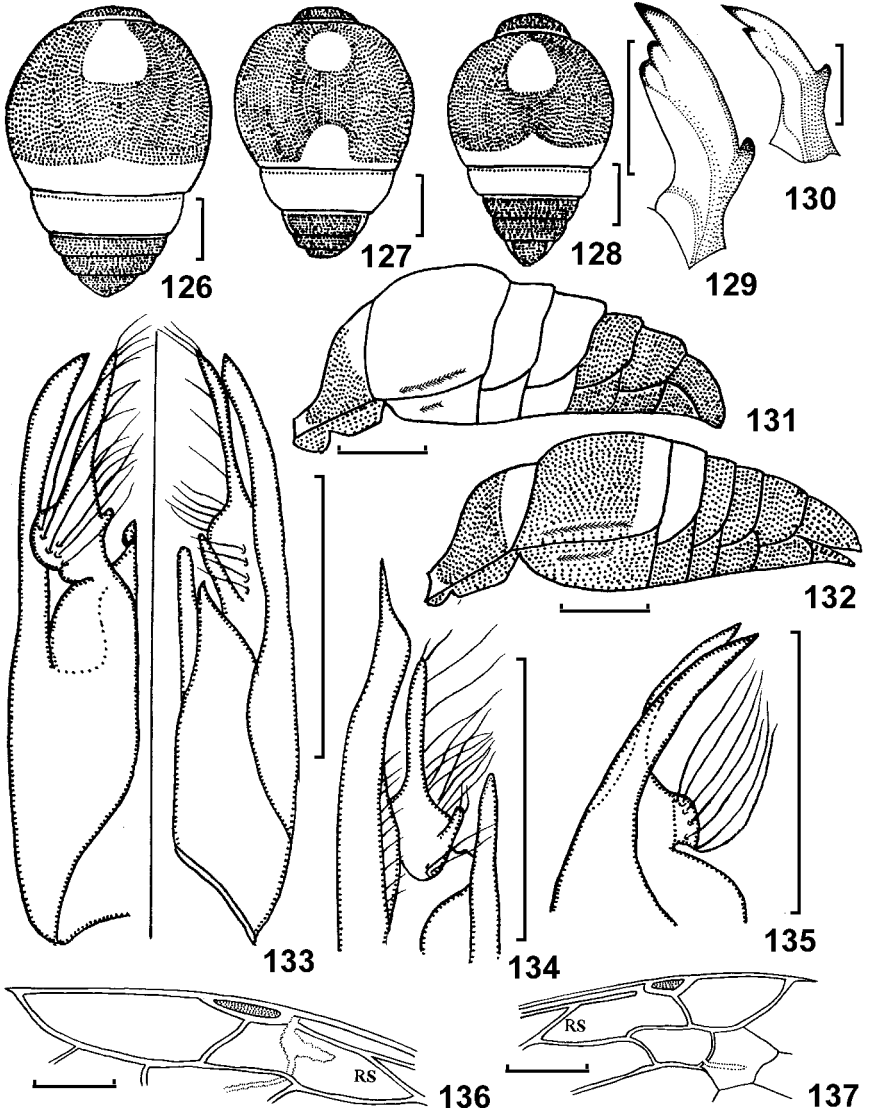


Figs 118-125. Mutillinae. Smicromyrmini.

(118-124 from Lelej, 1995b, 125 from Lelej, 1996d).

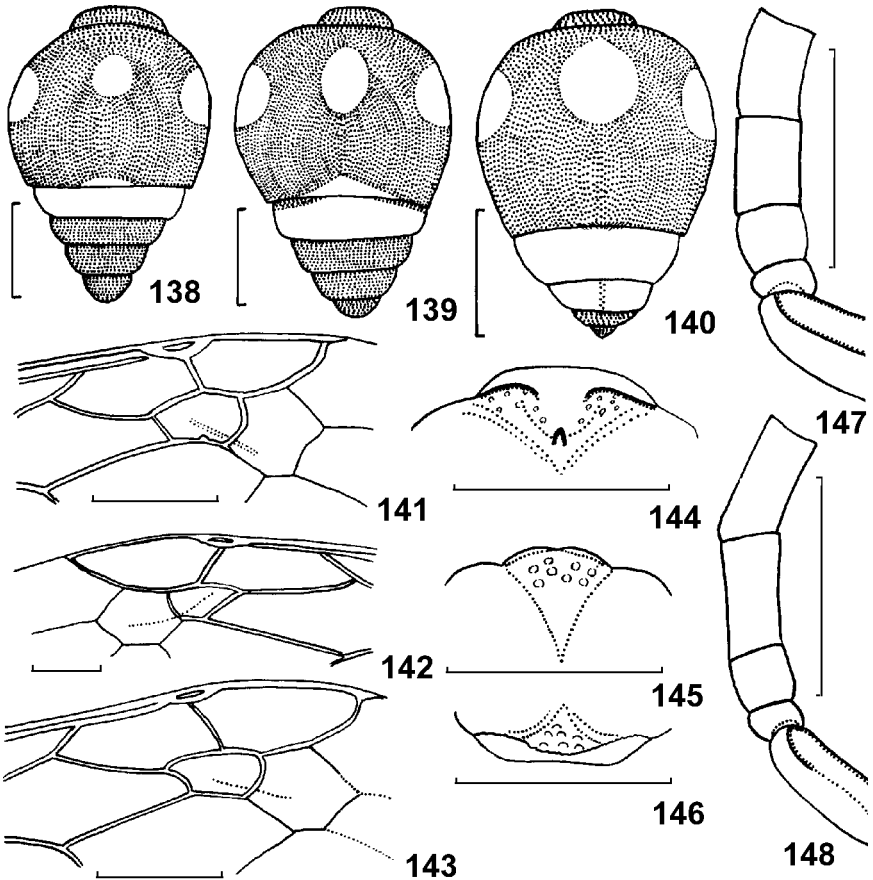
118-122 – *Andreimyrmex long*, holotype, ♂; 123, 124 – *A. tridentiens*, ♀; 125 – *A. sarawakensis*, holotype, ♀. 118 – fore wing; 119, 124, 125 – mandible; 120, 121 – genitalia (120 – lateral view, 121 – dorsal view); 122 – pedicel and flagellomeres 1-3; 123 – metasomal habitus. Scale line 1 mm for figs 118-123, 0.5 mm for fig. 124, and 0.25 mm for fig. 125.

5. Inner eye margin with deep notch. Pterostigma of fore wing 0.7 times distance between pterostigma and base *RS* on *SC+R*. Width of metasomal segment 2 1.2 times of propodeal width. (Figs 185-189) . . . 35. *Tsunekimyrmex* (p. 65)
- Inner eye margin with weak notch. Pterostigma of fore wing 1.4 times distance between pterostigma and base *RS* on *SC+R*. Width of metasomal segment 2 1.5 times of propodeal width. (Figs 152-153) 23. *Dentilla* (p. 39)



Figs 126-137. Mutillinae. Smicromyrmini. (From Lelej, 1995a).

126, 129, 134, 136 – *Nemka wotani* (126 – ♀, 129, 134, 136 – ♂); 127 – *N. aurantiaca* (Skorikov, 1935), ♀; 128, 131, 133, 135 – *N. pagdeni* (128 – ♀, 131, 133, 135 – ♂); 130, 132 – *Michelomyrme exacta*, ♂; 137 – *M. hageni*, ♂. 126-128, 131, 132 – metasomal habitus; 129, 130 – mandible; 133-135 – genitalia (133 – dorsal view at right, ventral view at left, 134 – dorsal view, 135 – lateral view); 136, 137 – fore wing. Scale line 1 mm for figs 126-137.

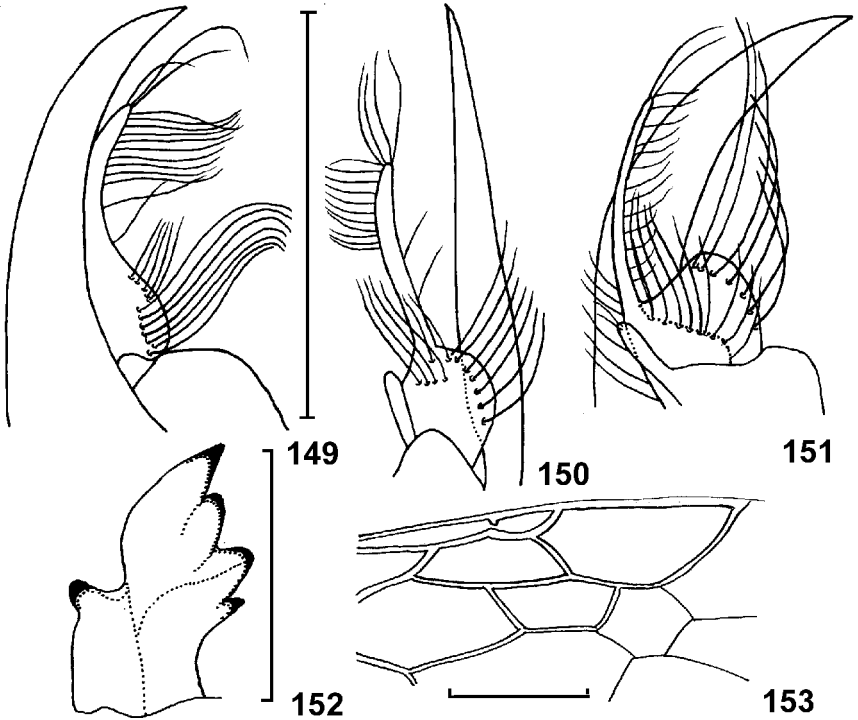


Figs 138-148. Mutillinae. Smicromyrmini. (From Lelej, 1996a).

138 – *Mickelomyrme hageni*, ♀; 139, 141, 147 – *M. yunnanensis* (139 – ♀, 142, 147 – ♂); 140 – *M. kuznetsovi*, paratype, ♀; 142, 144 – *M. norna*, ♂; 143, 145, 146, 148 – *M. abnormalis*, ♂. 138-140 – metasomal habitus; 141-143 – fore wing; 144-146 – clypeus (144, 145 – dorsal view, 146 – frontal view); 147, 148 – pedicel and flagellomeres 1-3. Scale line 1 mm for figs 138-148.

6. Genital volsella without basal external lobe and long narrow cuspis. Basivolsella at most with short setae 34. *Smicromyrme* (p. 56)
 – Genital volsella with basal external lobe and long narrow cuspis. Basivolsella with very long setae 7
7. Mandible tridentate at apex. Mesopleura beneath with one or two pairs of precoxal denticles or tubercles. (Figs 129, 131, 133-136)
 29. *Nemka* (p. 45)

- Mandible bidentate at apex. Mesopleura beneath without precoxal denticles or tubercles. (Figs 130, 132, 137, 141-151) 28. *Mickelomyrme* (p. 43)

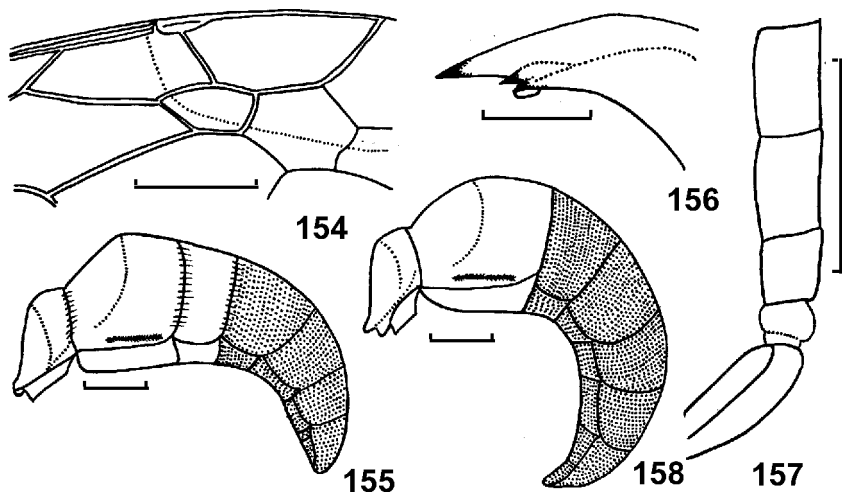


Figs 149-153. Mutillinae. Smicromyrmini.
(149-151 from Lelej, 1996a, 152, 153 from 1995c).

- 149 – *Mickelomyrme abnormalis*, ♂; 150 – *M. norna*, ♂; 151 – *M. yunnanensis*, ♂; 152, 153 – *Dentilla kompartsevi*, ♂. 149-151 – genitalia (149 – latero-ventral view, 150 – ventral view, 151 – inner view; 152 – mandible; 153 – fore wing. Scale line 1 mm for figs 149-153.

8. Mandible strongly widened to apex, preapical inner teeth equal to apical one or larger than it did 9
– Mandible narrowed to apex, preapical inner teeth considerably smaller than apical one 10
9. Mandible not excised beneath, without tooth or lobe near the base. Flagellomere 1 0.7 times its maximum width. (Figs 118-122) 22. *Andreimyrmex* (p. 38)
– Mandible excised beneath, with large lobe near the base. Flagellomere 1 1.5-1.6 times its maximum width 25. *Ephutomma* (p. 41)

10. Mandible beneath without large tooth or lobe near the base, basal half with small projection. – Basivolsella with setae not longer than volsellar cusps. (Fig. 250) 30. *Nordeniella* gen. n. (p. 48, 185)
- Mandible beneath with large lobe or tooth near the base 11



Figs 154-158. Mutillinae. Smicromyrmini. (From Lelej, 1995b).

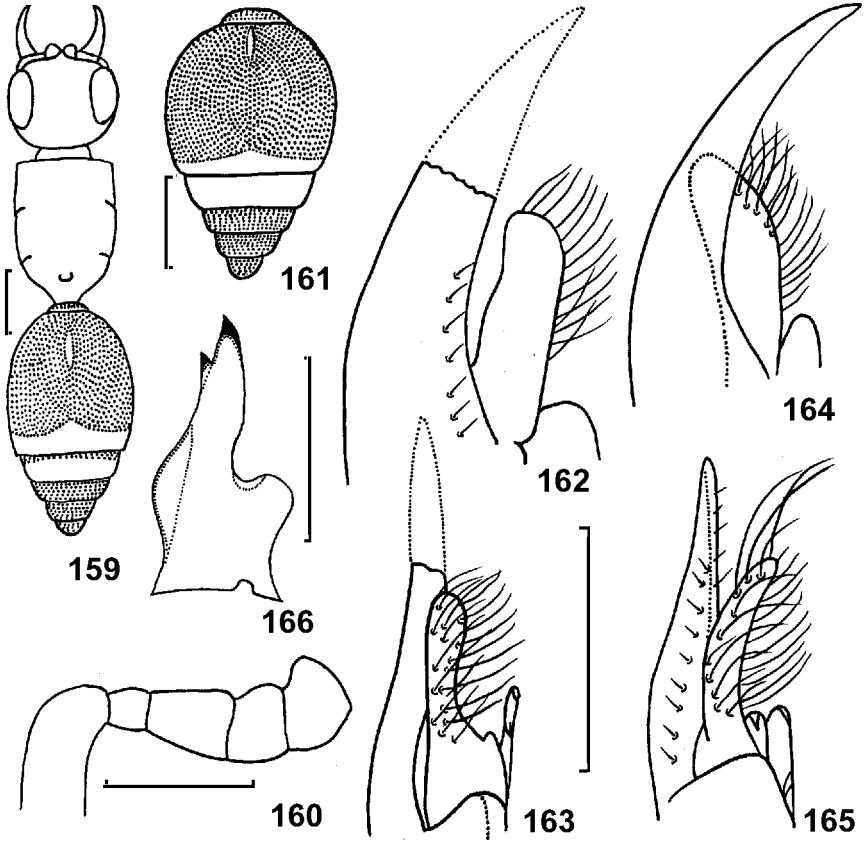
154-157 – *Ephucilla panfilovi*, ♂; 158 – *E. drupa*, ♂. 154 – fore wing; 155, 158 – metasomal habitus; 156 – mandible; 157 – pedicel and flagellomeres 1-3. Scale line 1 mm for figs 154, 155, 157, 158 and 0.25 mm for fig. 156.

11. Brachypterous: fore wing slightly projecting over metasomal tergum 2. Distance between pterostigma and *RS* base on *SC* equal or even less than pterostigma length. Propodeum dorsally with two medial sharp teeth. (Figs 248, 249) 27. *Karunaratnea* gen. n. (p. 42, 181)
- Wings well developed: fore wing touch metasomal apex; distance between pterostigma and *RS* base on *SC* more than pterostigma length. Propodeum dorsally without medial sharp teeth 12
12. Genital volsella without widened external lobe, inner and lower margin of volsella with setae not longer than volsellar cusps. (Figs 154-158, 162-166) 24. *Ephucilla* (p. 39)
- Genital volsella with more or less widened external lobe (basivolsella), the latter with setae longer than volsellar cusps 13
13. Mandibular lobe near the base beneath rounded, mandible usually not excised beneath. Thickened basivolsellar setae do not touch considerably the apex of gonostylus. Basal metasomal segments yellowish-red at least 32. *Promecilla* (p. 51)

- Mandible deeply excised beneath, with large tooth near the base. Thickened basivolsellar setae much projecting over gonostylus apex (not longer than volsellar cuspis in Palearctic species of *scutellaris* group). Metasoma black
 31. *Physetopoda* (p. 49)

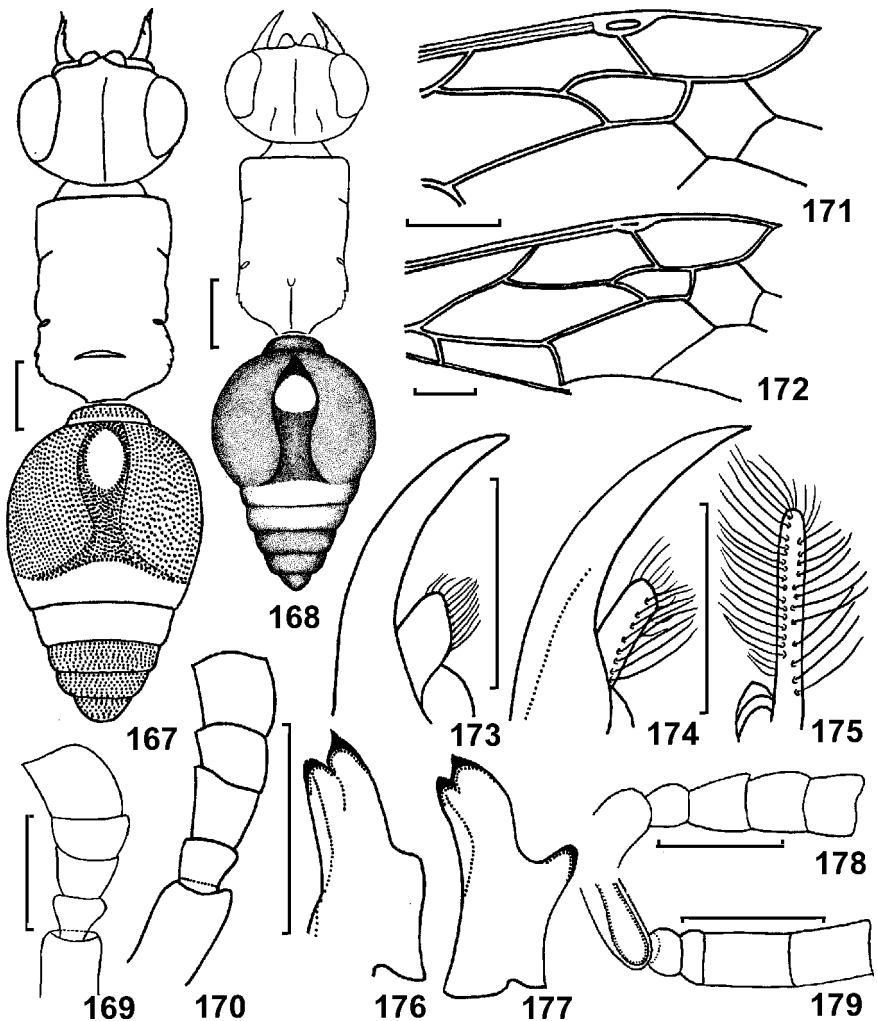
F e m a l e s (unknown for *Tsunekimyrmex*)

1. Metasomal tergum 6 convex, without distinct pygidial area, with glabrous shining area widened posterad, at most its apical part weakly carinated laterally
 2



Figs 159-166. Mutillinae. Smicromyrmini. (From Lelej, 1995b).

159, 160 – *Ephucilla baccho*, ♀; 161 – *E. viet.*, ♀; 162, 163 – *E. panfilovi*, ♂; 164-166 – *E. cheni*, ♂. 159 – habitus, dorsal view; 160 – pedicel and flagellomeres 1-3; 161 – metasomal habitus; 162-165 – genitalia (162, 164 – lateral view, 163, 165 – ventral view); 166 – mandible. Scale line 1 mm for figs 159, 161-166 and 0.5 mm for fig. 160.

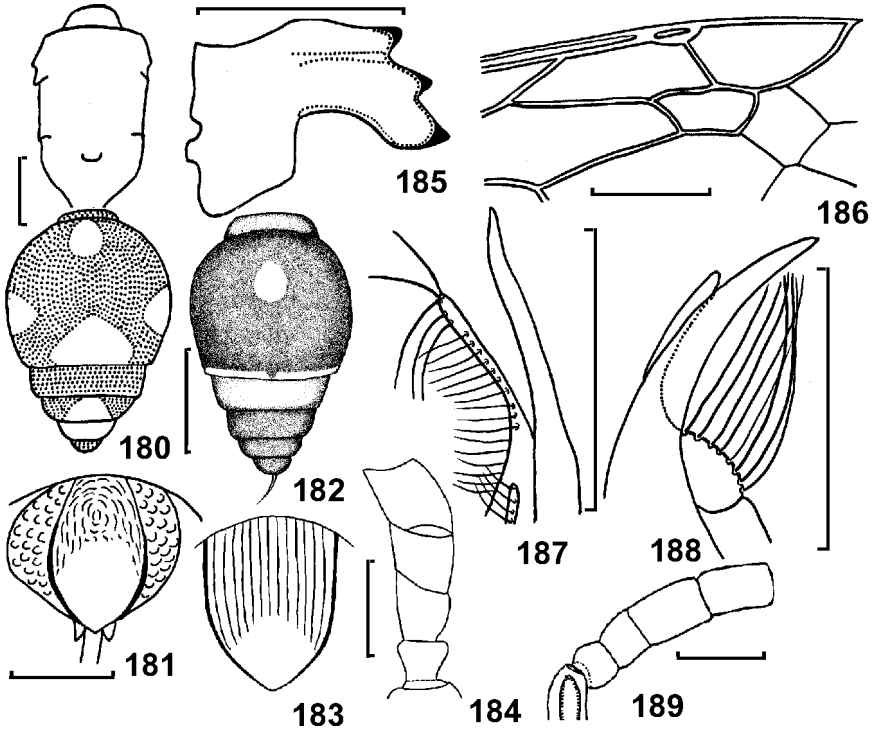


Figs 167-179. Mutillinae. Smicromyrmini.

(167, 170-179 from Lelej, 1995b, 168, 169 from Lelej, 1996d).

167, 170 – *Sinotilla belokobylskiji*, ♀; 168, 169 – *S. lambirensis*, ♀; 171, 174, 175, 177, 179 – *S. boheana*, ♂; 172, 173, 176 – *S. hong*, ♂; 179 – *S. cyaneiventris*, ♀. 167, 168 – habitus, dorsal view; 169, 170, 178, 179 – pedicel and flagellomeres 1-3; 171, 172 – fore wing; 173-175 – genitalia (173, 174 – lateral view, 175 – volsella, ventral view); 176, 177 – mandible. Scale line 1 mm for figs 167, 168, 170-177, 179 and 0.5 mm for figs 169, 178.

- Metasomal tergum 6 with distinct pygidial area carinated laterally, pygidial area longitudinally striate, granulose or with glabrous shining apical part or entirely glabrous, shiny 7
- 2. Scutellar scale more or less developed 3
- Scutellar scale lacking 6
- 3. Scutellar scale strongly developed. Mesosoma dorsally with parallel sides or slightly widened posterad. – Flagellomere 1 distinctly longer than flagellomere 2. Metasomal tergum 6 not carinated even apically 27. *Karunaratnea* gen. n. (p. 42, 181)
- Scutellar scale weak, but distinct. Mesosoma dorsally narrowed posterad ... 4



Figs 180-189. Mutillinae. Smicromyrmini.

(180, 181, 185-189 from Lelej, 1995b, 182-184 from Lelej, 1996d).

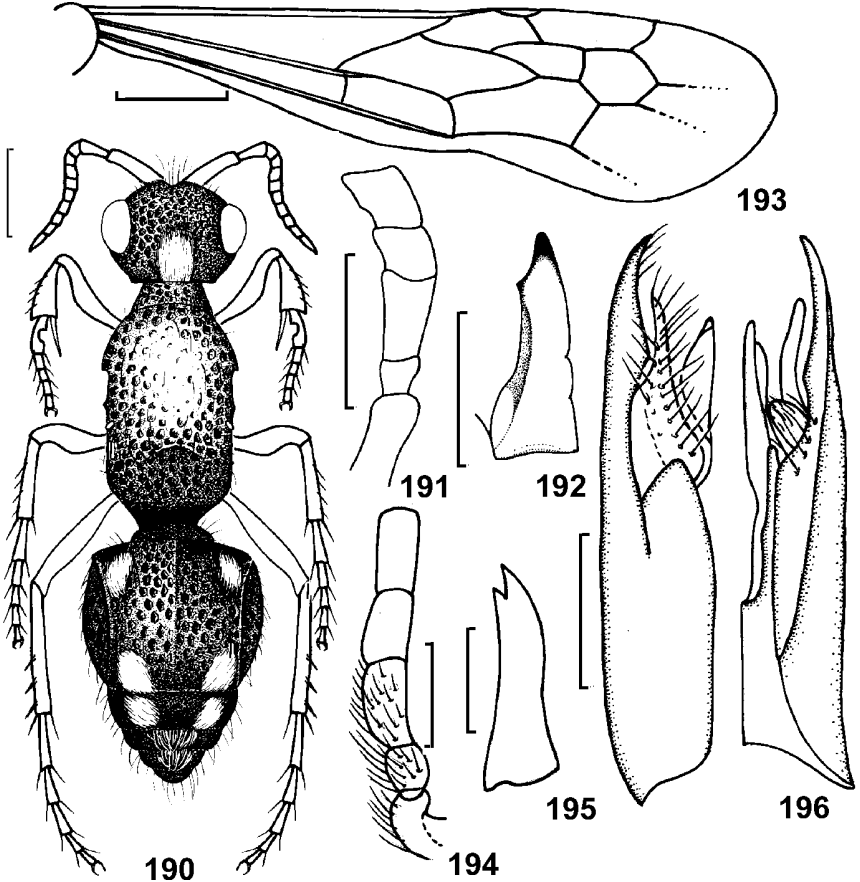
180, 181 – *Physetopoda thai*, holotype, ♀; 182-184 – *Smicromyrme borneo*, holotype, ♀; 185-189 – *Tsunekimyrmex fluctuata*, ♂. 180, 182 – habitus, dorsal view; 181, 183 – pygidial area; 184, 189 – pedicel and flagellomeres 1-3; 185 – mandible; 186 – fore wing; 187, 188 – genitalia (187 – dorsal view, 188 – lateral view). Scale line 1 mm for figs 180, 182, 185-188, 0.5 mm for figs 181, 189 and 0.25 mm for figs 183, 184.

4. Metasomal tergum 6 with glabrous shiny medial part, not carinated laterad, considerably convergent basally where with lateral tuft of dense pale setae. (Figs 167-170, 178) 33. *Sinotilla* (p. 54)
- Metasomal tergum 6 with elongate shiny glabrous pygidial area weakly carinated laterad 5
5. Flagellomere 1 equal its apical width and length of flagellomere 2. Metasomal tergum 1 without pale spots. (Figs 159-161) 24. *Ephucilla* (p. 39)
- Flagellomere 1 longer than its apical width and 1.3 times longer than flagellomere 2. Metasomal tergum 1 with two small pale spots. (Figs 113, 115) 26. *Indratilla* (p. 42)
6. Flagellomere 1 1.6 times its maximum width. Mesosoma elongated, distinctly narrowed posterad 32. *Promecilla* (p. 51)
- Flagellomere 1 1.0-1.1 times its maximum width. Mesosoma not elongated, with more or less parallel sides or widened posterad 30. *Nordeniella* **gen. n.** (p. 48, 185)
7. Scutellar scale absent. – Mandible wide, tridentate apically. Pygidial area weakly longitudinally striate. (Figs 123-125) 22. *Andreimyrmex* (p. 38)
- Scutellar scale more or less developed 8
8. Pronotum with projecting humeral part, wider than propodeum 23. *Dentilla* (p. 39)
- Pronotum without projecting humeral part, usually narrower or at most scarcely wider than propodeum 9
9. Pygidial area narrowed basally, laterally with long setae, which hidden sculpture. Metasomal tergum 2 with one basal, one apical and two lateral pale spots. (Figs 180, 181) 31. *Physetopoda* (p. 49)
- Pygidial area with more or less parallel lateral sides or widened basally. Metasomal tergum 2 with one or three pale basal spots and pale apical band, if sometimes apical medial spot presented, lateral spots absent 10
10. Minimal distance between eyes 1.1-1.3 times longitudinal eye diameter 25. *Ephutomma* (p. 41)
- Minimal distance between eyes 1.6-1.8 times longitudinal eye diameter 11
11. Pygidial area short oval. (Figs 126-128) 29. *Nemka* (p. 45)
- Pygidial area elongated, with parallel sides or widened basally 12
12. Scutellar scale more than 2 times wider than its length. Metasomal tergum 2 with three basal spots disposed in horizontal line and with at most pale medial apical patch. (Figs 138-140) 28. *Mickelomyrme* (p. 43)
- Scutellar scale slightly wider than its length. Metasomal tergum 2 with lateral pale spots (if they present) disposed behind of medial spot and with pale apical band or apical fringe. (Figs 182-184) 34. *Smicromyrme* (p. 56)

Tribes PETERSENIIDIINI and TROGASPIDIINI

Females

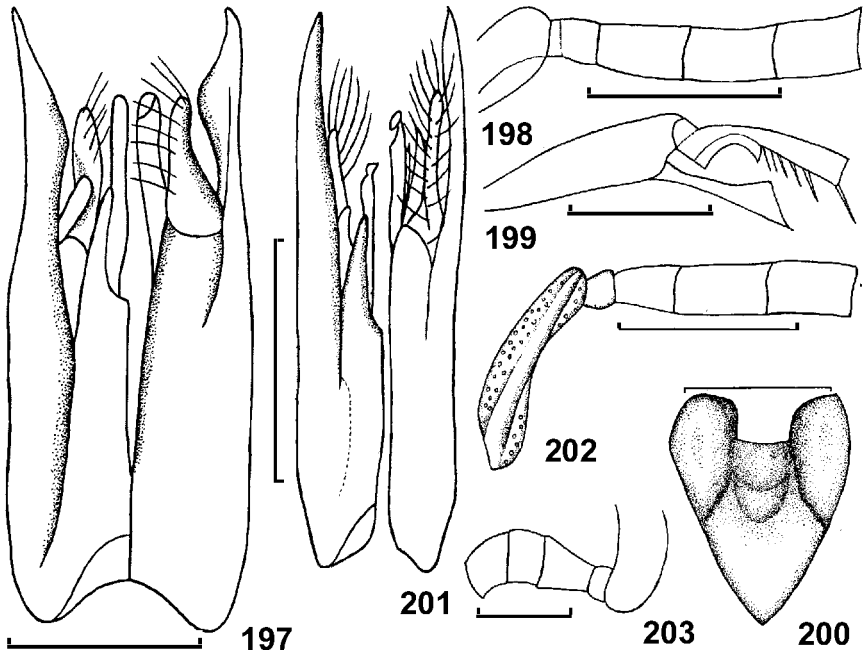
The females of the tribes Peterseniidiini and Trogaspidiini placed in joint key because of their habitual similarity. Females unknown for *Nonveilleridia*, *Protrogaspidia*, *Serendibiella*, *Taiwanomyrme*. Afrotropical genus *Spinulomutilla* Nonveiller, 1984, related to Oriental genera, included in this key also.



Figs 190-196. Mutillinae. Peterseniidiini.(190-192 from Lelej, 1993).

190-192 – *Radoszkowskitilla ceylonica*, holotype, ♀; 193-196 – *R. tamila* sp. n., holotype, ♂. 190 – habitus, dorsal view; 191, 194 – pedicel and flagellomeres 1-3; 192, 195 – mandible; 193 – fore wing; 196 – genitalia (dorsal view at right, ventral view at left). Scale line 1 mm for figs 190, 193 and 0.5 mm for figs 191, 192, 194-196.

1. Metasomal sternum 6 with two sharp preapical tubercles. – Inner border of mandible with more or less developed subbasal tooth. Pygidial area narrow with transverse rugosity. Scutellar scale lacking. Metasomal pale design consist of posterior fringe on tergum 1, posterior interrupted medially fringe on tergum 2 and interrupted medially band on tergum 3. Afrotropical region [*Spinulomutilla* Nonveiller, 1994]
 – Metasomal sternum 6 without preapical tubercles 2
2. Metasomal tergum 6 without any pygidial area, convex, smooth, shiny, punctured basally or throughout 3
 – Metasomal tergum 6 with more or less developed pygidial area, at least flattened shiny area carinated laterally 4
3. Scutellar scale small but visible. – Metasomal tergum 2 apically without pale fringe; pale band on metasomal tergum 3 non-interrupted. (Figs 203, 211, 212) 37. *Orientidia* (p. 68)
 – Scutellar scale lacking. (Figs 209, 210) 47. *Promecidia* (p. 80)
4. Mesosoma elongated. Metasomal tergum 2 more or less flattened, with lateral longitudinal carina. Prementum apically tuberculate. – Head with pale spot on vertex. (Figs 190-192) 40. *Radoszkowskitilla* gen. n. (p. 75, 187)
 – Mesosoma not elongated. Metasomal tergum 2 at most slightly flattened, without lateral longitudinal carina. Prementum not tuberculate 5
5. Mesosoma broadest in pronotum or pronotal and propodeal width equal 6
 – Mesosoma definitely broadest in propodeum 10
6. Clypeus anteriorly strongly emarginated and bidentate. Pygidial area longitudinally rugose in basal two-third, smooth and shiny apically or smooth throughout. – Metasomal tergum 2 with a pair of anterior golden spots and apical narrow golden fringe 38. *Pagdenidia* (p. 69)
 – Clypeus anteriorly at most weakly emarginated, with two weak denticles. Pygidial area smooth, shiny, not sculptured 7
7. Metasomal tergum 3 with two pale spots 36. *Krombeinidia* (p. 65)
 – Metasomal tergum 3 with pale band 8
8. Metasomal tergum 2 with wide apical pale fascia. (Figs 205, 207)
 36. *Krombeinidia* (p. 65)
 – Metasomal tergum 2 without apical pale fascia, at most with pale fringe 9
9. Scutellar scale broad, 1/3-1/4 as broad as propodeum width. Pygidial area finely rugoso-punctured 42. *Zavatilla* (p. 77)
 – Scutellar scale small. Pygidial area almost glabrous, at most micropunctured. (Fig. 213) 39. *Petersenidia* (p. 70)
10. Pygidial area narrow, irregularly rugose, lateral carina strongly triangularly widened in medial part. – Head without pale spot on vertex. (Fig. 255)
 44. *Karlissaidia* gen. n. (p. 78, 193)
 – Pygidial area wider, lateral carina not triangularly widened in medial part 11



Figs 197-203. Mutillinae. Peterseniini. (From Lelej, 1996c).

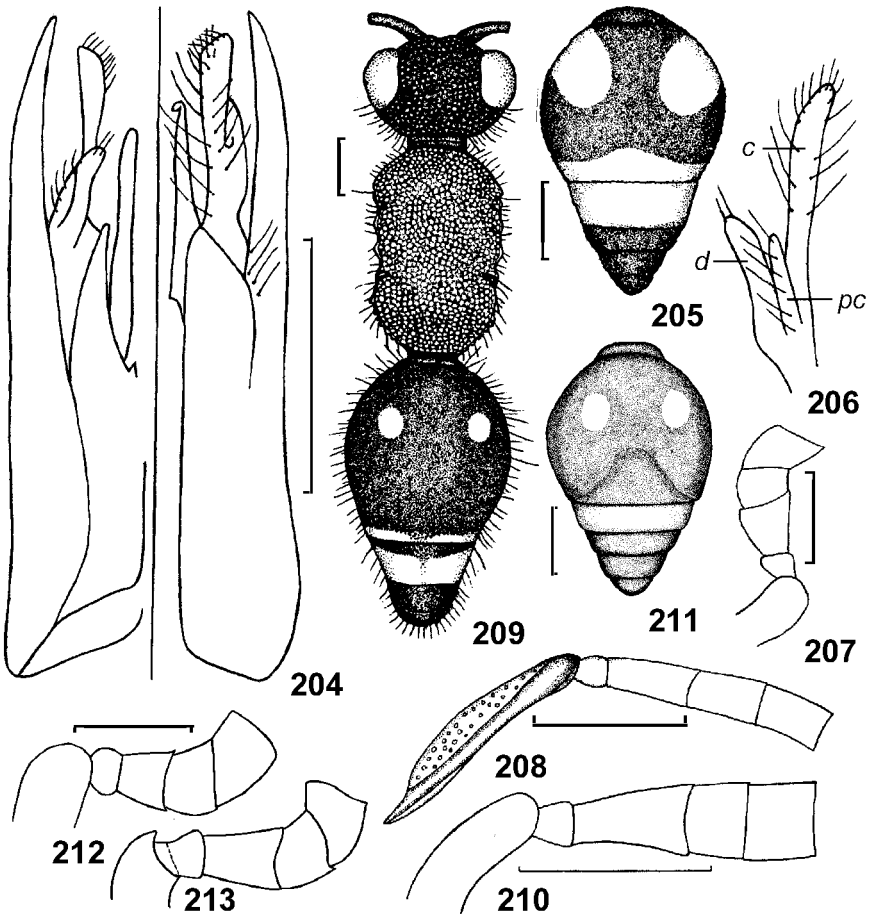
197-200 – *Pagdenidia himalayensis*, ♂; 201-203 – *Orientidia proserpina* (201, 202 – ♂, 203 – ♀). 197, 201 – genitalia (dorsal view at left, ventral view at right); 198, 202, 203 – pedicel and flagellomeres 1-3; 199 – spur of fore leg; 200 – clypeus. Scale line 1 mm for figs 197-202 and 0.5 mm for fig. 203.

11. Pygidial area irregularly rugose throughout 12
 – Pygidial area longitudinally striate or irregularly rugose in basal half and smooth apically 13
12. Propodeum laterad with strong denticle. Metasomal tergum 1 with medial pale spot 51. *Trispilotilla* (p. 86)
 – Propodeum laterad without denticle. Metasomal tergum 1 without medial pale spot, at most with interrupted pale fringe 49. *Radoszkowskius* (p. 82)
13. Pygidial area longitudinally striate, at most apical part microgranulate or smooth 52. *Trogaspidia* (p. 87)
 – Pygidial area irregularly rugose in basal half and smooth apically 14
14. Pale spots on metasomal tergum 2 large, the distance between spots 0.3 times of spot diameter 43. *Eotrogaspidia* (p. 77)
 – Pale spots on metasomal tergum 2 small or feebly visible, the distance between spots 1.0-2.0 of spot diameters 45. *Neotrogaspidia* (p. 79)

Tribe PETERSENIINI

Males

1. Fore spur spatulate. Clypeus with lateral angle of medial area strongly elevated. (Figs 197-200) 38. *Pagdenidia* (p. 69)
 – Fore spur simple. Clypeus with lateral angle of medial area at most weakly elevated. 2



Figs 204-213. Mutillinae. Peterseniini. (From Lelej, 1996c).

204-208 – *Krombeinidia peterseni* (204, 206, 208 – ♂; 205, 207 – ♀); 209, 210 – *Promecidia yamanei*, ♀; 211, 212 – *Orientidia dayak*, ♀; 213 – *Petersenidia psecas*, ♀. 204 – genitalia (dorsal view at left, ventral view at right); 205, 211, 209 – habitus, dorsal view; 206 – volsella (*c* – cuspis, *d* – digitus, *pc* – paracuspis); 207, 208, 210, 212, 213 – scape, pedicel and flagellomeres 1-3. Scale line 1 mm for figs 204-211, 0.5 mm for figs 212, 213.

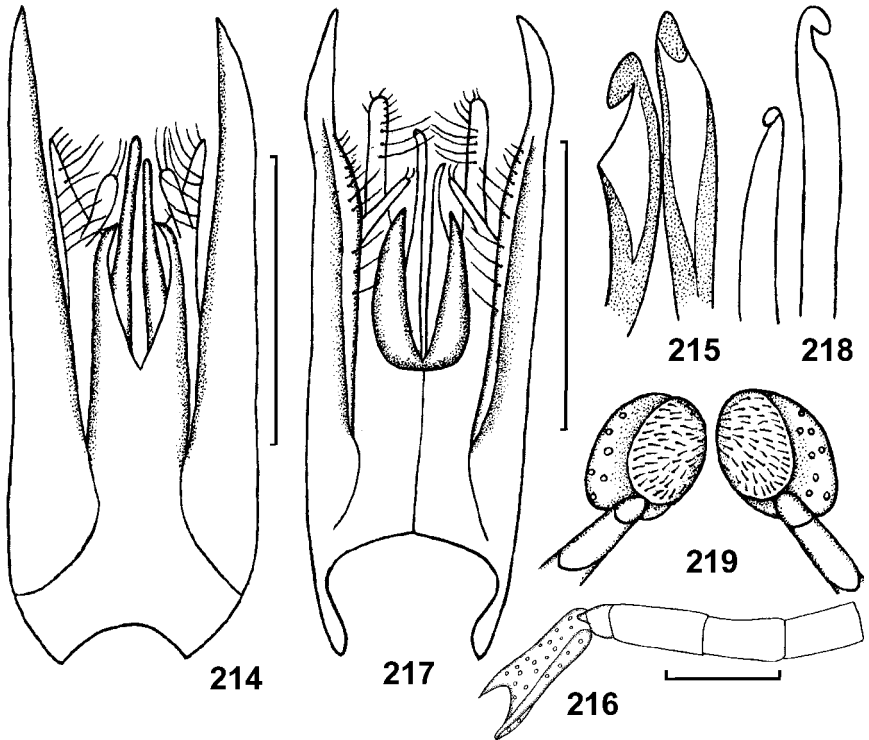
2. Mandible beneath without large basal tooth 3
 – Mandible beneath with large basal tooth 4
3. Metasomal sternum 2 with very short lateral felt line. Scape beneath not polished with one strong carina; flagellomere 1 1.1 times its apical width. Volsellar cuspis very long almost touch gonostylus apex with small paracuspis. Tegula long, projecting over axilla. Metasomal sternum 8 simple or with two longitudinal weak elevations. Mesoscutellum without medial shiny line 41. *Taiwanomyrme* (p. 76)
- Metasomal sternum 2 without short lateral felt line. Scape beneath polished. Volsella not so long, slightly longer than penial valve, without paracuspis. Tegula not elongated nor projecting over axilla. Mesoscutellum with medial shiny line. (Figs 193-196) 40. *Radoszkowskitilla* **gen. n.** (p. 75, 187)
4. Volsella of genitalia with distinct stick-like paracuspis between cuspis and digitus (Fig. 00) 5
- Volsella of genitalia without paracuspis, at most with weak setose tubercle between cuspis and digitus. – Metasomal sternum 2 with short lateral felt line, sometimes reduced to a few small punctures 6
5. Metasomal sternum 2 without lateral felt line. Scape bicarinate beneath with deep glabrous furrow between carinae. Flagellomere 1 distinctly longer than flagellomere 2. (Figs 204, 206, 208) 36. *Krombeinidia* (p. 65)
- Metasomal sternum 2 with lateral felt line. Scape with one strong carina beneath. Flagellomere 1 slightly longer than flagellomere 2 or equal flagellomere 2. – Mandible bidentate. Mesoscutum with weak lateral scutal ridge. Distance between base of *RS* on *SC* and pterostigma 1.1 times pterostigma length 42. *Zavatilla* (p. 77)
6. Scape below with wide shallow densely punctured area between two carinae. Flagellomere 1 longer than flagellomere 2 or equal it. Mesosoma wholly or partly ferruginous 39. *Petersenidia* (p. 70)
- Scape below with narrow glabrous shiny area between two carinae. Flagellomere 1 shorter than flagellomere 2. Mesosoma black. (Figs 201, 202) 37. *Orientidia* (p. 68)

Tribe TROGASPIDIINI

M a l e s

1. Mandible not excised beneath, at most with weak basal tubercle 2
 – Mandible excised beneath with large basal tooth or lobe 5
2. Propodeum laterad with large denticle 51. *Trispilotilla* (p. 86)
 – Propodeum laterad without denticle, at most with acuminate lateral border 3
3. Penial valves strongly modified, left one (dorsal aspect) with two long hooks. Mesoscutellum strongly conical. – Metasomal sternum 8 (hypopygium) with strong lateral carina 49. *Radoszkowskius* (p. 82)

- Penial valves weakly modified, usually short. Mesoscutellum simple, not conical 4
- 4. Metasomal sterna 8 and 7 with strong rounded lateral carinae. Hind coxa dentate. Afrotropical region [*Spinulomutilla* Nonveiller, 1994]
- Metasomal sterna 8 and 7 without strong carinae, at most with weak tubercle. Hind coxa not dentate 47. *Promecidia* (p. 80)



Figs 214-219. Mutillinae. Trogaspidiini. (From Lelej, 1996c).

214-216 – *Protrogaspidia volatilis*, ♂; 217, 218 – *Nonveilleridia bataviana*, ♂; 219 – *Eotrogaspidia auroguttata*, ♂. 214, 217 – genitalia, dorsal view; 215, 218 – penial valves, ventral view; 219 – hind coxae. Scale line 1 mm for figs 214-219.

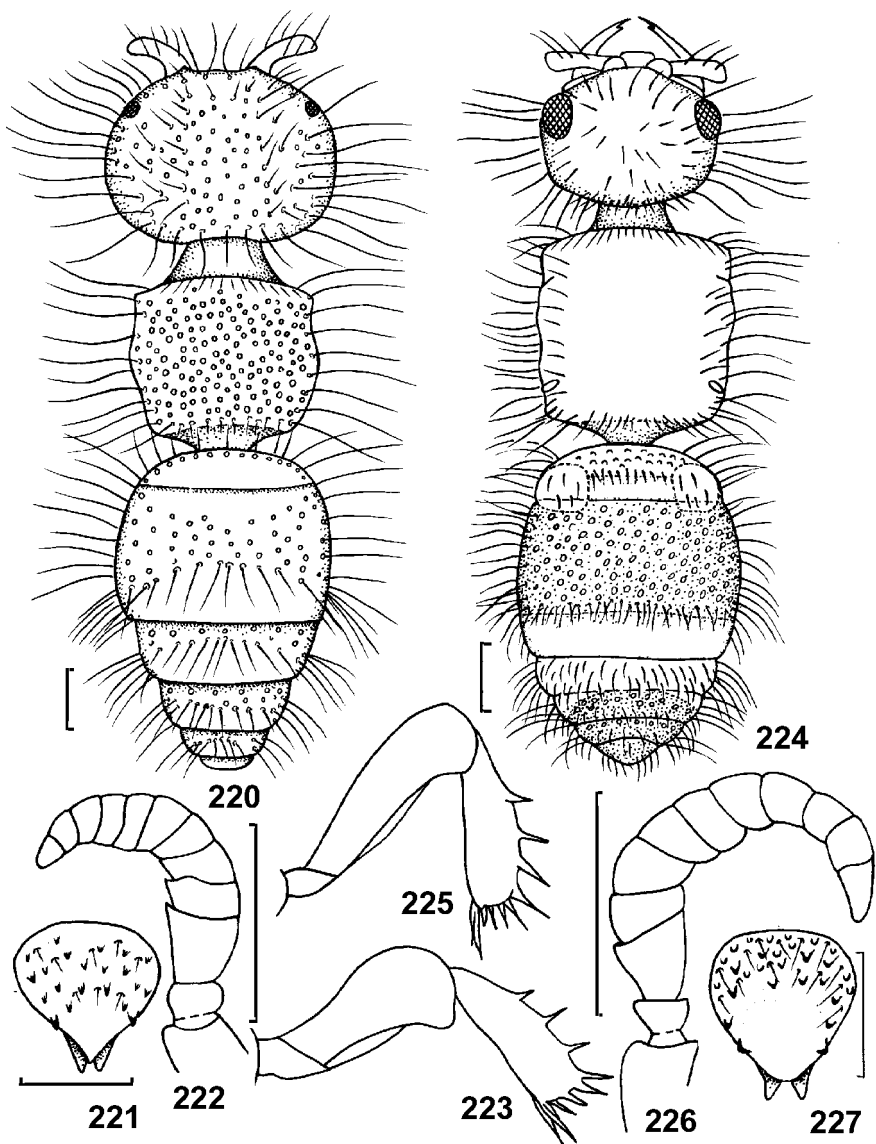
- 5. Scape beneath with one strong carina widened apically. Volsellar digitus strongly curved. (Figs 251-254) 44. ***Karlissaidia* gen. n.** (p. 78, 193)
- Scape beneath with two usual carinae. Genital volsellar digitus straight . . . 6
- 6. Mandible with subbasal tooth on inner border. Metasomal sternum 2 with short lateral felt line. Hypostomal carina with denticle. – Mesoscutellum not swollen, without smooth medial line
- 50. ***Serendibiella* gen. n.** (p. 86, 197)

- Mandible without subbasal tooth on inner border. Metasomal sternum 2 without short lateral felt line. Hypostomal carina without denticle 7
- 7. Mesoscutellum slightly convex, without strong carina, at most with medial smooth line. Volsella without paracuspis 8
- Mesoscutellum distinctly gibbous, with more or less defined medial longitudinal carina. Volsella with developed paracuspis 10
- 8. Metasomal sternum 8 without strong lateral carinae. The length of metasomal segment 1 more than its maximum width. (Figs 214-216) 48. *Protrogaspidia* (p. 81)
- Metasomal sternum 8 with strong lateral carinae. The length of metasomal segment 1 less than its maximum width 9
- 9. Scape with upper carina well defined. Mesoscutellum not gibbous, without medial smooth line. Mid coxa flattened beneath, glabrous, polished and shiny, except posterior margin. Metasomal sternum 2 longitudinally gibbous near the lateral margins. – Pedicel and flagellomere 1 flattened, basal half of flagellomere 1 white. Metasomal sterna 5-8 with lateral carinae. (Figs 217, 218) 46. *Nonveilleridia* (p. 80)
- Scape with upper carina visible in apical part only. Mesoscutellum with medial smooth line. Mid coxae punctured, setose, not flattened beneath. Metasomal sternum 2 evenly convex laterally 45. *Neotrogaspidia* (p. 79)
- 10. Hind coxa beneath conspicuously flattened, clothed with very short erect dense pale pubescence (Fig. 219). Digitus small, stick-like. Flagellomere 1 more or less flattened 43. *Eotrogaspidia* (p. 77)
- Hind coxa beneath convex, clothed with sparse pale pubescence. Digitus more or less developed. Flagellomere 1 not flattened 52. *Trogaspidia* (p. 87)

VIII. Subfamily SPHAEROPHTHALMINAE

M a l e s (unknown for *Cockerellidia*, *Karlidia* and *Standfussidia*)

- 1. Metasomal tergum 1 more or less long petiolate constricted posterad. Notauli and parapsids more or less developed 2
- Metasomal tergum 1 short not constricted posterad. Notauli and parapsids lacking. – Radial cell of fore wing truncated apically. Metasomal segment 2 with long lateral felt line on tergum and short one on sternum 59. *Eurymutilla* (p. 108)
- 2. Radial cell acuminate apically. Metasomal tergum 2 basally invaginated. Propodeum dorsally with medial large longitudinal cell, which carinated laterad. Metasomal segment 2 with long lateral felt line on tergum and short one on sternum 57. *Cystomutilla* (p. 107)
- Radial cell truncated apically. Metasomal tergum 2 basally not invaginated. Propodeum dorsally reticulate throughout, without medial large longitudinal cell. Metasomal segment 2 with long lateral felt line on tergum only 58. *Ephutomorpha* (p. 108)

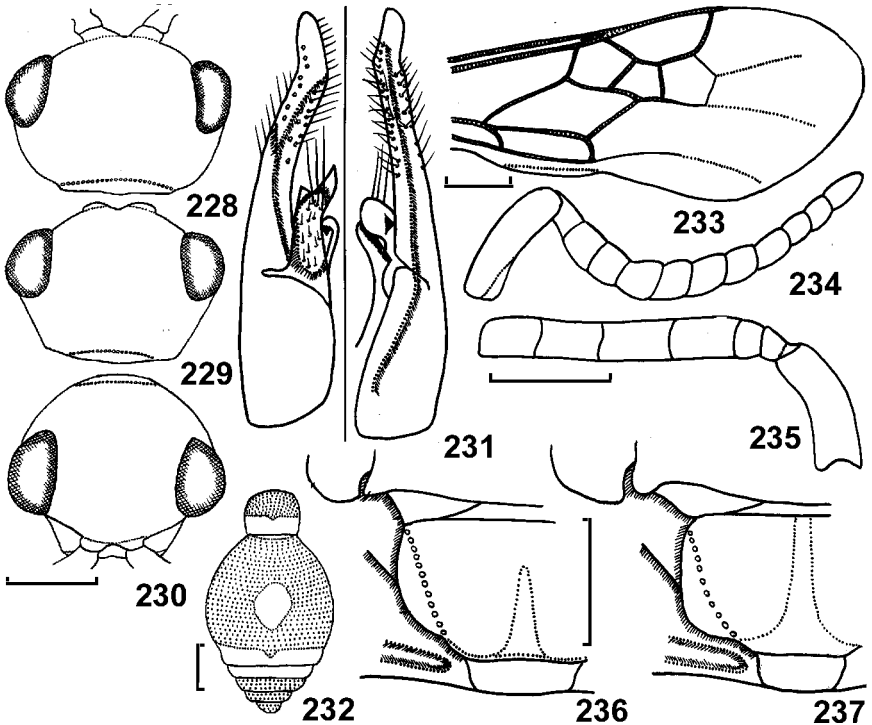


Figs 220-227. Sphaerophthalminae. (From Lelej, Krombein, 1999).

220-223 – *Cockerellidia sohmi*, holotype, ♀; 224-227 – *Karlidia peterseni*, ♀ (224, 227 – holotype, 225, 226 – paratype). 220, 224 – habitus, dorsal view; 221, 227 – pygidial area; 222, 226 – antenna; 223, 225 – mid femur and tibia. Scale line 1 mm for figs 220-227.

Females

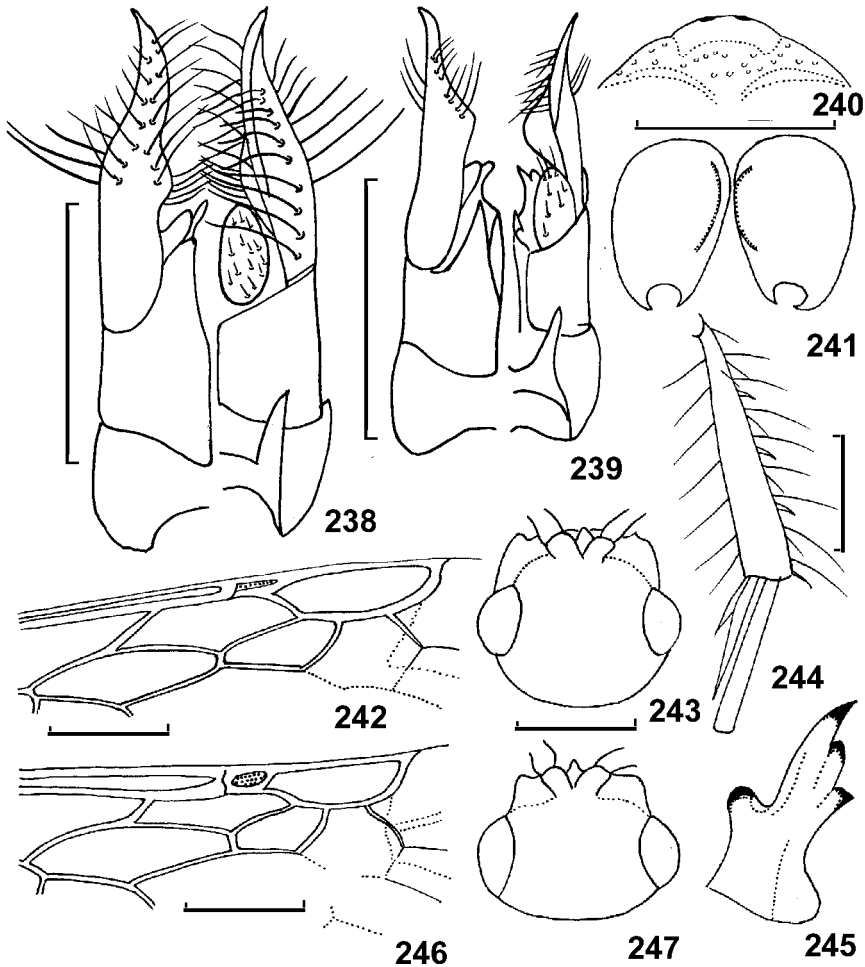
1. Head enlarged with almost rectangular posterolateral angle. Metasomal segment 1 wide, became sessile. (Tribe **Pseudomethocini**) 2
 - Head not enlarged with rounded posterolateral angle. Metasomal segment 1 more or less petiolate. (Tribe **Sphaerophthalmi**) 4
2. Head 1.2 times mesosomal width. Eyes extremely small. Maxillary palps approximately as long as scape length. (Figs 220-223) 54. *Cockerellidia* (p. 106)
 - Head 0.9 times mesosomal width. Eyes rounded, usual. Maxillary palps much longer than scape 3
3. Body length 6.5-9.0 mm. Body with extremely long setae. Metasomal terga 1 and 2 posterad not sculptured shiny. Tergum 6 without distinct pygidial area. (Figs 224-227) 55. *Karlidia* (p. 106)



Figs 228-237. Dasylabrinae. (From Lelej, Krombein, 1999).

228, 237 – *Orientilla desponsa* (228 – ♀, 237 – ♂); 229-236 – *O. krombeini* (229, 230, 232, 234 – ♀, 231, 233, 235, 236 – ♂). 228-230 – head (228, 229 – dorsal view, 230 – frontal view); 231 – genitalia (ventral view at left, dorsal view at right); 232 – metasomal habitus; 233 – fore wing; 234, 235 – antenna; 236, 237 – part of mesosomal dorsum. Scale line 1 mm for figs 228-237.

- Body length 3.5 mm. Body with usual setae. Metasomal terga 1 and 2 posterad sculptured as usual. Tergum 6 with distinct pygidial area carinated laterally. (Figs 256, 257) 56. *Standfussidia* (p. 107, 197)
4. Mesosomal length equal or less than mesosomal width. Metasomal segment 1 very short and wide 59. *Eurymutilla* (p. 180)



Figs 238-247. Dasylabrinae. (From Lelej, 1995c).

238, 240-245 – *Tricholabiodes nursei* (238, 240-242, 244, 245 – σ , 243 – φ); 239, 246, 247 – *T. tharensis* (239, 246 – σ , 247 – φ). 238, 239 – genitalia (dorsal view at left, ventral view at right); 240 – clypeus; 241 – hind coxae; 242, 246 – fore wing; 243, 247 – head; 244 – hind tibia and basitarsus; 245 – mandible. Scale line 1 mm for figs 238-247.

- Mesosomal length 1.2-2.0 times more than mesosomal width. Metasomal segment 1 very longer and narrower 5
- 5. Eye diameter much less than genal width. Pygidial area narrow, not sculptured, shiny smooth 57. *Cystomutilla* (p. 107)
- Eye diameter much more than genal width. Pygidial area wide sculptured 58. *Ephutomorpha* (p. 108)

IX. Subfamily DASYLABRINAE

M a l e s

- 1. Eyes enlarged, considerably projecting over head.. Tegula very small, not punctured. Body pale-coloured. Nocturnal. (Figs 238-242, 244-246) 62. *Tricholabiodes* (p. 113)
- Eyes usual not (or scarcely) projecting over head. Tegula larger, punctured, at least inside; body dark-coloured. Diurnal 2
- 2. Lateral felt line disposed on metasomal tergum 2 60. *Dasylabris* (p. 109)
- Lateral felt line disposed on metasomal sternum 2. (Figs 231, 233, 235, 236, 237) 61. *Orientilla* (p. 111)

F e m a l e s

- 1. Lateral felt line disposed on metasomal sternum 2. (Figs 228-230, 232, 234) 61. *Orientilla* (p. 111)
- Lateral felt line disposed on metasomal tergum 2 2
- 2. Metasomal segment 1 constricted posterad. Frons between antennal scrobes without medial process 60. *Dasylabris* (p. 109)
- Metasomal segment 1 not constricted posterad. Frons between antennal scrobes with medial process. (Figs 243, 247) 62. *Tricholabiodes* (p. 113)

X. Subfamily EPHUTINAE

Tribe ODONTOMUTILLINI

M a l e s

- 1. Propodeum with postero-lateral angle angulate or produced into a prominent tooth. Body length 10.0–16.0 mm 63. *Odontomutilla* (p. 114)
- Propodeum with postero-lateral angle rounded. Body length 6.3–9.3 mm 64. *Yamanetilla* (p. 117)

F e m a l e s

- 1. Metasomal tergum 2 with large deep antero-lateral pubescent fovea. Body length 8.0–18.0 mm 63. *Odontomutilla* (p. 114)
- Metasomal tergum 2 without antero-lateral pubescent fovea. Body length 6.0–7.2 mm 64. *Yamanetilla* (p. 117)

DESCRIPTIONS OF GENERA AND SPECIES

2. Genus *Taimyrmosa* Lelej, gen. n. (Figs 10-13)

Type species: *Myrmosa eos* Lelej, 1981 (designated here).

DESCRIPTION. Male. Mandible quadridentate, inner subbasal tooth widened, equal or larger than apical one. Mesoscutellum with shallow medial emargination. Metasomal sternum 1 with basal tubercle and well developed two deep pits. Metasomal sternum 2 with basal tubercle (lacking in *cara*). Metasomal tergum 7 with large deep medial fovea, lateral border more or less sinuated, posterior border more or less emarginated. Metasomal sternum 8 (hypopygium) with central lobe acuminate apically and more or less widened in apical part; lateral lobes acuminate apically, touch the widest part of medial lobe. Metasomal sternum 7 with medial carina or medial elevated part, posterior border rounded, acuminate or emarginated. Metasomal sternum 6 laterally with strong black setae.

Female. Body slender. Mandible with two inner subapical teeth. Mesosoma elongated, mesonotum darkened or dark-brown. Metasomal sternum 1 with two large deep pits.

SPECIES INCLUDED. Besides the type species *T. eos* (Lelej, 1981), **comb. n.**, which is known in both sexes, I include in this genus Oriental *T. cara* Lelej, sp. n., and Palaearctic *T. nigrofasciata* (Yasumatsu, 1931), **comb. n.** and *T. mongolica* (Suárez, 1974), **comb. n.**

DISTRIBUTION. East Palaearctic and Oriental regions.

DIAGNOSIS. The male of new genus has unique characters among the Myrmosinae: metasomal sternum 1 with two large deep pits. The female of *Taimyrmosa* very similar with one of *Myrmosa* Latreille, 1796, but differs by the two developed pits on metasomal sternum 1 (lacking in *Myrmosa*).

ETYMOLOGY. *Taimyrmosa* is a combination of *Tai* (first character of Taipingyang, Chinese name of Pacific Ocean) with reference to region where a new genus distributed, and *Myrmosa*.

Taimyrmosa cara Lelej, sp. n. (Figs 10-13)

TYPE MATERIAL. Holotype – ♂, China, Taiwan, Nantou Hsien, Kuan-tauchi Lenai, 11.VIII 1997 (C. Luo) [Kagoshima Univ.].

DESCRIPTION. Male. Body length 12.8 mm. Ratio postocellar line : ocellocular line 0.4. Relation of pedicel and flagellomeres 1-3 1.0 : 2.5 : 2.3 : 2.1. Mandible with strong inner subbasal tooth which larger than apical one. Frons between antennal scrobes with small medial tubercle. Fore wing venation see Fig. 10; metasomal sternum 1 with two large deep pits (Fig. 11); metasomal sternum 2 without medial basal tubercle; metasomal sternum 7 emarginated api-

cally, medial triangle part elevated (Fig. 12); metasomal sternum 8 (hypopygium) with rhombic apex of medial lobe; lateral lobes acuminate, projecting over widest part of medial lobe (Fig. 13). Genitalia very similar with one of *T. nigrofasciata* (Yasumatsu, 1931).

Body, legs and antennae black; scape apically with ivory patch, mandible preapically and antennal scrobes brownish-red; wings infusate. Body and legs with sparse recumbent and subappressed greyish pubescence which denser on legs. Metasomal sterna 4-6 laterally with strong black setae.

F e m a l e unknown.

DISTRIBUTION. China (Taiwan).

DIAGNOSIS. From other *Taimyrmosa* species a male of *T. cara* sp. n. differs by the lacking of medial basal tubercle on metasomal sternum 2, and by emarginated apical border of metasomal sternum 7.

ETYMOLOGY. Specific name recommended by Dr. Sk. Yamane and originates from Latin adjective *cares* (feminine *cara*), dear, beloved, precious.

7. Genus *Eosmicromyrmilla* Lelej et Krombein, 2001

Eosmicromyrmilla pulawskii Lelej, sp. n. (Fig. 36)

TYPE MATERIAL. Holotype – ♀, India, Maharashtra, Tulsi Lake in Krishnagiri Upavan National Park, 12 km NNW Bombay International Airport, 17.VI 1989 (W. Pulawski) [Calif. Acad. Sci., San Francisco].

DESCRIPTION. M a l e unknown.

F e m a l e. Body length 5.6 mm. Relation of pedicel and flagellomeres 1-3 0.5 : 0.9 : 0.8 : 1.1; frons with shallow medial groove, coarsely reticulate. Mesosoma 1.5 times longer than its pronotal width; pronotal lateral border longer than mesonotal one; mesonotum narrowest; propodeum widest, not shortened. Mesosoma dorsally and posterad coarsely reticulate, pronotal sides sparsely punctured; mesopleura with weak supracoxal carina; meso- and metapleura not punctured; metasomal tergum 2 laterally sparsely punctured; sternum 2 with large sparse punctures.

Head and mesosoma red, mesopleura and metapleura almost black, metasoma black, scape and pedicel ferruginous-red, flagellum black; legs ferruginous-red; mandibles ferruginous-red with dark apex; spurs whitish, two scutellar tubercles darker than dorsum of mesosoma. Head below, mandibles, scape and legs with sparse short subappressed and long erect hairs, subappressed hairs on face and mesosomal dorsum golden, mixed with rare erect black setae; lower part of meso- and metapleura with recumbent silver hairs; metasomal tergum 1 with sparse long erect and subappressed black setae, with medial silver spots, laterally with short erect silver setae; tergum 2 posterad with three silver spots; terga 3-5 laterally with sparse long erect pale setae; tergum 4 posterad medially with a few silver hairs; tergum 5 with large silver spot; tergum 6 laterally with

long pale setae; metasoma ventrally with sparse pale setae, which form fringe on sterna 2-5.

DISTRIBUTION. India (Maharashtra).

DIAGNOSIS. The female of new species differs from female of other two *Eosmicromyrmilla* species by larger size (3.0-4.5 mm in *E. srilankiensis*, 3.4-4.0 in *E. chinensis*). By the red head and by metasomal pale design female of *E. pulawskii* differs from one of *E. chinensis* (black head and metasomal tergum 2 posterad with yellowish band in *E. chinensis*). The female of new species differs from one of *E. srilankiensis* by more elongated mesosoma (1.2 times than its pronotal width in *E. srilankiensis*).

ETYMOLOGY. The specific name is dedicated to famous hymenopterist Wojciech Pulawski, who collected the holotype.

11. Genus *Brahmatilla* Lelej, gen. n. (Figs 64-67)

Type species: *Brahmatilla krishna* Lelej, sp. n. (designated here).

DESCRIPTION. Male. Unknown.

Female. Head large, wide, elongated behind the eyes. Genal carina well developed near mandible, not joined with preoccipital carina. Subocular carina well developed, tuberculate. Mandible tridentate, beneath excised, and with large tooth at the base beneath (Fig. 66), inner border with two preapical teeth and weak subbasal tubercle (Fig. 65). Carina between supraantennal tubercle and compound eye well developed. Hypostomal bridge medially not tuberculate. Clypeus flattened anterad with two strong teeth. Scape curved, flagellomeres not flattened, flagellomere 1 1.5 times longer than pedicel and almost two times longer than flagellomere 2. Mesosoma with acuminate humeral angle, laterally (including propodeum) dentate. Propodeum posterad transversely without any teeth; mesopleura with well-developed precoxal carina; mid and hind tibia with one row of spines; hind coxa inside tuberculate; fore tarsus without pectinate comb. Metasomal segment 1 broad, anterior and dorsal surfaces not divided by transverse carina. Tergum 1 baso-laterally with small tooth. Lateral felt line located on metasomal tergum 2 only. Metasomal sternum 2 with medial basal carina; sternum 6 without any tubercles; tergum 6 without distinct pygidial area; smooth shiny longitudinal part not touch base, nor carinated laterally even in apical part.

SPECIES INCLUDED. Type species only.

DISTRIBUTION. Oriental region (India).

DIAGNOSIS. The female of new genus has unique character within Myrmilinae: mandible beneath excised, and with a large tooth at the base beneath. The female of *Brahmatilla* gen. n. similar with one of *Spilomutilla* Ashmead, 1903, but differs except mandible shape by lacking any tubercles on metasomal sternum 6 (two basal and two preapical tubercles in *Spilomutilla*).

ETYMOLOGY. *Brahmatilla* is a combination of *Brahma*, the senior member of the great gods in Hindu pantheon, with reference to India, the country where a new genus distributed, and *tilla* (part of *Mutilla*).

***Brahmatilla krishna* Lelej, sp. n.** (Figs 64-67)

TYPE MATERIAL. Holotype – ♀, India, Kerala, Thekkady, Periyar-W.L.S. [Wild Life Sanctuary], 2.IX 1989 (leg. A. Riedel) [Staatl. Mus. Naturk., Stuttgart].

DESCRIPTION. Male. Unknown.

Female. Body length 6.0 mm. Head 1.3 times wider than pronotum, part behind the eyes 0.5 times eye length. Genal carina lamellate. Pedicel long, relation of pedicel and flagellomeres 1-3 1.0 : 1.5 : 0.7 : 0.6. Frons and vertex with dense punctures. Mesosoma 1.4 times longer than minimal width (before propodeal spiracles), lateral dentation see Fig. 64. Propodeum posterad without transverse row of teeth or medial tooth, mesosoma dorsally coarsely punctured, laterally smooth shiny. Metasomal sternum 2 with medial basal carina, posterolaterally not swollen.

Head ferruginous-red, gena somewhat fuscous; mesosoma red; antenna red, flagellomeres above brownish; mandible red with darker apex; palps pale brown; legs red with darker spines; metasoma black, brown beneath, cuticle under tergal golden pubescence red; spurs whitish. Head, mandible, scape with sparse long erect yellowish setae, brownish ones on vertex; head with recumbent golden short pubescence, denser on gena. Mesosoma dorsally with long sparse brownish erect and denser recumbent golden setae, ones on posterior propodeal slope became yellowish; mesosoma laterally with pale recumbent micropubescence. Legs with short subappressed and long erect yellowish setae. Metasomal tergum 1 dorsally with band of golden hairs which widened on metasomal tergum 2 basally; tergum 2 in apical half with wide band of golden hairs which sinuated anterad; tergum 3 totally, terga 4 and 5 except lateral portion covered by dense golden hairs; tergum 6 throughout and tergum 2 posterad with long erect golden setae; lateral felt line on tergum 2 brownish; metasoma ventrally with sparse pale setae which form fringe on sterna 2-5.

DISTRIBUTION. India (Kerala).

DIAGNOSIS. *Brahmatilla krishna* sp. n. is a single species of the genus and differences of it from related genera are given in the key above.

ETYMOLOGY. *Krishna* is a noun, one of the most popular gods in the Hindu pantheon, where is the eighth avatar or reincarnation of the god Vishnu, with reference to India, the country where the species is distributed.

12. Genus *Myrmilla* Wesmael, 1852*Myrmilla (Pseudomutilla) pakistanensis* Lelej, sp. n. (Figs 69-71)

TYPE MATERIAL. Holotype – ♀, West Pakistan, Makran Prov. [currently Baluchistan Prov.], 23 mi. E Turbat, 8-10.III 1965 (J. Neal) [National Mus. Nat. Hist., Washington, D.C.]. Paratypes: Pakistan, Sind Prov., Miani Forest near Hyderabad, 24.IX 1976, 2♀ (G. Hevel, R. Dietz) [National Mus. Nat. Hist., Washington, D.C.; Inst. Biol. Soil Sci., Vladivostok].

DESCRIPTION. Male. Unknown.

Female. Body length 4.4-5.2 mm. Head rounded posterad, width 1.3 times its length, 1.3 times as pronotal width; distance between eye and posterior head border 0.8 times long eye diameter; carina between eye and antennal tubercle well developed, supraantennal tubercle lacking; clypeus with flat triangle, medial part carinated laterad, with two weak tubercle on anterior margin, distance between tubercles equal to distance between tubercle and mandible articulation. Occiput behind mandible swollen, hypostomal carina weakly widened anterad; mandible shape see Fig. 70; relation of pedicel and flagellomeres 1-3 0.6 : 1.0 : 0.7 : 0.7. Mesosoma dorsally with parallel side, humeral angle rounded; mesopleura with developed precoxal carina; hind coxa not carinated inside; metasomal sternum 1 lacking medial basal tubercle.

Frons and vertex densely punctured, interspaces shiny and less than puncture width. Mesosoma dorsally reticulo-striate on mesoscutum and reticulate on propodeum. Metasomal tergum 6 with large punctures covered by subappressed yellowish long setae. Head ferruginous-red, lower frons brownish; mandible except dark apex, antenna, palps, mesosoma, legs and metasomal segment 1 ferruginous-red, other metasomal segments dark-brown with pale brown sterna and cuticle under pale bands. Dense recumbent yellowish hairs form band on terga 1-2 posterad (with medial triangular dilatation on tergum 2) and cover whole terga 3 and 6. Sparse erect and subappressed yellowish long setae strewn over body (except metasomal terga 2, 4 and 5) and legs forming fringe on sterna 2-5 posterad; tergum 2, except pale band, and terga 4-5 with black hairs. Lateral felt line on tergum 2 whitish.

DISTRIBUTION. Pakistan.

DIAGNOSIS. New species belongs to subgenus *Pseudomutilla* Costa, 1885 by the having the same mandible shape, by lacking of supraantennal tubercle and by the lacking of basal process on metasomal sternum 1. Within subgenus *Pseudomutilla* the female of *M. pakistanensis* sp. n. similar with *M. lagmana* Lelej, 1980, but has much shorter flagellomere 1 (Fig. 71 vs. Fig. 68). The female of new species resembles *Bischoffitilla* species by having similar relation of pedicel and flagellomeres 1-3, but easily differs by having widened mandible (acuminated in *Bischoffitilla*), and by having pale band on metasomal tergum 1 (medial pale spot in *Bischoffitilla*).

ETYMOLOGY. *Pakistanensis* is a Latin adjective derived from Pakistan, the country where the species is distributed.

13. Genus *Spilomutilla* Ashmead, 1903 (Figs 41, 49, 53-63)

Ashmead, 1903: 324; André, 1907a: 251; Turner, 1911: 141; Hammer, 1962: 1; Brothers, 1975: 592; Lelej, Nemkov, 1997: 17; Krombein, Lelej, 1999: 144.

Type species: *Mutilla pectinata* Sichel et Radoszkowski, 1870 (original designation).

REDESCRIPTION. M a l e. Apterous. Head large, wide. Mandible strongly modified with deep preapical emargination (Fig. 56). Eyes moderate size, inner border rounded, without notch. Flagellomeres not shortened, flagellomere 1 remarkably longer than flagellomere 2. Mesosoma with distinct sutures, mesothorax evidently narrower than pronotum. Pronotum posterad usually with prescutal carina. Mesopleura with developed precoxal carina. Tegula very small, scale-like; anterolateral metanotal angle with small lamella. Propodeum widened posterad, with more or less developed lateral teeth. Hind coxa below posterolaterally with acuminate denticle. Metasomal segment 1 broad with anterior and dorsal surfaces, with serrate fold. Metasomal tergum 1 baso-laterally with short dent. Lateral felt line long, located on metasomal tergum 2 only. Medial narrow part of hypopygium sclerotized, bordered laterally by longitudinal carina, haired; hypopygium dorsally with high longitudinal carina (visible when hypopygium extruded). Gonostylus spatulate, weakly curved down (lateral view); volsella with well-developed cuspis and digitus, paracuspis well developed.

F e m a l e. Head large, wide, elongated behind eyes. Genal carina well developed, dentate. Mandible tridentate with widened basal inner tooth, outside margin preapically distinctly angulate; carina between antennal tubercle and eye well developed. Hypostomal bridge medially usually widened with projection. Clypeus anterad with two strong teeth. Scape curved, flagellomeres distinctly flattened, flagellomere 1 almost two times longer than flagellomere 2. Mesosoma with acuminate humeral angle, laterally (including propodeum) dentate. Propodeum posterad with row of denticles, with one medial tooth or without teeth; mesopleura with well developed precoxal carina; mid and hind tibia with one row of spines; mid coxa beneath with tubercle; fore tarsus without pectinate comb. Metasomal segment 1 broad with anterior and dorsal surfaces, with serrate fold; posterad distinctly constricted; dorsal surface with medial emargination. Tergum 1 baso-laterally with small tooth. Lateral felt line located on metasomal tergum 2 only. Metasomal sternum 2 with preapical lateral and medial projection; sternum 6 with well developed two basal and two apical tubercles (denticles); tergum 6 without distinct pygidial area, with smooth longitudinal part from base to apex, carinated laterally in apical part.

SPECIES INCLUDED. Six Oriental and one Palaearctic species.

Spilomutilla sri Lelej, sp. n. (Figs 53-59, 61)

TYPE MATERIAL. Holotype – ♀, Sri Lanka, *Amparai District*: Dehiattekandiya, 7°38'N, 81°04'E, 23-24.VII 1993 (K. Krombein, P. Karunaratne, B. Norden) [National Mus. Nat. Hist., Washington, D.C.]. Paratypes: 1 ♀ 1 ♂ with the same data as holotype [National Mus. Nat. Hist., Washington, D.C.]; *Amparai District*: Ekgal Aru, 12.VI 1976, 1 ♀ // *Spilomutilla eltola* (Cameron), B. Petersen det., 1980 [Inst. Biol. Soil Sci., Vladivostok]; the same locality, 9-11.VI 1976, 1 ♂ // *Spilomutilla eltola* (Cameron), B. Petersen det., 1980 [Inst. Biol. Soil Sci., Vladivostok].

DESCRIPTION. M a l e. Body length 9.0 mm. Head 1.1 times of maximum pronotal width, distance behind eyes 1.1 times of eye length. Genal carina weak. Hypostomal bridge medially widened. Relation of pedicel and flagellomeres 1-3 1.2 : 3.1 : 2.3 : 2.3. Ocelli small, ratio of postocellar line to ocellocular line 0.6. Frons and vertex coarsely punctured. Mesosoma 1.7 times of minimal width (before propodeal spiracles). Propodeum posterad without medial tooth, laterally with a series of not so long teeth. Humeral angles acute. Pronotum posterad with prescutal carina. Metanotum groove-like, deeply invaginated. Pronotum and mesonotum coarsely punctured, punctures larger than on head; propodeum reticulate; mesosoma laterally smooth and shiny. Metasomal sterna 2 basally with medial longitudinal carina, postero-laterally with curved carina. Gonostylus dorsally with long setae on inner border. Volsellar cuspis widened to apex, longer than digitus, the latter equal in length to penial valve.

Body black, mesosoma red, head brownish-red beneath with red cuticular spot on vertex; mandible red with dark apex, palps pale brown; clypeus red; antennae black, flagellomeres below reddish; legs and metasoma ventrally dark brown. Pubescence of head, mesosoma and legs likes female. Metasomal tergum 1 with band of golden hairs; tergum 2 in apical half with wide golden band; terga 4-6 with wide medial golden spot; tergum 3 posterad with a few golden hairs medially; tergum 7 with mixed brownish and pale erect setae. Metasoma ventrally with sparse pale setae which form fringe on sterna 2-6.

F e m a l e. Body length 4.2-8.2 mm. Head 1.05-1.2 times wider than pronotum, distance behind eyes 0.7-0.8 times of eye length. Second tooth of genal carina largest. Hypostomal bridge medially with acuminate projection. Flagellomere 1 very long, relation of pedicel and flagellomeres 1-3 1.0 : 3.5 : 1.7 : 1.6. Frons and vertex reticulo-striate, medial stria well developed. Mesosoma 1.3 times longer than minimal width (before propodeal spiracles), lateral dentation see Fig. 53. Propodeum posterad with small medial tubercle (absent in smaller specimens); mesosoma dorsally coarsely punctured, laterally smooth shiny. Metasomal tergum 2 postero-laterally weakly swollen, sternum 2 medially with strong longitudinal carina which ends by acute tooth, postero-laterally strongly swollen with blunt tubercle.

Head black, brownish-red beneath, often with small red cuticular spot on vertex or face broadly reddish; mesosoma red, antenna brownish; flagellomeres beneath reddish, clypeus red with darker denticles; mandible red with darker teeth; palps pale brown; legs from brown to black, metasoma black, brown beneath; spurs whitish. Head, mandible, scape with sparse long erect pale setae, black ones on vertex and frons; head with recumbent pale short pubescence, reddish on vertex and frons and denser on genae and lower frons part. Mesosoma dorsally with sparse black erect and recumbent setae, ones on posterior propodeal slope became pale; mesosoma laterally with pale recumbent micropubescence, which is denser on lower pleural parts. Legs with short subappressed and long erect pale setae. Metasomal tergum 1 dorsally with band of golden hairs; tergum 2 in apical half with wide band of golden hairs which widely emarginated anterad; tergum 4 medially with wide golden spot, tergum 5 with same spot which wider than one on tergum 4; tergum 6 with long erect brownish setae; lateral felt line on tergum 2 yellowish; metasoma ventrally with sparse pale setae which form fringe on sterna 2-5.

DISTRIBUTION. Sri Lanka.

DIAGNOSIS. New species easily differs from other species by having golden band on metasomal tergum 1 and 2 (medial pale spot on tergum 1 and three pale spots on tergum 2 in other species) (see key below).

ETYMOLOGY. *Sri* is Sanskrit word meaning fortunate, glorious, holy with reference to the country where the species has been collected.

Spilomutilla lanka Lelej, sp. n. (Fig. 60)

TYPE MATERIAL. Holotype – ♀, Sri Lanka, *Kandy District*: Thawalammenne, 2200 ft [670 m], 7-8.IX 1980 (K. Krombein, P. Karunaratne, T. Wijesinhe, L. Jayawickrema, V. Gunawardane) // *Spilomutilla eltola* (Cameron), B. Petersen det., 1995 [National Mus. Nat. Hist., Washington, D.C.]. Paratype: 1 ♂ with the same labels [National Mus. Nat. Hist., Washington, D.C.].

DESCRIPTION. Male. Body length 9.0 mm. Head 1.1 times maximum pronotal width, distance behind eye 1.1 times of eye length. Ratio postocellar line to ocellocular line 0.7. Hypostomal bridge medially with acuminate projection. Relation of pedicel and flagellomeres 1-3 1.2 : 3.0 : 2.0 : 2.0. Mesosoma 1.8 times longer than minimal width (before propodeal spiracles). Propodeal lateral teeth eight-ten in number, shorter than in *S. sri*. Gonostylus dorsally with a few short setae only (Fig. 60).

Head dark with reddish spot on vertex covered by recumbent yellowish hairs, mesosoma red. Metasomal tergum 1 dorsally with medial yellow spot, tergum 2 with three spots of yellow hairs, distance between medial spot and lateral spot equal to medial spot diameter; terga 4-6 with medial yellow spot approximately same width as medial spot on tergum 2.

F e m a l e. Body length 8.5 mm. Head equal maximum pronotal width, distance behind eye 0.9 times of eye length. Hypostomal bridge medially with acuminate projection. Relation of pedicel and flagellomeres 1-3 1.0 : 3.6 : 1.5 : 1.5. Medial frontal stria well developed. Mesosoma 1.3 times longer than minimal width (before propodeal spiracles). Pronotum gradually divergent posterad; propodeum widest, posterad with medial acute tooth, laterally with 7-8 teeth. Metasomal sternum 2 medially with longitudinal carina ends by acuminate tooth, postero-laterally swollen.

Head and mesosoma wholly red. Metasomal terga 1 dorsally with medial yellowish spot; tergum 2 posterad with three yellowish spots approximately the same size as on tergum 1, distance between medial and lateral spot more than diameter of medial spot; terga 4-5 with medial and lateral yellowish spots (wider on tergum 5); tergum 6 with dark setae.

DISTRIBUTION. Sri Lanka.

DIAGNOSIS. Female of new species similar with one of *S. rothneyi* (Cameron, 1897) from India by having medial acute tooth on propodeum posterad but differs by wholly red head and mesosoma. The male of new species similar with one of *S. consolidata* (Cameron, 1900), their differences are given in the key below.

ETYMOLOGY. *Lanka* is Sanskrit word meaning land with reference to the country where the species has been collected.

Key to the *Spilomutilla* species of Sri Lanka and India

M a l e s

1. Metasomal tergum 1 with band of golden hairs. Metasomal tergum 2 posterad with wide band of golden hairs widely emarginated anterad. Gonostylus dorsally with long setae on inner border. 9.0 mm ***S. sri sp. n.***
- Metasomal tergum 1 dorsally with medial pale spot. Metasomal tergum 2 posterad with three pale spots. Gonostylus dorsally at most with a few short setae on inner border 2
2. Hypostomal bridge medially without acuminate projection. – Head with spot of sparse pale hairs on vertex and frons. Mesosoma red. 8.0-9.0 mm ***S. eltola*** (Cameron)
- Hypostomal bridge medially with acuminate projection 3
3. Head with spot of pale hairs on vertex and frons. Propodeum laterad with a few weak tubercles. 7.0-7.5 mm ***S. cotesii*** (Cameron)
- Head without spot of pale hairs on vertex and frons, at most with red cuticular spot on this place. Propodeum laterad with well developed teeth 4
4. Volsellar cuspis equal in length to digitus and not longer than penial vale. – Head widely red on vertex and frons. Metasomal pale spots on terga 4-6 divergent posterad. 7.0 mm ***S. rothneyi*** (Cameron)
- Volsellar cuspis remarkably longer than digitus and penial valve 5

5. Pronotal posterior margin with distinct prescutal carina. Mesosoma red. Lateral propodeal teeth shorter. 9.0 mm ***S. lanka* sp. n.**
 – Pronotal posterior margin coarsely punctured, prescutal carina almost invisible. Mesosoma brown to black. Lateral propodeal teeth longer. 6.0 mm ***S. consolidata*** (Cameron)

F e m a l e s

1. Metasomal tergum 1 dorsally with band of golden hairs; metasomal tergum 2 with wide band (widely emarginated anterad) of golden hairs. 4.2-8.2 mm ***S. sri* sp. n.**
 – Metasomal tergum 1 dorsally with medial pale spot; metasomal tergum 2 posterad with three pale spots (Fig. 41) 2
 2. Propodeum posterad without teeth 3
 – Propodeum posterad with one medial (sometimes small) or with 3-7 teeth (medial is larger) 4
 3. Hypostomal bridge medially without projection. Carina of metasomal sternum 1 with well developed acute tubercle anterad and posterad. Medial carina of metasomal sternum 2 not acuminate posterad. Mesosoma dorsally mostly red. 5.0-7.0 mm ***S. eltola*** (Cameron)
 – Hypostomal bridge medially with acuminate projection. Carina of metasomal sternum 1 with well developed acute tubercle anterad only. Medial carina of metasomal sternum 2 acuminate posterad. Mesosoma dorsally brown to black. 5.0-7.0 mm ***S. consolidata*** (Cameron)
 4. Propodeum posterad with 3-7 acute teeth (medial larger). Head with round spot of pale hairs on vertex and frons. Mesosoma not shortened. 7.0-8.0 mm ***S. cotesii*** (Cameron)
 – Propodeum posterad with 1 acute medial tooth (sometimes small). Head without pale spot on vertex and frons. Mesosoma evidently shortened 5
 5. Head black or brown with large red spot on vertex and frons. Lateral mesosomal sides darker than dorsal one. Pale spot of metasomal tergum 5 weak, with sparser setae and smaller size. 5.5-8.0 mm ***S. rothneyi*** (Cameron)
 – Head and mesosoma red including genae and lateral mesosomal sides. Pale spot of metasomal tergum 5 well developed, no less than on tergum 4. 8.5 mm ***S. lanka* sp. n.**

15. Genus *Kurzenkotilla* Lelej, gen. n. (Figs 104-106)

Type species: *Artiotilla ariana* Lelej, 1980 (designated here).

DESCRIPTION. Male. Unknown, but *Mutilla semiviolacea* André, 1896, *M. rufodorsata* Cameron, 1897, and *M. harmandi* André, 1898 can belong to this genus.

Female. Head large, somewhat rounded posterad, width equal pronotal width; behind eyes elongated; eyes moderately large, projecting over head. Genal

carina not developed, hypostomal carina slightly widened in medial portion. Prementum not tuberculate. Flagellomere 1 1.5-2.0 times longer than flagellomere 2. Mandible rather wide, bidentate, without subbasal tooth on inner border, preapical tooth obtuse (tridentate in *K. annamensis* sp. n.). Mesosoma with concave mesopleura, scutellar scale lacking. Mesopleura with developed vertical (supracoxal) carina. Mid and hind tibia with two rows of weak spines. Metasomal segment 1 wide transverse; lateral felt line located on tergum 2. Sternum 2 latero-apically swollen, swell in type species *K. ariana* ends by tooth. Tergum 2 with larger or smaller pale spots disposed transversely in basal half, tergum 3 with wide pale band or lateral spots. Tergum 6 without distinct pygidial area, apical part microgranulated and covered by dense setae. Sternum 6 with two strong apical tubercles.

SPECIES INCLUDED. *K. annamensis* sp. n., *K. ariana* (Lelej, 1980), **comb. n.**, *K. niveosignata* (André, 1894), **comb. n.**, *K. scrobiculata* (Hammer, 1962), **comb. n.**, *K. visrara* (Cameron, 1898), **comb. n.**

DISTRIBUTION. Palaearctic (Afghanistan) and Oriental regions.

DIAGNOSIS. The female of new genus closely related to female of *Storozhenkotilla* gen. n. described below, but differs except pale design of metasomal tergum 2 by lacking of pygidial area (distinct pygidial area weakly carinated apico-ventrally in *Storozhenkotilla*). By having of two large pale spots on metasomal tergum 2 the female of *Kurzenkotilla* gen. n. resembles female of *Macromyrme* Lelej, 1984, but differs by lacking subbasal tooth on inner border of non acuminate mandible (with developed subbasal tooth on inner border of acuminate mandible in *Macromyrme*), and by having much larger eyes (very small in *Macromyrme*).

ETYMOLOGY. The generic name is dedicated to my colleague and friend Nikolai Kurzenko, who study vespid and sapygid wasps.

***Kurzenkotilla annamensis* Lelej, sp. n. (Figs 104-106)**

TYPE MATERIAL. Holotype – ♀, Vietnam, Prov. Nghe Anh [currently Prov. Khu Bon Cu], Con River, Naca, 200 m, 8.IX 1963 (N. Kabakov) [Inst. Biol. Soil Sci., Vladivostok].

DESCRIPTION. Male. Unknown.

Female. Body length 9.6 mm. Genal carina anterad ends by tubercle. Flagellomere 1 1.5 times longer than flagellomere 2. Mandible tridentate, preapical teeth on inner border obtuse. Posterior propodeal slope with medial longitudinal carina, lateral border of this slope tuberculate. Metasomal sternum 2 latero-apically swollen, basally with weak medial longitudinal carina.

Head and mesosoma dorsally with large coarse punctures, propodeum dorsally reticulate. Metasomal tergum 2 longitudinally rugulate. Head and mesosoma ferruginous-red; antennae black, brownish beneath; legs brown, metasoma black, sternum 2 brown. Head and mesosoma dorsally with sparse black setae

mixed on frons with reddish ones, gena with sparse whitish setae, legs with yellowish setae, metasomal golden design see Fig. 104, tergum 6 covered by yellowish setae, sterna 2-5 posterad with fringe of yellowish setae.

DISTRIBUTION. Vietnam.

DIAGNOSIS. By having of two large pale spots on metasomal tergum 2 the female of new species similar with type species but differs in having shorter flagellomere 1 (1.75 times longer than flagellomere 2 in *K. ariana*), in having tridentate mandible (bidentate in *K. ariana*).

ETYMOLOGY. The specific name originates from Annam (Vietnam southwards of Red River to Ho Chi Minh) with reference to the area where the new species was collected.

16. Genus *Lehritilla* Lelej, gen. n. (Figs 93-98)

Type species: *Lehritilla lanka* Lelej, sp. n. (designated here).

DESCRIPTION. Male. Head not rounded posterad, dorsally with well-developed preoccipital carina. Eyes rather small, weakly notched inside. Prementum basally tuberculate. Mandible with weak subbasal tooth on inner border, with well developed dorsal curved carina and large triangle lobe beneath. Scape curved with upper developed carina, space below carina punctured setose. Ocelli small. Tegula large, projecting over mesoscuto-scutellar suture. Pterostigma large closed. Radial cell longer than first radio-medial cell. Propodeal posterior slope with longitudinal medial carina. Mesopleura beneath swollen with tooth. Metasomal tergum 2 with long lateral felt line and sharp tubercle between this line and lateral tergal border. Sternum 2 without any lateral felt line. Tergum 7 with two medial carinae convergent posterad. Sternum 8 (hypopygium) roof-like with strong longitudinal medial carina. Gonostylus (dorsal view) with strong sclerotized process, longitudinal process slender.

Female. Unknown.

SPECIES INCLUDED. Type species only.

DISTRIBUTION. Oriental region (South India, Sri Lanka).

DIAGNOSIS. The male of *Lehritilla* gen. n. has some unique characters within subfamily Mutillinae (bilobed gonostylus, weakly notched eye, and mandible with large triangle lobe beneath), but fore wing venation and tuberculate prementum allied this genus to *Ctenotilla* Bischoff, 1920 in the tribe Mutillini. The differences of new genus from the Mutillini genera are given in the key above. Small weakly notched eye of *Lehritilla* male resembles Myrmillinae male but easily differs by having large closed pterostigma (open sclerotized pterostigma in Myrmillinae), by having large tegula (very small tegula in Myrmillinae).

ETYMOLOGY. The generic name is dedicated to my tutor Pavel Andreyevich Lehr, world authority in asilid flies.

***Lehritilla lanka* Lelej, sp. n.** (Figs 93-98)

TYPE MATERIAL. Holotype – ♂, Sri Lanka, *Mannar District*: Kokkomotte Bungalow, 5 mi NE Wilpattu National Park, 21-25.V 1976 (K. Krombein, P. Karunaratne, S. Karunaratne, D. Balasooriya) [National Mus. Nat. Hist., Washington, D.C.]. Paratypes: 1 ♂ with the same data; Sri Lanka, *Anuradhapura District*: Hunuwilagama in Wilpattu National Park, 10-19.III 1970, 1 ♂ (D. Davis, W. Rowe) [National Mus. Nat. Hist., Washington, D.C.]; South India, South Malabar [Kerala], 1000 ft, VIII 1956, 1 ♂ (P. Nathan) // Karl V. Krombein Collection 1975-1976 [Inst. Biol. Soil Sci., Vladivostok].

DESCRIPTION. Male. Body length 9.0 mm. Ratio postocellar line : ocellular line 0.6. Relation of pedicel and flagellomeres 1-3 0.8 : 1.3 : 2.1 : 1.8. Mandible with one preapical tooth on inner border. Supraclypeal area with strong medial longitudinal carina. Antennal laminate tubercles carinate, acuminate apically and projected over supraclypeal area. Transverse carina between torulus and compound eye not complete. Clypeus with transverse preapical groove which bordered above by ridge and laterad by tooth, distance between teeth more than between tooth and mandibular articulation. Hypostomal carina not tuberculate. Fore wing venation see Fig. 93. Parategular carina developed. Notauli complete, parapsids visible in posterior half. Pronotum anterad with medial blunt projection. Metasomal sternum 2 roof-like. Genitalia see Fig. 98.

Head and mesosoma dorsally coarsely punctured. Tegula shiny with a few setae inside. Propodeum dorsally reticulate. Disc of tergum 2 with dense small punctures. Metasomal tergum 7 laterad of carina coarsely punctured. Head and antennae black. Mandible reddish-brown, palps brown. Mesosoma black, tegula brown-red, legs dark brown. Metasoma yellowish-red excepts brownish sternum 1 and last segment. Wings dark fuscous. Head, mesosoma and legs with sparse recumbent and erect setae, black on mesoscutum and tegula. Metasoma with yellowish pubescence which forms on posterior border of terga 1-6 and sterna 2-6 fringe, denser hairs on tergum 2 posterad and terga 3-6 except their lateral parts.

Female. Unknown.

DISTRIBUTION. Sri Lanka, South India (Kerala).

ETYMOLOGY. *Lanka* is Sanskrit word meaning land with reference to the country, where the holotype has been collected.

18. Genus *Pristomutilla* Ashmead, 1903 (Figs 79-86)

Ashmead, 1903: 329; Bischoff, 1921: 518; Bradley, Bequaert, 1928: 71 (*Smicromyrme* subg.); Arnold, 1956: 66; Brothers, 1975: 592; Nonveiller, 1995b: 29; Lelej, Nemkov, 1997: 17.

Type species: *Mutilla pectinata* Sichel et Radoszkowski, 1870 (original designation).

REDESCRIPTION. Male. Head width less than pronotal width. Eyes rather small with weak notch inside. Ocelli small. Mandible bidentate without basal tooth beneath (Fig. 82). Flagellomere 2 1.5 times longer than flagellomere 1 (Fig. 81). Prementum with distinct basal tubercle. Notauli and parapsids invisible. Tegula small (unusual for Mutillini) but somewhat larger than in *Myrmilla*. Pterostigma with sclerotized sides. Mesoscutellum non-modified. Metasomal segment 1 campanuliform, not transverse. Very long lateral felt lines located on tergum 2. Sterna 2 and 8 often with medial carina, tergum 7 non-modified. Gonostylus not bilobed, apical part narrow, apex slightly curved up (lateral view). Volsella rather short and consists of wide cuspis and process-like digitus, penial valves symmetrical.

Female. Head not wider than pronotum; behind the eyes not elongated, eyes rather large. Genal carina weak, hypostomal carina often with tooth. Prementum with distinct basal tubercle. Clypeus with basal medial tubercle. Flagellomere 1 distinctly longer than flagellomere 2; flagellomeres 2-10 shortened. Mandible acuminate, without subbasal tooth inside. Mesosoma with concave mesopleura; propodeum posterad with transverse row of denticles; scutellar scale lacking. Mesopleura with weak supracoxal carina. Fore tarsus usual with comb of strong spines. Mid and hind tibia with two rows of strong spines. Metasomal segment 1 wide sessile; lateral felt line located on tergum 2. Tergum 2 usually with two transverse spots in basal half, terga 3-5 often with pale band or spots; tergum 6 with distinct pygidial area, carinated laterally, usually longitudinally rugose.

SPECIES INCLUDED. Sixty species distributed in Afrotropical region but only a few are known in Oriental region.

DISCUSSION. H. Bischoff (1920) placed *Pristomutilla* in tribe Smicromyrmini and D. Brothers (1975) in subtribe Smicromyrmina. After describing of *Pristomutilla* male (Nonveiller, 1995) the genus has been replaced in subfamily Myrmillinae (Lelej, Nemkov, 1997). In spite of such characters of *Pristomutilla* male as small eye with weak notch inside and small tegula (both characters resemble Myrmillinae), but mesopleural suture of *Pristomutilla* female ends at anterior spiracle, which is one of main characters of Mutillinae. Within subfamily Mutillinae genus *Pristomutilla* allied to genera of tribe Mutillini: *Ctenotilla* Bischoff, *Cephalotilla* Bischoff, *Lehritilla* gen. n., *Mimecomutilla* Ashmead, 1903, *Strangulotilla* Nonveiller, and *Zeugomutilla* Chen.

DISTRIBUTION. Afrotropical and Oriental region.

REMARK. Male redescription based on Afrotropical species.

Pristomutilla locascioi Lelej, sp. n. (Fig. 86)

TYPE MATERIAL. Holotype – ♀, South India, Karnataka, 15 km N Bangalore, KT, 23-24.VII 1996 (K. Werner, L. Lorenz) [Mus. Stor. Nat., Florence]. Paratypes: 1 ♀ with the same label; the same place, 25.VII 1996, 2 ♀ (K. Werner,

L. Lorenz); South India, Tamil Nadu, Dindigul Anna Dist., 10 km NE Dindigul, 21.X 1997, 1 ♀ (A. Sforzi, L. Bartalozzi); Tamil Nadu, Pudukkottai Distr., dint. di Pudukkottai, 20.X 1997, 1 ♀ (A. Sforzi, L. Bartalozzi); 29 km N di Pudukkottai, 20.X 1997, 1 ♀ (A. Sforzi, L. Bartalozzi); Tamil Nadu, boscaglia c/o confine N della Peryar Nat. Reserve, 23.X 1997, 1 ♀ (A. Sforzi, L. Bartalozzi) [Mus. Stor. Nat., Florence; Inst. Biol. Soil Sci., Vladivostok]; South India, Karnataka, Bangalore, Allalsandra, 900 m, 26-29.X 1977, 1 ♀ (Zool. Mus. Copenhagen Exp.) // *Pristomutilla ianthis* (Turner), B. Petersen det., 1980 [Inst. Biol. Soil Sci., Vladivostok].

DESCRIPTION. Male unknown.

Female. Body length 5.2-9.0 mm. Head width equal pronotal width, part behind the eye 0.4 times of eye length. Eyes not projecting over head. Hypostomal carina with tooth. Relation of pedicel and flagellomeres 1-3 0.8 : 1.5 : 1.0 : 1.0. Mandible with preapical tooth inside. Frons and vertex coarsely punctured. Mesosoma 1.25 times longer than minimal width (before propodeal spiracles); dorsally rugoso-striate, strongly tuberculate in posterior third, the trace of metanotal-propodeal suture weakly visible; posterior propodeal row of denticles see Fig. 86. Fore coxa anterad with small shiny tubercle. Metasomal segment 2 laterally (dorsal view) strongly rounded, tergal disc densely punctured (puncture width much less than ones on head) without mixed minute punctures on interspaces. Apical part of sternum 6 forms apical part of pygidial area. Pygidial area as Fig. 85, carinated laterally, longitudinally striated, apically micropunctured.

Head black, mesosoma ferruginous-red, metasoma black. Mandible red with dark apex. Palps pale brown. Scape red; flagellomeres black, reddish beneath. Legs ferruginous-red with darker apical part of femora. Head, mandible, scape with sparse long erect pale setae, black ones on vertex and frons; head with recumbent pale short pubescence, reddish on vertex and frons. Mesosoma dorsally with sparse black erect and recumbent setae, ones on posterior propodeal slope became pale; mesosoma laterally with pale recumbent micropubescence and a few pale erect setae on the supracoaxal mesopleural row. Legs with short subapressed and long erect pale setae. Metasomal tergum 1 dorsally with black setae only; silver metasomal design see Fig. 86; tergum 6 laterally with brownish setae; lateral felt lines on tergum 2 yellowish; lateral border line on tergum 2 complete, with silver recumbent hairs; metasoma ventrally with sparse pale setae which form fringe on sterna 2-5.

DISTRIBUTION. South India (Karnataka, Tamil Nadu).

DIAGNOSIS. The female of *Pristomutilla locascioi* sp. n. is most similar with female of *P. ianthis* (Turner, 1911) and their differences are given in the key below.

ETYMOLOGY. The specific name is dedicated to Pietro Lo Cascio, who sent me for study very important Oriental Mutillidae (India) from the Museo di Storia Naturale dell'Università, sezione di Zoologia "La Specola", Florence, Italy.

Key to the *Pristomutilla* species of Sri Lanka and South India

F e m a l e s

1. Eyes projecting over head (Fig. 83). Mesosoma dorsally rugoso-striate throughout. Disc of metasomal tergum 2 densely punctured with mixed minute punctures in interspaces. Spots of metasomal tergum 2 yellowish *P. ianthis* (Turner)
- Eyes not projecting over head (Fig. 86). Mesosoma dorsally rugoso-striate in anterior half and strongly tuberculate in posterior third. Spots on metasomal tergum 2 silver *P. locascioi* sp. n.

19. Genus *Storozhenkotilla* Lelej, gen. n. (Figs 99-103)

Type species: *Mutilla aurofasciata* André, 1907 (designated here).

DESCRIPTION. M a l e. Head width less than pronotal width, not rounded posterad; preoccipital carina dorsally well developed, sharp and slightly projecting over head. Eyes well notched inside. Ocelli small. Mandible bidentate without basal tooth beneath and without subbasal tooth on inner border (Fig. 102). Flagellomere 2 1.3 times longer than flagellomere 1 (Fig. 100). Prementum not tuberculate. Notauli and parapsids visible. Tegula longer than pronotal length laterad, projecting over axilla. Pterostigma large closed. Mesoscutellum non-modified. Propodeal posterior slope with strong longitudinal medial carina. Metasomal segment 1 wide transverse. Very long lateral felt line located on tergum 2, sternum 2 without any lateral felt line. Sternum 8 (hypopygium) not modified, tergum 7 without carina. Gonostylus wide, basiventrally setose. Volsella shorter than penial valve and consists of wide cuspis and short process-like digitus; penial valves symmetrical, apically setose. Metasomal tergum 1 dorsally and terga 2-4 posterad with band of pale setae.

F e m a l e. Head large, widened posterad, width slightly less than pronotal width; behind eye elongated; eye small. Genal carina well developed, hypostomal carina widened in medial portion. Prementum not tuberculate. Flagellomere 1 1.5 times longer than flagellomere 2. Mandible bidentate, without subbasal tooth on inner border. Mesosoma with concave mesopleura, scutellar scale lacking. Mesopleura with well developed vertical (supracoxal) carina. Pro-mesonotal suture carinated in type species. Fore tarsus without comb of strong spines. Mid and hind tibia with one row of spines. Metasomal segment 1 wide transverse; lateral felt line located on tergum 2. Tergum 2 basally with pale band which medially emarginated posterad and apical narrow pale band; tergum 3 with wide pale band. Tergum 6 with distinct pygidial area weakly carinated latero-apically, shiny or shagreened with a few rugae. Sternum 6 with two strong apical tubercles.

SPECIES INCLUDED. *S. aurofasciata* (André, 1907), and *S. cicatricifera* (André, 1894), both are new combination.

DISTRIBUTION. Oriental region (South India, Sri Lanka).

DIAGNOSIS. New genus most similar with *Mutilla* Linnaeus, 1758. The male differs by having weakly setose gonostylus (densely setose in *Mutilla*), by having clypeal lateral projection (medial projection in *Mutilla*). By having pale design on basal part of metasomal tergum 2 the female of *Storozhenkotilla* gen. n. resembles female of *Kurzenkotilla* gen. n. but easily differs by basal transverse pale band on metasomal tergum 2 (two oval spots disposed transversely in *Kurzenkotilla*). The differences from other genera of tribe Mutillini are given in the key above.

ETYMOLOGY. The generic name is dedicated to my colleague Sergey Storozhenko, world authority in grylloblattids, who edited this book.

Key to the *Storozhenkotilla* species of Oriental region

F e m a l e s

1. Pro-mesonotal suture carinated. Humeral angle with high longitudinal carina. Pygidial area shiny. 8.0-12.0 *S. aurofasciata* (André)
- Pro-mesonotal suture not carinated nor visible. Humeral angle not carinated. Pygidial area shagreened with a few rugae. 8.0-12.0 *S. cicatricifera* (André)

20. Genus *Strangulotilla* Nonveiller, 1978 (Figs 107-112)

Type species: *Mutilla thoracosulcata* Magretti, 1905, Africa (original designation).

REMARK. Includes seventeen Afrotropical species (Nonveiller, 1978). Firstly recorded in Oriental region.

Strangulotilla krombeini Lelej, sp. n. (Figs 107-112)

TYPE MATERIAL. Holotype – ♂, Sri Lanka, *Kandy District*: Kandy, 1-3.X 1973 (K. Krombein, P. Karunaratne, P. Fernando) [National Mus. Nat. Hist., Washington, D.C.]. Paratypes: Sri Lanka: *Jaffna District*: 16 km S of Pooneryn, 24-26.I 1977, 1 ♀ (K. Krombein et al.); *Anuradhapura District*: Padaviya, irrigation bungalow or tank, 180 ft, 27.II-9.III 1970, 1 ♂ (D. Davis, W. Rowe); Padaviya, 2-8.XI 1970, 1 ♂; *Trincomalee District*: Trincomalee, China Bay, Ridge Bungalow, 26.II 1979, Malaise trap, 1 ♂ (K. Krombein et al.); *Amparai District*: Dehiattakandiya, 23-24.VII 1993, 2 ♀ (K. Krombein et al.); *Matale District*: Kibissa, 28.VI-4.VII 1978, 3 ♀ (K. Krombein et al.); *Kandy District*: Hasalaka, 107 m, 22-25.XI 1970, 1 ♂; 9-13.II 1975, 1 ♂; 26-30.III 1975, 1 ♂; 26-28.V 1975, 1 ♂ (K. Krombein et al.); 5 mi NW Mahiyangana, Hasalaka Irrigation Bung., 30.III-9.IV 1971, 4 ♂ (Spangler et al.); Kandy, 1-3.X 1973, 1 ♂ (K. Krombein et al.); Udawattakele Sanctuary, 2100 ft, 26-30.VII 1978, 1 ♂ (K. Krombein et al.); *Ratnapura District*: Uggalkolta, 31.I-8.II 1970, 1 ♂ (K. Krom-

bein et al.); *Monaragala District*: Inginiyagala, 2-4.VI 1975, 2♂ (K. Krombein et al.); Angunakolapelessa, 21-23.I 1979, 1♀ (K. Krombein et al.).

DESCRIPTION. M a l e. Body length 6.5-7.2 mm. Ocelli small, ratio postocellar line : ocellocular line 0.45. Relation of pedicel and flagellomeres 1-3 0.7 : 1.0 : 1.5 : 1.4. Mandible see Figs 107, 108. Antennal tubercles as usual, not carinated. Clypeus with weak medial longitudinal carina, medially with preapical transverse curved carina. Transverse carina between torulus and eye well developed. Hypostomal carina and hypostomal bridge not tuberculate. First radio-medial cell somewhat longer than radial cell. Pararegular carina not developed. Notauli visible in posterior half, parapsids not visible. Posterior propodeal slope without longitudinal medial carina. Metasomal tergum 1 wide, rather long. Metasomal sternum 2 with medial basal longitudinal carina. Tergum 7 and sternum 8 not modified. Genitalia see Fig. 112.

Head and mesosoma dorsally densely punctured, punctures larger on mesosoma. Head below between genal carinae glabrous shiny. Tegula shiny with a few setae inside. Propodeum reticulate. Metasomal tergum 7 densely punctured, in apical half with medial shiny impunctate area, which widened apically. Head and antennae black, pedicel and flagellomere 1 below and scape brown; mandible black, preapically brown; palps pale brown. Mesosoma black, tegula brown, legs brown, spurs whitish. Metasoma black. Wings slightly fuscous. Body and legs with not so dense recumbent and suberect hairs, which form on metasomal segment 2-6 posterad fringe.

F e m a l e. Body length 4.8-5.6 mm. Head somewhat wider than pronotum, part behind eye 0.4 times of eye length. Eyes large, projecting over head. Hypostomal carina well developed. Prementum not tuberculate. Relation of pedicel and flagellomeres 1-3 0.5 : 0.9 : 0.7 : 0.6. Mandible with preapical tooth inside. Frons and vertex coarsely punctured, head below between genal carinae glabrous. Clypeus with basal medial tubercle, and two apical tubercles, distance between them somewhat less than distance between tubercle and mandible articulation. Mesosoma widened posterad, 1.3 times longer than minimal width (before propodeal spiracles); dorsally deeply coarsely punctured; scutellar scale lacking; propodeum posterad with transverse row of denticles, which enlarged medially; posterior propodeal slope laterad with denticles, largest one below. Metasomal tergum 1 wide short, tergum 6 with glabrous shiny pygidial area carinated laterally.

Head and mesosoma ferruginous-red, antenna black with ferruginous-red scape and pedicel; mandible ferruginous-red with brown apex; legs ferruginous-red; metasoma black, ventrally and pygidial area reddish-brown. Head, mesosoma and legs with sparse suberect and recumbent pale setae. Metasomal tergum 2 without pale design, with weak pale fringe posterad only. Terga 3 and 4 with band of dense whitish hairs, terga 5 and 6 laterally with whitish setae. Tergum 2 with sparse black setae, felt lines whitish. Tergum 1 and metasoma ventrally with sparse pale setae which form fringe on sterna 2-5.

DISTRIBUTION. Sri Lanka (dry zone).

DIAGNOSIS. The male of new species differs from male of *S. thoracosulcata* (Magretti, 1905), type species of genus, by lacking lateral tubercle on metasomal tergum 8 (well developed in *S. thoracosulcata*), by having less developed notauli (completed in *S. thoracosulcata*). The female of *S. krombeini* sp. n. differs from one of *S. thoracosulcata* by having widened mesosoma (with more or less parallel sides in *S. thoracosulcata*), by lacking pale band on terga 1 and 2 posterad (dense pale fringe on tergum 1 and interrupted band of pale hairs on tergum 2 posterad in *S. thoracosulcata*).

REMARK. As male as female of new species separately belong to genus *Strangulotilla* Nonveiller, 1978. In spite of that no pairs collected *in copula* or in the same place or same date I think that both are opposite sexes of the single *Strangulotilla* species discovered in Sri Lanka. *S. krombeini* sp. n. habits dry zone in Sri Lanka except very dry areas in North-West and South-East.

ETYMOLOGY. The specific name is dedicated to Karl V. Krombein, splendid entomologist, who collected during his long scientific life more than 1000 new species (Norden, 1996), including this species.

26. Genus *Indratilla* Lelej, 1993 (Figs 113-117)

Type species: *Indratilla gynandromorpha* Lelej, 1993 (original designation).

REDESCRIPTION. Male. Apterous. Head 1.3 times wider than pronotum. Mandible with well developed preapical tooth on inner border and obtuse basal lobe beneath. Ocelli small, ratio postocellar line : ocellocular line 0.6. Clypeus weakly modified, with weakly elevated medial part and slightly emarginated anterior margin. Genal carina developed and ends anterad by obtuse tubercle, ratio eye height to gena height (head in lateral aspect) 0.75. Eyes weakly sinuate within, not reniform. Preoccipital carina dorsally well developed. Antennal tubercles moderately large. Antenna unmodified, two apical flagellomeres dorsoventrally compressed, relation of flagellomeres 1-3 2.4 : 2.4 : 2.3. Number of maxillary and labial palps 6+4. Mesosoma elongated with rounded humeral angle, 2.5 times longer (from pronotum anterad to metasomal base) than minimal width (before propodeal spiracles). Tegula large, not touching propodeal spiracle. Scuto-scutellar suture visible, posterolateral scutal angle produced into small tooth, metanotum well visible, mesopleura weakly convex. Mid and hind tibia with a few long apical spines and mid tibia with one additional preapical spine. Hind coxa with longitudinal carina inside.

Metasomal segment 1 with well developed dorsal and anterior surfaces. Tergum 2 with slightly flattened disc and lateral felt lines. Sternum 1 with well-developed carina; sternum 2 with basal weak medial, longitudinal carina. Tergum 7 slightly convex. Sternum 8 (hypopygium) semitransparent apically, with weakly rounded posterior margin and low lateral longitudinal carina. Genitalia with curved down gonostylus and short broad volsella, penial valves symmetri-

cal, gonostylus ventro-basally with long setae, volsella with dense setae. Silver metasomal design see Fig. 114.

F e m a l e (hitherto unknown). Head width slightly larger than pronotal width. Eyes moderately large. Genal carina developed and joint with hypostomal carina, latter widened at this point. Prementum not tuberculate. Flagellomere 1 1.5 times longer than flagellomere 2. Mandible acuminate with two very weak preapical teeth, without subbasal tooth on inner border. Mesosoma elongated, 1.5 times longer than width between propodeal spiracles. Scutellar scale distinct. Metanotal tergum 1 short with distinct dorsal surface. Disc of tergum 2 flatten even weakly invaginated, with lateral felt line. Metasomal pale design see Fig. 113. Tergum 6 with pygidial area glabrous shiny, widened posterad and weakly carinated laterally in apical half and microsculptured in basal half.

SPECIES INCLUDED. Type species only.

DISTRIBUTION. Sri Lanka (dry zone).

DIAGNOSIS. *Indratilla* Lelej, 1993 belongs to subfamily Mutillinae (tribe Smicromyrmini). The apterous male of *Indratilla* differs from *Gynandrotilla* Arnold, 1946, another genus with apterous male from South Africa, by having different metasomal design, by having another shape of metasomal tergum 1 (shorter and without distinct dorsum in *Gynandrotilla*), and by having longer tegula (scarcely projecting over scuto-scutellar suture in *Gynandrotilla*). The female of *Indratilla* close to *Ephucilla* Lelej, 1995 female by having unsculptured pygidial area weakly carinated laterally in apical half, but differs by having two pale spots on tergum 2 posterad (pale band, sometimes interrupted medially in *Ephucilla*), by having two pale spots on tergum 1 (lacking in *Ephucilla*). By the shape of tergum 2 female of *I. gynandromorpha* Lelej, 1993 resembles *Sinotilla belokobylskiji* Lelej, 1995, but easily differs by having weak pygidial area (convex shiny surface in *S. belokobylskiji*).

REMARK. Both B. Petersen and me discovered true female of *Indratilla* Lelej, 1993 among Srilankan Mutillidae stored in National Mus. Nat. Hist., Washington, D.C. Male and female of *I. gynandromorpha* collected in restricted area (dry zone in Northwest Sri Lanka) and in three cases both sexes have been collected in the same date.

***Indratilla gynandromorpha* Lelej, 1993 (Figs 113-117)**

Lelej, 1993: 234, Figs 1, 3, 6, ♂.

MATERIAL. Holotype – ♂, Sri Lanka, *Mannar District*: Wilpattu, 8.X 1982 (G. Medvedev) [Zool. Inst., St. Petersburg], examined. Additional specimens. Sri Lanka, *Mannar District*: Ma Villu, 22-28.I 1978, 1♂ (K. Krombein et al.); 17-21.II 1979, 1♀ (K. Krombein et al.); 20.IX 1979, 6♂, 1♀ (K. Krombein et al.); 16-19.IX 1980, 3♂, 1♀, (K. Krombein et al.); 11-12.IV 1981, 5♂ (K. Krombein et al.); Marichchukkaddi, 26.I 1979, 1♂ (K. Krombein et al.); 0.8 km NE Kok-

motte Bungalow, Wilpattu National Park, 21-25.V 1976, 3♂, 2♀ (K. Krombein et al.); 5-8.X 1977, 3♂ (K. Krombein et al.); *Puttalam District*: Kali Villu in Wilpattu National Park, 12-14.VI 1975, 1♂, 1♀ (K. Krombein et al.).

REDESCRIPTION. Male. Apterous. Body length 8.6-9.2 mm. Head, dorsum of mesosoma and metasomal tergum 2 with large deep, sometimes confluent punctures; punctures on sternum 2 less deep; mesosoma laterally and other metasomal terga with separate, smaller punctures. Tegula smooth shiny with a few punctures within. Terga 3-6 with medial longitudinal glabrous line; tergum 7 with medial glabrous part widened posterad.

Anterior ocellus surrounded by semicircular silver spot. Gena with more or less dense, recumbent silver hairs. Frons and vertex with sparse erect black hairs. Mesosoma dorsally with sparse, recumbent golden hairs mixed with long erect brown hairs; terga 2-5 with sparse, recumbent, golden hairs mixed with long erect black hairs, tergum 6 with recumbent yellowish setae, tergum 7 with whitish setae. Lower part of pronotum, mesopleura (except antero-lower part), and metapleura with dense recumbent silvery hairs. Felt lines whitish. Metasomal sterna with sparse recumbent and erect whitish hairs which form fringe on sterna 2-6, sternum 8 (hypopygium) with denser erect whitish hairs. Head black; antennae brown, reddish beneath; mandibles brownish-red with black apex, clypeus brownish-red. Mesosoma black, mesoscutum, mesoscutellum, metanotum, and propodeum dorsally ferruginous-red; legs brown; mid and hind spurs whitish. Metasoma brown with sterna, tergum 2 posterad and terga 3-5 more reddish.

Female (hitherto unknown). Relation of pedicel and flagellomeres 1-3 0.6 : 1.2 : 0.8 : 0.8. Posterior propodeal slope abrupt. Metasomal tergum 2 medially anterad invaginated. Frons, vertex and mesosoma dorsally with coarse large punctures, tergum 2 with deeper and larger punctures, disc laterad of medial silver spot with double-sized punctures.

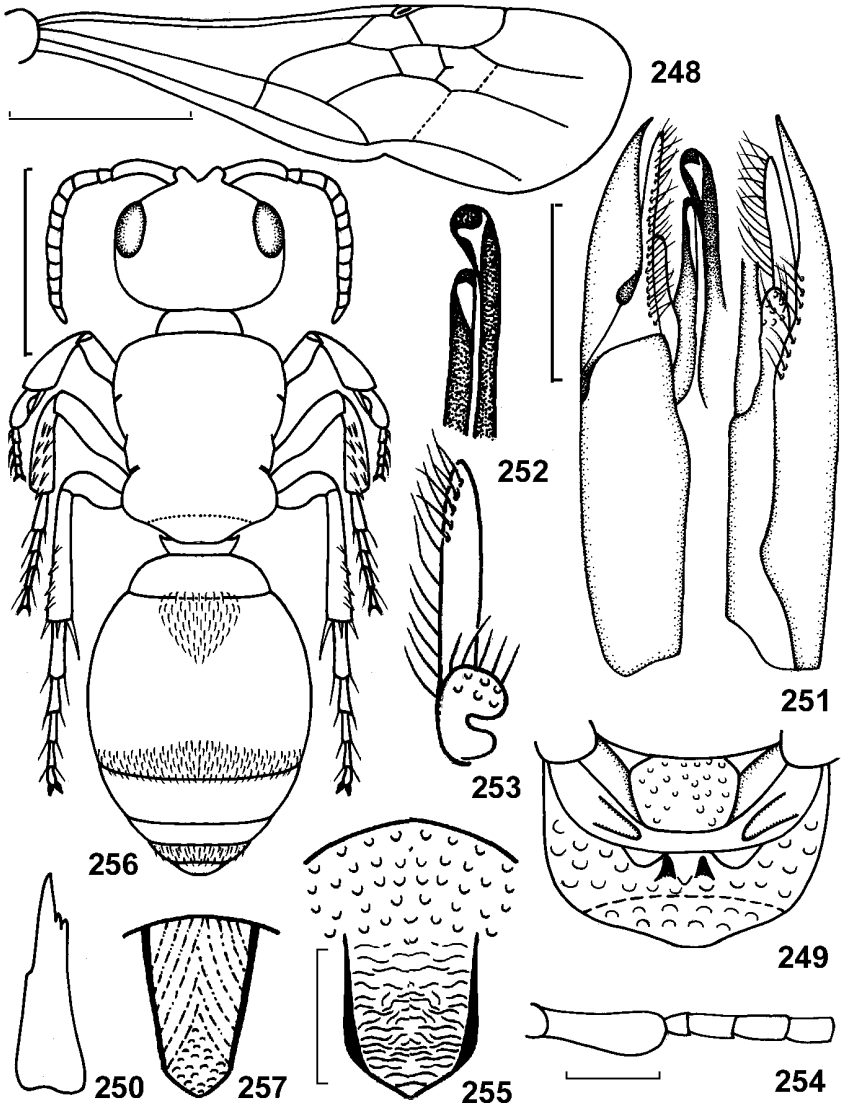
Frons with two silver patches, vertex with erect golden setae, other head parts and legs with recumbent and erect silver setae. Mesosoma dorsally with recumbent golden setae, lower part of pronotum, mesopleura and metapleura with subappressed silver pubescence. Metasomal tergum 1 dorsally with two silver spots, tergum 2 with medial silver spot in basal half and two silver spots on posterior border, terga 3-5 except lateral portions with sparse recumbent silver hairs. Felt line with silver hairs, lateral border of tergum 2 in posterior half with recumbent silver pubescence. Metasoma ventrally with sparse silver setae which form fringe on sterna 2-5 posterad.

DISTRIBUTION. Sri Lanka (dry zone).

27. Genus *Karunaratnea* Lelej, gen. n. (Figs 248, 249)

Type species: *Karunaratnea palatupanae* Lelej, sp. n. (designated here).

DESCRIPTION. Male. Head angulate behind the eyes. Mandible tridentate, deeply excised beneath forming large tooth near the base. Clypeus rather



Figs 248-257. Mutillinae (248-255), Sphaerophthalminae (256-257).

248, 249 – *Karunaratnea palatupanae* sp. n., holotype, ♂; 250 – *Nordeniella thermophila*, ♂; 251-255 – *Karlissaidia medvedevi* sp. n. (251-254 – holotype, ♂, 255 – paratype, ♀); 256, 257 – *Standfussidia taprobane* sp. n., holotype, ♀. 248 – fore wing; 249 – mesoscutellum, metanotum and propodeum, dorsal view; 250 – mandible; 251 – genitalia (ventral view at left, dorsal view at right), penial valve not figured at right; 252 – penial valves, ventral view; 253 – volsella, paracuspis not figured; 254 – scape, pedicel and flagellomeres 1-3; 255, 257 – pygidial area; 256 – habitus. Scale line 1 mm for figs 248-257.

flatten with projecting midpart of anterior margin. Ocelli small, postocellar line much shorter than ocellocular line. Scape distinctly bicarinate beneath, flagellomeres not shortened, flagellomere 1 1.5 times longer its width and slightly shorter than flagellomere 2. Pronotum angulate. Notauli and parapsids developed in posterior half. Tegula slightly projected over mesoscuto-scutellar suture. Parascutal carina weak. Scutellum simple. Mesopleura below without precoxal ridge. Propodeum shortened, dorsum with two medial sharp tubercles, which bordered medial elongate cell. Hind coxa carinate inside. Wing shortened, slightly infuscated, pterostigma length approximately equal to distance between pterostigma and base of RS on vein Sc+R. Fore wing venation see Fig. 248. Metasomal tergum 2 with long lateral felt lines, sternum 2 without any trace of felt lines. Tergum 7 and sternum 8 punctured throughout. Volsella slightly longer than penial valves, cuspis with tuft of short setae inside and ventral basal setae no longer than cuspis length.

F e m a l e. Fore tarsus without external comb of spines. Mandible slender bidentate. Clypeus with transverse lamellate carina and small medial basal tubercle. Genal carina weak and forming tubercle on hypostomal carina. Flagellomere 1 1.25 longer than its maximum width. Mesosoma slightly divergent posterad, shortened, length equal its maximum width. Posterior propodeal slope abrupt. Scutellar scale well developed (likes *Physetopoda* female). Mid and hind tibia with two row of spines. Metasomal tergum 6 with shiny smooth medial part not carinated laterally but bordered by pale setae. Tergum 2 with posterior narrow fringe of pale pubescence widened medially, basally with or without medial patch of pale pubescence. Tergum 3 with pale band.

SPECIES INCLUDED. *Karunaratnea palatupanae* Lelej, sp. n., *K. dilecta* (Cameron, 1897), **comb. n.**, *K. laminella* (Magretti, 1892), **comb. n.**, *K. poesia* (Cameron, 1900), **comb. n.** and several undescribed species (males and females) from Sri Lanka and India.

DISTRIBUTION. Oriental region: Sri Lanka, India, Myanmar.

DIAGNOSIS. The differences of male and female of *Karunaratnea* gen. n. from the related genera of tribe Smicromyrmini are given in the key above.

ETYMOLOGY. The generic name is dedicated to P.B. Karunaratne. The Smithsonian's "Ceylon Insect Project" (1968-1980) was highly successful because he guided scientists to Sri Lanka's choice areas and collected insects, including a lot of mutillids, with them.

***Karunaratnea palatupanae* Lelej, sp. n. (Figs 248, 249)**

TYPE MATERIAL. Holotype – ♂, Sri Lanka: *Hambantota District*: Palatupana tank, 21-22.VI 1978 (K. Krombein et al.) [National Mus. Nat. Hist., Washington, D.C.]. Paratypes: *Trincomalee District*: Tennamaravadi, 18.V. 1976 (P. Karunaratne et al.), 1 ♀; *Hambantota District*: Palatupana tank, 10-16 m, collected on or in leaf litter, 6-7.X 1980 (K. Krombein et al.), 1 ♂ 2 ♀; the same place,

collected on or in leaf litter, 29.III-2.IV 1981 (K. Krombein et al.), 1 ♂ 2 ♀ [National Mus. Nat. Hist., Washington, D.C.; Inst. Biol. Soil Sci., Vladivostok].

DESCRIPTION. Male. Body length 3.5-6.0 mm. Relative width of head and thorax including tegulae 7.0 : 8.7. Ratio postocellar line to ocellocular line 0.5. Frons with longitudinal median sulcus and sulcus laterad of lateral ocellus. Relation of pedicel and flagellomeres 1-3 0.4 : 1.1 : 1.4 : 1.4. Antennal scrobes with the carina on upper margin. Tegula sculptured. Propodeum reticulate, dorsally with median elongate closed area. Pronotum dorsally, mesoscutum and scutellum densely punctured. Wing venation see Fig. 248. Metasomal segment 1 carinate beneath, segment 2 densely punctured.

Head and mesosoma ferruginous-red. Legs yellowish-red. Antenna ferruginous-red, yellowish beneath. Metasoma black. Body and legs clothed with short appressed and scattered long erect white setae, brownish erect setae on frons, mesoscutum, mesoscutellum and tegula. Metasomal tergum 2 posterad with fringe of white dense hairs, tergum 3 with band of white pubescence. Terga 1, 2 and 6 as sterna 2-8 with scattered pale setae, terga 4-6 with black setae.

Female. Length 2.6-3.6 mm. Ratio eye height to gena height (head in lateral aspect) 1.15. Relation of pedicel and flagellomeres 1-3 0.4 : 0.7 : 0.7 : 0.7. Hypostomal carina with two blunt tubercles. Frons, vertex and genae densely punctured. Pronotum laterally with well developed vertical carina. Mesosoma dorsally densely punctured, punctures larger on posterior propodeal slope. Metasomal tergum 2 densely punctured, sternum 2 with larger punctures.

Head, antenna, mesosoma and legs ferruginous-red, flagellomeres somewhat darkened above. Metasoma black, brownish beneath. Head with sparse recumbent white hairs mixed with long erect black or brownish setae on frons and vertex. Mesosoma dorsally with sparse recumbent and erect black or brownish setae, mesosoma laterally and posterior propodeal slope with sparse pale pubescence. Gena, mandible, scape, legs, metasomal tergum 1, terga 2-5 laterally and metasoma beneath with pale setae. Tergum 2 with posterior narrow fringe of pale pubescence widened medially, basally with or without medial patch of pale pubescence. Tergum 3 with pale band. Sterna 2-5 posterad with fringe of long white setae. Felt lines on metasomal tergum 2 yellowish. Tergum 6 with white setae. Other parts of gastral terga with black pubescence.

DISTRIBUTION. Sri Lanka (dry zone).

DIAGNOSIS. The male of *Karunaratnea palatupanae* sp. n. easily differs from *K. dilecta* (Cameron, 1897) and *K. poesia* (Cameron, 1900) by having ferruginous-red head, antennae and legs (black or brownish in compared species). The female of *K. palatupanae* sp. n. differs from female of *K. laminella* (Maggiore, 1892) by ferruginous-red of head and legs (black in *laminella*).

ETYMOLOGY. The specific name originates from Palatupana, type locality of new species.

REMARK. The collecting of female and male at the same day and place (two times) on or in leaf litter as ferruginous-red coloration of the head, antennae and legs in both sexes are good evidences that they can belong to the same species.

30. Genus *Nordeniella* Lelej, gen. n. (Fig. 250)

Type species: *Mutilla thermophila* Turner, 1911 (designated here).

DESCRIPTION. Male. Head angulate behind the eyes. Mandible tridentate, without subbasal tooth beneath. Clypeus rather flatten with two medial tubercles on anterior margin. Ocelli small, postocellar line shorter than ocellular line. Scape distinctly bicarinate beneath, flagellomere 1 equal or slightly longer than its width and evidently shorter than flagellomere 2. Pronotum angulate. Notauli and parapsids developed in posterior half. Tegula slightly projected over mesoscuto-scutellar suture. Parascutal carina weak. Scutellum simple. Mesopleura below without precoxal ridge. Propodeum not shortened. Hind coxa carinate inside. Wing normal or shortened (in type species), slightly infuscated, pterostigma length approximately equal to distance between pterostigma and base of RS on vein Sc+R. Metasomal tergum 2 with long lateral felt lines, sternum 2 without any trace of felt lines. Tergum 7 and sternum 8 punctured throughout. Volsella slightly longer than penial valves, ventrally with tuft of basal setae, which no longer than cuspis length.

Female. Fore tarsus without external comb of spines. Mandible slender with weak preapical tooth on inner border. Clypeus with transverse projecting carina and small medial basal tubercle. Genal carina weak and forming tubercle on hypostomal carina. Flagellomere 1 slightly longer than its maximum width and equal in length to flagellomere 2. Mesosoma not elongated, with parallel side or slightly divergent posterad. Posterior propodeal slope not abrupt. Scutellar scale lacking. Mid and hind tibia with weak spines or without them. Metasomal tergum 6 with shiny smooth medial part not carinated laterally but bordered by setae. Tergum 2 with posterior narrow fringe of pale pubescence, basally without medial patch of pale pubescence (with medial spot in *N. wickwari*). Tergum 3 with pale band or without it (in *N. pinguicula*).

SPECIES INCLUDED. *Nordeniella thermophila* (Turner, 1911), **comb. n.**, *N. atomus* (André, 1894), **comb. n.**, *N. pinguicula* (Turner, 1911), **comb. n.**, *N. praestabilis* (André, 1907), **comb. n.**, *N. wickwari* (Turner, 1911), **comb. n.** and several undescribed species (males and females) from Sri Lanka and India.

DISTRIBUTION. Oriental region: Sri Lanka, India.

DIAGNOSIS. The differences of male and female of *Nordeniella* gen. n. from the related genera of tribe Smicromyrmini are given in the key above.

ETYMOLOGY. The generic name is dedicated with great pleasure to Beth B. Norden, who associated the male and female of type species.

Nordeniella thermophila (Turner, 1911), comb. n. (Fig. 250)

Turner, 1911: 146, ♀.

MATERIAL. Sri Lanka, *Mannar District*: Ma Villu, a tank, 16-19.IX 1980, MT [Malaise trap] (K. Krombein et al.), 1 ♂; the same place, 16-19.IX 1980 (K. Krombein et al.), 1 ♀; 11-12.IV 1981 (K. Krombein et al.), 1 ♂; 0.8 km NE Kokmotte Bungalow, Wilpattu National Park, 21-25.V 1976 (K. Krombein et al.), 1 ♀; the same place, 15-16.II 1979, MT (K. Krombein et al.), 1 ♂; *Anuradhapura District*: Padaviya, 13-22.III 1976, MT (K. Krombein et al.), 2 ♂; the same place, 18.V 1976, MT (K. Krombein et al.), 2 ♂; 21.V 1976, MT (K. Krombein et al.), 1 ♂; 12-21.III 1978 (K. Krombein et al.), 1 ♂; 20-23.VII 1978 (K. Krombein et al.), 1 ♀ 3 ♂; Hunuwilagana near Wilpattu, 10-19.III 1970 (K. Krombein et al.), 1 ♂; the same place, 28.X-3.XI 1976 (K. Krombein et al.), 3 ♂; *Trincomalee District*: Trincomalee, 12-17.V 1976 (K. Krombein et al.), 3 ♂; the same place, 8-11.X 1977 (K. Krombein et al.), 3 ♂; *Amparai District*: Lahugala Sanctuary, 14-15.VI 1976, MT (K. Krombein et al.), 1 ♂; *Matale District*: Kibissa, 28.VI-4.VII 1978, MT (K. Krombein et al.), 1 ♀ 3 ♂; *Monaragala District*: Mau Ara, 10 mi E Uda Walawe, 100 m, 24-26.IX 1977 (K. Krombein et al.), 1 ♀; 15 km E Uda Walawe, 31.VII-3.VIII 1993 (B.B. Norden), 1 ♀ 1 ♂; the same place, 31.VII-3.VIII 1993 (K. Krombein et al.), 2 ♂; Wellawaya, XII 1911 (O. Wickwar), 1 ♂; Ara, 16 km E of Uda Walawe, 24-26.IX 1977 (K. Krombein et al.), 6 ♂; Angunakolapelessa, 27-28.III 1981, MT (K. Krombein et al.), 9 ♂; the same place, 27-28.III 1981 (K. Krombein et al.), 1 ♀; 30.IX-1.X 1977 (K. Krombein et al.), 1 ♂; 21-23.I 1979, MT (K. Krombein et al.), 1 ♂; 8-9.X 1980 (K. Krombein et al.), 1 ♀ 8 ♂; *Hambantota District*: Palatupana, 27-29.IX 1977 (K. Krombein et al.), 1 ♀; the same place, 29.III-2.IV 1981 (K. Krombein et al.), 1 ♂ [National Mus. Nat. Hist., Washington, D.C.; Inst. Biol. Soil Sci., Vladivostok].

DISTRIBUTION. Sri Lanka (dry zone).

REMARK. B.B. Norden wrote in her notebook for 3.VIII 1993: "Afternoon – shaded by overhanging shrubs – pathway – male small mutillid seen flying up and down pathway – slowly – ca 1 ft above ground (short in distance – 3 m length). Suddenly during second passage he spots female crawling slowly on ground out from under bush. As male dives towards female I put net over both of them. They are collected together, but not in copula (put together in vial with note). Female looks newly emerged. I think the male and female are an associated pair, however I did not wait to observe if they would couple. Did not want to lose – small". This case as two other ones, when female have been collected in the same places and dates are good evidences that both sexes can belong to the same species.

34. Genus *Smicromyrme* Thomson, 1870

Key to the *coromandelica* group-species
(female with ferruginous-red head and mesosoma)

1. Metasomal tergum 2 posterad with pale band, which widened medially . . . 2
 - Metasomal tergum 2 posterad with three pale spots (medial is larger) 4
2. Head dorsally with sparse black hairs, mesosoma dorsally with sparse black hairs medially and sparse silver hairs laterally. North India
 - *S. frederici* (André)
 - Head and mesosoma dorsally with sparse yellowish hairs 3
3. Legs with yellowish femur. Posterior band on metasomal tergum 2 very narrow (likes fascia). Lateral setae on metasomal tergum 6 black or brownish. South India, Sri Lanka *S. coromandelica* (Motschulsky)
 - Legs with brownish-red femur. Posterior band on metasomal tergum 2 wider. Lateral setae on metasomal tergum 6 white. India *S. neglecta* Hammer
4. Pygidial area oval. Medial pale spot located on metasomal tergum 5. South India, Sri Lanka *S. ocellata* (Saussure)
 - Pygidial area elongated . Medial pale spot located on metasomal terga 4 and 5 5
5. Metasomal tergum 2 with developed basal medial pale spot. South India, Sri Lanka *S. sexmaculata* Hammer
 - Metasomal tergum 2 at most with tuft of pale hairs. Sri Lanka *S. desiderata* (Turner)

40. Genus *Radoszkowskitilla* Lelej, gen. n. (Figs 190-196)

Type species: *Indratilla ceylonica* Lelej, 1993 (designated here).

DESCRIPTION. Male. Head short, distance behind eye equal postocellar line. Eye deeply notched inside. Prementum not tuberculate. Mandible bidentate, without subbasal tooth beneath and without subbasal tooth on inner border. Scape polished beneath with two longitudinal carinae bordered polished part. Ocelli small. Tegula neither elongated, nor projecting over axillar line. Mesoscutellum with longitudinal medial shiny line. Fore wing rather narrow, first radio-medial cell somewhat shorter than radial cell (Fig. 193). Metasomal sternum 2 swollen, without any lateral felt line. Tergum 2 with lateral felt line. Sternum 8 (hypopygium) with two carinae convergent to mid line. Penial valves symmetrical. Volsella without paracuspis between cuspis and digitus.

Female. Height of head (from anterior margin of clypeus to vertex) equal to its maximum width. Eye slightly sinuated within. Clypeus with deeply impressed medial part, which bears an arcuate carina with 2 preapical and 1 basal denticles. Mandible with weak preapical tooth within. Antennal tubercles well developed. Number of maxillar and labial palps 6+4. Mesosoma elongated with

rounded humeral angle, 1.85 times longer (from anterior pronotal margin to metasomal base) than its maximum width. Scutellar scale well developed. Lateral pronotal sides with well-defined anterior part. Mesopleura with precoxal carina. Fore coxa anterad with acute tubercle, mid coxa somewhat swollen beneath, hind coxa with longitudinal carina within. Fore tarsus with comb, mid and hind tibia with spines outside and apically. Metasomal segment 1 short, without distinct dorsal surface; sternum 1 with triangular carina. Tergum 2 with more or less flattened disc, laterad with longitudinal carina and felt line; metasomal tergum 6 with pygidial area narrowed basally and carinated laterally. Metasomal silver design see Fig. 190. Tergum 2 with two basal and two apical silver spots.

SPECIES INCLUDED. *Radoszkowkitilla ceylonica* (Lelej, 1993), **comb. n.**, *R. tamila* Lelej, sp. n., *R. karnataka* Lelej, sp. n., and *R. sinhala* Lelej, sp. n.

DISTRIBUTION. Oriental region: Sri Lanka (dry zone) and South India.

DIAGNOSIS. In the subfamily Mutillinae the female of *Radoszkowkitilla* gen. n. related with the female of Afrotropical *Dolichomutilla* Ashmead, 1899, but differs by having the mandible without basal tooth beneath (well developed in *Dolichomutilla*), by having well developed scutellar scale (lacking in *Dolichomutilla*), and by lacking teeth on metasomal sternum 6 (one or two pairs teeth in *Dolichomutilla*). The female of *Radoszkowkitilla* related with the female of Palaearctic *Artiotilla* Invrea, 1950 but differs by having developed scutellar scale (lacking in *Artiotilla*), and by having another shape and design of metasomal tergum 2 (without longitudinal lateral carina and with pair white spots disposed transversely in basal half in *Artiotilla*). Differences between males of *Radoszkowkitilla* and *Taiwanomyrme* Tsuneki, 1993 are given in the key above. The male of *Radoszkowkitilla* differs from male of Palaearctic *Artiotilla* by lacking any felt line on sternum 2 (short line in *Artiotilla*), by having longitudinal shiny medial line on mesoscutellum (lacking in *Artiotilla*), by having sparse pubescence on terga 3 and 4 (well developed pale band in *Artiotilla*).

ETYMOLOGY. The generic name is dedicated to Oktavij Radoszkowski (1820-1895), splendid hymenopterist, who described many species of bees and wasps including mutillids.

***Radoszkowkitilla ceylonica* (Lelej, 1993), comb. n. (Figs 190-192)**

Lelej, 1993: 235, Figs 2, 4, 5, ♀.

MATERIAL. Holotype – ♀, Sri Lanka, *Anuradhapura District*: 9 km SW Anuradhapura, dry forest, 10.X 1982 (G. Medvedev) [Zool. Inst., St. Petersburg], examined. Additional specimens. Sri Lanka, *Mannar District*: Marichchukkaddi, 25.I 1978, 1 ♀ (K. Krombein et al.); 0.8 km NE Kokmotte Bungalow, Wilpattu National Park, 21-25.V 1976, 1 ♀ (K. Krombein et al.); 5-8.X 1977, 3 ♀ (K. Krombein et al.); 15-16.II 1979, 5 ♀ (K. Krombein et al.). India: Karnataka, 15 km N Bangalore, KT, 23-24.VII 1996, 3 ♀ (K. Werner, L. Lorenz).

DESCRIPTION. Male unknown.

Female. Body length 6.4-7.5 mm. Relation of pedicel and flagellomeres 1-3 0.8 : 1.9 : 1.4 : 1.6. Ratio eye height to gena height (head in lateral aspect) 1.14. Genal carina anterad with acute denticle. Metasomal tergum 2 medially with weak basal carina. Sternum 2 postero-laterally with well developed arcuate carina. Tergum 6 with pygidial area shiny, weakly sculptured in basal third, carinated laterally. Frons and vertex with large deep dense, sometimes confluent punctures; metasomal tergum 2 laterally with larger punctures; mesosoma dorsally with larger, deeper confluent punctures; mesopleura and metapleura glabrous with a few, fine punctures; disk of metasomal tergum 2 with dense, shallow, separated punctures.

Vertex with silvery spot, pronotum laterally, mesopleura and metapleura below with dense recumbent silvery hairs. Frons and vertex with sparse erect black setae. Mesosoma dorsally with sparse recumbent golden hairs mixed with long erect black ones. Metasomal tergum 2 except silver spots with recumbent black hairs mixed with sparse recumbent golden and erect brown ones; felt lines whitish; metasomal tergum 1 posterad with fringe of sparse golden hairs; tergum 6 laterally with erect yellowish hairs; legs and metasomal sterna with whitish hairs which form a fringe on sterna 2-5 posterad. Head black, clypeus brownish-red, mandible brownish-red with black apex, antenna black, reddish beneath. Mesosoma brown, with brownish-red dorsum, legs and metasoma from brown to black, metasomal sterna brownish-red.

DISTRIBUTION. Sri Lanka (dry zone), South India.

REMARK. In spite of that both species *Radoszkowskitilla ceylonica* (Lelej, 1993) and *R. tamila* Lelej, sp. n. distributed in restricted area (dry zone in North Sri Lanka) only once female of *R. ceylonica* and male of *R. tamila* have been collected at the same date.

***Radoszkowskitilla tamila* Lelej, sp. n. (Figs 193-196)**

TYPE MATERIAL. Holotype – ♂, Sri Lanka, *Mannar District*: 0.8 km NE Kokmotte Bungalow, Wilpattu National Park, 21-25.V 1976 (K. Krombein, P. Karunaratne, S. Karunaratne, D. Balasooriya) // *Pristomutilla ianthis* Turner, B. Petersen det., 1980 [National Mus. Nat. Hist., Washington, D.C.]. Paratype: *Trincomalee District*: Trincomalee, China Bay, Ridge Bungalow, 25-50 ft, 26.II 1979, 1♂ (K. Krombein, T. Wijesinhe, S. Siriwardane, L. Jayawickrema, T. Gunawardane) // *Pristomutilla ianthis* Turner, B. Petersen det., 1980 [Inst. Biol. Soil Sci., Vladivostok].

DESCRIPTION. Male. Body length 8.0-8.8 mm. Head rounded posterad. Eyes large, projecting over head. Ratio postocellar line : ocellular line 0.5. Relation of pedicel and flagellomeres 1-3 1.0 : 2.1 : 1.6 : 1.9. Flagellomere 1 flattened and curved (Fig. 194). Mandible with one preapical tooth on inner border. Clypeus with wide transverse shiny concavity and narrow preapical setose

groove. Fore wing venation see Fig. 193. Parategular carina weak. Notauli and parapsids well visible in posterior half of mesoscutum. Posterior propodeal slope without longitudinal medial carina. Sternum 8 (hypopygium) with two carinae curved apically to middle line. Genitalia see Fig. 196.

Head and mesosoma dorsally densely punctured, head postero-laterally of hind ocellus with shiny spot. Propodeal dorsally and posterad reticulate. Tergum 2 sparsely punctured, sparser on disc. Sternum 2 densely punctured. Tergum 7 with longitudinal medial shiny part widened apically. Head, antenna and mesosoma black; mandible black, reddish preapically; legs brownish; tegula shiny, reddish-brown; fore wings fuscous. Metasoma yellowish-red except brownish segment 1, terga 6-7 and sterna 4-8. Pedicel and flagellomere 1 with tuft of silver hairs. Head, mesosoma and legs with sparse recumbent and erect setae, black on mesoscutum and mesoscutellum. Metasoma with yellowish pubescence which forms fringe on posterior border of terga 1-5; terga 6-7 with black setae; metasoma ventrally with sparse whitish setae.

F e m a l e unknown.

DISTRIBUTION. Sri Lanka (dry zone).

ETYMOLOGY. *Tamila* is a Latin adjective derived from Tamil, the name one of the peoples of Sri Lanka with reference to the area where the species is distributed.

***Radoszkowskitilla karnataka* Lelej, sp. n.**

TYPE MATERIAL. Holotype – ♀, South India: Karnataka, 15 km N Bangalore, KT, 23-24.VII 1996 (K. Werner, L. Lorenz) [Mus. Stor. Nat., Florence]. Paratypes: 3♂ with the same label as holotype [Mus. Stor. Nat., Florence; Inst. Biol. Soil Sci., Vladivostok].

DESCRIPTION. M a l e. Body length 7.6-10.8 mm. Head not rounded posterad. Eyes not projecting over head. Ratio postocellar line : ocellocular line 0.6. Relation of pedicel and flagellomeres 1-3 0.9 : 2.2 : 2.0 : 2.0. Flagellomere 1 slightly flattened, not curved. Mandible with one preapical tooth on inner border. Clypeus with wide transverse shiny concavity and narrow preapical setose groove, shiny area with medial preapical tubercle. Fore wing venation as in *R. tamila*. Posterior propodeal slope with longitudinal medial carina, which ends above by distinct tubercle. Parategular carina weak. Notauli well developed parapsids visible in posterior half of mesoscutum. Visible part of sternum 7 narrow, and shiny laterally. Sternum 8 (hypopygium) with two short basal carinae convergent apically. Genitalia as in *R. tamila*, but volsellar digitus thinner and longer.

Head and mesosoma dorsally densely punctured, head postero-laterally of hind ocellus with shiny spot. Propodeum dorsally and posterad reticulate. Metasomal tergum and sternum 2 densely punctured but punctures larger on sternum. Tergum 7 basally with glabrous line. Head, antenna, mesosoma, and legs black;

mandible black, reddish preapically; tegula shiny, black; fore wings fuscous. Metasoma ferruginous except black terga 5-7 and sterna 5-8. Pedicel and flagellomere 1 without tuft of silver hairs. Head, mesosoma and legs with sparse recumbent and erect pale setae, black on mesoscutum and mesoscutellum, frons, pronotum and propodeum dorsally with dense recumbent silver hairs. Metasomal terga with sparse golden pubescence, tergum 7 with black setae, terga 3-6 with sublateral spots, golden on terga 3-4, yellowish on tergum 5 and silver on tergum 6; metasoma ventrally with sparse whitish setae.

F e m a l e. Body length 10.4 mm. Relation of pedicel and flagellomeres 1-3 0.7 : 1.7 : 1.3 : 1.4. Ratio eye height to gena height (head in lateral aspect) 1.1. Genal carina well developed and joined with hypostomal carina where forms tubercle. Metasomal tergum 2 medially without basal carina. Sternum 2 posterolaterally with well-developed arcuate carina. Tergum 6 with pygidial area carinated laterally and sculptured except shiny apical third. Frons and vertex with large deep dense, sometimes confluent punctures; metasomal tergum 2 laterally with much larger punctures; mesosoma dorsally with larger, deeper confluent punctures; mesopleura and metapleura glabrous with a few, fine punctures; disk of metasomal tergum 2 with dense, shallow, separated punctures.

Vertex with silvery spot, pronotum laterally, mesopleura and metapleura below with dense recumbent silvery hairs. Frons and vertex with sparse erect black setae, other head with sparse white setae. Mesosoma dorsally with sparse recumbent reddish hairs mixed with long erect black ones. Metasomal tergum 2 except silver spots with recumbent reddish hairs mixed with sparse erect pale ones; felt lines yellowish; metasomal silver design as in *R. ceylonica* (Fig. 190); metasomal tergum 1 posterad with fringe of sparse reddish hairs; tergum 6 laterally with erect brown and pale setae; legs and metasomal sterna with whitish hairs which form a fringe on sterna 2-5 posterad. Head black, clypeus brownish-red, mandible brownish-red with black apex, antenna black, reddish beneath. Mesosoma black, with brownish-red dorsum, legs and metasoma from brown to black, metasomal sterna reddish-brown.

DISTRIBUTION. South India (Karnataka).

DIAGNOSIS. The differences of *Radoszkowskitilla karnataka* sp. n. from the female of *R. ceylonica* (Lelej, 1993) and male of *R. tamila* sp. n. are given in the key below.

ETYMOLOGY. *Karnataka* is a noun, the name of state of India with reference to the area where the species is distributed.

REMARK. The collecting of one female and three males at the same day and place is good evidence that both sexes can belong to the same species.

***Radoszkowskitilla sinhala* Lelej, sp. n.**

TYPE MATERIAL. Holotype – ♂, Sri Lanka, *Kegalla District*: Kitulgala, IV 1927 [National Mus., Colombo].

DESCRIPTION. Male. Body length 13.8 mm. Head rounded posterad. Eyes large, projecting over head. Ratio postocellar line : ocellular line 0.6. Relation of pedicel and flagellomeres 1-3 1.0 : 2.8 : 2.6 : 2.6. Flagellomere 1 not flattened nor curved. Scape widened apically. Mandible with one preapical tooth on inner border. Clypeus with wide transverse shiny concavity and narrow preapical setose groove, shiny area with medial preapical tubercle. Fore wing venation as in *R. tamila* (Fig. 193), radial cell 1.2 times longer than first radio-medial cell. Posterior propodeal slope with longitudinal medial carina, which ends above by distinct tubercle. Parategular carina weak. Notauli well developed but not touch anterior mesoscutal border, parapsids visible in posterior half of mesoscutum. Disc of metasomal tergum 2 transversely swollen. Visible part of sternum 7 rather wide, punctured. Sternum 8 (hypopygium) with lateral carina. Genitalia as in *R. tamila* but volsellar digitus thinner and longer.

Head and mesosoma dorsally densely punctured, head postero-laterally of hind ocellus with shiny spot. Propodeum dorsally and posterad reticulate. Tergum 2 laterally densely punctured, disc shiny glabrous. Sternum 2 densely punctured, but punctures larger than ones on tergum. Tergum 7 basally with glabrous line (apical half of tergum 7 lacking). Head, antenna, mesosoma, and legs black, flagellum beneath reddish, more brightly on flagellomeres 1 and 2; mandible black, reddish preapically; tegula shiny, brown; fore wings fuscous. Metasoma wholly black. Pedicel and flagellomere 1 without tuft of silver hairs. Head, mesosoma and legs with sparse recumbent and erect white setae, black on mesoscutum and mesoscutellum; pronotum, metanotum, and propodeum dorsally with dense recumbent silver hairs. Metasomal terga with sparse whitish pubescence, tergum 7 with black setae, terga 1-6 posterad with narrow fascia (not band) of recumbent dense whitish pubescence, metasoma ventrally with sparse whitish setae.

Female unknown.

DISTRIBUTION. Sri Lanka (wet zone).

DIAGNOSIS. The differences of male *Radoszkowskitilla sinhala* sp. n. from male of *R. tamila* sp. n. and *R. karnataka* sp. n. are given in the key below.

ETYMOLOGY. *Sinhala* is a Latin adjective derived from Sinhal, the name one of the peoples of Sri Lanka with reference to the area where the species is distributed.

Key to the *Radoszkowskitilla* species of Sri Lanka and India

Males

1. Flagellomere 1 flattened curved (Fig. 194). Pedicel and flagellomere 1 with tuft of silver hairs. 8.0-8.8 mm ***R. tamila* sp. n.**
- Flagellomere 1 not flattened nor curved. Pedicel and flagellomere 1 without tuft of silver hairs 2

2. *Metasoma ferruginous* except black terga 5-7 and sterna 5-8. Terga 3-6 with sublateral spots. 7.6-10.8 mm ***R. karnataka* sp. n.**
 – *Metasoma black*. Terga 3-6 posterad with narrow pale fascia. 13.8 mm
 ***R. sinhala* sp. n.**

F e m a l e s

1. Fore coxa with large tooth. Tergum 2 without medial basal carina, with weak lateral longitudinal carina. Pygidial area sculptured except shiny apical third. Larger species: 10.4 mm ***R. karnataka* sp. n.**
 – Fore coxa with acute tubercle. Tergum 2 with medial basal carina and extremely developed lateral longitudinal carina. Pygidial area shiny with weakly sculptured basal third. Smaller species: 6.4-7.5 mm . . . ***R. ceylonica* (Lelej)**

44. Genus *Karlissaidia* Lelej, gen. n. (Figs 251-255)

Type species: *Karlissaidia medvedevi* Lelej, sp. n. (designated here).

DESCRIPTION. M a l e. Head angulate behind eyes. Clypeus deeply transversely concave. Ocelli small, postocellar line less than ocellular line. Prementum not tuberculate. Hypostomal bridge with medial rounded projection. Mandible bidentate, excised beneath with large subbasal tooth, without subbasal tooth on inner border. Scape curved flatten with one strong carina widened apically. Flagellomere 1 somewhat flatten. Admedian line and notauli well developed, parapsids visible posterad. Mesoscutellum with conical projection. Mid coxa swollen. Radial cell of fore wing equal in length to first radio-medial cell. Metasomal sternum 2 without any lateral felt line, tergum 2 with long lateral felt line. Sternum 8 (hypopygium) with lateral carinae convergent apically, sterna 6 and 7 with lateral tubercle. Penial valves asymmetrical. Volsella with long setose cuspis, short curved digitus and tuberculate paracuspis.

F e m a l e. Head as wide as mesosoma posterad. Eyes projecting over head. Clypeus with deeply impressed medial part, which bears dorsally an arcuate carina. Mandible with weak preapical tooth within. Hypostomal bridge with medial rounded projection. Mesosoma evidently divergent posterad, not elongated. Scutellar scale well developed. Mesopleura with precoxal carina. Fore coxa anterad tuberculate, fore tarsus with comb. Metasomal segment 1 short, without distinct dorsal surface, sternum 1 with triangle carina. Tergum 2 with somewhat flatten disc and lateral felt line. Pygidial area of tergum 6 carinated laterally, carina widened triangularly; apical part with distinct transverse rugae, basal part rugulate. Tergum 2 with 2 basal and 2 apical silver spots, such spots located laterally on tergum 3 or terga 3-4(5) also.

SPECIES INCLUDED. *Karlissaidia medvedevi* Lelej, sp. n., *K. turneri* Lelej, nom. n. (*Mutilla melanota* Turner, 1911), *K. nana* (Hammer, 1962), **comb. n.**

DISTRIBUTION. Oriental region: Sri Lanka, India.

DIAGNOSIS. The differences of male and female of *Karlissaidia* gen. n. from the related genera of tribe Trogaspidiini are given in the key above. By

body coloration the male of *Karlissaidia medvedevi* sp. n. resembles *Trogaspidia (Acutitropidia) villosa* (Fabricius, 1775) but differs except of unique scape shape, by having of medial projection on hypostomal bridge and by having spotted tegula. By metasomal pale design the female of *K. medvedevi* sp. n. resembles the female of *Radoszkowskitilla ceylonica* Lelej, 1993, which habits the same area, but easily differs by having not elongated mesosoma, by having sculptured carinated pygidial area.

ETYMOLOGY. The generic name is dedicated with great pleasure to Karlissa, youngest daughter of Karl Krombein.

***Karlissaidia medvedevi* Lelej, sp. n.** (Figs 251-255)

TYPE MATERIAL. Holotype – ♂, Sri Lanka: Wilpattu, 8.X 1982 (G. Medvedev) [Zool. Inst., St. Petersburg]. Paratypes: 1 ♀ with the same label as holotype [Zool. Inst., St. Petersburg]; Sri Lanka, North Western Province, Matai Villu, 25.III 1933, 1 ♂ [National Mus., Colombo]; *Jaffna District*: Elephant Pass, 6.I 1923, 1 ♀ [National Mus., Colombo]; *Puttalam District*: Wilpattu National Park, 100 ft, 11.IV 1973 (Bauman, Gross), 1 ♂ [National Mus. Nat. Hist., Washington, D.C.]; Panikka Villu in Wilpattu National Park, 1.X 1977 (K. Krombein et al.), 1 ♀ [National Mus. Nat. Hist., Washington, D.C.]; *Mannar District*: 0.8 km NE Kokmotte, Wilpattu National Park, 50-100 ft, 5-8.X 1977 (K. Krombein et al.), 1 ♀ [National Mus. Nat. Hist., Washington, D.C.].

DESCRIPTION. Male. Body length 15.3-15.5 mm. Eyes projecting over head. Ratio postocellar line : ocellocular line 0.75. Relation of pedicel and flagellomeres 1-3 0.9 : 2.7 : 2.7 : 2.8. Clypeus with transverse deep shiny concavity and narrow preapical setose groove bordered laterad by tubercle. Propodeal dorsum with medial longitudinal subtriangle cell, which ends posterad by distinct tubercle. Parategular carina developed. Hind coxa carinate inside. Metasomal sternum 1 with triangle carina.

Head and mesosoma dorsally densely punctured, head laterally of hind ocellus with shiny spot. Propodeum dorsally and posterad reticulate. Metasomal tergum and sternum 2 densely punctured, punctures larger on sternum and sparser on disc of tergum. Tergum 7 with medial glabrous line, which widened posterad. Head, antenna, mesosoma, and legs black; mandible black, reddish preapically; tegula shiny, black; fore wings fuscous. Metasoma ferruginous except brown segment 1. Head, mesosoma and legs with sparse recumbent and erect pale setae, black on mesoscutum and mesoscutellum. Tegula with spot of dense recumbent silver hairs. Metasomal terga with rather dense golden pubescence, sparser on disc of tergum 2. Metasomal sterna with sparse yellowish hairs, which form fringe on sterna 2-7 posterad.

Female. Body length 8.0 mm. Relation of pedicel and flagellomeres 1-3 0.5 : 1.5 : 1.0 : 1.0. Ratio eye height to gena height (head in lateral aspect) 0.75. Genal carina weak. Hypostomal carina with tubercle. Mesosoma 1.4 times longer

than its maximum width. Pronotum anterad arcuate. Sternum 2 postero-laterally somewhat swollen. Pygidial area see Fig. 255. Frons and vertex with large deep dense, sometimes confluent punctures; metasomal tergum 2 laterally with much larger punctures; mesosoma dorsally with larger, deeper confluent punctures; mesopleura and metapleura glabrous; disk of metasomal tergum 2 with dense, shallow punctures.

Frons, vertex and mesosomal dorsum with sparse recumbent yellowish hairs mixed with erect black setae. Head below and legs with whitish setae, mesosoma laterally with dense silvery micropubescence. Metasomal tergum 2 with two basal and two apical silver spots, terga 3-5 with lateral silver spots; all spots disposed in two vertical lines. Metasomal terga except silver spots with black setae; felt lines yellowish; metasomal tergum 1 posterad with fringe of sparse black setae; tergum 6 laterally with yellowish setae; metasomal sterna with whitish hairs, which form a fringe on sterna 2-5 posterad. Head black, clypeus brownish-red, mandible brownish-red with black apex, antenna black, reddish beneath. Mesosoma black, with ferruginous-red dorsum and posterior propodeal face, legs brownish-red, metasoma black with reddish-brown sterna.

DISTRIBUTION. Sri Lanka (dry zone).

DIAGNOSIS. The differences of *Karlissaidia medvedevi* sp. n. from the related species are given in the key below.

ETYMOLOGY. The specific name is dedicated to Gleb S. Medvedev, world authority in darkling beetles, who collected the holotype.

REMARK. The collecting of female and male at the same day and place as the same shape of hypostomal bridge are good evidences that both sexes can belong to the same species.

Key to the *Karlissaidia* species of Sri Lanka and India

F e m a l e s

1. Head ferruginous-red. Metasomal tergum 4 without pale spots. 6.0-6.4 mm. – India *K. nana* (Hammer)
- Head black. Metasomal tergum 4 with two pale spots 2
2. Mesosoma black. Metasomal tergum 5 without pale spots. 7.0-9.6 mm. – Sri Lanka *K. turneri* Lelej
- Mesosoma black with ferruginous-red dorsum and posterior propodeal face. Metasomal tergum 5 with two pale spots. 8.0 mm. – Sri Lanka
 *K. medvedevi* Lelej

47. Genus *Promecidia* Lelej, 1996 (Figs 209, 210)

Type species: *Promecidia yamanei* Lelej, 1996 (original designation).

DESCRIPTION. Male (hitherto unknown). Head very short, rounded posterad. Eye deeply notched inside. Prementum not tuberculate. Mandible bidentate, with very weak subbasal tubercle beneath and without subbasal tooth on inner border. Scape curved, with two longitudinal carinae bordered polished part. Ocelli small, postocellar line much less than ocellular line. Tegula not elongated. Mesoscutellum simple, not swollen nor conical. Radial cell of fore wing 1.5 times longer than first radio-medial cell. Metasomal sternum 2 without any lateral felt line. Tergum 2 with lateral felt line. Metasomal sternum 8 (hypopygium) and 7 without strong carina, at most with weak tubercle. Penial valves short, slightly asymmetrical, capitate apically. Volsella with very long thin cuspis, stick-like digitus and tuberculate paracuspis.

Female. Flagellomere 1 slightly flattened. Anterior part of clypeus with two strong dents, the distance between them slightly more than between apical and basal tubercle. Mandible slender, with an inner preapical tubercle. Scutellar scale lacking. Pale metasomal see Fig. 209. Metasomal tergum 6 without any pygidial area, convex, smooth, shiny, basal part of tergum punctured, with long pale setae.

SPECIES INCLUDED. *Promecidia yamanei* Lelej, 1996, *P. mamblia* (Cameron, 1902), *P. birmanica* (Dalla Torre, 1897), **comb. n.**, *P. bonthainensis* (André, 1898), **comb. n.**, *P. ninnii* (Magretti, 1892), **comb. n.**, *P. rubrocyanea* (Mickel, 1935), **comb. n.**, *P. saturnia saturnia* (Mickel, 1935), **comb. n.**, *P. saturnia samawangensis* (Mickel, 1935), **comb. n.**

DISTRIBUTION. Oriental region.

DIAGNOSIS. The male of *Promecidia* Lelej, 1996 has very short asymmetrical penial valves and definitely belongs to tribe Trogaspidiini. By the mandible not excised beneath and by simple mesoscutellum the male of *Promecidia* is related to male of Afrotropical *Spinulomutilla* Nonveiller, 1994, and their differences are given in the key above. By the same characters the male of *Promecidia* similar with male of *Taiwanomyrme* Tsuneki, 1993 from the tribe Peterseniini, but differs by asymmetrical penial valves (symmetrical in *Taiwanomyrme*). Within tribes Trogaspidiini and Peterseniini the female of *Promecidia* easily differs by the lacking of scutellar scale and lacking of pygidial area (metasomal sternum 6 glabrous shiny throughout, not carinated even apically).

REMARK. The male of this genus has been discovered after study of male and female from the collection in National Mus. Nat. Hist., Washington, D.C. Both have the same label "Singapore, Coll. Baker" and additional label "K". Quite possible that they are taken *in copula*. The male of this species belong to *Promecidia saturnia* (Mickel, 1935), but female is undescribed *Promecidia* species related with *P. mamblia* (Cameron, 1902). At the same time I found undescribed species (male and female) close to male and female of *P. saturnia* in Srilankan material.

50. Genus *Serendibiella* Lelej, gen. n.

Type species: *Mutilla trunconomalica* Radoszkowski, 1885 (designated here).

DESCRIPTION. Male. Head angulate behind eyes. Clypeus weakly concave. Ocelli small, postocellar line less than oculocellar line. Prementum not tuberculate. Hypostomal bridge without medial projection, hypostomal carina with large tubercle. Mandible bidentate, excised beneath with large subbasal tooth, with subbasal tooth on inner border. Scape curved with two carinae beneath. Relation of pedicel and flagellomeres 1-3 1.2 : 3.0 : 2.5 : 2.5. Admedian line, notauli and parapsids well developed. Mesoscutellum simple, not swollen, without medial smooth line. Mid coxa swollen. Radial cell of fore wing distinctly truncate apically, 1.1 times longer than maximum length of first radio-medial cell. Metasomal sternum 2 with short lateral felt line, tergum 2 with long lateral felt line. Sternum 8 (hypopygium) with lateral carinae, which bordered invagination, sterna 6 and 7 without lateral tubercle. Tergum 7 with medial longitudinal smooth line. Penial valves asymmetrical, longest valve even longer than cuspis. Volsella with long setose cuspis, straight setose digitus and tuberculate paracuspis.

Female unknown.

SPECIES INCLUDED. *Serendibiella trunconomalica* (Radoszkowski, 1885), **comb. n.**

DISTRIBUTION. Oriental region: Sri Lanka.

DIAGNOSIS. The differences of male *Serendibiella* gen. n. from the related genera of tribe Trogaspidiini are given in the key above.

ETYMOLOGY. The generic name originates from Serendib, the ancient Arabic name for Sri Lanka with reference to the area where the genus is distributed.

***Serendibiella trunconomalica* (Radoszkowski, 1885), comb. n.**

Radoszkowski, 1885: 26, 49, Fig. 27, ♂.

MATERIAL. Sri Lanka, *Matale District*: Kibissa, 0.8 km W Sigiriya, jungle, 28.VI-1.VII 1978, blacklight trap // K. Krombein et al. // *M. trunconomalica* Rad., 1885. Compared with type. B. Petersen, 1987 // *Trogaspidia trunconomalica* (Rad.) [B. Petersen det.], 1 ♂ [National Mus. Nat. Hist., Washington, D.C.]; Sri Lanka, Madulsima, 8.XI [19]08, 1 ♂ [National Mus., Colombo].

DISTRIBUTION. Sri Lanka.

56. Genus *Standfussidia* Lelej, gen. n. (Figs 256, 257)

Type species: *Standfussidia taprobane* Lelej, sp. n. (designated here).

DESCRIPTION. Male. Unknown.

F e m a l e. Head width equal to mesosomal maximum width. Eyes small, rounded convex, but not hemispherical, closer to mandibular base than posterior head border. Flagellomere 1 1.25 times longer its maximum width, relation of pedicel and flagellomeres 1-3 0.5 : 0.6 : 0.6 : 0.6. Scape curved. Mandible tridentate. Frons lacking carina between tubercles and without carina between tubercle and inner eye border. Maxillar palps shorter than antenna length. Mesosoma length equal its maximum width, mesothorax narrowed posterad, propodeum distinctly widened posterad with abrupt posterior slope. Mesosoma without any traces of dorsal sutures, mesopleurae distinctly convex with vertical row of long setae, scutellar scale lacking, posterior dorsal border not dentate nor serrate. Legs not shortened, fore tarsus with pectinate comb, mid and hind tibia with two rows of strong spines. Metasoma distinctly flattened dorso-ventrally, segment 2 very long, segment 1 very wide not constricted posterad. Tergum 2 with rather short lateral felt line; sternum 2 without any lateral felt line. Tergum 6 with narrow pygidial area, which carinated laterally, with granulated and striate sculpture. Body setae usual, not elongated.

SPECIES INCLUDED. *Standfussidia taprobane* Lelej, sp. n.

DISTRIBUTION. Oriental region: Sri Lanka.

DIAGNOSIS. The differences of female of *Standfussidia* gen. n. from the related genera of tribe Pseudomethocini are given in the key above.

ETYMOLOGY. The specific name is dedicated with great pleasure to Lisa and Klaus Standfuss who kindly and selflessly supported my Mutillidae research.

***Standfussidia taprobane* Lelej, sp. n. (Figs 256, 257)**

TYPE MATERIAL. Holotype – ♀, Sri Lanka: *Monaragala District*: Angunakolapelessa, 27-28.III 1981 (K. Krombein et al.) [National Mus. Nat. Hist., Washington, D.C.]. Paratypes: Sri Lanka, 2 ♀ with the same label as holotype; *Anuradhapura District*: Padaviya, irrigation bungalow, 18-19.V 1976 (K. Krombein et al.), 1 ♀; *Monaragala District*: Mau Ara, 16 km E of Uda Walawe, 100 m, 24-26.IX 1977 (K. Krombein et al.), 1 ♀; Angunakolapelessa, 30.IX-1.X 1977 (K. Krombein et al.), 1 ♀; *Hambantota District*: Palatupana tank, 10-16 m, 29.III-2.IV 1981, 1 ♀ (K. Krombein et al.) [National Mus. Nat. Hist., Washington, D.C.; Inst. Biol. Soil Sci., Vladivostok].

DESCRIPTION. **M a l e.** Unknown.

F e m a l e. Body length 3.5 mm. Ratio eye height to gena height (head in lateral aspect) 0.7. Genal carina weak, hypostomal carina without tubercle. Clypeus with transverse elevated carina and medial basal tubercle. Frons, vertex, genae and mesosomal dorsum with dense shallow punctures. Pleurae smooth except mesopleural vertical row of punctures. Metasomal sternum 1 with longitudinal carina. There is a deep transverse groove between sterna 1 and 2. Sternum 2 rather flattened, without medial basal carina. Tergum 2 with dense punc-

tures (much smaller than ones on mesosomal dorsum), the punctures sparser and larger on sternum 2.

Head, mesosoma, antennae and legs ferruginous-red, flagellomeres brownish above. Metasoma brown, reddish-brown beneath. Frons, vertex, genae and mesosomal dorsum with sparse recumbent yellowish pubescence mixed with sparse erect pale setae. Mesopleura with erect yellowish setae. Mesopleura, metapleura and propodeum laterally with sparse recumbent yellowish hairs. Metasomal tergum 1, terga 2-5 laterad, legs and metasoma ventrally with sparse whitish hairs. Sterna 2-5 posterad with fringe of long subappressed pale setae. Tergum 2 with medial basal spot of white pubescence, which occupy medial posterior part of tergum 1 also, and posterior band of white pubescence widened medially. Tergum 5 with band of white hairs. Other metasomal tergal parts with black hairs.

DISTRIBUTION. Sri Lanka (dry zone).

ETYMOLOGY. The specific name is the Roman name for ancient Sri Lanka with reference to the area where the species is distributed.

REMARK. The females of *Standfussidia taprobane* sp. n. have been collected in the same places of Sri Lanka's dry zone (Angunakolapelessa, Palatupana tank), where *Kudakrumia mirabilis* Krombein, 1979, the another mutillid endemic, habits.

SUMMARY

NEW TAXONOMIC CHANGES

New genera

- Brahmatilla* Lelej, **gen. n.** (type species: *Brahmatilla krishna* Lelej, sp. n.).
Karlissaidia Lelej, **gen. n.** (type species: *Karlissaidia medvedevi* Lelej, sp. n.).
Karunaratnea Lelej, **gen. n.** (type species: *Karunaratnea palatupanae* Lelej, sp. n.).
Kurzenkotilla Lelej, **gen. n.** (type species: *Artiotilla ariana* Lelej, 1980).
Lehritilla Lelej, **gen. n.** (type species: *Lehritilla lanka* Lelej, sp. n.).
Nordeniella Lelej, **gen. n.** (type species: *Mutilla thermophila* Turner, 1911).
Radoszkowskitilla Lelej, **gen. n.** (type species: *Indratilla ceylonica* Lelej, 1993).
Serendibiella Lelej, **gen. n.** (type species: *Mutilla trunconomalica* Radoszkowski, 1885).
Standfussidia Lelej, **gen. n.** (type species: *Standfussidia taprobane* Lelej, sp. n.).
Storozhenkotilla Lelej, **gen. n.** (type species: *Mutilla aurofasciata* André, 1907).
Taimyrimosa Lelej, **gen. n.** (type species: *Myrmosa eos* Lelej, 1981).

New species

- Brahmatilla krishna* Lelej, **sp. n.**
Eosmicromyrmilla pulawskii Lelej, **sp. n.**
Karlissaidia medvedevi Lelej, **sp. n.**
Karunaratnea palatupanae Lelej, **sp. n.**
Kurzenkotilla annamensis Lelej, **sp. n.**
Lehritilla lanka Lelej, **sp. n.**
Myrmilla pakistanensis Lelej, **sp. n.**
Pristomutilla locascioi Lelej, **sp. n.**
Radoszkowskitilla karnataka Lelej, **sp. n.**
Radoszkowskitilla sinhala Lelej, **sp. n.**
Radoszkowskitilla tamila Lelej, **sp. n.**
Standfussidia taprobane Lelej, **sp. n.**
Spilomutilla lanka Lelej, **sp. n.**
Spilomutilla sri Lelej, **sp. n.**
Strangulotilla krombeini Lelej, **sp. n.**
Taimyrimosa cara Lelej, **sp. n.**

New name

- Bischoffitilla smithi* Lelej, **nom. n.** for *Mutilla ruficeps* Smith, 1856.
Karlissaidia turneri Lelej, **nom. n.** for *Mutilla melanota* Turner, 1911.
Mutilla binghami Lelej, **nom. n.** for *Mutilla valida* Cameron, 1897.
Odontomutilla mickeli Lelej, **nom. n.** for *Mutilla unimaculata* Smith, 1857.

- Orientilla schmideggeri* Lelej, **nom. n.** for *Mutilla vesta* Nurse, 1904.
Petersenidia paglianoi Lelej, **nom. n.** for *Mutilla elmira* Cameron, 1900.
Promecilla magrettii Lelej, **nom. n.** for *Mutilla funeraria* Smith, 1855.
Promecilla philippinensis Lelej, **nom. n.** for *Mutilla parva* Brown, 1906.
Smicromyrme cameroni Lelej, **nom. n.** for *Mutilla diomeda* Cameron, 1902.
Smicromyrme hammeri Lelej, **nom. n.** for *Mutilla niobe* Cameron, 1900.
Trogaspidia bangla Lelej, **nom. n.** for *Mutilla bengalensis* Lepeletier, 1845.
Trogaspidia brothersi Lelej, **nom. n.** for *Mutilla serena* Cameron, 1900.
Trogaspidia saussurei Lelej, **nom. n.** for *Mutilla luxuriosa* Cameron, 1897.

New combinations

- Bischoffitilla cebuensis* (Tsuneki, 1993), **comb. n.** (*Squamulotilla*).
Bischoffitilla murotai (Tsuneki, 1993), **comb. n.** (*Squamulotilla*).
Bischoffitilla puliensis (Tsuneki, 1972), **comb. n.** (*Squamulotilla*).
Bischoffitilla taylori (André, 1894), **comb. n.** (*Mutilla*).
Bischoffitilla teuta mindanaonis (Tsuneki, 1993), **comb. n.** (*Squamulotilla*).
Bischoffitilla veda (Cameron, 1892), **comb. n.** (*Mutilla*).
Dasylabris kraciva (Nurse, 1903), **comb. n.** (*Mutilla*).
Eotrogaspidia ekka (Nurse, 1902), **comb. n.** (*Mutilla*).
Ephucilla bacbo (Lelej, 1996), **comb. n.** (*Sinotilla*).
Ephucilla ludovica (Cameron, 1900), **comb. n.** (*Smicromyrme*).
Ephucilla poonaensis (Cameron, 1892), **comb. n.** (*Mutilla*).
Ephucilla thalia (Mickel, 1933), **comb. n.** (*Smicromyrme*).
Ephucilla viet (Lelej, 1995), **comb. n.** (*Sinotilla*).
Ephucilla yuliana (Tsuneki, 1972), **comb. n.** (*Smicromyrme*).
Ephutomma fletcheri (Turner, 1911), **comb. n.** (*Mutilla*).
Eurymutilla curta (André, 1896), **comb. n.** (*Mutilla*).
Eurymutilla sumbawae (Zavattari, 1913), **comb. n.** (*Mutilla*).
Eurymutilla thera (Smith, 1863), **comb. n.** (*Mutilla*).
Karlissaidia nana (Hammer, 1962), **comb. n.** (*Trogaspidia*).
Karunaratnea dilecta (Cameron, 1897), **comb. n.** (*Mutilla*).
Karunaratnea laminella (Magretti, 1892), **comb. n.** (*Mutilla*).
Karunaratnea poesia (Cameron, 1900), **comb. n.** (*Mutilla*).
Krombeinidia agnata (André, 1894), **comb. n.** (*Mutilla*).
Krombeinidia albopunctata (André, 1907), **comb. n.** (*Mutilla*).
Krombeinidia himalayana (Hammer, 1962), **comb. n.** (*Trogaspidia*).
Krombeinidia ira palawana (Mickel, 1934), **comb. n.** (*Timulla*).
Krombeinidia lilliputiana (André, 1894), **comb. n.** (*Mutilla*).
Krombeinidia margheritae (Hammer, 1962), **comb. n.** (*Trogaspidia*).
Krombeinidia pandara (Cameron, 1900), **comb. n.** (*Mutilla*).
Krombeinidia pulchrinella (Magretti, 1892), **comb. n.** (*Mutilla*).
Krombeinidia responsaria (Cameron, 1900), **comb. n.** (*Mutilla*).

- Krombeinidia rutilipes* (Hammer, 1962), **comb. n.** (*Trogaspidia*).
- Krombeinidia trebia* (Cameron, 1904), **comb. n.** (*Mutilla*).
- Krombeinidia unifasciata* (Smith, 1855), **comb. n.** (*Mutilla*).
- Krombeinidia versicolor* (Hammer, 1962), **comb. n.** (*Trogaspidia*).
- Krombeinidia vicinissima* (Gribodo, 1884), **comb. n.** (*Mutilla*).
- Kurzenkotilla ariana* (Lelej, 1980), **comb. n.** (*Artiotilla*).
- Kurzenkotilla niveosignata* (André, 1894), **comb. n.** (*Mutilla*).
- Kurzenkotilla scrobiculata* (Hammer, 1962), **comb. n.** (*Mutilla*).
- Kurzenkotilla visrara* (Cameron, 1898), **comb. n.** (*Mutilla*).
- Macromyrme chrysophthalma* (Klug, 1829), **comb. n.** (*Mutilla*).
- Mickelomyrme aborlana* (Tsuneki, 1993), **comb. n.** (*Smicromyrme*).
- Mickelomyrme aborlana zamboangae* (Tsuneki, 1993), **comb. n.** (*Smicromyrme*).
- Mickelomyrme bidentata* (Tsuneki, 1993), **comb. n.** (*Smicromyrme*).
- Mickelomyrme handlirschi* (Magretti, 1892), **comb. n.** (*Mutilla*).
- Mickelomyrme isora* (Cameron, 1900), **comb. n.** (*Mutilla*).
- Mickelomyrme palawanensis* (Mickel, 1934), **comb. n.** (*Smicromyrme*).
- Nemka conjungenda* (Magretti, 1892), **comb. n.** (*Mutilla*).
- Nemka maritima* (Hammer, 1962), **comb. n.** (*Smicromyrme*).
- Nemka philippa* (Nurse, 1903), **comb. n.** (*Mutilla*).
- Neotrogaspidia haemarrhoa* (Zavattari, 1913), **comb. n.** (*Mutilla*).
- Neotrogaspidia serafica* (Zavattari, 1913), **comb. n.** (*Radoszkowskii*).
- Nordeniella atomus* (André, 1894), **comb. n.** (*Mutilla*).
- Nordeniella pingucula* (Turner, 1911), **comb. n.** (*Mutilla*).
- Nordeniella praestabilis* (André, 1907), **comb. n.** (*Promecilla*).
- Nordeniella thermophila* (Turner, 1911), **comb. n.** (*Mutilla*).
- Nordeniella wickwari* (Turner, 1911), **comb. n.** (*Mutilla*).
- Odontomutilla indiga* (Bingham, 1908), **comb. n.** (*Mutilla*).
- Odontomutilla spectra* (Bingham, 1908), **comb. n.** (*Mutilla*).
- Orientidia circumcincta* (André, 1896), **comb. n.** (*Mutilla*).
- Orientilla aureorubra* (Sichel et Radoszkowski, 1870), **comb. n.** (*Mutilla*).
- Orientilla croma* (Zavattari, 1913), **comb. n.** (*Mutilla*).
- Orientilla kallata* (Nurse, 1902), **comb. n.** (*Mutilla*).
- Orientilla nobilis* (Smith, 1855), **comb. n.** (*Mutilla*).
- Orientilla remota* (Cameron, 1897), **comb. n.** (*Mutilla*).
- Orientilla sejugoides* (Magretti, 1892), **comb. n.** (*Mutilla*).
- Pagdenidia himalayensis* (Radoszkowski, 1885), **comb. n.** (*Mutilla*).
- Petersenidia dercetis* (Mickel, 1935), **comb. n.** (*Timulla*).
- Petersenidia dorsispinata* (Chen, 1957), **comb. n.** (*Smicromyrme*).
- Petersenidia javanica* (Dalla Torre, 1897), **comb. n.** (*Mutilla*).
- Petersenidia meeungensis* (Cockerell, 1928), **comb. n.** (*Mutilla*).
- Petersenidia nedyme* (Mickel, 1935), **comb. n.** (*Timulla*).
- Petersenidia neglecta* (Smith, 1860), **comb. n.** (*Mutilla*).
- Petersenidia olbia* (Cameron, 1902), **comb. n.** (*Mutilla*).

- Petersenidia pfaferi* (Zavattari, 1913), **comb. n.** (*Mutilla*).
- Petersenidia spatale* (Mickel, 1935), **comb. n.** (*Timulla*).
- Petersenidia stella* (Zavattari, 1913), **comb. n.** (*Mutilla*).
- Petersenidia sticticornis* (Mickel, 1934), **comb. n.** (*Timulla*).
- Petersenidia sticticornis nigridia* (Mickel, 1934), **comb. n.** (*Timulla*).
- Petersenidia sumatrensis* (André, 1896), **comb. n.** (*Mutilla*).
- Petersenidia temeraria* (Mickel, 1934), **comb. n.** (*Timulla*).
- Petersenidia thoracica* (Smith, 1860), **comb. n.** (*Mutilla*).
- Physetopoda consociata* (Cameron, 1898), **comb. n.** (*Mutilla*).
- Physetopoda discreta* (Cameron, 1897), **comb. n.** (*Mutilla*).
- Physetopoda mirabilis* (Hammer, 1962), **comb. n.** (*Smicromyrme*).
- Pristomutilla ianthis* (Turner, 1911), **comb. n.** (*Mutilla*).
- Pristomutilla pauli* (André, 1898), **comb. n.** (*Mutilla*).
- Pristomutilla pectinospinata* (Magretti, 1892), **comb. n.** (*Mutilla*).
- Pristomutilla spinulosa* (André, 1898), **comb. n.** (*Mutilla*).
- Promecidia birmanica* (Dalla Torre, 1897), **comb. n.** (*Mutilla*).
- Promecidia bonthainensis* (André, 1896), **comb. n.** (*Mutilla*).
- Promecidia ninnii* (Magretti, 1892), **comb. n.** (*Mutilla*).
- Promecidia rubrocyanea* (Mickel, 1935), **comb. n.** (*Timulla*).
- Promecidia saturnia samawangensis* (Mickel, 1935), **comb. n.** (*Timulla*).
- Promecidia saturnia saturnia* (Mickel, 1935), **comb. n.** (*Timulla*).
- Promecilla calliope* (Smith, 1857), **comb. n.** (*Mutilla*).
- Promecilla hyale* (Mickel, 1934), **comb. n.** (*Smicromyrme*).
- Promecilla phaola* (Cameron, 1900), **comb. n.** (*Mutilla*).
- Promecilla subglabra* (André, 1894), **comb. n.** (*Mutilla*).
- Promecilla tau* (Dalla Torre, 1897), **comb. n.** (*Mutilla*).
- Promecilla vinuta* (Nagy, 1972), **comb. n.** (*Smicromyrme*).
- Promecilla yerburghi* (Cameron, 1892), **comb. n.** (*Mutilla*).
- Protrogaspidia celebensis* (André, 1905), **comb. n.** (*Mutilla*).
- Radoszkowskitilla ceylonica* (Lelej, 1993), **comb. n.** (*Indratilla*).
- Radoszkowskiius aeruginosus* (Hammer, 1962), **comb. n.** (*Trogaspidia*).
- Radoszkowskiius cona* (Cameron, 1899), **comb. n.** (*Mutilla*).
- Radoszkowskiius humbertianus* (Saussure, 1867), **comb. n.** (*Mutilla*).
- Radoszkowskiius opulentus* (Smith, 1855), **comb. n.** (*Mutilla*).
- Radoszkowskiius retinulus* (Chen, 1957), **comb. n.** (*Trogaspidia*).
- Radoszkowskiius sexmaculatus* (Swederus, 1787), **comb. n.** (*Mutilla*).
- Serendibiella trunconomalica* (Radoszkowski, 1885), **comb. n.** (*Mutilla*).
- Sinotilla coeruleotincta* (Cameron, 1900), **comb. n.** (*Mutilla*).
- Sinotilla decora* (Smith, 1879), **comb. n.** (*Mutilla*).
- Sinotilla gracillima* (Smith, 1857), **comb. n.** (*Smicromyrme*).
- Sinotilla petina* (Mickel, 1937), **comb. n.** (*Smicromyrme*).
- Sinotilla serpa* (Zavattari, 1913), **comb. n.** (*Mutilla*).
- Sinotilla yakushimensis* (Yasumatsu, 1934), **comb. n.** (*Smicromyrme*).

- Smicromyrme antennata* (Smith, 1855), **comb. n.** (*Mutilla*).
- Smicromyrme circumscribenda* (Magretti, 1892), **comb. n.** (*Mutilla*).
- Smicromyrme constanceae* (Cameron, 1892), **comb. n.** (*Mutilla*).
- Smicromyrme coromandelica* (Motschulsky, 1863), **comb. n.** (*Mutilla*).
- Smicromyrme desiderata* (Turner, 1911), **comb. n.** (*Mutilla*).
- Smicromyrme durga* (Bingham, 1897), **comb. n.** (*Mutilla*).
- Smicromyrme khasiana* (Cameron, 1900), **comb. n.** (*Mutilla*).
- Smicromyrme kirbyi* (Magretti, 1892), **comb. n.** (*Mutilla*).
- Smicromyrme lepcha* (Cameron, 1900), **comb. n.** (*Mutilla*).
- Smicromyrme montanata* (Cameron, 1900), **comb. n.** (*Mutilla*).
- Smicromyrme ocellata* (Saussure, 1867), **comb. n.** (*Mutilla*).
- Smicromyrme parthenia* (Cameron, 1900), **comb. n.** (*Mutilla*).
- Smicromyrme peregrina* (Cameron, 1897), **comb. n.** (*Mutilla*).
- Smicromyrme posthuma* (Cameron, 1898), **comb. n.** (*Mutilla*).
- Smicromyrme provida* (Cameron, 1897), **comb. n.** (*Mutilla*).
- Smicromyrme sonata* (Nurse, 1902), **comb. n.** (*Mutilla*).
- Smicromyrme substituta* (André, 1896), **comb. n.** (*Mutilla*).
- Smicromyrme tenasserimica* (Magretti, 1892), **comb. n.** (*Mutilla*).
- Spilomutilla consolidata* (Cameron, 1900), **comb. n.** (*Mutilla*).
- Storozhenkotilla aurofasciata* (André, 1907), **comb. n.** (*Mutilla*).
- Storozhenkotilla cicatricifera* (André, 1894), **comb. n.** (*Mutilla*).
- Taimyrmosa eos* (Lelej, 1981), **comb. n.** (*Myrmosa*).
- Taimyrmosa mongolica* (Suárez, 1974), **comb. n.** (*Myrmosa*).
- Taimyrmosa nigrofasciata* (Yasumatsu, 1931), **comb. n.** (*Myrmosa*).
- Tricholabiodes apicipennis* (Cameron, 1897), **comb. n.** (*Mutilla*).
- Trispilotilla indostana* (Smith, 1855), **comb. n.** (*Mutilla*).
- Trogaspidia agapeta* (Cameron, 1902), **comb. n.** (*Mutilla*).
- Trogaspidia agelia* (Cameron, 1900), **comb. n.** (*Mutilla*).
- Trogaspidia albertisi* (André, 1896), **comb. n.** (*Mutilla*).
- Trogaspidia analis* (Lepeletier, 1845), **comb. n.** (*Mutilla*).
- Trogaspidia anthylla* (Smith, 1860), **comb. n.** (*Mutilla*).
- Trogaspidia artaxa* (Cameron, 1904), **comb. n.** (*Mutilla*).
- Trogaspidia aulica* (Smith, 1855), **comb. n.** (*Mutilla*).
- Trogaspidia aurifrons* (Smith, 1855), **comb. n.** (*Mutilla*).
- Trogaspidia bakeri* (Mickel, 1934), **comb. n.** (*Timulla*).
- Trogaspidia bicincta* (Saussure, 1867), **comb. n.** (*Mutilla*).
- Trogaspidia bidens* (Cameron, 1899), **comb. n.** (*Mutilla*).
- Trogaspidia boniensis* (Mickel, 1935), **comb. n.** (*Timulla*).
- Trogaspidia bryanti* (Mickel, 1937), **comb. n.** (*Timulla*).
- Trogaspidia cara* (Cameron, 1899), **comb. n.** (*Mutilla*).
- Trogaspidia chota* (Nurse, 1902), **comb. n.** (*Mutilla*).
- Trogaspidia cleonyma* (Cameron, 1900), **comb. n.** (*Mutilla*).
- Trogaspidia cressida* (Cameron, 1900), **comb. n.** (*Mutilla*).

- Trogaspidia depressula* (Mickel, 1934), **comb. n.** (*Timulla*).
Trogaspidia dissimilanda (Magretti, 1892), **comb. n.** (*Mutilla*).
Trogaspidia doricha (Smith, 1860), **comb. n.** (*Mutilla*).
Trogaspidia dryta (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia emancipata (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia emergenda (Magretti, 1892), **comb. n.** (*Mutilla*).
Trogaspidia emeryi (Magretti, 1892), **comb. n.** (*Mutilla*).
Trogaspidia eremita (Mickel, 1934), **comb. n.** (*Timulla*).
Trogaspidia eremita umbra (Mickel, 1934), **comb. n.** (*Timulla*).
Trogaspidia erxia (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia erythrocerata (Cameron, 1892), **comb. n.** (*Mutilla*).
Trogaspidia exilis (Smith, 1859), **comb. n.** (*Mutilla*).
Trogaspidia feae (Magretti, 1892), **comb. n.** (*Mutilla*).
Trogaspidia fervida (Smith, 1860), **comb. n.** (*Mutilla*).
Trogaspidia fianna (Cameron, 1899), **comb. n.** (*Mutilla*).
Trogaspidia fortinata (Cameron, 1899), **comb. n.** (*Mutilla*).
Trogaspidia foveiscutis (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia funebrana (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia gnatia (Cameron, 1904), **comb. n.** (*Mutilla*).
Trogaspidia ianthea (Smith, 1860), **comb. n.** (*Mutilla*).
Trogaspidia ianthea rubiginosa (André, 1896), **comb. n.** (*Mutilla*).
Trogaspidia idyia (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia indagatrix (Mickel, 1935), **comb. n.** (*Timulla*).
Trogaspidia indagatrix menadoensis (Mickel, 1935), **comb. n.** (*Timulla*).
Trogaspidia indefensa (Cameron, 1897), **comb. n.** (*Mutilla*).
Trogaspidia inoa (Cameron, 1904), **comb. n.** (*Mutilla*).
Trogaspidia intermedia (Saussure, 1867), **comb. n.** (*Mutilla*).
Trogaspidia iphis (Mickel, 1935), **comb. n.** (*Timulla*).
Trogaspidia kolabensis (André, 1894), **comb. n.** (*Mutilla*).
Trogaspidia labiena (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia laeta (Cameron, 1897), **comb. n.** (*Mutilla*).
Trogaspidia lena (Cameron, 1899), **comb. n.** (*Mutilla*).
Trogaspidia lodina (Cameron, 1905), **comb. n.** (*Mutilla*).
Trogaspidia mackieae (Cockerell, 1928), **comb. n.** (*Mutilla*).
Trogaspidia maculicornis (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia mithila (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia morna (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia nereis (Kohl, 1882), **comb. n.** (*Mutilla*).
Trogaspidia nudiceps (André, 1894), **comb. n.** (*Mutilla*).
Trogaspidia oceanica (André, 1896), **comb. n.** (*Mutilla*).
Trogaspidia oceanica papuana (Krombein, 1971), **comb. n.** (*Timulla*).
Trogaspidia oceanica tulagiensis (Mickel, 1935), **comb. n.** (*Timulla*).
Trogaspidia ovatula (Mickel, 1934), **comb. n.** (*Timulla*).

- Trogaspidia ovatula aurifera* (Mickel, 1934), **comb. n.** (*Timulla*).
Trogaspidia pendleburyi (Pagden, 1934), **comb. n.** (*Timulla*).
Trogaspidia pentheus (Smith, 1860), **comb. n.** (*Radoszkowskius*).
Trogaspidia perdita (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia phaenna (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia pilosella (Magretti, 1892), **comb. n.** (*Mutilla*).
Trogaspidia pulchricoma (André, 1894), **comb. n.** (*Mutilla*).
Trogaspidia redacta (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia ruficrus (Magretti, 1892), **comb. n.** (*Mutilla*).
Trogaspidia sabellica (Cameron, 1900), **comb. n.** (*Mutilla*).
Trogaspidia sarawaka (Mickel, 1935), **comb. n.** (*Timulla*).
Trogaspidia scapus (Mickel, 1937), **comb. n.** (*Timulla*).
Trogaspidia selma (Cameron, 1899), **comb. n.** (*Mutilla*).
Trogaspidia shelfordi (Mickel, 1935), **comb. n.** (*Timulla*).
Trogaspidia soror (Saussure, 1867), **comb. n.** (*Mutilla*).
Trogaspidia tethys krianae (Pagden, 1934), **comb. n.** (*Timulla*).
Trogaspidia tethys melanesia (Mickel, 1935), **comb. n.** (*Timulla*).
Trogaspidia tethys prodiga (Mickel, 1935), **comb. n.** (*Timulla*).
Trogaspidia tetraops (Sichel et Radoszkowski, 1870), **comb. n.** (*Mutilla*).
Trogaspidia tiza (Cameron, 1904), **comb. n.** (*Mutilla*).
Trogaspidia tricarinata (Zavattari, 1907), **comb. n.** (*Mutilla*).
Trogaspidia tridungulata (Magretti, 1892), **comb. n.** (*Mutilla*).
Trogaspidia wroughtoni (Cameron, 1892), **comb. n.** (*Mutilla*).
Trogaspidia zodiaca (Cameron, 1899), **comb. n.** (*Mutilla*).
Yamanetilla cariana (Magretti, 1892), **comb. n.** (*Mutilla*).
Zavatilla logei (Zavattari, 1913), **comb. n.** (*Mutilla*).
Zavatilla recessa (Chen, 1957), **comb. n.** (*Smicromyrme*).
Zeugomutilla bainbriggei (Turner, 1911), **comb. n.** (*Mutilla*).
Zeugomutilla horni (André, 1907), **comb. n.** (*Mutilla*).
Zeugomutilla recondita (Cameron, 1900), **comb. n.** (*Mutilla*).

L e c t o t y p e d e s i g n a t i o n

- Smicromyrme coromandelica* (Motschulsky, 1863).
Trogaspidia formosana (Matsumura, 1911).

N e w s y n o n y m y

- Dasylabris climia* (Cameron, 1902) = *Dasylabris nursei* André, 1904, **syn. n.**
Dasylabris rugosa (Olivier, 1811) = *Mutilla argenteomaculata* Smith, 1879,
syn. n.; *Mutilla auropalliata* André, 1894, **syn. n.**; *Mutilla willeyi* Wickwar,
 1908, **syn. n.**
Ephucilla poonaensis (Cameron, 1892) = *Mutilla hesitata* Cameron, 1900, **syn. n.**

- Nemka pulla* (André, 1894) = *Mutilla pullula* Dalla Torre, 1897, **syn. n.**
Orientilla kallata (Nurse, 1902) = *Stenomutilla aurolutea* Hammer, 1962, **syn. n.**
Radoszkowskius merops (Smith, 1860) = *Mutilla simplicifascia* Sichel et Radoszkowski, 1870, **syn. n.**
Trispilotilla indostana (Smith, 1855) = *Mutilla kauthellae* Cameron, 1892, **syn. n.**
Trogaspidia intermedia (Saussure, 1867) = *Mutilla simplicata* Cameron, 1898, **syn. n.**; *Mutilla amitina* Cameron, 1900, **syn. n.**
Trogaspidia soror (Saussure, 1867) = *Mutilla insularis* Cameron, 1892, **syn. n.**
Trogaspidia villosa (Fabricius, 1775) = *Mutilla hexaops* Saussure, 1867, **syn. n.**; *Mutilla violenta* Cameron, 1900, **syn. n.**

ORIENTAL SPECIES DESCRIBED OUTSIDE OF ORIENTAL REGION

- Mutilla auroguttata* Smith, 1855 "Brasil", actually is *Eotrogaspidia auroguttata* (Smith, 1855) [Xianggang (=Hong Kong), China].
Mutilla castellana Mercet, 1903 "Madrid" actually is *Trogaspidia castellana* (Mercet, 1903) (Luzon, Philippines).
Mutilla erythrocephala Fabricius, 1793 "in America meridionali", actually belongs to *Trogaspidia intermedia* (Saussure, 1867) (Sri Lanka).

SPECIES ERRONEOUSLY DESCRIBED FROM ORIENTAL REGION

- Mutilla indica* Linnaeus, 1758 "Indiis", actually is *Traumatomutilla indica* (Linnaeus, 1758) (South America).
Mutilla nigripes Fabricius, 1787 "Habitat in Oriente", actually *Dasymutilla nigripes* (Fabricius, 1787) (North America).
Mutilla rufogastra Lepeletier, 1845, type locality: unknown, actually is *Timulla rufogastra* (Lepeletier, 1845) (South America).

REFERENCES

The references include, except the cited ones with new descriptions, the manual with review of Mutillidae and the main papers on the evolution, phylogeny, biogeography, fauna, biology, ethology and bibliography of Mutillidae.

- André, E. 1894.** Contribution a la connaissance des Mutilles de l'Inde. – Journal of the Bombay Natural History Society, 8: 462-484.
- André, E. 1896a.** Étude sur les Mutillides existant dans les collections du Musée civique de Gênes. – Annali del Museo Civico di Storia Naturale di Genova, ser. 2, 17: 66-104.
- André, E. 1896b.** Mutillides nouveaux ou imparfaitement connus faisant partie des collections du Musée National de Hongrie. – Természetrzaji Füzetek, 19(1): 9-25.
- André, E. 1896c.** Liste des Hyménoptères appartenant aux familles des Formicides et des Mutillides recueilles au Siam et au Cambodge et offerts au Muséum par M. Pavil. – Bulletin du Muséum d'Histoire Naturelle, 2: 261-262. [Mutillidae – p. 262].
- André, E. 1898a.** Étude sur les mutillides du Muséum de Paris. – Annales de la Société Entomologique de France, 67: 1-79.
- André, E. 1898b.** Contribution a la connaissance des Mutillides de l'Australie. – Mémoires de la Société Zoologique de France, 11: 256-308.
- André, E. 1899.** Les types des mutillides de la collection O. Radoszkowski. – Annales de la Société Entomologique de France, 68: 1-43.
- André, E. 1899-1903.** Spécies de Hyménoptères d'Europe & d'Algérie. 8. Les mutillides. Paris. **1899:** 1-64, **1900:** 65-144, **1901:** 145-304, **1902:** 305-384, **1903:** 385-478 + pl. 1-15.
- André, E. 1901a.** Matériaux pour servir à la connaissance des Mutillides d'Afrique. – Zeitschrift für Systematische Hymenopterologie und Dipterologie, 1: 279-288, 305-352.
- André, E. 1901b.** Nouvelle contribution a la connaissance des Mutillides de l'Australie. – Mémoires de la Société Zoologique de France, 14: 467-513.
- André, E. 1903.** Fam. Mutillidae. In Wytsman, P.: Genera insectorum, 11. Paris, 77 p., 3 pls.
- André, E. (1903)1904a.** Examen critique d'une nouvelle classification proposée par M. le Dr. W.H. Ashmead pour la famille des Mutillidae. – Revue d'Entomologie, 23: 27-41.
- André, E. 1904b.** Mutillides nouveaux ou imparfaitement connus de divers pays. – Annales de la Société Entomologique de France, 72: 417-459.
- André, E. 1905.** Mutillides nouveaux ou peu connus de l'Ancien Monde et de l'Australie. – Zeitschrift für Systematische Hymenopterologie und Dipterologie, 5(1/6): 201-216, 265-277.

- André, E. 1907a.** Liste des Mutillides recueillis à Ceylan par M. le Dr. Walter Horn et Description des espèces nouvelles. (Hym.). – *Deutsche Entomologische Zeitschrift*, 3: 251-258.
- André, E. 1907b.** Description d'une nouvelle espèce de Mutillide de Java (Hym.). – *Zeitschrift für Systematische Hymenopterologie und Dipterologie*, 7(3): 207-208.
- André, E. 1907-1908.** Description d'espèces nouvelles de mutillides appartenant au Museum d'Histoire naturelle de Paris (Hym.). – *Zeitschrift für Systematische Hymenopterologie und Dipterologie*, **1907**, 7(4): 337-352; **1908a**, 8(1): 14-18.
- André, E. 1908b.** Description de quelques nouveaux Mutillides du Musée National de Hongrie. – *Annales Musei nationalis Hungarici*, 6: 375-383.
- André, E. 1909.** Mutillides nouveaux ou imparfaitement connus du Musée royal d'histoire naturelle de Leide. – *Notes from the Leyden Museum*, 31: 171-180.
- André, E. 1910a.** Revision monographique des mutillides de l'Égypte. – *Mémoires de la Société Entomologique d'Égypte*, 1(2): 1-94, 3 pl.
- André, E. 1910b.** Bibliographie générale des Mutillides. – *Revue d'Entomologie*, 28(7/8): 134-166.
- Argaman, Q. 1988.** Description of the female of *Ticopla*, with biological and taxonomic notes (Hymenoptera, Mutillidae). – *Fragmenta Balcanica Musei Macedonici Scientiarum Naturalium*, 14: 33-45, 20 figs.
- Arnold, G. 1956.** New species of African Hymenoptera. No 12. – *Occasional Papers of the National Museum of Southern Rhodesia*. 3(21B): 52-77 [Mutillidae – p. 52-67].
- Ashmead, W.H. 1899.** Superfamilies in the Hymenoptera and generic synopses of the families Thynnidae, Myrmosidae, and Mutillidae. – *Journal of the New York Entomological Society*, 7: 45-60.
- Ashmead, W.H. 1900-1904.** Classification of the Fossorial, Predaceous and Parasitic Wasps of the Superfamily Vespoidea. – *Canadian Entomologist*, **1900**, 32: 145-149; **1903**, 35: 199-205, 303-310, 323-332; **1904**, 36: 5-9.
- Ashmead, W.H. 1904.** Description of new genera and species of Hymenoptera from the Philippine Islands. – *Proceedings of the United States National Museum*, 28(1387): 127-158, pl. I-II. [Mutillidae – p. 135].
- Ashmead, W.H. 1905.** Addition to the recorded Hymenopterous Fauna of the Philippine Islands, with descriptions of New Species. – *Proceedings of the United States National Museum*, 28(1413): 957-971. [Mutillidae – p. 962-963].
- Aukema B., Rieger, Ch. (eds). 2001.** Catalogue of the Heteroptera of the Palearctic Region. Vol. 4. Amsterdam. xiv+346 p.
- Baehr, M. 2003.** New taxa and new records of Odacanthinae from Sulawesi (Insecta, Coleoptera, Carabidae). – *Spixiana*, 26(1): 57-63.

- Baltazar, C.R. 1966.** A Catalogue of Philippine Hymenoptera (With a Bibliography, 1758-1963). – Pacific Insects Monograph, 8: 1-488. [Mutillidae – p. 208-219].
- Bayliss, P.S., Brothers, D.J. 1996.** Biology of *Tricholabiodes* Radoszkowski in Southern Africa with a new synonymy and review of recent biological literature (Hymenoptera, Mutillidae). – Journal of Hymenoptera Research, 5: 249-258.
- Bingham, C.T. 1895.** On a collection of Hymenopterous Insects from the Philippines. – The Annals and Magazine of Natural History, Series 6, 16: 440-441.
- Bingham, C.T. 1897.** The fauna of British India including Ceylon and Burma: Hymenoptera, I. Wasps and Bees. Taylor and Francis, London: XXIX+579 p. [Mutillidae – p. 1-51].
- Bingham, C.T. 1898.** On some new species of Indian Hymenoptera. – Journal of the Bombay Natural History Society, 12: 115-130, pl. A. [Mutillidae – p. 118].
- Bingham, C.T. 1903.** Diagnoses of Aculeate Hymenoptera. – Fasciculi Malayenses. Zoology, 1(2), Appendix: 3.
- Bingham, C.T. 1905.** Report on the Aculeate Hymenoptera. – Fasciculi Malayenses. Zoology, 1(3): 16-19, pl. A.
- Bingham, C.T. 1908.** Notes on Aculeate Hymenoptera in the Indian Museum. Part I. – Records of the Indian Museum 2(1): 347-368. [Mutillidae – p. 349-352].
- Bischoff, H. 1920-1921.** Monographie der Mutilliden Afrikas. – Archiv für Naturgeschichte, 1920, 86A(1/3): 1-480, 1921, 86A(4): 481-830 + pl. 1-7.
- Bischoff, H. 1931.** Über den Typus der *Mutilla erythrocephala* Fabr. (Hym.). – Mitteilungen der Deutschen Entomologischen Gesellschaft, 2: 92.
- Bradley, C. 1957.** The types of Hymenoptera described by Amedee Lepeletier, Comte de Saint-Fargeau. – Annali del Museo Civico di Storia Naturale "Giacomo Doria", 69: 36-50. [Mutillidae – p. 36-39].
- Bradley, C., Bequert, J. 1928.** A synopsis of the Mutillidae of the Belgian Congo. – Bulletin of the American Museum of Natural History, 58(2): 63-122.
- Brothers, D.J. 1971a.** The genera of Mutillidae (Hymenoptera) parasitic of tsetse flies (*Glossina*, Diptera). – Journal of the Entomological Society of South Africa, 34(1): 101-102.
- Brothers, D.J. 1971b.** *Ascetotilla*, a new genus of Mutillidae from New Guinea (Hymenoptera). – Pacific Insects, 13(3-4): 471-485.
- Brothers, D.J. 1974.** The first recent species of *Protomutilla* (Hymenoptera, Mutillidae: Myrmosinae). – Psyche, 81(2): 268-271.
- Brothers, D.J. 1975.** Phylogeny and classification of the aculeate Hymenoptera, with special reference to Mutillidae. – The University of Kansas Science Bulletin, 50(11): 483-648, 101 figs.

- Brothers, D.J. 1983a.** Identity and classification of *Physetopoda*, *Chaetotilla* and *Paramyrme*. – Journal of the Kansas Entomological Society, 56(3): 441-445.
- Brothers, D.J. 1983b.** Identity of four species of Mutillidae described mistakenly as from Australia. – Journal of the Entomological Society of South Africa, 46(2): 325-330.
- Brothers, D.J. 1999.** Phylogeny and evolution of wasps, ants and bees (Hymenoptera, Chrysidoidea, Vespoidea and Apoidea). – Zoologica Scripta, 28(1-2): 233-249.
- Brothers, D.J., Carpenter, J.M. 1993.** Phylogeny of Aculeata: Chrysidoidea and Vespoidea. – Journal of Hymenoptera Research, 2(1): 227-304.
- Brothers, D.J., Finnamore, A.T. 1993.** Superfamily Vespoidea. In Goulet, H., Huber, J.T. (eds.): Hymenoptera of the World: An identification guide to families. Ottawa: 161-278, Figs 46-92. [Mutillidae – p. 187-201, Figs 57-68].
- Brown, R.E. 1906.** A Catalogue of Philippine Hymenoptera, with description of new species. – The Philippine Journal of Science, 1: 683-704. [Mutillidae – p. 685, 689].
- Cambra, R.A.T., Quintero, D.A. 1992.** Velvet Ants of Panama: Distribution and systematics (Hymenoptera: Mutillidae). In Quintero, A.D., Aiello, A. (eds): Insects of Panama and Mesoamerica: Selected Studies. Oxford: Oxford University Press, 1992: 459-478.
- Cambra, R.A.T., Quintero, D.A. 1992.** Studies on *Timulla* Ashmead (Hymenoptera, Mutillidae): new distribution records and synonymies, and descriptions of previously unknown allotypes. – Pan-Pacific Entomologist, 69(4): 299-313.
- Cambra, R.A.T., Quintero, D.A. 1996.** The Mexican and Central American species of *Lophostigma* Mickel including a new species, new distribution records, and taxonomic notes for the genus (Hymenoptera, Mutillidae). – Pan-Pacific Entomologist, 72(2): 92-101.
- Cameron, P. 1892.** Hymenoptera Orientalis (!), or Contributions to a knowledge of the Hymenoptera of the Indian Zoological Region. Part IV. – Memoirs and Proceedings of the Manchester Literary and Philosophical Society, 35: 97-137 + pl. 1. [Mutillidae – p. 116-137 + pl. 1].
- Cameron, P. 1897.** Hymenoptera Orientalia, or Contributions to a knowledge of the Hymenoptera of the Oriental Zoological Region. Part V. – Memoirs and Proceedings of the Manchester Literary and Philosophical Society, 41(4): 1-144, pl. 3-4. [Mutillidae – p. 53-79, pl. 4, Figs 13, 14].
- Cameron, P. 1898.** Hymenoptera Orientalia, or Contributions to a knowledge of the Hymenoptera of the Oriental Zoological Region. Part VII. – Memoirs and Proceedings of the Manchester Literary and Philosophical Society, 42(11): 1-84, pl. 4. [Mutillidae – p. 1-17, pl. 4, Fig. 1].

- Cameron, P. 1899.** Description of a new genus and some new species of fossorial Hymenoptera from the Oriental Zoological Region. – *The Annals and Magazine of Natural History*, Ser. 7, 4: 52-69. [Mutillidae – p. 58-68].
- Cameron, P. 1900.** Hymenoptera Orientalia, or Contributions to the knowledge of the Hymenoptera of the Oriental Zoological Region. Part IX. The Hymenoptera of the Khasia Hills. Part II. Section I. – *Memoirs and Proceedings of the Manchester Literary and Philosophical Society*, 44(15): 1-114. [Mutillidae – p. 1-77].
- Cameron, P. 1901a.** On the Hymenoptera collected in New Britain by Dr. Arthur Willey. – *Proceedings of the Zoological Society of London*, 1901(1): 235-236.
- Cameron, P. 1901b.** On the Hymenoptera collected during the "Skeat Expedition" to the Malay Peninsula, 1899-1900. – *Proceedings of the General Meetings for Scientific Business of the Zoological Society of London*, 1901(2): 16-44. [Mutillidae – p. 16-18].
- Cameron, P. 1902a.** On the Hymenoptera collected by Mr. Robert Shelford at Sarawak, and on the Hymenoptera of the Sarawak Museum. – *Journal of the Straits Branch of the Royal Asiatic Society*, 37: 29-131. [Mutillidae – p. 73-81].
- Cameron, P. 1902b.** Descriptions of New Species of Aculeate Hymenoptera from Borneo. – *Journal of the Straits Branch of the Royal Asiatic Society*, 37: 132-140. [Mutillidae – p. 139-140].
- Cameron, P. 1902c.** On some new genera and species of Hymenoptera (Ichneumonidae, Chrysididae, Fossores, and Apidae). – *The Entomologist*, 35: 108-111, 179-183, 206-208, 237-241, 263-264, 312-315. [Mutillidae – p. 207-208].
- Cameron, P. 1902d.** Descriptions of new genera and species of Hymenoptera collected by Major C.S.(!) Nurse at Deesa, Simla, and Ferozepore, Part I. – *The Journal of the Bombay Natural History Society*, 14: 267-293, pl. 9; 419-449. [Mutillidae – p. 267-272, pl. 9, Fig. 8].
- Cameron, P. 1903a.** Descriptions of new genera and species of Hymenoptera taken by Mr. Robert Shelford at Sarawak, Borneo. – *Journal of the Straits Branch of the Royal Asiatic Society*, 39: 89-181. [Mutillidae – p. 152-154].
- Cameron, P. 1903b.** On some new genera and species of parasitic and fossorial Hymenoptera from the Khasia Hills, Assam. – *The Annals and Magazine of Natural History*, Ser. 7, 11(62): 173-185; 11(63): 313-331; 12(68): 266-273; 12(69): 363-371; 12(72): 565-583. [Mutillidae – 11(63), p. 331].
- Cameron, P. 1904a.** Descriptions of new genera and species of Hymenoptera from India (continued). – *Zeitschrift für Systematische Hymenopterologie und Dipterologie*, 4(1-6): 5-15. [Mutillidae – p. 6-9].
- Cameron, P. 1904b.** On some new species of Hymenoptera from Northern India. – *The Annals and Magazine of Natural History*, Ser. 7, 13: 277-303. [Mutillidae – p. 279-281].

- Cameron, P. 1905.** On the Malay fossorial Hymenoptera and Vespidae of the Museum of the R. Zool. Soc. "Natura Artis Magistra" at Amsterdam. – Tijdschrift voor Entomologie, 48: 48-78. [Mutillidae – p. 48-52].
- Cameron, P. 1909.** Description of two new species of *Mutilla* from Kuching, Borneo. – The Entomologist, 42: 146-147.
- Casolari, C., Casolari, R. Moreno. 1978-1980.** Collezione imenotterologica di Massimiliano Spinola. – Bolletino del Museo di Zoologia dell'Università di Torino, 1978(5): 27-74, 1979(2): 19-82; Cataloghi, Museo regionale di scienze naturali, Torino, 1980, 1: 1-165.
- Ćetković, A., Nonveiller, G. 1988.** The taxonomic status of *Mutilla* and *Ronisia* with notes on the classification of the Mutillini (Hymenoptera, Mutillidae). – Proceedings of XVIII International Congress of Entomology. Vancouver: 53.
- Ćetković, A., Nonveiller, G. (1992)1993.** First record of male apterity in the genus *Stenomutilla*. *Stenomutilla mutilata* a new species from Ethiopia. Studies on African Mutillids (Hymenoptera, Mutillidae). XV. – Bollettino del Museo regionale di Scienze naturali, Torino, 10(2): 393-399.
- Ćetković, A., Nonveiller, G. 1996.** Systematic review of the African genera *Psammotherna*, *Antennotilla* and *Ctenoceraea* (Mutillidae, Hymenoptera), with remarks on the subtribe Smicromyrmina. – Proceedings of XX International Congress of Entomology. Firenze: 45.
- Chen, C. 1957.** A revision of the velvet ants or Mutillidae of China. – Quartely Journal of the Taiwan Museum, 10(3/4): 135-224, 6 pls.
- Cockerell, T.D.A. 1907.** Notes on the Nomenclature of some Hymenoptera. – The Entomologist, 40(526): 49-51. [Mutillidae – p. 50].
- Cockerell, T.D.A. 1927.** Hymenoptera from Lucban, Philippine Islands. – The Philippine Journal of Science, 33(3): 271-277. [Mutillidae – p. 275-277].
- Cockerell, T.D.A. 1928.** Mutillidae from Siam. – The Annals and Magazine of Natural History. Ser. 10, 2: 596-600.
- Costa, A. 1856-1860.** Fauna del regno di Napoli ossia Enumerazione di tutti gli Animali che abitano le diverse Regioni di questo Regno e le Acque che le bagnano e Descrizione de 'nuovi o poco esattamente conosciuti con Figure ricevute de Originali viventi e dipinte al naturale. Imenotteri aculeati. Gaetano Sautto, Napoli. Famiglia de 'Mutillidei; Mutillidea. Napoli. 1856 (16 Dec.): 1-8; 1858 (16 Dec.): 9-16; 1858 (18 Dec.): 17-28 + tab. 21-24; 1860 (1 Aug.): 29-36 + tab. 25.
- Costa, A. 1885.** Notizie ed osservazioni sulla geo-fauna sarda. Memoria quarta. – Rendiconti della Reale Accademia delle Scienze Fisiche e Matematiche di Napoli, 23: 169.
- Dalla Torre, C.G. de. 1897.** Catalogus hymenopterorum hucusque descriptorum, systematicus et synonymicus. Vol. 8. Fossores (Sphegidae). Lipsiae, Leipzig. 750 p. [Mutillidae – p. 1-99].

- Dutt, G.R. 1912.** Life histories of Indian insects – IV (Hymenoptera). – *Memoires of the Department of Agriculture in India*, 12(4): 183-267. [Mutillidae – p. 183-185].
- Dutt, G.R. 1919.** Descriptions of three male mutillids from India. – *Records of the Indian Museum*, 16: 259-261.
- Fabricius, J.Ch. 1775.** *Systema entomologiae, systemis Insectorum classes, ordines, genera, species, adjectis synonymis, locis, descriptionibus, observationibus.* Flensburgi et Lipsiae. 832 p. [Mutillidae – p. 352, 396-398].
- Fabricius, J.Ch., 1793.** *Entomologia systematica emendata et aucta, secundum classes, ordines, genera, species adjectis synonymis, locis, observationibus, descriptionibus.* T. 2. Hafniae. 520 p. [Mutillidae – p. 304, 366-372].
- Fabricius, J.Ch., 1804.** *Systema Piezatorum secundum ordines, genera, species adjectis synonymis, locis, observationibus, descriptionibus.* Brunsvigae. 440 p. [Mutillidae – p. 320, 428-439].
- Gaedike, R.** *Entomologists of the World (biographies, notes on the current locations of collections).* – <http://www.zalf.de/deie/biograph.phtml>
- Gerstaecker, C.E.A. in Peters, W.C.H. 1858(1857).** Übersicht der von ihm in Mossambique aufgefundenen und von Hrn. Dr. Gerstäcker bearbeiteten Hymenopteren aus der Familien der Crabronites, Sphegidae, Pompilidae und Heterogyna. *Monatsberichte der Königlichen Preussischen Akademie der Wissenschaften zu Berlin*, 1857: 509-512. [Mutillidae – p. 511].
- Gerstaecker, C.E.A. 1874.** *Mutillarum Americae meridionalis indigenarum synopsis systematica et synonymica.* – *Archiv für Naturgeschichte*, 40: 41-77, 299-328.
- Green, E.E. 1912a.** *The pioneers of Ceylon Natural History.* – *Spolia Zeylanica*, 8: 76-84.
- Green, E.E. 1912b.** *On a Remarkable Mimetic Spider.* – *Spolia Zeylanica*, 8: 92-93.
- Gribodo, G. 1884.** *Sopra alcuni Imenotteri raccolti a Minhla nel regno di Birmania dal Cap. G.B. Comotto.* – *Annali del Museo Civico di Storia Naturale di Genova*, 1: 349-368. [Mutillidae – p. 363-365].
- Hammer, K. 1936.** *Schwedisch-chinesische wissenschaftliche Expedition nach den nordwestlichen Provinzen Chinas.* 43. Hymenoptera. 8. Scoliiden, Mutilliden und Chrysiden. – *Arkiv för Zoology*, 27A(23): 1-3.
- Hammer, K. 1949.** *Über einige von Kjell Kolthoff und anderen in China gesammelten Hymenoptera.* Chrysididae, Cleptidae, Mutillidae. – *Arkiv för Zoology*, 42A(8): 1-12.
- Hammer, K. (1960)1962.** *Mutilliden (Insecta: Hymenoptera) aus dem Indischen Museum in Calcutta.* – *Records of the Indian Museum*, 58(1): 1-51.
- Hashimoto, Y., Nakanishi, A. 1997.** *A list of the type-specimens of Hymenoptera described by K. Tsuneki in the Museum of Nature and Human Activities, Hyogo (MNHAH).* – *Catalogue of Collections in the Museum of Nature and Human Activities, Hyogo*, 2: 1-5 + 1-47 + pl. 1-8. [Mutillidae – p. 31 + Figs 76, 77].

- Heie, O. 1996.** Borge Petersen (1925-1996). – Entomologiske Meddelelser, 64(4): 307-310.
- Hill, D.S. 1982.** Hong Kong Insects. Vol. II. 144 p. [Mutillidae – p. 84].
- ICZN (International Code of Zoological Nomenclature. Fourth edition). 1999.** London. 306 p.
- Invrea, F. 1943.** A proposito di una *Smicromyrme* dell'Isola di Borneo nota tassonomica e cambiamento di nome (Hymenoptera, Mutillidae). – Annali del Museo Civico di Storia Naturale di Genova, 61: 191-193.
- Invrea, F. 1950.** Mutillidi nuovi o notevoli del Bacino Mediterraneo (Hymenoptera, Mutillidae). – Memorie della Società Entomologica Italiana, 29: 19-27.
- Invrea, F. 1964.** Mutillidae – Myrmosidae. Bologna: Calderini. xii+303, 95 figs. (Fauna d'Italia, 5).
- Kazenas, V.I. 2001.** Fauna i biologiya royushchikh os (Hymenoptera, Sphecidae) Kazakhstana i Sredney Azii [Fauna and biology of sphecid wasps (Hymenoptera, Sphecidae) of Kazakhstan and Central Asia]. Almaty: KazgosINTI. 334 p.
- Klug, J.C.F. 1829.** Symbolae physicae seu icones et descriptiones insectorum quae ex itinere per Africam borealem et Asiam occidentalem Friderici Guilelmi Hemprich et Christiani Godofredi Ehrenberg studio novae aut illustratae redierunt. Hymenoptera. Decas Prima [genera *Mutilla* et *Apterogyna*]. Berolini: 15-21 + tab. 4, 5.
- Kohl, F.F. 1882.** Neue Hymenopteren in den Sammlungen des k. k. zoolog. Hof-Cabinetts zu Wien. I. – Verhandlungen der kaiserlich-königlichen Zoologisch-Botanischen Gesellschaft in Wien, 32: 475-498, tab. 23.
- Krombein, K.V. 1940.** Studies in the Tiphidae (Hym. Aculeata). IV. A revision of the Myrmosinae of the New World with a discussion of the Old World species. – Transactions of the American Entomological Society, 65: 415-465 + pl. 24.
- Krombein, K.V. 1971.** A Monograph of the Mutillidae of New Guinea, Bismarck Archipelago and Solomon Islands. Part I. Mutillinae (Hymenoptera, Aculeata). In Entomological Essays to Commemorate the Retirement of Professor K. Yasumatsu. Tokyo: Hokuryukan Publishing Co.: 25-60.
- Krombein, K.V. 1972.** Monograph of the Madagascan Mutillidae (Hymenoptera). Part I: Myrmillini, Mutillini and Smicromyrmini. – Annales. Musée Royal d'Afrique Centrale, Série in-8°, Sciences Zoologique, 199: I-X+1-61.
- Krombein, K.V. 1978.** Biosystematic studies of Ceylonese wasps, III. Life history, nest and associates of *Paraleptomenes mephitis* (Cameron) (Hymenoptera, Eumenidae). – Journal of the Kansas Entomological Society, 51(4): 721-734.
- Krombein, K.V. 1979a.** Biosystematic studies of Ceylonese wasps, IV. Kudakrumiinae, a new subfamily of primitive wasps (Hymenoptera, Mutillidae). – Transactions of the American Entomological Society, 105: 67-83, 25 figs.

- Krombein, K.V. 1979b.** Families Tiphiiidae, Mutillidae. *In* Krombein, K.V., Hurd, P.D., Smith, D.R., Burks, B.D. (eds.). *Catalog of Hymenoptera in America North of Mexico. Vol. 2. Apocrita (Aculeata)*. Washington: Smithsonian Institution Press: 1199-2209. [Tiphiiidae – p. 1274-1276, Mutillidae – p. 1276-1314].
- Krombein, K.V. (1980)1981.** The Smithsonian insect project in Sri Lanka, 1969-1975. – *Spolia Zeylanica*, 35(1-2): 119-133, pl. 1.
- Krombein, K.V. 1982.** A preliminary Analysis of Affinities and Derivation of the Wasp Fauna of Sri Lanka (Hymenoptera: Aculeata). – *Entomologia Generalis*, 8(1): 43-50.
- Krombein, K.V. 1991.** Biosystematic studies of Ceylonese wasps, XIX. Natural History Notes in Several Families (Hymenoptera: Eumenidae, Vespidae, Pompilidae, and Crabronidae). – *Smithsonian Contributions to Zoology*, 515: I-IV + 1-41.
- Krombein, K.V., Lelej, A.S. 1999.** Biosystematic studies of Ceylonese wasps, XXII: *Bethsmyrmillia*, a new genus of mutillid wasps (Hymenoptera: Mutillidae: Myrmillinae). – *Proceedings of the Entomological Society of Washington*, 101(1): 143-148.
- Krombein, K.V., Norden, B.B., Rickson, M.M., Rickson, F.R. 1999.** Biodiversity of the Domatia Occupants (Ants, Wasps, Bees, and Others) of the Sri Lankan Myrmecophyte *Humboldtia laurifolia* Vahl (Fabaceae). – *Smithsonian Contributions to Zoology*, 603: I-IV + 1-34.
- Latreille, P.A. 1802.** Histoire naturelle, générale et particuliere des Crustacés et des Insectes. Paris. T. 3, 467 p. [Mutillidae – p. 347-352].
- Latreille, P.A. 1810.** Considerations générales sur l'ordre naturel des crustacés, arachnides et insectes. Table des genres. Paris. 444 p. [Mutillidae – p. 437].
- Lelej, A.S. 1976.** Wasps of the genus *Dasylabris* Rad. (Hymenoptera, Mutillidae) of the fauna of the USSR. – *Entomologicheskoe Obozrenie*, 55(1): 189-204, 19 figs. (In Russian). (English translation in *Entomological Review*, 55: 136-146).
- Lelej, A.S. (1976)1977.** Interesting data on Myrmosidae and Mutillidae (Hymenoptera) from the south of the Primorye territory. *In* Lehr, P.A. (ed.): *Nasekomye Dalnego Vostoka [Insects of the Russian Far East]*. Vladivostok: 88-95, 4 figs. (In Russian).
- Lelej, A.S. 1979.** A new genus of velvet ants (Hymenoptera, Mutillidae) from south-east Asia. – *Zoologicheskii Zhurnal*, 58(7): 1065-1067. (In Russian).
- Lelej, A.S. 1980.** The genus *Pseudophotopsis* André, 1896 (Hymenoptera, Mutillidae) from the USSR and neighbouring countries. – *Entomologicheskoe Obozrenie*, 59(3): 634-649, 27 figs. (In Russian). (English translation in *Entomological Review*, 59: 112-126).
- Lelej, A.S. 1981.** Velvet ants of the subfamilies Kudakrumiinae and Myrmosinae (Hymenoptera, Mutillidae) of the Palaearctic fauna. – *Zoologicheskii Zhurnal*, 60(3): 371-379, 2 pl. (In Russian).

- Lelej, A.S. (1981)1982.** Evolutionary trends in morphological structures in Mutillidae (Hymenoptera). In Lehr, P.A. (ed.): *Pereponchatokrylye Dalnego Vostoka* [Hymenoptera of the Russian Far East]. Vladivostok: 51-71, 83 figs. (In Russian).
- Lelej, A.S. 1983.** On the velvet ants (Hymenoptera, Mutillidae) of Australia. – *Entomologicheskoe Obozrenie*, 62(3): 612-619. (In Russian).
- Lelej, A.S. 1984a.** The velvet ants of the genus *Paramyrme* (Hymenoptera, Mutillidae). In Lehr, P.A. (ed.): *Sistematika nasekomykh Dalnego Vostoka* [Systematic of the insects of the Russian Far East]. Vladivostok: 101-115, 32 figs. (In Russian).
- Lelej, A.S. 1984b.** New Palaearctic genera and species of velvet ants (Hymenoptera, Mutillidae). – *Entomologicheskoe Obozrenie*, 63(4): 826-829, 3 figs. (In Russian).
- Lelej, A.S. 1984c.** A new genus of wasps (Hymenoptera, Mutillidae, Myrmosinae) with Indo-Malayan-North-African range. – *Zoologicheskii Zhurnal*, 63(9): 1432-1433, 2 figs. (In Russian).
- Lelej, A.S. 1985.** *Osy-nemki* (Hymenoptera, Mutillidae) fauny SSSR i sopredelnykh stran [The velvet ants (Hymenoptera, Mutillidae) of the USSR and neighbouring countries]. Leningrad: Nauka. 268 p., 64 tables. (In Russian).
- Lelej, A.S. 1992.** Two interesting species of velvet ants from China (Hymenoptera, Mutillidae). – *Entomofauna*, 13(19): 281-288, 7 figs.
- Lelej, A.S. 1993.** A new genus of velvet ants from Sri Lanka (Insecta, Hymenoptera, Mutillidae). – *Spixiana*, 16(3): 233-236.
- Lelej, A.S. 1995a.** A review of Palaearctic and Oriental species of genus *Nemka* Lelej with description of Oriental genus *Mickelomyrme* gen. n. (Hymenoptera, Mutillidae). – *Far Eastern entomologist*, 6: 1-20.
- Lelej, A.S. 1995b.** To the knowledge of East Asian species of the tribe Smicromyrmini Bischoff, 1920 (Hymenoptera, Mutillidae) with description of four new genera and eight new species. – *Far Eastern entomologist*, 13: 1-28.
- Lelej, A.S. 1995c.** To the knowledge of the velvet ants (Hymenoptera, Mutillidae) of Rajasthan, Western India. – *Far Eastern entomologist*, 20: 1-11.
- Lelej, A.S. 1996a.** A review of the East Asian species of *Mickelomyrme* Lelej, 1995 (Hymenoptera, Mutillidae). – *Entomofauna*, 17(15): 277-292.
- Lelej, A.S. 1996b.** A review of the East Asian species of *Orientilla* (Hymenoptera, Mutillidae). – *Memoirs of the Entomological Society of Washington*, 17: 103-107.
- Lelej, A.S. 1996c.** To the knowledge of the East Asian species of tribe Trogaspidiini Bischoff, 1920 (Hymenoptera, Mutillidae) with description of eight new genera and two new species. – *Far Eastern entomologist*, 30: 1-24.
- Lelej, A.S. 1996d.** Mutillid wasps collected in Malaysia and Indonesia by Dr. Sk. Yamane (Hymenoptera, Mutillidae). – *Tropics*, 6(1/2): 91-104.
- Lelej, A.S. 2002.** Catalogue of the Mutillidae (Hymenoptera) of the Palaearctic region. Vladivostok: Dalnauka. 171 p.

- Lelej, A.S., Choi, June-Yeol, Tripotin, P. 2001.** Review of the mutillid wasps (Hymenoptera, Mutillidae) of Korea. – *Far Eastern entomologist*, 96: 1-15.
- Lelej, A.S., Kabakov, O.N. 1980.** On Bradynobaenidae and Mutillidae (Hymenoptera) of Afghanistan. – *Entomologicheskoe Obozrenie*, 59(1): 181-196, 14 figs. (In Russian). (English translation in *Entomological Review*, 59: 141-156).
- Lelej, A.S., Krombein, K.V. 1999.** Two remarkable new genera of mutillid wasps (Hymenoptera: Mutillidae, Sphaerophthalminae, Pseudomethocini) from Thailand. – *Far Eastern entomologist*, 79: 1-8.
- Lelej, A.S., Krombein, K.V. 2001.** Review of the Oriental mutillid wasps of the subfamily Ticopliinae (Hymenoptera, Mutillidae). – *Far Eastern entomologist*, 99: 1-18.
- Lelej, A.S., Nemkov, P.G. 1997.** Phylogeny, evolution and classification of Mutillidae (Hymenoptera). – *Far Eastern entomologist*, 46: 1-24.
- Lelej, A.S., Osten, T. 2004.** To the knowledge of the mutillid and bradynobaenid wasps of Iran (Hymenoptera: Mutillidae, Bradynobaenidae). – *Proceedings of the Russian Entomological Society St. Petersburg*, 75(1): 253-262.
- Lelej, A.S., Yamane, Sk. 1992.** Interesting velvet ants (Hymenoptera, Mutillidae) from Japan and Korea. – *Japanese Journal of Entomology*, 60(3): 625-632, 8 figs.
- Lepeletier de Saint Fargeau, A.L.M. 1845.** Histoire naturelle des Insectes. Hyménoptères. Vol. 3. Librairie Encyclopédique de Roret, Paris. 646 + 4 p., pl. 25-36. [Mutillidae - p. 517, 589-646, 5 figs].
- Linnaeus, C. 1758.** Systema naturae per regna tria naturae secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. T. I. Editio X. Holmiae. 823 p. [Mutillidae – p. 582-583].
- Lopez, A.W. 1931.** Annual report of the Entomological Research Bureau, Philippine Sugar Association 1930-1931. *In Annual Report of the Research Bureau, Philippine Sugar Association*: 227-273.
- Malyshev, S.I. 1966.** Genesis of the Hymenoptera and the phases of their evolution. Moscow; Leningrad. 329 p. (In Russian). (English edition, London. 1968).
- Magretti, P. 1892.** Viaggio di Leonardo Fea in Birmania e regioni vicini. 43. Imenotteri. Parte prima. Mutillidei, Scoliidei, Tiphiiidei, Tinnidei colla descrizione di parecchie nuove specie. – *Annali del Museo Civico di Storia Naturale di Genova*, 2(12): 196-266 + pl. 5. [Mutillidae – p. 203-236 + pl. 5].
- Manley, D.C., Pitts, J.P. 2002.** A key to the genera and subgenera of Mutillidae (Hymenoptera) in America north of Mexico with description of a new species. – *Journal of Hymenoptera Research*, 11(1): 72-100.
- Matsumura, S. 1911.** Thousand Insects of Japan. Supplement. Tokyo: Toko Shoin. 147 p., 41 pl. [Mutillidae – p. 140-141, pl. 41, Fig. 14].

- Matsumura, S. 1930.** The illustrated Thousand Insects of Japan. Vol. 2. Hymenoptera. Tokyo: Toko Shoin. 179 p. (in Japanese) + 17 pl. + 89 p. (in English) [Mutillidae – p. 37-38 + pl. 4, Fig. 14 + p. 6].
- Matsumura, S., Uchida, T. 1926.** Die Hymenopteren-Fauna von den Riukiu Inseln. – *Insecta Matsumurana*, 1(1): 35-53, pl. 3; 1(2): 63-77. [Mutillidae – p. 50].
- Megerle M.J.K. 1802.** Catalogus insectorum quae Viennae Austriae die IX et sequentibus Novembris MDCCCII. Auctionis lege distrahuntur. [Mutillidae – p. 23].
- Megerle M.J.K. 1803.** Appendix ad Catalogum insectorum, quae mense Novembris MDCCCII. Vienne Austriae auctionis lege. Vendita fuere. [Mutillidae – p. 16].
- Mercet, R.G. 1903.** Un Mutillido nuevo de España. – *Boletín de la Real Sociedad Española de Historia Natural*, 3: 173-175.
- Mickel, C.E. 1928.** Biological and taxonomic investigations on the mutillid wasps. – United States National Museum. Bulletin 143: 1-351, 5 pls., 27 figs. (Part 1. Biology of the mutillid wasps, p. 1-28. Part 2. The type species of the genera of the family Mutillidae, p. 29-38. Part 3. Monograph of the Mutillid Wasps of the Genus *Dasymutilla* occurring in America, North of Mexico, p. 39-303. Part 4. Annotated bibliography, p. 305-338).
- Mickel, C.E. 1933a.** A new name for *Mutilla dimidiata* Lepeletier with redescription of the type specimen. – *Annals of the Entomological Society of America*, 26(2): 377-380.
- Mickel, C.E. 1933b.** A New Species and Subspecies from the Orient. – *Lingnan Science Journal*, 12(3): 283-288.
- Mickel, C.E. 1933c.** The Mutillidae of Eastern Asia. – *Lingnan Science Journal*, 12(3): 289-325.
- Mickel, C.E. 1933d.** The Mutillidae of Formosa. – *Annals of the Entomological Society of America*, 26(2): 381-423.
- Mickel, C.E. 1934.** Mutillidae of the Philippine Islands (Hymenoptera). – *The Philippine Journal of Science*, 54(1): 91-219, pl. 1.
- Mickel, C.E. 1935.** The mutillid wasps of the islands of the Pacific Ocean (Hymenoptera: Mutillidae). – *Transactions of the Royal Entomological Society of London*, 83(2): 177-312.
- Mickel, C.E. 1936.** A new species of *Smicromyrme* from Japan (Mutillidae, Hymenoptera). – *Mushi*, 9(1): 52-54.
- Mickel, C.E. 1937.** New Species and Records of Mutillidae (Hymenoptera) from Borneo and the Solomon Islands. – *The Annals and Magazine of Natural History*, Ser. 10, 19: 441-456.
- Mickel, C.E. 1939.** Correction of the type locality for two species described by Frederic Smith (Hymenoptera). – *Proceedings of the Royal Entomological Society of London*, Ser. B, 8: 192-194.

- Mickel, C.E. 1970.** Two Hundred Years of Mutillidae Research (Hymenoptera), an annotated bibliography. – Agricultural Experiment Station, University of Minnesota, Technical Bulletin 271: 1-77.
- Mitchell, A., Brothers, D.J. 1998.** Revision and cladistic analysis of the Afro-tropical genus *Areotilla* Bischoff (Hymenoptera: Mutillidae, Ticoplinae). – African Entomology, 6(2): 193-214.
- Mitchell, A., Brothers, D.J. 2002.** Phylogeny of the Genera of Ticoplinae (Hymenoptera: Mutillidae). – Journal of Hymenoptera Research, 11(2): 312-325.
- Motschulsky, V.I. 1863.** Essai d'un catalogue des Insectes de l'île Ceylon. – Bulletin de la Société Impériale des Naturalistes de Moscou, 36(3): 1-153. [Mutillidae – p. 21-23].
- Murota, T. 1973a.** Some Aculeate Hymenoptera collected in the Amami Group of the Ryukyus. – Life Study, 17(3-4): 100-102. (In Japanese). [Mutillidae – p. 100].
- Murota, T. 1973b.** Sphecidae, Mutillidae, Scoliidae and Chrysididae collected in Formosa in 1972. – Life Study, 17(3-4): 115-120. (In Japanese). [Mutillidae – p. 119-120].
- Nagy, C.G. 1970.** Further investigations on the heterogynoid wasps. – Entomologische Mitteilungen aus dem Zoologischen Museum Hamburg, 4(69): 83-86, 1 fig.
- Nagy, C.G. 1972.** Two new species of Mutillidae (Hymenoptera) from Asia Minor and description of female *Mutilla erronea*. – Bulletin of Iraq natural History Museum, 5(2): 4-9, 7 figs.
- Nonveiller, G. 1973a.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). I. Contribution à la connaissance du genre *Trispilotilla* Bischoff, 1920 (♂ ♀). – Annales de la Faculté des Sciences du Cameroun, 13: 77-134.
- Nonveiller, G. 1973b.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). II. *Carinotilla* gen. nov. (♂, ♀). – Annales de la Faculté des Sciences du Cameroun, 14: 47-102.
- Nonveiller, G. 1973c.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). III. Remarques concernant le genre *Nanomutilla* André, 1899 (♀). – Annales de la Faculté des Sciences du Cameroun, 15-16: 63-74.
- Nonveiller, G. 1973d.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). IV. Deux gynandromorphes chez les Mutillides capturées au Cameroun. – Annales de la Faculté des Sciences du Cameroun, 15-16: 75-80.
- Nonveiller, G. 1974.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). V. Description du mâle encore inconnu de *Pseudophotopsis continua* F. seul représentant du genre en Afrique occidentale. – Annales de la Faculté des Sciences du Cameroun, 18: 95-108.
- Nonveiller, G. 1975.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). VI. Les espèces actuellement connues du genre *Clinotilla* Arnold, 1956 (♀ ♀). – Annales de la Faculté des Sciences de Yaounde, 19: 101-130.

- Nonveiller, G. 1977.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). VII. *Dentotilla* gen. nov. (σ ♀).— Beitrage zur Entomologie, Berlin, 27(2): 245-300.
- Nonveiller, G. 1978.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). VIII. Révision des genres *Ctenotilla*, *Cephalotilla* et *Pseudocephalotilla* sensu Bischoff. — Memoires publiés par l'Institut pour la Protection des Plantes, Belgrad, 13: 1-184.
- Nonveiller, G. 1980a.** Studies on African Mutillids (Hymenoptera, Mutillidae). IX. The history and the present status of our knowledge of the Mutillidae fauna of Africa south of the Sahara (excluding Madagascar). — Acta Entomologica Jugoslavica, 16(1-2): 29-41.
- Nonveiller, G. 1980b.** The present status of our knowledge of the Mutillidae fauna of Africa south of Sahara (excluding Madagascar). — XVI International Congress of Entomology. Abstracts. Kyoto: 18.
- Nonveiller, G. 1980c.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). X. Bref aperçu des résultats des recherches sur la faune des Mutillides du Cameroun, effectuées au cours de la période de 1962-1975. — Memoires publiés par l'Institut pour la Protection des Plantes, Belgrad, 14: 11-68.
- Nonveiller, G. 1980d.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). XI. Révision des males du genre *Trogaspidia* Ashmead, 1899 (σ ♀) apparentés ou semblables a *medon* (Smith) 1855 (σ) avec la description du sous-genre nouveau *Tuberocoxotilla* (σ ♂). — Memoires publiés par l'Institut pour la Protection des Plantes, Belgrad, 14: 69-108.
- Nonveiller, G. 1980e.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). XII. *Dasylabroides remota* nov. (σ ♀), espèce nouvelle du Cameroun, représentant le plus avancé vers le nord-ouest du continent d'un genre essentiellement sudafricain, avec des remarques sur des espèces connues et avec des descriptions d'espèces nouvelles du genre. — Memoires publiés par l'Institut pour la Protection des Plantes, Belgrad, 14: 109-147.
- Nonveiller, G. 1987a.** Beitrage zu einer Monographie der Mutilliden Africas, XIII. Eine neue Art der Gattung *Smicromyrme* Thomson, 1870 (Insecta: Hymenoptera: Mutillidae). — Senckenbergiana biologica, 67(4-6): 249-252.
- Nonveiller, G. 1987b.** Collecting Mutillidae in Kenya and Somalia (September 1986). — Sphecos, 15: 21-24.
- Nonveiller, G. 1990.** Catalogue of the Mutillidae, Myrmosidae and Bradynobaenidae of the Neotropical region including Mexico (Insecta, Hymenoptera). — Hymenopterorum catalogus (nova editio). Den Haag: SPB Academic Publishing. 150 p.
- Nonveiller, G. 1993.** Studies on African Mutillidae. XIV. *Ctenoceraea*, a new genus with pectinate antennae and description of the type-species *C. pectinella* sp. n. (Hymenoptera). — Revue française d'Entomologie (N. S.), 15(1): 15-18.

- Nonveiller, G. 1994a.** Description du nouveau genre Afrotropical *Spinulomutilla* et de onze espèces nouvelles (Hymenoptera: Mutillidae) (Première partie). – Annales de la Société Entomologique de France (N. S.), 30(3): 329-344.
- Nonveiller, G. 1994b.** Description du nouveau genre Afrotropical *Spinulomutilla* et de onze espèces nouvelles (Hymenoptera: Mutillidae) (Deuxième partie). – Annales de la Société Entomologique de France (N. S.), 30(4): 367-389.
- Nonveiller, G. 1994c.** Recherches sur les Mutillides de l'Afrique. XVIII. La *Mutilla hova* Saussure est à supprimer de la fauna malgache (Hymenoptera). – Revue française d'Entomologie (N. S.), 16(1): 23-26.
- Nonveiller, G. 1994d.** Recherches sur les Mutillidae de l'Afrique. XXV. *Trogaspidia despersociliata* n. sp. du Congo (Hymenoptera). – Revue française d'Entomologie (N. S.), 16(2): 67-69.
- Nonveiller, G. 1995a.** A preliminary approach to a revision of the Afrotropical representatives of the genus *Trogaspidia* Ashmead, 1899 (sensu Bischoff, 1920) (Hymenoptera, Mutillidae). Studies on African Mutillidae XXI. (Third contribution to the knowledge of the afrotropical *Trogaspidia*). – Annales de la Société Entomologique de France, (N. S.), 31(4): 349-368.
- Nonveiller, G. 1995b.** Recherches sur les Mutillides de l'Afrique. XVII. Note pour servir à la connaissance du genre *Pristomutilla* Ashmead, 1903 (♂ ♀), avec description du mâle encore inconnu, d'espèces nouvelles et des nouveaux sous-genres *Diacanthotilla* (♀ ♀) et *Acanthomutilla* (♀ ♀) (Hymenoptera, Mutillidae). – Entomofauna, 16(5): 29-119.
- Nonveiller, G. 1995c.** *Somaliatilla somalica* n. gen. et n. sp., femelle (Hymenoptera, Mutillidae). – Revue française d'Entomologie (N. S.), 17(4): 125-128.
- Nonveiller, G. 1996a.** *Allotropidia acuticarinata*, nouveau genre et nouvelle espèce de l'Afrique (Hymenoptera, Mutillidae). – Bulletin de l'Institut Royal des Sciences Naturelles de Belgique, Entomologie, 66: 75-78.
- Nonveiller, G. 1996b.** Remarques sur *Dolichomutilla guineensis* (F., 1793), *Dolichomutilla sycorax* (Smith, 1855) et sur certains hôtes du genre *Dolichomutilla* Ashmead, 1899 (Hymenoptera: Mutillidae). – Revue française d'Entomologie (N. S.), 18(1): 31-34.
- Nonveiller, G. 1996c.** Révision du genre Afrotropical *Odontotilla* Bischoff, 1920 (mâle et femelle) (Hymenoptera: Mutillidae). – Annales de la Société Entomologique de France, (N. S.), 32(3): 299-357.
- Nonveiller, G. 1996d.** Corrigenda: A preliminary approach to a revision of the Afrotropical representatives of the genus *Trogaspidia* Ashmead, 1899 (sensu Bischoff, 1920) (Hymenoptera: Mutillidae). (Third contribution to the knowledge of the Afrotropical *Trogaspidia*). – Annales de la Société Entomologique de France, (N. S.), 32(3): 357.
- Nonveiller, G. 1996e.** Types de répartition dans la région Afrotropicale basés sur l'étude des Mutillides (Hymenoptera, Mutillidae). – Bulletin de la Société Entomologique de France, 101(1): 89-112.

- Nonveiller, G. 1997a.** Révision du genre Afrotropical *Mimecomutilla* Ashmead, 1903 (mâle et femelle) avec description d'espèces nouvelles et description du nouveau sous-genre *Mimecotilla* (Hymenoptera, Mutillidae). – Annales de la Société Entomologique de France, (N. S.), 33(2): 447-485.
- Nonveiller, G. 1997b.** Corrigenda: Révision du genre Afrotropical *Odontotilla* Bischoff, 1920 (mâles et femelles) (Hymenoptera: Mutillidae). – Annales de la Société Entomologique de France, (N. S.), 33(2): 486.
- Nonveiller, G. 1997c.** Description d'une nouvelle Mutillide de l'Erythrée *Amblotropidia callosa* sp. n. (♂) (Hymenoptera, Mutillidae). – Doriana. Supplemento agli Annali del Museo Civico di Storia Naturale "Giacomo Doria", 7(301): 1-4.
- Nonveiller, G. 1997d.** Mutilliden aus Ostafrika mit Beschreibung neuer Arten (Hymenoptera: Mutillidae). – Deutsche Entomologische Zeitschrift, 44(1): 65-119.
- Nonveiller, G. 1998.** Description du nouveau genre *Arcuatotilla* (mâle, femelle) avec des remarques sur *Arcuatotilla arcuaticeps* (André, 1905) (mâle, femelle) (Hymenoptera, Mutillidae). – Revue française d'Entomologie (N. S.), 20(1-2): 17-23.
- Nonveiller, G. 1999.** A revision of the genus *Lobotilla* Bischoff, 1920 (♂♀) (Insecta: Hymenoptera: Mutillidae). – Entomologische Abhandlungen Staatliches Museum für Tierkunde Dresden, 58(14): 255-282.
- Nonveiller, G., Četković, A. 1995.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). XIX. Révision du genre *Lophotilla* Bischoff, 1920. Étude des mâles. – Nouvelle revue d'Entomologie (N. S.), 2(2-3): 161-185.
- Nonveiller, G., Četković, A. 1996a.** Rectificatif: *Peringeyotilla*, nom nouveau pour *Peringueyella* préoccupé. – Nouvelle revue d'Entomologie (N. S.), 13(3): 234.
- Nonveiller, G., Četković, A. 1996b.** *Seriatospidia* n. gen. with a description of three new species (Hymenoptera Mutillidae). – Tropical Zoology, 9: 305-314.
- Nonveiller, G., Petersen, B. (1994)1995.** Recherches sur les Mutillides de l'Afrique (Hymenoptera, Mutillidae). XIX. Remarques concernant la *Trogaspidia floralis* (Klug, 1829) (♂, ♀) et formes ou espèces apparentées, déjà connues ou nouvelles. (Deuxième contribution à la connaissance du genre *Trogaspidia* de l'Afrique). – Beiträge zur Entomologie, 45(1): 181-198.
- Nonveiller, G., Petersen, B. 1996.** Incorrect application of *Trogaspidia bioculata* (Sichel and Radoszkowski 1870) to *T. heideri* (Dalle Torre 1897). Rectification. – Beiträge zur Entomologie, 46(1): 236.
- Norden, B.B. 1996.** Karl V. Krombein – biographic highlights. – Memoires of the Entomological Society of Washington, 17: 8-10.
- Nuhn, T., Menke, A. 1994.** Tsuneki Holotypes at the National Museum of Natural History, Smithsonian Institution, Washington, D.C. – Sphecos, 28: 24-27. [Mutillidae – p. 24].

- Nurse, C.G. 1902.** New species of Indian Hymenoptera. – Journal of the Bombay Natural History Society, 14: 79-92, 1 pl. [Mutillidae – p. 79-81, pl. 1, Figs 1-4].
- Nurse, C.G. 1903.** New species of Indian Aculeate Hymenoptera. – The Annals and Magazine of Natural History, Ser. 7, 11: 393-403, 511-526, 528-549. [Mutillidae – p. 393-400].
- Nurse, C.G. 1904.** New species of Indian Hymenoptera. – Journal of the Bombay Natural History Society, 16: 19-26. [Mutillidae – p. 24].
- Olivier, A.G. 1811.** Encyclopédie méthodique. Histoire naturelle. Insectes, 8. Paris, 722 p. [Mutillidae – p. 48-66, 128-131].
- O'Toole, Ch. 1975.** The Systematics of *Timulla oculata* (Fabricius) (Hymenoptera, Mutillidae). – Zoologica Scripta, 4(5-6): 229-251.
- Pagden, H.T. 1934a.** New species of Mutillidae (Hymenoptera, Vespoidea) from the Malay Peninsula. – Journal of the Federated Malay States Museums, 17: 419-457.
- Pagden, H.T. 1934b.** Biological Notes on Some Malayan Aculeate Hymenoptera I. (Sphecoidea, and Vespoidea). – Journal of the Federated Malay States Museums, 17: 458-466.
- Pagden, H.T. 1934c.** Biological Notes on Some Malayan Aculeate Hymenoptera II. with Descriptions of New Species. – Journal of the Federated Malay States Museums, 17: 467-486.
- Pagden, H.T. 1938.** On a new species of *Rhopalomutilla* (Hym. Mutillidae) from Java. – Journal of the Federated Malay States Museums, 18(2): 213-217.
- Pagden, H.T. 1949.** Description and records of Austro-Malaysian Methocidae and Mutillidae (Hymenoptera). – Transactions of the Royal Entomological Society of London, 100(8): 191-231.
- Pagliano, G. 2004.** I Mutillidae della collezione Spinola (Hymenoptera). – Bolletino del Museo Regionale di Scienze Naturali, Torino. (In litt.)
- Pagliano, G., Scaramozzino, P. (1989)1990.** Check list of the Genera of Hymenoptera of the World. – Memorie della Società Entomologica Italiana, 68: 1-210.
- Papp, J. 1985** (per. comm.). A Catalogue of Palaearctic Hymenoptera. 1st circular: 1-3.
- Petersen, B. 1988.** The Palaearctic Mutillidae of I.C. Fabricius and some related material (Insecta, Hymenoptera, Aculeata). – Steenstrupia, 14(6): 129-224, 63 figs.
- Petersen, B. 1994.** A bibliography of the Palaearctic Mutillidae, 1753-1993 (Insecta, Hymenoptera). – Steenstrupia, 20(8): 185-207.
- Pitts, J.P., McHugh, J.V. 2000.** *Stethophotopsis*, a New Genus of Sphaerophthalmini (Mutillidae, Sphaerophthalminae) with a Brachypterous Male from Arizona. – Journal of Hymenoptera Research, 9(1): 29-33.

- Pitts, J.P., McHugh, J.V. 2002.** Review of *Acrophotopsis* Schuster (Hymenoptera: Mutillidae: Sphaerophthalminae), with Description of a New Species from Baja California. – *Journal of Hymenoptera Research*, 11(2): 338-349.
- Quintero, D.A., Cambra, R.A.T. 1994.** Systematics of *Pseudomethoca areta* (Cameron): sex association, description of the male and a gynandromorph, and a new synonymy (Hymenoptera, Mutillidae). – *Journal of Hymenoptera Research*, 3(1): 303-308.
- Quintero, D.A., Cambra, R.A.T. 1996.** Contribución a la sistematica de las Mutilidas (Hymenoptera) del Perú, en especial las de la Estación Biológica BIOLAT, Río Manu, Pakitza. In Wilson, D.E., Sandoval, A. (eds). *Manu: The biodiversity of Southeastern Peru*. Washington, D.C.: Smithsonian Institution Press. P. 327-357.
- Quintero, D.A., Cambra, R.A.T. 2001.** On the Identity of *Scaptopoda* F. Lynch Aribalzaga, New Taxonomic Changes and New Distribution Records for Neotropical Mutillidae (Hymenoptera), with Notes on their Biology. – *Transactions of the American Entomological Society*, 127(3): 291-304.
- Radoszkowski, O. 1885.** Revision des armures copulatrices des mâles de la famille de Mutillides. – *Horae Societatis Entomologicae Rossicae*, 19(1-2): 3-49, 9 pl.
- Ramakrishna, A.T.V. 1916.** A Catalogue of New Wasps and Bees (Fossores, Diploptera and Anthophila) Described from the Indian Region since 1897. – *Journal of the Bombay Natural History Society*, 24: 539-560. [Mutillidae – p. 541-545].
- Rasnitsyn, A.P. 1975.** Hymenoptera Apocrita of Mesozoic. Moscow: Nauka. 134 p. (In Russian).
- Rasnitsyn, A.P. 1980.** Origin and evolution of Hymenoptera. Moscow: Nauka. 191 p. (In Russian).
- Rasnitsyn, A.P. 1988.** On outline of evolution of the Hymenopterous insects (order Vespida). – *Oriental Insects*, 22: 115-145.
- Rasnitsyn, A.P. 2002.** Order Hymenoptera Linné, 1758 (= *Vespida* Laicharting, 1781). In Rasnitsyn, A.P., Quicke, D.L.J. (eds): *History of insects*. Dordrecht; Boston; London: 242-254.
- Rasnitsyn, A.P. 2002.** Evolutionary process and methodology of systematics. – *Proceedings of the Russian Entomological Society*, 73: 1-108. (In Russian).
- Reid, J. A. 1941.** The thorax of the wingless and short-winged Hymenoptera. – *Transactions of the Royal Entomological Society of London*, 91: 367-445, 43 figs.
- Rohwer, S.A. 1910.** Some new hymenopterous insects from the Philippine Islands. – *Proceedings of the United States National Museum*, 37: 657-660. [Mutillidae – p. 658].
- Ronquist, F., Rasnitsyn, A.P., Roy, A., Eriksson, K., Lindgren, M. 1999.** Phylogeny of the Hymenoptera: A cladistic reanalysis of Rasnitsyn's (1988) data. – *Zoologica Scripta*, 28(1-2): 13-50.

- Sakagami, Sh.F., Ebmer, A.W., Tadauchi, O. 1996.** The Halictine Bees of Sri Lanka and the Vicinity. III. *Sudila* (Hymenoptera, Halictidae). Part 1. – ESAKIA, 36: 143-189.
- Saussure, H. de. 1867a.** Reise der österreichischen Fregatte Novara um die Erde in den Jahren 1857, 1858, 1859 unter den Befehlen des Commodore B. von Wüllerstorff-Urbair. Zoologischer Theil. Zweiter Band. Hymenoptera. Familien der Vespiden, Sphegiden, Pompiliden, Crabroniden und Heterogynen. Wien. 138 p., pl. 1-4. [Mutillidae – p. 105-108, pl. 4].
- Saussure, H. de. 1867b.** Mutillarum Novarum Species Aliquot. – Annales de la Societe Entomologique de France, Ser. 4, 7: 351-364 + pl. 8.
- Schmid-Egger, C., Petersen, B. 1993.** Taxonomie, Verbreitung, Bestandssituation und Bestimmungsschlüssel für die deutschen Arten der Gattung *Smicromyrme* Thomson, 1860 (Hymenoptera, Mutillidae). – Nachrichtenblatt der bayerischen Entomologen, 42(2): 46-56, 8 figs.
- Schulz, W.A. 1906.** Spolia Hymenopterologica. Albert Pape, Paderborn. 356 p., 1 pl. [Mutillidae – p. 156-159].
- Schuster, R.M. (1944)1945.** Notes and Records of the Eastern Representatives of the Photopsidine Genera of Mutillidae with Description of New Forms. – Bulletin of the Brooklyn Entomological Society, 39: 139-155.
- Schuster, R.M. (1946)1947.** A revision of the Sphaerophthalmine Mutillidae of America north of Mexico. – Annales of the Entomological Society of America, 39(4): 692-703.
- Schuster, R.M. 1949.** Contribution towards a monograph of the Mutillidae of the Neotropical region. III. A key to the subfamilies represented and descriptions of several new genera (Hymenoptera). – Entomologica Americana, N. S., 29(3-4): 59-140.
- Sichel, J., Radoszkowski, O. 1869-1870.** Essai d'une monographie des Mutilles de l'ancien continent. – Horae Societatis Entomologicae Rossicae, 1869, 6(3): 139-172; 1870, 6(4): 173-309, tab. 6-11.
- Skorikov, A.S. 1927.** Sur la sousfam. des Myrmillini dans la region palearctique. – Ezhegodnik Zoologicheskogo Muzeya, 28(1): 33-47. (In Russian).
- Skorikov, A.S. 1935.** Zur Mutilliden-Fauna Zentralasiens. – Trudy tadhikskoi basy Akademii Nauk SSSR, 5: 257-349, 7 pl. (In Russian).
- Smith, F. 1855.** Catalogue of Hymenopterous Insects in the Collection of the British Museum. Part III. Mutillidae and Pompilidae. Taylor and Francis, London. 206 p. + 5 pls. [Mutillidae – p. 1-66, pl. 1].
- Smith, F. 1856.** Catalogue of hymenopterous insects in the collection of the British Museum. Part IV. Sphegidae, Larridae, and Crabronidae. London. 207-497. [Mutillidae – p. 478].
- Smith, F. 1857-1858a.** Catalogue of the hymenopterous insects collected at Sarawak, Borneo; Mount Ophir, Malacca; and at Singapore, by A.R. Wallace. – Journal of the Proceedings of the Linnean Society, Zoology, 2: 42-88, pl. 1-2 (1857), 89-130 (1858). [Mutillidae – p. 83-87].

- Smith, F. 1858b.** Catalogue of hymenopterous insects collected at Celebes by Mr. A.R. Wallace. – Journal of the Proceedings of the Linnean Society, Zoology, 3: 4-27. [Mutillidae – p. 9].
- Smith, F. 1858c.** Catalogue of British fossorial Hymenoptera, Formicidae and Vespidae, in the collections of the British Museum. London. [1-4], 236 p., pl. I-VI. [Mutillidae – p. 38-44, 224, pl. 1, fig. 5, pl. 6, fig. 1].
- Smith, F. 1859.** Catalogue of hymenopterous insects collected by Mr. A.R. Wallace at the Islands of Aru and Key. – Journal of the Proceedings of the Linnean Society, Zoology, 3: 132-178. [Mutillidae – p. 150-151].
- Smith, F. (1861)1860a.** Descriptions of new species of hymenopterous insects collected by Mr. A.R. Wallace at Celebes. – Journal of the Proceedings of the Linnean Society, Zoology, 5 (published as suppl. to vol. 4): 57-93. [Mutillidae – p. 75-77].
- Smith, F. (1861)1860b.** Catalogue of hymenopterous insects collected by Mr. A.R. Wallace in the islands of Bachian, Kaisaa, Amboyna, Gilolo, and at Dory in New Guinea. – Journal of the Proceedings of the Linnean Society, Zoology, 5 (published as suppl. to vol. 4): 93-143, pl. I. [Mutillidae – p. 114-116].
- Smith, F. 1861-1862.** Catalogue of hymenopterous insects collected by Mr. A.R. Wallace in the islands of Ceram, Celebes, Ternate, and Gilolo. – Journal of the Proceedings of the Linnean Society, Zoology, 1861, 6: 36-48, pl. I; 1862, 6: 49-66. [Mutillidae – p. 50].
- Smith, F. 1863.** Catalogue of hymenopterous insects collected by Mr. A.R. Wallace in the islands of Mysol, Ceram, Waigiou, Bouru and Timor. – Journal of the Proceedings of the Linnean Society, Zoology, 7: 6-48. [Mutillidae – p. 24-25].
- Smith, F. 1865.** Descriptions of New Species of Hymenopterous Insects from the Islands of Sumatra, Sula, Gilolo, Salwatty, and New Guinea, collected by Mr. A.R. Wallace. – Journal of the Proceedings of the Linnean Society, Zoology, 8: 61-94, pl. IV. [Mutillidae – p. 79-80].
- Smith, F. 1873.** Description of Aculeate Hymenoptera of Japan, collected by Mr. George Lewis at Nagasaki and Hiogo. – The Transactions of the Entomological Society of London: 181-206. [Mutillidae – p. 182-183].
- Smith, F. 1874.** Description of New Species of Tenthredinidae, Ichneumonidae, Chrysididae, Formicidae, etc. of Japan. – The Transactions of the Entomological Society of London: 373-409. [Mutillidae – p. 407-408].
- Smith, F. 1878.** Hymenoptera. Scientific Results of the Second Yarkand Mission, based upon the Collection and Notes of the late Ferdinand Stoliczka. Calcutta: 1-22, pl. 1 [Mutillidae – p. 13-14].
- Smith, F. 1879.** Descriptions of New Species of Hymenoptera in the collection of the British Museum. Taylor and Francis, London. XXI + 240 p. [Mutillidae – p. 189-227].

- Sonan, J. 1931.** Some wasps and bees of Hôkotô (Pescadores). – Transactions of the Natural History Society of Formosa, 21(112): 6-8. (In Japanese).
- Suárez, F.J. 1963.** Hyménoptères Tiphiides, Aptérogynides et mutillides récoltés par J. Mateu dans l'Ennedi et au Tchad. – Bulletin de l'Institut fondamental d'Afrique Noire, Dakar. Serie A: Sciences Naturelles, 25(3): 912-943, 10 figs.
- Suárez, F.J. 1965b.** Nota sinonimica preliminar y propuesta del nombre genérico *Eremomyrme* nom. nov. (Hymenoptera, Mutillidae). – Memorie della Società Entomologica Italiana, 44: 51-52.
- Suárez, F.J. (1968)1969.** *Trogaspidia castellana* (Mercet, 1903): Aclaración de un error de procedencia y correcciones sinonimicas derivadas de la misma (Hym., Mutillidae). – GRAELLSIA (Revista de Entomólogos Ibéricos), 24: 115-122, 1 fig.
- Suárez, F.J. 1969.** Contribution à la faune du Congo (Brazzaville). Mission A. Villers et A. Descarpentries. 84. Hyménoptères Apterogynidae et Mutillidae. – Bulletin de l'Institut fondamental d'Afrique Noire, Dakar. Serie A: Sciences Naturelles, 31(1): 102-137.
- Suárez, F.J. 1977.** Dos nuevos Mutilidos Etiopicos y propuesta de un género nuevo para uno de ellos (Hymenoptera, Mutillidae). – Nouvelle revue d'Entomologie, 7(2): 213-223.
- Suárez, F.J. 1979.** Una nueva especie del Afganistán y propuesta de un género nuevo para la misma (Hymenoptera, Mutillidae). – Časopis Moravskeho musea v Brne, 64: 157-162. [Also in Nouvelle revue d'Entomologie, 1979, 9(1): 71-77].
- Suárez, F.J. 1984.** Cuatro nuevos Mutilidos Somalo-Etiopicos (Hymenoptera, Mutillidae). – Monitore zoologico italiano (Italian Journal of Zoology), N. S. Supplemento, 19(5): 223-250.
- Swederus, N.S. 1787.** Et nytt Genus, och Femtio nya Species af Insecter besk-rifne (22 Coleopt., 5 Lepid., 2 Neuropt., 12 Hymenopt., 6 Dipt.). – Vetensk. Acad. nya Handl., 8: 181-201, 276-290. [Mutillidae – p. 283-286].
- Thompson, W.R. 1944.** A catalogue of the parasites and predators of Insect pests. Sec. 1. Parasitic host catalogue, Pt. 4. Parasites of the Hymenoptera, Isopoda and Isoptera. Belleville: The Imperial Parasite Service, 130 p.
- Thomson, C.G. 1870.** Opuscula Entomologica. Fasc. 2. Lund. [Mutillidae – p. 207-210].
- Tsuneki, K. 1962.** The Aculeate Hymenoptera collected on the Island of Amami-Oshima, the Ryukyus. – Life Study, 6(1): 1-9. (In Japanese).
- Tsuneki, K. 1972a.** Studies on the Mutillidae of Japan (Hymenoptera). – Etizenia, 61: 1-26, 48 figs.
- Tsuneki, K. 1972b.** Two new species of Mutillidae from Borneo (Hymenoptera). – Life Study, 16(1-2): 17-21.
- Tsuneki, K. 1972c.** Mutillidae collected in Formosa in 1966 and 68 (Hymenoptera). – Etizenia, 64: 1-25.

- Tsuneki, K. 1973.** New and the first recorded species and subspecies of Sphecidae and Mutillidae from Japan, with taxonomic notes on some species (Hymenoptera). – *Etizenia*, 65: 1-28. [Mutillidae – p. 23-25].
- Tsuneki, K. 1982a.** Studies on the new material of Sphecidae, Chrysididae and Mutillidae of Formosa and the Southern Ryukyus (Hymenoptera). – SPJHA (Special Publications of the Japan Hymenopterists Association), 23: 15-45. [Mutillidae – p. 43-45, Figs 50-52].
- Tsuneki, K. 1982b.** A referenced list of the species of the Sphecidae, Chrysididae, Scoliidae and Mutillidae hitherto known from the Ryukyu Archipelago, with the distribution table (Hymenoptera). – SPJHA (Special Publications of the Japan Hymenopterists Association), 23: 53-77. [Mutillidae – p. 70-71, 74].
- Tsuneki, K. 1993a.** On some Taiwanese Mutillidae, collected in 1976 by Mr. T. Murota, with description of new taxa (Hymenoptera). – SPJHA (Special Publications of the Japan Hymenopterists Association), 41: 39-50.
- Tsuneki, K. 1993b.** A new and an unrecorded species of Mutillidae from Is. Okinawa, the Ryukyus (Hymenoptera). – SPJHA (Special Publications of the Japan Hymenopterists Association), 41: 51-55.
- Tsuneki, K. 1995.** Opposing opinion against the new genus *Petersenidia* Lelej, 1992 (Mutillidae, Hym.). – SPJHA (Special Publications of the Japan Hymenopterists Association), 41: 56-60.
- Tsuneki, K., Nozaka, C., Tano, T., Kurokawa H., Murota, T. 1993.** Mutillidae recently collected in the Philippines (Hymenoptera). – SPJHA (Special Publications of the Japan Hymenopterists Association), 41: 1-38.
- Turner, R.E. 1911.** New Hymenoptera from Ceylon. Mutillidae and Scoliidae. – *Spolia Zeylanica*, 7(27): 141-154. [Mutillidae – p. 141-151].
- Wesmael, M. 1852.** Revue critique des Hyménoptères Fouisseurs de Belgique. – *Bulletin de l'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique*, 18(2): 362-384.
- Walker, F. 1871.** A list of Hymenopterous insects collected by J.K. Lord, Esq. in Egypt, in the neighbourhood of the Red Sea, and in Arabia. With descriptions of the new species. London, iv + 59 p. [Mutillidae – p. 11].
- Wickwar, O.S. 1908.** Hymenoptera new to Ceylon, with description of new species. – *Spolia Zeylanica*, 5: 115-125.
- Williams, F.X. 1919.** Philippine Wasp Studies. Pt. II. Descriptions of New Species and Life History Studies. – *Bulletin. Reports of Work of the Experiment Station of the Hawaiian Sugar Planters' Association. Entomological Series*, 14: 19-186. [Mutillidae – p. 63-64].
- Wu, Chenfu F. 1941.** Superfamily Scoliidea. *In* *Catalogus insectorum sinensium*. Peiping, 6: 125-139. [Mutillidae – p. 132-137].
- Yamane, Sk., Ikudome, Sh., Terayama, M. 1999.** Identification Guide to the Aculeata of the Nansei Islands, Japan. Hokkaido University Press, Sapporo. I-XII + 831 p. + 24 pls. [Mutillidae – p. 369-381 + pl. 10-11].

- Yasumatsu, K. 1934.** Les Hyménoptères de l'île Yakushima. – *Mushi*, 7(2): 61-67. [Mutillidae – p. 65-66].
- Yasumatsu, K. 1936.** Hymenoptera of the Bonin Islands. – *Transactions of the Natural History Society of Formosa*, 26(157): 356-363. [Mutillidae – p. 358-362].
- Yasumatsu, K. 1938a.** Hyménoptères trouvées dans les environs de Nanking et de Changsha du bassin Yang-tse (Chine) par M. Kwo-Mo Ho. – *Transactions of the Natural History Society of Formosa*, 28(180-181): 345-347. (In Japanese).
- Yasumatsu, K. 1938b.** Beitrage zur Synonymie einiger Hymenopterenarten von den Ryukyu-Inseln. – *Transactions of the Natural History Society of Formosa*, 28(183): 446-447.
- Yasumatsu, K. 1939.** Notes on *Squamulotilla strangulata* (Smith). (Hym., Mutillidae). – *Transactions of the Natural History Society of Formosa*, 29(193): 245.
- Yasumatsu, K. 1947.** Über einige Mutilliden aus Chekiang, Ost-China, gesammelt von Herrn Y. Ouchi. – *Matsumushi*, 2(1): 25-27.
- Yasumatsu, K. 1948.** Records of East Chinese Mutillidae (Hymenoptera). – *Lingnan Science Journal*, 22(1-4): 71-73.
- Yasumatsu, K. 1951.** Mutillidae of Shansi, North China. – *Mushi*, 22(12): 69-72.
- Yoshida, M. 1989.** In Hirashima, Y. (ed.): A check list of Japanese insects. Fukuoka. xiii + 1767 p. [Mutillidae – p. 650-651].
- Zavattari, E. 1909.** Imenotteri del Kashmir. – *Bolletino dei Musei di Zoologia ed Anatomia comparata della R. Università di Torino*, 24(605): 1-6. [Mutillidae – p. 6].
- Zavattari, E. 1910.** Catalogo delle Mutille del Museo Zoologico di Napoli. – *Annuario del Museo Zoologico dell'Università di Napoli, N. S.*, 3(9): 1-16.
- Zavattari, E. 1913a.** Mutille Austro-Malesi. – *Bolletino della Societa Entomologica Italiana*, 45: 61-114.
- Zavattari, E. 1913b.** H. Sauter's Formosa-Ausbeute. Mutillidae (Hym.). – *Archiv für Naturgeschichte*, 79A(3): 19-42.
- Zavattari, E. 1922.** Eine neue Mutille von China. – *Entomologische Mitteilungen*, 11(4): 192.
- Zimsen, E. 1964.** The type material of I.C. Fabricius. Copenhagen, 656 p. [Mutillidae – p. 411, 429-430].

INDEX OF LATIN NAMES

The valid generic names and family level taxa as the main page for these names and descriptions are given in **bold**, the synonyms – in *italics*, the pages with figures is asterisked.

A

- abnorma (Chen, 1957), Mickelomyrme 43, 143*, 144*
- aborlana (Tsuneki, 1993), Mickelomyrme 43, 202
- aborlana (Tsuneki, 1993), Mickelomyrme aborlana 43
- acasta (Cameron, 1902), Bischoffitilla 23
- accedens* (Sichel et Radoszkowski, 1870), Radoszkowskiaus 84
- acidalia* (Cameron, 1897), Trogaspidia 105
- Acutitropidia** Nonveiller, 1995 87, 104
- adscripta* (Nurse, 1903), Eotrogaspidia 78
- aenescens* (Dalla Torre, 1897), Promecilla 54
- aeruginosa Hammer, 1962, Trogaspidia 82
- aeruginosus (Hammer, 1962) Radoszkowskiaus 82, 203
- aestivalis* (Hammer, 1949), Neotrogaspidia 80
- aestuans (Gerstaecker, 1857), Trogaspidia 87
- aestuans*: Cameron, 1892: 116, Mutilla 87
- aesyca (Cameron, 1902), Bischoffitilla 23
- affinis Westwood, 1843, Mutilla 108
- afghanica (Lelej, 1980), Bischoffitilla 23, 132
- afghanica (Suárez, 1979), Artiotilla 65
- afghanica Lelej, 1980, Myrmilla 24
- afghanica Suárez, 1979, Glossomyrme 65
- africana André, 1894, Mutilla 86
- agapeta (Cameron, 1902), Trogaspidia 87, 91, 204
- agelia (Cameron, 1900), Trogaspidia 87, 204
- aglaia (Cameron, 1900), ? Petersenidia 73
- agnata (André, 1894), Krombeinidia 65, 201
- alberici* (Zavattari, 1913), Mickelomyrme 44
- albertisi (André, 1896), Trogaspidia 87, 204
- albibrunnea Chen, 1957, Trogaspidia 87
- albopunctata (André, 1907), Krombeinidia 65, 201
- aliena Hammer, 1962, Trogaspidia 88
- Allomotilla* Ashmead, 1899 109
- Alloneurion* Ashmead, 1899 21
- alphenum (Cameron, 1897), Lasioglossum 10, 23
- alticola Krombein et Lelej, 1999, Bethsmyrmilla 23, 129*
- amans (André, 1909), Eotrogaspidia 77
- amans (André, 1909), Eotrogaspidia amans 78
- amartana* (Zavattari, 1913), Radoszkowskiaus 84
- amitina* (Cameron, 1900), Trogaspidia 95
- amitina* Cameron, 1900, Mutilla 207
- analis (Fabricius, 1804), Liacos 90
- analis (Lepelletier, 1845), Trogaspidia 88, 204
- analis Lepelletier, 1845, Mutilla 88, 93
- andamana Hammer, 1962, Trogaspidia 88
- Andreimyrme** Lelej, 1995 15, **38**, 144, 149
- andromeda (Mickel, 1934), Yamanetilla 118
- annamensis Lelej, sp. n., Kurzenkotilla 34, 137*, **171**, 200
- annexa (Cameron, 1909), ? Andreimyrme 39
- annularis Mickel, 1934, Smicromyrme basalis 57
- annulata (Fabricius, 1793), Campsomeres 90
- anonyma (Kohl, 1882), Odontomotilla familiaris 115
- ansula (Chen, 1957), ? Sinotilla 56
- antennata (Smith, 1855), Smicromyrme 204
- antera* (Cameron, 1900), Radoszkowskiaus 83
- anthracipes Mickel, 1934, Smicromyrme fura 60

- anthylla (Smith, 1860), Trogaspidia 88, 204
 apiastra Mickel, 1935, Odontomutilla 114
 apicipennis (Cameron, 1897),
 Tricholabiodes 113, 204
 aponis Tsuneki, 1993, Smicromyrme 56
Apteromutilla Ashmead, 1903 122
apunctata Lelej, 1977, Smicromyrme
 hasanensis f. 57
 arciformis Chen, 1957, Trogaspidia 88
Arcuatotropidia Nonveiller, 1995 87
 ardescens (Smith, 1873), Bischoffitilla 24
arenaria Fabricius, 1787, Mutilla 109
arenaria: Bingham, 1897, Mutilla 109
 argentatum Shuckard, 1838, Pison 55
argenteomaculata (Smith, 1879), Dasylabris
 110, 111
argenteomaculata Smith, 1879, Mutilla 206
 argentipes (Smith, 1855), Dasylabris 110,
 111
 ariana (Lelej, 1980), Kurzenkotilla 34, 171,
 172, 202
 ariana Lelej, 1980, Artiotilla 34, 170, 200
 ariel (Cameron, 1897), Promecilla 51
 artaxa (Cameron, 1904), Trogaspidia 88,
 204
Artiotilla Invrea, 1950 65, 188
 arundinacea (Pagden, 1934), Bischoffitilla
 24, 130
Ascetotilla Brothers, 1971 107
 asiatica (Saussure, 1858), Campsomeris 90
 aspera (Cameron, 1900), Bischoffitilla 24
 aspratilis Mickel, 1935, Odontomutilla 114
 assamensis Hammer, 1962, Odontomutilla
 114
Astomyrme Schwartz, 1984 56
 athalia (Pagden, 1949), Mickelomyrme 43
 atomus (André, 1894), Nordeniella 48, 185,
 202
 atrata Linnaeus, 1767, Mutilla 109
 atrata Mickel, 1934, Smicromyrme lavinia
 61
attila (Cameron, 1903), Krombeinidia 66
attila Cameron, 1903, Mutilla 39
 aulica (Smith, 1855), Trogaspidia 75, 76, 88,
 204
 aurantiaca (Skorikov, 1935), Nemka 142*
 aurata Fabricius, 1775, Mutilla 108
 aureicollis Lepeletier, 1845, Campsomeris
 90
 aureorubra (Sichel et Radoszkowski, 1870),
 Orientilla 111, 202
 aureotaeniata Hammer, 1962, Trogaspidia
 88
aureotrifasciata (Sichel et Radoszkowski,
 1869), Trogaspidia 95
 aurifera (Mickel, 1934), Trogaspidia ovatula
 98, 206
 aurifex (Smith, 1879), Odontomutilla 114
 aurifrons (Smith, 1855), Trogaspidia 88, 204
 aurofasciata (André, 1907), Storozhenkotilla
 37, 137*, 176, 177, 204
 aurofasciata André, 1907, Mutilla 37, 176,
 200
 auroguttata (Smith, 1855), Eotrogaspidia 78,
 100, 155*, 207
 auroguttata Smith, 1855, Mutilla 77, 207
aurolutea (Hammer, 1962), Orientilla 112
aurolutea Hammer, 1962, Stenomutilla 207
 auronotata (André, 1898), ? Petersenidia 73
auropalliata (André, 1894), Dasylabris 111
auropalliata André, 1894, Mutilla 206
 aurulenta (Smith, 1855), Campsomeris 90
 autonoe Mickel, 1934, Smicromyrme 56
 aversa (Nurse, 1903), Bischoffitilla 24

B

- bacbo (Lelej, 1996), Ephucilla 39, 146*, 201
 badchysiana Lelej, 1980, Myrmilla 32
 bagrada (Cameron, 1902), Krombeinidia 65
 bainbriggei (Turner, 1911), Zeugomutilla
 37, 206
 bakeri (Mickel, 1934), Mickelomyrme 43
 bakeri (Mickel, 1934), Trogaspidia 88, 204
Baltilla Lelej, 1976 109
 bangla Lelej, nom. n., Trogaspidia 88, 201
 basalis (Smith, 1879), Smicromyrme 56
 basalis (Smith, 1879), Smicromyrme basalis
 57
 basirufa (Chen, 1957), Taiwanomyrme 76
 bataviana (André, 1909), Nonveilleridia 80,
 155*
 bataviana André, 1909, Mutilla 80
 belokobylskiji Lelej, 1995, Sinotilla 54,
 147*, 180

- bengalensis* Lepeletier, 1845, *Mutilla* 89, 201
- bengalensis* Megerle, 1802, *Mutilla* 89, 118
- Bethsmyrmilla** Krombein et Lelej, 1999 14, **23**, 130
- bicincta* (Saussure, 1867), *Trogaspidia* 89, 204
- bicolor* (Ashmead, 1905), *Radoszkowskius* 84
- bicolor* Hammer, 1962, *Smicromyrme* 57
- bicornuta* (Hammer, 1962), *Pagdenidia* 69
- bicristata* (Chen, 1957), *Mickelomyrme* 43
- bidens* (Cameron, 1899), *Trogaspidia* 89, 204
- bidentata* (Tsuneki, 1993), *Mickelomyrme* 43, 202
- bidenticulata* Chen, 1957, *Smicromyrme* 50, 57
- bifurcata* (Chen, 1957), *Cystomutilla* 107
- biguttata* Costa, 1858, *Mutilla* 65
- bilobata* Hammer, 1962, *Trogaspidia* 89
- binghami* Bischoff, 1920, *Pseudophotopsis* 21
- binghami* Lelej, nom. n., *Mutilla* 35, 200
- birmanica* (Dalla Torre, 1897), *Promecidia* 80, 196, 203
- Bischoffitilla** Lelej, 2002 14, **23**, 130, 132, 165
- biserrata* (Chen, 1957), ? *Petersenidia* 73
- bistriguttata* Megerle, 1803, *Mutilla* 118
- Blakeius** Ashmead, 1903 122
- blanda* Erichson, 1842, *Mutilla* 47
- blanda* Smith, 1855, *Mutilla* 47
- blandula* (Dalla Torre, 1897), *Nemka* 47
- boheana* (Chen, 1957), *Sinotilla* 54, 147*
- boheana* Chen, 1957, *Smicromyrme* 54
- bonienseis* (Mickel, 1935), *Trogaspidia* 89, 204
- bonthainensis* (André, 1896), *Promecidia* 81, 196, 203
- boopis* (Kohl, 1882), ? *Petersenidia* 73
- borneo* Lelej, 1996, *Smicromyrme* 57, 148*
- Brachymutilla** André, 1901 122
- brachynota* (Chen, 1957), *Bischoffitilla* 24
- Brahmatilla** Lelej, gen. n. 14, **31**, 130, **163**, 164, 200
- brothersi* Lelej, nom. n., *Trogaspidia* 89, 201
- browni* (Rohwer, 1910), *Trogaspidia* 90
- bryanti* (Mickel, 1937), *Trogaspidia* 89, 204
- buddha* (Cameron, 1892), *Odontomutilla* 114
- buddha* Cameron, 1892, *Mutilla urania* f. 114
- burmanensis* Lelej, 1984, *Erimyrmosa* 20, 124*
- byblis* (Mickel, 1934), *Bischoffitilla* 24

C

- caeca* *Radoszkowski*, 1879, *Mutilla* 34
- caecina* (Cameron, 1903), *Smicromyrme* 57
- caerulea* Mickel, 1934, *Smicromyrme* 57
- calacuasana* Tsuneki, 1993, *Smicromyrme* 57
- caliginosa* Hammer, 1962, *Trogaspidia* 89
- calliope* (Smith, 1857), *Promecilla* 51, 203
- calliopeia* (Mickel, 1935), *Bischoffitilla* 24
- calva* Villers, 1789, *Mutilla* 31
- cameroni* (Schulz, 1906), *Radoszkowskius* 83
- cameroni* Lelej, nom. n., *Smicromyrme* 57, 201
- Cameronilla** Lelej, 2001 14, **22**, 122, 127
- Campsomeris** Guerin, 1838 90
- capitata* Lucas, 1849, *Mutilla* 31, 32
- cara* (Cameron, 1899), *Trogaspidia* 89, 204
- cara* Lelej, sp. n., *Taimyrmosa* 20, 124*, **161**, 162, 200
- cardea* (Mickel, 1935), *Bischoffitilla* 24
- cariana* (Magretti, 1892), *Yamanetilla* 118, 206
- carinata* (Smith, 1859), *Ascetotilla* 107
- carinata* Smith, 1859, *Mutilla* 107
- carinulifera* (André, 1908), *Bischoffitilla* 25
- casiphia* (Cameron, 1902), *Trogaspidia* 102
- cassiope* (Smith, 1857), *Yamanetilla* 118
- castellana* (Mercet, 1903), *Trogaspidia* 89, 207
- castellana* (Mercet, 1903), *Trogaspidia* *castellana* 90
- castellana* Mercet, 1903, *Mutilla* 207
- cavicola* (Tsuneki, 1993), *Orientidia* 68
- cebuensis* (Tsuneki, 1993), *Bischoffitilla* 25, 201
- celebensis* (André, 1905), *Protrogaspidia* 81, 203
- Cephalotilla** Bischoff, 1920 34, 174

- ceramensis Mickel, 1935, *Odontomutilla* 114
- ceylanensis* (Sichel et Radoszkowski, 1870), *Trogaspidia* 104
- ceylonica* (Lelej, 1993), *Radoszkowskitilla* 75, 150*, **188**, 191, 193, 194, 203
- ceylonica* Lelej, 1993, *Indratilla* 42, 75, 187, 200
- ceylonica* Saussure, 1867, *Mutilla* 58
- Chaetomutilla** Nonveiller, 1978 34
- cheni Lelej, 1995, *Ephucilla* 40, 146*
- chiaiensis Tsuneki, 1993, *Trogaspidia* 91
- chihpenchia (Tsuneki, 1993), *Nemka* 45
- chihpenchia Tsuneki, 1993, *Smicromyrme* 45
- Chilotropidia** Nonveiller, 1995 87
- chinensis (Smith, 1855), *Smicromyrme* 58
- chinensis* (Zavattari, 1922), *Orientilla* 112
- chinensis Lelej, 2001, *Eosmicromyrmilla* 22, 126*, 128*, 163
- chota (Nurse, 1902), *Trogaspidia* 91, 204
- chrysococcina (Sichel et Radoszkowski, 1870), *Odontomutilla* 114
- chrysophthalma (Klug, 1829), *Macromyrme* 91, 202
- chrysophthalma*: Sichel, Radoszkowski, 1870, *Mutilla* 91
- chuchiana Tsuneki, 1993, *Smicromyrme* 58
- cicatricifera (André, 1894), *Storozhenkotilla* 37, 137*, 176, 177, 204
- cicatricifera André, 1894, *Mutilla* 34
- circumcincta (André, 1896), *Orientidia* 68, 202
- circumscribenda (Magretti, 1892), *Smicromyrme* 58, 204
- cithara* (Skorikov, 1935), *Pseudophotopsis* 22
- clavicornis André, 1901, *Mutilla* 105
- cleonyma (Cameron, 1900), *Trogaspidia* 91, 204
- clima (Cameron, 1902), *Dasylabris* 110, 206
- Clintotilla** Arnold, 1965 34
- clypealis (Mickel, 1935), *Bischoffitilla* 25
- Cockerellidia** Lelej et Krombein, 1999 16, **106**, 156, 158
- coeruleotincta (Cameron, 1900), *Sinotilla* 54, 203
- columnata Chen, 1957, *Smicromyrme* 58
- comottii (Gribodo, 1884), *Promecilla* 51
- compactilis (Cameron, 1900), ? *Petersenidia* 73
- cona (Cameron, 1899), *Radoszkowskii* 82, 203
- concava (Mickel, 1933), *Trogaspidia fuscipennis* 94
- concava (Mickel, 1934), *Bischoffitilla* 25
- confucii (André, 1896), ? *Petersenidia* 73
- conica* (Fabricius), *Eumenes* 53
- conjungenda (Magretti, 1892), *Nemka* 45, 202
- conjungenda Magretti, 1892, *Smicromyrme* 64
- conoideum (Gmelin, 1790), *Delta* 53
- consociata (Cameron, 1898), *Physetopoda* 50, 203
- consolidata (Cameron, 1900), *Spilomutilla* 32, 33, 129*, 131*, 169, 170, 204
- constanceae (Cameron, 1892), *Smicromyrme* 58, 204
- contracta* (Bingham, 1897), ? *Spilomutilla* 33
- contractula (Chen, 1957), *Sinotilla* 54
- conversa Chen, 1957, *Trogaspidia* 82
- conversus (Chen, 1957), *Radoszkowskii* 82, 85
- cordigera (Sichel et Radoszkowski, 1870), *Odontomutilla* 114
- coromandelica (Motschulsky, 1863), *Smicromyrme* 58, 60, 62, 187, 204, 206
- coronata* Fabricius, 1793, *Mutilla* 48
- coronata*: Saussure, 1867, ? *Nemka* 48
- cotesii (Cameron, 1897), *Spilomutilla* 32, 33, 169, 170
- Crabronidae** 50, 55
- Craspedopyga** Lelej, 1976 109
- cressida (Cameron, 1900), *Trogaspidia* 91, 204
- croma (Zavattari, 1913), *Orientilla* 111, 202
- Ctenotilla** Bischoff, 1920 14, **34**, 138, 172, 174
- cunjugata Hammer, 1962, *Trogaspidia* 91
- curta (André, 1896), *Eurymutilla* 108, 201
- curvisquamata (Chen, 1957), *Nemka* 46
- cyaneiventris (André, 1896), *Sinotilla* 54, 147*

- cyaneiventris (André, 1896), *Sinotilla*
cyaneiventris 54
 cyanosoma Turner, 1911, *Promecilla* 51
 cydippe (Mickel, 1935), *Trogaspidia* 91
Cystomutilla André, 1896 11, 16, **107**, 156,
 160
Cystomutillinae Invrea, 1964 106
- D**
- damia (Smith, 1863), *Ephutomorpha* 108
 dardanus (Smith, 1857), *Smicromyrme* 58
 dardanus (Smith, 1857), *Smicromyrme*
dardanus 58
 darjilingi Hammer, 1962, *Smicromyrme* 58
Dasylabrinae Invrea, 1964 9, 16, 18, 19,
109, 121-123, 158*, 159*, 160
Dasylabris Radoszkowski, 1885 11, 16,
109, 160
Dasymutilla Ashmead, 1899 **107**
 davidi (André, 1898), *Andreimyrme* 38
 dayak (Lelej, 1996), *Orientidia* 68, 153*
 decora (Smith, 1879), *Sinotilla* 55, 203
 deforme (Smith, 1856), *Sceliphron* 52
 deidamia (Smith, 1857), *Smicromyrme* 59
 deidannia Dalla Torre, 1897, *Mutilla* 59
 delia (Mickel, 1935), *Promecilla* 51
Delta Saussure, 1855 53
denotata (Mickel, 1933), *Trogaspidia* 88, 93
denticollis (Motschulsky, 1863),
Bischoffitilla 25
denticollis Motschulsky, 1863, *Mutilla* 25
Dentilla 15, **39**, 134, 141*, 149,
depressicornis (Mickel, 1935), *Krombeinidia*
 66
depressula (Mickel, 1934), *Trogaspidia* 91,
 205
dercetis (Mickel, 1935), *Petersenidia* 70, 202
deserta (Smith, 1879), *Bischoffitilla* 25
desiderata (Turner, 1911), *Smicromyrme* 59,
 187, 204
desponsa (Smith, 1855), *Orientilla* 111,
 158*
destillatorium (Illiger, 1807), *Sceliphron* 52
devia (Cameron, 1909), *Smicromyrme* 59
dictynna (Mickel, 1934), *Bischoffitilla* 25
didannia Schulz, 1906, *Mutilla* 59
differens Hammer, 1962, *Promecilla* 51, 53
dilecta (Cameron, 1897), *Karunaratnea* 42,
 183, 184, 201
dilutemacula (Chen, 1957), *Petersenidia*
spiracularis 72
dimidiata Latreille, 1792, *Mutilla* 47
dimidiata Lepeletier, 1845, *Mutilla* 47
diomeda Cameron, 1902, *Mutilla* 57, 58,
 201
diomeda Fox, 1899, *Mutilla* 58
diploglossata (Chen, 1957), ? *Petersenidia*
 73
discolor (Mickel, 1933), *Trogaspidia* 102
discrepans (Mickel, 1933), *Taiwanomyrme*
 76
discreta (Cameron, 1897), *Physetopoda* 50,
 203
discreta (Cameron, 1897), *Smicromyrme* 63
disjuncta (Mickel, 1934), *Bischoffitilla* 25
disparilis (Mickel, 1933), *Eotrogaspidia* 78
dissimilanda (Magretti, 1892), *Trogaspidia*
 91, 205
distincta Lepeletier, 1845, *Mutilla* 31
diversa Smith, 1855, *Mutilla* 119
dives (Smith, 1855), *Eotrogaspidia* 78
dives Cameron, 1897, *Mutilla* 59
dives Smith, 1855, *Mutilla* 59
dohertyi (Zavattari, 1913), ? *Petersenidia* 73
Dolichomutilla Ashmead, 1899 188
doricha (Smith, 1860), *Trogaspidia* 91, 205
dorsispinata (Chen, 1957), *Petersenidia* 70,
 202
drola (Zavattari, 1913), *Ephucilla* 40
drola (Zavattari, 1913), *Ephucilla drola* 40
drupa (Zavattari, 1913), *Ephucilla* 40, 145*
dryta (Cameron, 1900), *Trogaspidia* 92, 205
dubitata Smith, 1855, *Mutilla* 86
duplisquamata (Chen, 1957), *Bischoffitilla*
 25
durga (Bingham, 1897), *Smicromyrme* 59,
 204
- E**
- edolata* (Cameron, 1900), *Bischoffitilla* 25
edolata Cameron, 1900, *Mutilla* 28
Edrionotus Radoszkowski, 1885 32
egregia (Saussure, 1867), *Orientilla* 111
ekka (Nurse, 1902), *Eotrogaspidia* 78, 201
electra Mickel, 1935, *Smicromyrme* 59

- elmira* Cameron, 1900, *Mutilla* 74, 201
elmira Peringuey, 1899, *Mutilla* 74
elpinice (Mickel, 1933), *Neotrogaspidia* 80
eltola (Cameron, 1898), *Spilomutilla* 32, 33, 131*, 167-170
emancipata (Cameron, 1900), *Trogaspidia* 92, 205
emarginata (Chen, 1957), *Orientidia* 68
emergenda (Magretti, 1892), *Trogaspidia* 92, 205
emeryi (Magretti, 1892), *Trogaspidia* 92, 205
eminula (Mickel, 1934), *Bischoffitilla* 25
empirica (Cameron, 1900), *Radoszkowskii* 83
*eo*a (Lelej, 1977), *Physetopoda* 51
*eo*a Lelej, 1977, *Smicromyrme* 50
eos (Lelej, 1981), *Taimyrmosa* 161, 204
eos Lelej, 1981, *Myrmosa* 20, 161, 200
Eosmicromyrmilla Lelej et Krombein, 2001 14, **22**, 121, 127, 162
Eotrogaspidia Lelej, 1996 15, **77**, 152, 156
Ephucilla Lelej, 1995 15, **39**, 145, 149, 180
Ephutinae Ashmead, 1903 9, 16, 18, 19, **113**, 122, 123, 160
Ephutini 9, 19
Ephutomma Ashmead, 1899 11, 15, **41**, 144, 149
Ephutomorpha André, 1903 11, 16, **108**, 156, 160
erato (Mickel, 1935), *Pagdenidia* 69
erdae (Zavattari, 1913), *Bischoffitilla* 26
eremita (Mickel, 1934), *Trogaspidia* 92, 205
eremita (Mickel, 1934), *Trogaspidia eremita* 92
Eremomyrme Suárez, 1965 41
Eremotilla Lelej, 1985 56
Erimyrme Lelej, 1985 56
Erimyrmosa Lelej, 1984 14, **20**, 123
ernesti (Cameron, 1898), *Bischoffitilla* 26
erronea André, 1902, *Mutilla* 39
erxia (Cameron, 1900), *Trogaspidia* 92, 205
erythrocephala Fabricius, 1793, *Mutilla* 10, 95, 207
erythrocephala Latreille, 1792, *Mutilla* 31, 95
*erythrocer*a (Cameron, 1892), *Trogaspidia* 92, 205
esuriens (Fabricius, 1787), *Delta campaniforme* 53
Eumenes Latreille, 1802 53
Eumeninae 41, 53
europaea Linnaeus, 1758, *Mutilla* 35
Eurymutilla Ashmead, 1899 11, 16, **108**, 156, 159
exacta (Smith, 1879), *Mickelomyrme* 43, 142*
exilipunctata (Chen, 1957), *Bischoffitilla* 26, 129*
exilipunctata Chen, 1957 *Squamulotilla* 23
exilis (Smith, 1859), *Trogaspidia* 92, 205
exiloides (Magretti, 1892), *Mickelomyrme* 44
- ## F
- facilis* (Smith, 1860), *Bischoffitilla* 26
fallaciosa (Cameron, 1898), ? *Nemka* 48
familiaris (Smith, 1857), *Odontomutilla* 114
familiaris (Smith, 1857), *Odontomutilla familiaris* 115
fausta (Smith, 1863), *Ephutomorpha* 108
feae (Magretti, 1892), *Trogaspidia* 93, 205
fervida (Smith, 1860), *Trogaspidia* 93, 205
fianna (Cameron, 1899), *Trogaspidia* 93, 205
fimbriata Hammer, 1962, *Trogaspidia* 93
flavotegula (Chen, 1957), *Zavatilla gutrunae* 77
fletcheri (Turner, 1911), *Ephutomma* 41, 201
floralis (Klug, 1829), *Trogaspidia* 95
fluctuata (Smith, 1865), *Tsunekimyrm*e 65, 148*
fluctuata Smith, 1865, *Mutilla* 65
formosana (Matsumura, 1911), *Trogaspidia* 88, 93, 206
formosana (Zavattari, 1913), *Bischoffitilla* 26
fortunata (Cameron, 1899), *Trogaspidia* 93, 205
fortuita (Mickel, 1934), *Orientidia* 69
foveata (Cameron, 1900), ? *Krombeinidia* 67
foveiscutis (Cameron, 1900), *Trogaspidia* 93, 205
frederici (André, 1898), *Smicromyrme* 59, 187

- fredericki* Mickel, 1935, *Smicromyrme* 59
friekae (Zavattari, 1913), *Taiwanomyrme* 76
friekae Zavattari, 1913, *Mutilla* 77
fucosa (Mickel, 1934), *Bischoffitilla* 26
fukudai (Tsuneki, 1972), *Petersenidia* 70
fukudai Tsuneki, 1972, *Smicromyrme* 70
fukudai Tsuneki, 1972, *Trogaspidia* 70
fumigata (Turner, 1911), *Physetopoda* 50
fumipennis (Bingham, 1898), *Eotrogaspidia* 78
funebrana (Cameron, 1900), *Trogaspidia* 93, 205
funeraria Erichson, 1849, *Promecilla* 52
funeraria Smith, 1855, *Mutilla* 52, 201
fura Mickel, 1934, *Smicromyrme* 60
fura Mickel, 1934, *Smicromyrme fura* 60
fusca (André, 1898), *Promecilla* 51
fuscipennis (Fabricius, 1804), *Trogaspidia* 93
fuscipennis (Fabricius, 1804), *Trogaspidia fuscipennis* 94
fuscipennis Fabricius, 1804, *Mutilla* 71
fuscipennis Lepeletier, 1845, *Mutilla* 71
- ### G
- gaea* Chen, 1957, *Trogaspidia rhea* 100
galatea (Mickel, 1934), *Bischoffitilla* 26
gispa (Cameron, 1902), *Trogaspidia* 102
gispa Cameron, 1902, *Mutilla* 102
glabrata (Fabricius, 1775), *Myrmilla* 32
glabrata: Smith, 1855, *Mutilla* 32
Glossomyrme Suárez, 1979 65
Glossotilla Bischoff, 1920 51
gnatia (Cameron, 1904), *Trogaspidia* 94, 205
gnoma (Cameron, 1900), ? *Petersenidia* 74
gobiana (Chen, 1957), *Sinotilla cyaneiventris* 54
gorgon Blake, 1871, *Mutilla* 107
gracillima (Smith, 1857), *Sinotilla* 55, 203
gracillima: Zavattari, 1913, *Mutilla* 55
granulata Hammer, 1962, *Smicromyrme* 60
gravelyi Hammer, 1962, *Promecilla* 52
greeni Hammer, 1962, *Trogaspidia* 94
gribodoana (Invrea, 1943), *Sinotilla* 55
gribodoi (Magretti, 1892), ? *Petersenidia* 74
griseomaculata (André, 1898), *Krombeinidia* 66, 67
grossa Mickel, 1935, *Odontomutilla* 115
guangdongensis Lelej, 1992, *Ctenotilla* 34, 133*
guentheri (Zavattari, 1913), *Ephucilla* 40
guntheri Mickel, 1933, *Smicromyrme* 40
gutrunae (Zavattari, 1913), *Zavatilla* 77
gutrunae (Zavattari, 1913), *Zavatilla gutrunae* 77
gutrunae Zavattari, 1913, *Mutilla* 77
gynandromorpha Lelej, 1993 *Indratilla* 42, 75, 140*, 179, **180**
Gynandrotilia Arnold, 1946 122, 180
- ### H
- haemarrhoa* (Zavattari, 1913), *Neotrogaspidia* 79, 202
haematocephala (André, 1896), *Odontomutilla* 115
hageni (Zavattari, 1913), *Mickelomyrme* 44, 142*, 143*
hageni Zavattari, 1913, *Mutilla* 43, 44
halensis Fabricius, 1787, *Mutilla* 49
Halictidae 23
hammeri Lelej, nom. n., *Smicromyrme* 60, 201
handlirschi (Magretti, 1892), *Mickelomyrme* 44, 202
harmandi André, 1898, *Mutilla* 35, 170
hasanensis Lelej, 1977, *Smicromyrme* 57
herophile Mickel, 1935, *Smicromyrme* 60
herpa (Cameron, 1902), *Odontomutilla* 115
hesitata (Cameron, 1900), *Ephucilla* 41
hesitata (Cameron, 1900), *Smicromyrme* 41
hesitata Cameron, 1900, *Mutilla* 206
hexaops (Saussure, 1867), *Trogaspidia* 104
hexaops Saussure, 1867, *Mutilla* 207
hilaris Hammer, 1962, *Smicromyrme* 60
himalayana (Hammer, 1962), *Krombeinidia* 66, 201
Hindustanilla Lelej, 2001 14, **23**, 122, 127
hoffmanni (Mickel, 1933), *Trogaspidia* 94
hombuciana Tsuneki, 1982, *Smicromyrme* 60
hong Lelej, 1995, *Sinotilla* 55, 147*
honorata (Cameron, 1900), ? *Petersenidia* 74
hoozana (Zavattari, 1913), *Cystomutilla* 107
horai (Hammer, 1962), *Nemka* 46
Horaia Tsuneki, 1993 45

horni (André, 1907), Zeugomutilla 37, 206
 humberiana Saussure, 1867, Mutilla 82
 humberianus (Saussure, 1867), Paraleptomenes 53
 humberianus (Saussure, 1867), Radoszkowskius 82, 203
 humilis (Cameron, 1897), ? Spilomutilla 33
 hyale (Mickel, 1934), Promecilla 52, 203
 hylonome (Mickel, 1935), Petersenidia 71
 himalayensis (Radoszkowski, 1885), Pagdenidia 69, 152*, 202
 himalayensis Cameron, 1892, Mutilla 69
Hymenoptera 41, 50, 52, 53, 55, 68, 90

I

ianthea (Smith, 1860), Trogaspidia 94, 205
 ianthea (Smith, 1860), Trogaspidia ianthea 94
 ianthis (Turner, 1911), Pristomutilla 36, 135*, 174, 175, 176, 189, 203
 idyia (Cameron, 1900), Trogaspidia 94, 205
 ilanica (Tsuneki, 1972), Mickelomyrme 44
 ilerda (Cameron, 1902), Smicromyrme 61
 ilerda (Cameron, 1902), Smicromyrme ilerda 61
 illa (Cameron, 1900), ? Krombeinidia 68
 imparilis (Mickel, 1934), Bischoffitilla 26
 implicata (Mickel, 1935), Trogaspidia 94
 impressa (Chen, 1957), Taiwanomyrme 76
 inanis Mickel, 1935, Odontomutilla 115
Inbaltilla Lelej, 1976 109
 incerta Radoszkowski, 1877, Mutilla 41
 indagatrix (Mickel, 1935), Trogaspidia 94, 205
 indagatrix (Mickel, 1935), Trogaspidia indagatrix 94
 indecora (Cameron, 1898), Bischoffitilla 26
 indefensa (Cameron, 1897), Trogaspidia 95, 205
 indefensa Bingham, 1908, Mutilla 95
 indica (Linnaeus, 1758), Traumatomutilla 109, 207
 indica Lelej, 1995, Pseudophotopsis 21, 124*
 indica Lelej, 2001, Hindustanilla 23, 125*, 126*, 128*
 indica Linnaeus, 1758, Mutilla 10, 109, 207

indiga (Bingham, 1908), Odontomutilla 115, 202
 indocila (Cameron, 1900), Bischoffitilla 26
 indostana (Smith, 1855), Trispilotilla 86, 204, 207
 indra Lelej, 1980, Dasylabris 110
Indratilla Lelej, 1993 15, 42, 75, 122, 140, 149, 179, 180
Inflatispidia Nonveiller, 1995 87
 inoa (Cameron, 1904), Trogaspidia 95, 205
 insidiator (Smith, 1873), Neotrogaspidia 79
 insidiator (Smith, 1874), Neotrogaspidia 79
 insidiatrix (Schulz, 1906), Neotrogaspidia 80
 insularis (Cameron, 1892), Trogaspidia 102
 insularis Cameron, 1892, Mutilla 207
 insularis Schuster, 1949, Phisetopoda 49
 intermedia (Saussure, 1867), Trogaspidia 10, 95, 205, 207
 intermedia Skorikov, 1935, Dasylabris 110
 interrupta Megerle, 1803, Mutilla 119
 interrupta Olivier, 1811, Mutilla 95
 interrupta: Bingham, 1897, Mutilla 95
 iphis (Mickel, 1935), Trogaspidia 95, 205
 ira (Cameron, 1902), Krombeinidia 39, 66
 ira (Cameron, 1902), Krombeinidia ira 66
 irana (Skorikov, 1935), Pseudophotopsis 21
 islandica (Mickel, 1934), Trogaspidia castellana 90
 isora (Cameron, 1900), Mickelomyrme 44, 202
 itambusa (Cockerell, 1927), Radoszkowskius 82

J

jacobsoni (André, 1907), Smicromyrme 61
 janthea Kohl, 1882, Mutilla 94
 japhia (Cameron, 1902), Rhopalomutilla 105
 japonica (Dalla Torre, 1897), Neotrogaspidia 80
 javana Pagden, 1938, Rhopalomutilla 105
 javanica (Dalla Torre, 1897), Petersenidia 71, 202
 javanica Cameron, 1905, Mutilla 83
 javanica Dalla Torre, 1897, Mutilla 83
 josephi (Magretti, 1892), ? Petersenidia 74

K

- kabakovi Lelej, 1980, Nuristanilla 49
 kabulensis Lelej, 1980, Myrmilla 31
 kallata (Nurse, 1902), Orientilla 112, 202,
 207
 kangeana Pagden, 1949, Timulla philippi-
 nensis 83
 kangeanus (Pagden, 1949), Radoszkowskii
 83

- Karlidia** Lelej, 1999 16, **106**, 156, 158
Karlissaidia Lelej, gen. n. 15, **78**, 151, 155,
193, 195, 200

- karnataka Lelej, sp. n., Radoszkowskitilla
 76, 188, **190**, 191-193, 200

- Karunaratnea** Lelej, gen. n. 15, **42**, 145,
 148, **181**, 183, 200

- kashmirensis Hammer, 1962, Smicromyrme
 61

- kauarae (Cameron, 1892), Trogaspidia 96
kauthellae (Cameron, 1892), Trispilotilla 86
kauthellae Cameron, 1892, Mutilla 207
kedahensis (Mickel, 1935), Nemka 46

- kellyi (Pagden, 1934), Nemka 46
 kermana Skorikov, 1935, Pseudophotopsis
 21, 22

- khasiana (Cameron, 1900), Smicromyrme
 61, 204

- kinabalensis (Tsuneki, 1972), Trogaspidia
 96

- kirbyi (Magretti, 1892), Smicromyrme 61,
 204

- kohli (Magretti, 1892), Bischoffitilla 26
 kokpetica Radoszkowski, 1885, *Agama* 21
 kolabensis (André, 1894), Trogaspidia 96,
 205

- kolthoffi Hammer, 1949, Trogaspidia 96
 komarovii Radoszkowski, 1885, *Agama* 21
 kompantsevi Lelej, 1995, Dentilla 39, 144*
 koxiana (Chen, 1957), Bischoffitilla 27
 kraciva (Nurse, 1903), Dasylabris 110, 201
 krianae (Pagden, 1934), Trogaspidia tethys
 103, 206

- krishna Lelej, sp. n., Brahmatilla 31, 132*,
 163, **164**, 200

- krombeini Lelej, 1996, Orientilla 112, 158*
 krombeini Lelej, sp. n., Strangulotilla 37,
 139*, **177**, 179, 200

- Krombeinictus** Leclercq, 1996 50

- Krombeinidia** Lelej, 1996 15, **65**, 151, 154
 kuanfuana Tsuneki, 1972, Smicromyrme 61
Kudakrumia Krombein, 1979 14, **20**, 123
Kudakrumiinae Krombein, 1979 9, 14, 18,
 19, **20**, 121, 123

- Kurzenkotilla** Lelej, gen. n. 14, **34**, 135,
 139, **170**, 177, 200

- kuznetsovi Lelej, 1996, Mickelomyrme 44,
 143*

L

- Labidomilla** André, 1903 122

- labiena (Cameron, 1900), Trogaspidia 96,
 205

- laeta (Cameron, 1897), Trogaspidia 96, 205
 lagmana Lelej, 1980, Myrmilla 32, 132*,
 165

- lalokia* (Mickel, 1935), Trogaspidia 91

- lambirensis Lelej, 1996, Sinotilla 55, 147*

- lamellata (Mickel, 1933), Bischoffitilla 27,
 129*, 130

- laminata (André, 1898), Odontomutilla 115
 laminella (Magretti, 1892), Karunaratnea 42,
 183, 184, 201

- lanceolata Chen, 1957, Trogaspidia 96

- lanka Lelej, sp. n., Lehitilla 35, 136*, 172,
173, 200

- lanka Lelej, sp. n., Spilomutilla 33, 131*,
168, 170, 200

- laratensis (Mickel, 1935), Radoszkowskii
 83

- Lasioglossum** Curtis, 1833 10, 23

- lathonia (Cameron, 1900), ? Petersenidia 74

- latisquamula Chen, 1957, Smicromyrme
 triguttata 64

- lavinia Mickel, 1934, Smicromyrme 61

- lavinia Mickel, 1934, Smicromyrme lavinia
 61

- Lehitilla** Lelej, gen. n. 14, **35**, 138, **172**,
 174, 200

- lena (Cameron, 1899), Trogaspidia 96, 205
 lepcha (Cameron, 1900), Smicromyrme 61,
 204

- lethargia (Cameron, 1900), Bischoffitilla 27

- levinaris Chen, 1957, Smicromyrme 61

- leytensis (Tsuneki, 1993), Radoszkowskii
 83

- Liacos** Guerin, 1830 90

- lilliputiana (André, 1894), *Krombeinidia* 66, 201
 limi (Chen, 1957), *Nemka* 46
 limi (Chen, 1957), *Nemka* limi 46
 lindstromi Hammer, 1949, *Trogaspidia* 96
 lingnani (Mickel, 1933), *Bischoffitilla sauteri* 29
 lingnani (Mickel, 1933), *Trogaspidia sibylla* 102
 litigiosa (Cameron, 1898), ? *Nemka* 48
Lobotropidia Nonveiller, 1995 87
 locascioi Lelej, sp. n., *Pristomutilla* 36, 135*, **174**, 175, 176, 200
 lochia Mickel, 1937, *Smicromyrme* 62
 lodina (Cameron, 1905), *Trogaspidia* 96, 205
 lodra (Chen, 1957), *Ephucilla drola* 40
 lodra Chen, 1957, *Smicromyrme dardanus* 40
 logei (Zavattari, 1913), *Zavatilla* 77, 206
 long Lelej, 1995, *Andreimyrme* 38, 141*
 lucida Crawford, 1910, *Tiphia* 90
 luctuosa (Smith, 1855), *Campsomeris* 90
 ludovica (Cameron, 1900), *Smicromyrme* 41
 ludovica (Cameron, 1900), *Ephucilla* 40, 201
 lunarifasciata (André, 1894), *Bischoffitilla* 27
 luxuriosa Cameron, 1897, *Mutilla* 101, 201
 luxuriosa Smith, 1879, *Mutilla* 101
 luzonica (Radoszkowski, 1885), *Trogaspidia* 96
 luzonica (Radoszkowski, 1885), *Trogaspidia luzonica* 97
 lyrata (Cameron, 1900), ? *Petersenidia* 74
- M**
- macassarica (Zavattari, 1913), *Petersenidia* 71
 mackieae (Cockerell, 1928), *Trogaspidia* 97, 205
 macrocephala Olivier, 1811, *Myrmosa* 10, 120
Macromyrme Lelej, 1984 91, 171
 maculiceps (André, 1894), *Promecilla* 52
 maculicornis (Cameron, 1900), *Trogaspidia* 97, 205
 maculofasciata (Saussure, 1867), *Smicromyrme* 62
 madraspatanum (Fabricius, 1781), *Sceliphron* 52, 68
 maesta Chen, 1957, *Mutilla rugiceps* 36
 magretti Lelej, nom. n., *Promecilla* 52, 201
 mahaganayensis Cameron, 1892, *Mutilla* 119
 malayana (Cameron, 1901), *Radoszkowskii* 84
 malica (Zavattari, 1913), *Bischoffitilla* 27
 malinka (Nurse, 1903), *Dentilla* 39
 mamblia (Cameron, 1902), *Promecidia* 81, 196
 mammalifera (Chen, 1957), *Bischoffitilla* 27
 mandersi (Cameron, 1897), *Radoszkowskii* 83
 manifesta (Smith, 1859), *Odontomutilla* 115
 manilensis (Brown, 1906), *Trogaspidia* 97
 marcia (Cameron, 1900), ? *Petersenidia* 74
 margheritae (Hammer, 1962), *Krombeinidia* 66, 201
 mariaae Dalla Torre, 1897, *Protrogaspidia* 82
 maritima (Hammer, 1962), *Nemka* 46, 202
 maritima Chen, 1957, *Trogaspidia* 97
 maritima Hammer, 1962, *Smicromyrme conjungenda* 46
 martialis (Cameron, 1900), ? *Petersenidia* 74
 maura Linnaeus, 1758, *Mutilla* 82
 maura Smith, 1860, *Mutilla* 82
 maximinae (Magretti, 1892), *Bischoffitilla* 27
 meator Mickel, 1935, *Smicromyrme* 62
 medon Smith, 1855, *Mutilla* 87
 medvedevi Lelej, sp. n., *Karlissaidia* 78, 79, 182*, 193, **194**, 195, 200
 meeungensis (Cockerell, 1928), *Petersenidia* 71, 202
 megacephala Costa, 1858, *Rudia* 31
 melanesia (Mickel, 1935), *Trogaspidia* tethys 103, 206
 melanota (André, 1896), *Ephutomorpha* 108
 melanota André, 1896, *Mutilla* 79
 melanota Turner, 1911, *Mutilla* 79, 193, 200
 melicerta Smith, 1855, *Mutilla* 109
 melmora Cameron, 1905, *Mutilla* 83
 melmorus (Cameron, 1905), *Radoszkowskii* 83

- menadoensis (Mickel, 1935), *Trogaspidia indagatrix* 95, 205
- mephitis (Cameron, 1901), *Paraleptomenes* 41, 53
- merops (Smith, 1860), *Radoszkowskius* 83, 207
- merops Smith, 1860, *Mutilla* 82
- metallica* (Cameron, 1892), *Promecilla* 53
- metallica* Cameron, 1892, *Mutilla* 52, 53, 54
- metallica* Smith, 1855, *Mutilla* 54
- Methocha** Latreille, 1804 120
- mickeli (Chen, 1957), *Bischoffitilla* 27
- mickeli (Pagden, 1949), *Pagdenidia* 70
- mickeli Lelej, nom. n., *Odontomutilla* 116, 200
- mickeli Pagden, 1949, *Timulla* 69
- Mickelomyrme** Lelej, 1995 15, 43, 144, 149
- micropunctata* (Chen, 1957), ? *Petersenidia* 74
- microsoma* (Brothers, 1974), *Nothomyrmosa* 21
- microsoma* Brothers, 1974, *Protomutilla* 20
- mikado Cameron, 1900, *Mutilla* 35
- militans* (Dalla Torre, 1897), *Bischoffitilla* 24
- Mimecomutilla** Ashmead, 1903 174
- minae* (Zavattari, 1913), *Trogaspidia sibylla* 102
- minahassae* (Zavattari, 1913), *Smicromyrme* 62
- mindanaonis* (Tsuneki, 1993), *Bischoffitilla teuta* 30, 201
- mindanaonis* Tsuneki, 1993, *Smicromyrme* 62
- minor* Ashmead, 1905, *Trogaspidia* 90
- mirabilis* (Hammer, 1962), *Physetopoda* 50, 203
- mirabilis* (Smith, 1863), *Ephutomorpha* 108
- mirabilis* Krombein, 1979, *Kudakrumia* 20, 199
- miranda* (Smith, 1855), *Odontomutilla* 116
- miscisis* (Chen, 1957), *Physetopoda* 50
- mithila* (Cameron, 1900), *Trogaspidia* 97, 205
- mitra* Lelej, 1980, *Dasytabris* 110
- modesta* (Smith, 1855), *Campsomeris marginella* 90
- mongolica* (Suárez, 1974), *Taimyrmosa* 161, 204
- monopunctata* Lelej, 1977, *Smicromyrme hasanensis* f. 57
- montana* Panzer, 1805, *Mutilla* 49
- montanata* (Cameron, 1900), *Smicromyrme* 62, 204
- Montanomutilla** Nonveiller, 1978 34
- morna* (Cameron, 1900), *Trogaspidia* 97, 205
- muri* (Mickel, 1935), *Bischoffitilla* 27
- multidentata* (André, 1896), *Bischoffitilla* 27
- murotai* (Tsuneki, 1993), *Bischoffitilla* 27, 201
- Mutilla** Linnaeus, 1758 10, 11, 14, 35, 105, 107, 109, 118, 138, 177
- Mutillariae** Latreille, 1802 20
- Mutillidae** Latreille, 1802 9, 11, 14, 18, 19, 20
- Mutillinae** Latreille, 1802 9, 12, 14, 18, 19, 34, 122, 123, 133, 174, 182*
- Mutillini** Latreille, 1802 9, 14, 18, 19, 34, 133*, 134, 135*-137*, 139*, 172, 174
- Myrmilla** subg. 31
- Myrmilla** Wesmael, 1852 11, 14, 31, 122, 130, 132, 165, 174
- Myrmillinae** Bischoff, 1920 9, 14, 18, 19, 23, 34, 42, 121-123, 129*, 130, 131*, 132*, 172, 174
- Myrmilloides** André, 1903 122
- Myrmosa** Latreille, 1796 11, 120, 161
- Myrmosinae** Fox, 1894 9, 14, 18, 19, 20, 121-123, 124*
- Myrmosini** Fox, 1894 20

N

- naja* (Zavattari, 1913), *Ephucilla* 40
- naja* Zavattari, 1913, *Mutilla* 39
- nallinia* (Zavattari, 1913), *Krombeinidia* 66
- nana* (Hammer, 1962), *Karlissaidia* 79, 193, 195, 201
- nana* Hammer, 1962, *Smicromyrme* 62
- nanhai* (Chen, 1957), *Nemka limi* 46
- Nanomutillinae** Suárez, 1975 22
- nathani* Lelej, 2001, *Hindustanilla* 23, 126*, 128*
- neaera* (Mickel, 1935), *Andreimyrme* 38

- nebulosa* (Mickel, 1935), *Orientidia* 69
nedyme (Mickel, 1935), *Petersenidia* 71, 202
neglecta (Smith, 1860), *Petersenidia* 71, 202
neglecta Hammer, 1962, *Smicromyrme* 58, 60, 62, 187
Nemka Lelej, 1985 15, **45**, 64, 143, 149
Neotrogaspidia Lelej, 1996 15, **79**, 152, 156
nepalensis Hammer, 1962, *Smicromyrme* 62
nereis (Kohl, 1882), *Trogaspidia* 97, 205
nigerrima (Mickel, 1934), *Orientidia* 68
nigra Rossi, 1792, *Mutilla* 87
nigra Smith, 1859, *Mutilla* 87
nigridia (Mickel, 1934), *Petersenidia sticticornis* 72, 203
nigripes (André, 1894), *Smicromyrme* 62
nigripes (Fabricius, 1787), *Dasymutilla* 108, 207
nigripes Fabricius, 1787, *Mutilla* 207
nigripes: Cameron, 1892, *Mutilla* 108
nigrofasciata (Yasumatsu, 1931), *Taimyrmosa* 161, 162, 204
nigrogastra (Mickel, 1934), *Mickelomyrme semperi* 45
ninnii (Magretti, 1892), *Promecidia* 80, 81, 196, 203
niobe Cameron, 1900, *Mutilla* 60, 201
niobe Peringuey, 1898, *Mutilla* 60
nipponica (Mickel, 1933), *Trogaspidia* 100
nipponica (Tsuneki, 1972), *Yamanetilla* 118
nipponica Tsuneki, 1972, *Odontomutilla* 117
nitela (Mickel, 1934), ? *Andreimyrmecina viriata* 39
niveofimbriata Hammer, 1962, *Trogaspidia* 97
niveosignata (André, 1894), *Kurzenkotilla* 35, 171, 202
nobilis (Smith, 1855), *Orientilla* 112, 202
nodoa (Mickel, 1933), *Trogaspidia pagdeni* 98
Nonveilleridia Lelej, 1996 15, **80**, 150, 156
nordenae Leclercq, 1996, *Krombeinictus* 50
Nordeniella Lelej, gen. n. 15, **48**, 145, 149, **185**, 200
norna (Zavattari, 1913), *Mickelomyrme isora* 44
norna (Zavattari, 1913), *Mickelomyrme* 44, 143*, 144*
Nothomyrmosa Krombein, 1979 14, **20**, 123
novarae (Saussure, 1867), *Radoszkowskius* 84
novobritannica (Cameron, 1901), *Trogaspidia* 98
nudiceps (André, 1894), *Trogaspidia* 97, 205
Nuristanilla Lelej, 1980 **49**
nursei André, 1904, *Dasytibris* 110, 206
nursei Lelej, 1995, *Tricholabiodes* 113, 159*
- O**
- oblectabilis* (Mickel, 1934), *Bischoffitilla* 27
obscurilamina (Chen, 1957), *Orientidia* 68
oceanica (André, 1896), *Trogaspidia oceanica* 98
oceanica (André, 1896), *Trogaspidia* 97, 205
oceanica Mickel, 1935, *Rhopalomutilla* 105
oceanitis (Mickel, 1935), *Trogaspidia* 98
ocellata (Saussure, 1867), *Smicromyrme* 62, 187, 204
oculata Fabricius, 1804, *Mutilla* 84
oculatus (Fabricius, 1804), *Radoszkowskius* 84
ocypote (Mickel, 1934), *Bischoffitilla* 28
Odontomutilla Ashmead, 1899 11, 16, **114**, 160
Odontomutillini Lelej, 1983 9, 16, 19, **113**, 160
Odontotilla Bischoff, 1920 122
oedipus (Cameron, 1897), *Cameronilla* 22
oedipus Cameron, 1897 *Mutilla* 22
officia (Nurse, 1903), *Promecilla* 53
ogiana (Cameron, 1900), ? *Krombeinidia* 68
olbia (Cameron, 1902), *Petersenidia* 71, 202
Omotilla Invrea, 1943 122
onara (Cameron, 1900), ? *Petersenidia* 74
opipara (Zavattari, 1913), *Bischoffitilla* 28
optima (Smith, 1855), *Dasytibris* 111
opulenta Smith, 1855, *Mutilla* 84
opulentus (Smith, 1855), *Radoszkowskius* 84, 203
oratoria (Chen, 1957), *Physetopoda* 50
oratoria Chen, 1957, *Smicromyrme* 50
orientalis (Mickel, 1933), *Nemka* 47
Orientidia Lelej, 1996 15, **68**, 151, 154
Orientilla Lelej, 1979 16, **111**, 160

- oryzae (Pagden, 1934), *Eotrogaspidia* *amans*
 78
 ovatula (Mickel, 1934), *Trogaspidia* 98, 205
 ovatula (Mickel, 1934), *Trogaspidia* *ovatula*
 98
- P**
- pacifica Tsuneki, 1972, *Trogaspidia* 98
 pagdeni (Mickel, 1933), *Trogaspidia* 98
 pagdeni (Mickel, 1933), *Trogaspidia*
pagdeni 98
 pagdeni Lelej, 1995, *Nemka* 46, 142*
Pagdenidia Lelej, 1996 15, **69**, 151, 153
 paglianoi Lelej, nom. n., ? *Petersenidia* 74,
 201
 pakistanensis Lelej, sp. n., *Myrmilla* 32,
 132*, **165**, 200
 palaca (Cameron, 1902), *Bischoffitilla* 28
 palacala Tsuneki, 1993, *Smicromyrme* 63
 palatupanae Lelej, sp. n., *Karunaratnea* 42,
 181, 182*, **183**, 184, 200
 palawana (Mickel, 1934), *Krombeinidia* *ira*
 66, 201
 palawanensis (Mickel, 1934), *Mickelo-*
myrme 43, 44, 202
 paloeana Pagden, 1949, *Timulla philippi-*
nensis 84
 paloeanus (Pagden, 1949), *Radoszkowskius*
 84
 pamphia (Cameron, 1900), ? *Petersenidia* 75
 panayensis (Mickel, 1934), *Trogaspidia*
luzonica 97
 pandara (Cameron, 1900), *Krombeinidia* 66,
 201
pandora (Smith, 1857), *Smicromyrme* 59
 panfilovi Lelej, 1995, *Ephucilla* 40, 145*,
 146*
 papuana (Krombein, 1971), *Trogaspidia*
oceanica 98, 205
papuana Zavattari, 1913, *Odontomutilla* 117
Paraleptomenes Giordani Soika, 1970 41,
 53
Paramyrme Lelej, 1977 49
 parthenia (Cameron, 1900), *Smicromyrme*
 63, 204
 parva André, 1902, *Mutilla* 52
parva Brown, 1906, *Mutilla* 52, 201
 pauli (André, 1898), *Pristomutilla* 36, 203
 pauli André, 1898, *Mutilla* 34
 pectinata Sichel et Radoszkowski, 1870,
Mutilla 36, 166, 173
pectinifera André, 1893, *Mutilla* 34
 pectinospinata (Magretti, 1892), *Pristomu-*
tilla 36, 203
 pedaria (Mickel, 1934), *Yamanetilla* 118
pedunculata Klug, 1829, *Mutilla* 113
pedunculata: Bingham, 1897, *Mutilla* 113
 pekiniana (André, 1905), *Sinotilla* 55
 pendleburyi (Pagden, 1934), *Trogaspidia* 99,
 206
 pentheus (Smith, 1860), *Trogaspidia* 99, 206
 perakensis (Pagden, 1934), *Bischoffitilla* 28
 perdita (Cameron, 1900), *Trogaspidia* 99,
 206
 peregrina (Cameron, 1897), *Smicromyrme*
 63, 204
 perelegans (Cameron, 1897), *Odontomutilla*
 116
 perfecta (Sichel et Radoszkowski, 1870),
Spilomutilla 33
 perfecta Hammer, 1962, *Promecilla* 52
 perfecta Sichel et Radoszkowski, 1870, *Mu-*
tilla 32
 persuasa (Cameron, 1900), *Bischoffitilla* 28
 perversa (Cameron, 1897), *Bischoffitilla* 28
 peterseni Lelej, 1996, *Krombeinidia* 65, 67,
 153*
 peterseni Lelej, 1999, *Karlidia* 106, 107,
 157*
Petersenidia Lelej, 1992 15, **70**, 151, 154
Peterseniidiina Lelej, 1996 65
Peterseniidiini Lelej, 1996 9, 15, 18, 19, 42,
65, 75, 134, 150*, 152*, 153*, 196
 petina (Mickel, 1937), *Sinotilla* 55, 203
petulans (Smith, 1874), *Neotrogaspidia* 79
 pfafneri (Zavattari, 1913), *Petersenidia* 71,
 203
 phaenna (Cameron, 1900), *Trogaspidia* 99,
 206
 phaola (Cameron, 1900), *Promecilla* 52, 203
 philippa (Nurse, 1903), *Nemka* 46, 202
 philippa (Nurse, 1903), *Smicromyrme* 46
 philippinensis (Smith, 1855),
Radoszkowskius 84
 philippinensis Lelej, nom. n., *Promecilla* 52,
 201

- Photopsidini* Ashmead, 1903 106
- Physetopoda** Schuster, 1949 15, **49**, 146, 149, 183
- pilosella (Magretti, 1892), *Trogaspidia* 99, 206
- pinguicula (Turner, 1911), *Nordeniella* 49, 185, 202
- Pison** Jurine, 1808 55
- placida* (Smith, 1879), *Orientilla* 111
- poesia (Cameron, 1900), *Karunaratnea* 42, 183, 184, 201
- pompalis Mickel, 1935, *Odontomutilla* 116
- pondicherensis (Sichel et Radoszkowski) Nemka 46, 47
- poonaensis (Cameron, 1892), *Ephucilla* 40, 201, 206
- porcella (Turner, 1911), *Ctenotilla* 34, 133*
- posthuma (Cameron, 1898), *Smicromyrme* 63, 204
- praestabilis (André, 1907), *Nordeniella* 49, 185, 202
- praestabilis André, 1907, *Promecilla* 49
- primana Skorikov, 1935, *Promecilla* 52
- princesa (Mickel, 1934), *Trogaspidia castellana* 90
- Pristomutilla** Ashmead, 1903 11, 15, **36**, 138, **173**, 174, 176
- Pristomutilla* sp. 135*
- probabilis Hammer, 1962, *Trogaspidia* 99
- prodiga (Mickel, 1935), *Trogaspidia tethys* 103, 206
- Promecidia** Lelej, 1996 15, **80**, 151, 155, **195**, 196
- Promecilla** André, 1903 11, 15, **51**, 134, 145, 149
- proserpina (Smith, 1857), *Orientidia* 68, 152*
- proserpina (Smith, 1857), *Orientidia proserpina* 69
- proserpina Smith, 1858, *Mutilla* 68
- Protrogaspidia** Lelej, 1996 15, **81**, 150, 156
- provida (Cameron, 1897), *Smicromyrme* 63, 204
- psecas (Mickel, 1935), *Petersenidia* 71, 153*
- Pseudomethocini** Schuster, 1947 9, 16, 19, **106**, 158
- Pseudomutilla** Costa, 1885 31, 130, 165
- Pseudophotopsidinae** Bischoff, 1920 9, 14, 18, 19, **21**, 121, 123, 124*
- Pseudophotopsis** André, 1896 14, **21**, 121, 123
- Pseudophotopsis** subg. 21
- ptorthodonta (Chen, 1957), ? *Petersenidia* 75
- puerilis (Cameron, 1897), *Bischoffitilla* 28, 129*, 132
- puerilis (Cameron, 1897), *Myrmilla* 24, 28
- pulawskii Lelej, sp. n., *Eosmicromyrmill* 22, 128*, **162**, 200
- pulchriceps (Cameron, 1892), *Trogaspidia* 99
- pulchricoma (André, 1894), *Trogaspidia* 99, 206
- pulchrina (Smith, 1855), *Odontomutilla* 116
- pulchrinella (Magretti, 1892), *Krombeinidia* 67, 201
- pulchriventris (Cameron, 1892), *Promecilla* 52, 53
- puliensis (Tsuneki, 1972), *Bischoffitilla* 28, 201
- pulla (André, 1894), ? Nemka 48, 207
- pulla André, 1894, *Mutilla* 48
- pulla Nylander, 1847, *Myrmosa* 48
- pullula* (Dalla Torre, 1897), ? Nemka 48
- pullula* Dalla Torre, 1897, *Mutilla* 207
- punctinota Mickel, 1935, *Smicromyrme* 63
- pungens* (Smith, 1873), *Bischoffitilla* 24
- pungens* (Smith, 1874), *Bischoffitilla* 24
- pusilla Klug, 1835, *Mutilla* 60
- pusilla* Smith, 1855, *Mutilla* 59, 60
- pusillaeformis Hammer, 1962, *Smicromyrme* 63
- pustulata (Smith, 1873), *Neotrogaspidia* 79
- pustulata Smith, 1873, *Mutilla* 79
- pynopyga Chen, 1957, *Zeugomutilla* 37, 38, 135*

Q

- quadricarinata Cameron, 1900, *Mutilla* 85
- quadricarinatus (Cameron, 1900), *Radoszkowskii* 85
- quadruplex (Chen, 1957), *Yamanetilla* 118

R

- Radoszkowskitilla** Lelej, gen. n. 15, 42, **75**, 151, 154, **187**, 200

- Radoszkowskius** Ashmead, 1903 10, 11, 15, **82**, 134, 152, 154
 rapa (Zavattari, 1913), Petersenidia 72
 recessa (Chen, 1957), Zavattilla 77, 206
 recondita (Cameron, 1900), Zeugomutilla 38, 206
rectangulata (Chen, 1957), Physetopoda 51
 reticularinata Chen, 1957, Trogaspidia 99
 redacta (Cameron, 1900), Trogaspidia 99, 206
 regia (Smith, 1855), Promecilla 51, 53
 regia Smith, 1855, Mutilla 51
 regina Hammer, 1962, Trogaspidia 99
 remota (Cameron, 1897), Orientilla 112, 202
 repraesentans (Smith, 1855), Trogaspidia 100
 repraesentans Smith, 1855, Mutilla 78, 100
repraesentoides (Mickel, 1933), Eotrogaspidia 78, 100
 responsaria (Cameron, 1900), Krombeinidia 67, 201
 reticulata (Cameron, 1892), Campsomeris 90
 reticulata Smith, 1855, Mutilla 119
 retinula Chen, 1957, Trogaspidia 85
 retinulus (Chen, 1957), Radoszkowskius 85, 203
 rhea (Mickel, 1933), Trogaspidia 100
 rhea (Mickel, 1933), Trogaspidia rhea 100
Rhombotilla Nagy, 1966 56
Rhopalomutilla André, 1901 11, 15, **105**, 121, 123
Rhopalomutillinae Schuster, 1949 9, 15, 18, 19, **105**, 121, 123
 rosemariae (O'Toole, 1975), Radoszkowskius 85
 rostriformis Lelej, 1980, Myrmilla 31
 rothneyi (Cameron, 1897), Spilomutilla 33, 169, 170
 roxane (Mickel, 1934), Bischoffitilla 28
 rubiginosa (André, 1896), Trogaspidia ianthea 94, 205
 rubrocapitata Mickel, 1935, Odontomutilla 116
 rubrocincta Lucas, 1849, Mutilla 49
 rubrocyanea (Mickel, 1935), Promecidia 81, 196, 203
Rudia Costa, 1856 31
 ruficeps Smith, 1855, Mutilla 29, 107
 ruficeps Smith, 1856, Mutilla 29, 200
 ruficrus (Magretti, 1892), Trogaspidia 100, 206
 rufipes Fabricius, 1787, Mutilla 56
rufitarsis (Smith, 1879), Nemka 47
 rufiventris Klug, 1821, Mutilla 29
rufiventris Smith, 1855, Mutilla 28, 29
 rufocarinata Hammer, 1962, Trogaspidia 100
 rufodorsata Cameron, 1897, Mutilla 35, 36, 170
 rufogastra (Lepelletier, 1845), Timulla 86, 207
 rufogastra Lepelletier, 1845, Mutilla 207
rufogastra: Smith, 1855, Mutilla 86
 rugosa (Olivier, 1811), Dasylabris 110, 111, 206
 rugosa Olivier, 1811, Mutilla 10
 runcina (Zavattari, 1913), Sinotilla 55
 rutilipes (Hammer, 1962), Krombeinidia 67, 202
- S**
- sabellica (Cameron, 1900), Trogaspidia 100, 206
 saepes (Chen, 1957), Zeugomutilla 38, 135*
 saffica (Zavattari, 1913), Bischoffitilla 28
 salacia Mickel, 1935, Smicromyrme dardanus 58
 samawangensis (Mickel, 1935), Promecidia saturnia 81, 196, 203
 sandakanensis (Mickel, 1935), Trogaspidia castellana 90
 sarawaka (Mickel, 1935), Trogaspidia 101, 206
 sarawakensis Lelej, 1996, Andreimyrme 38, 141*
sardiniensis Costa, 1885, Pseudomutilla 31
 saturnia (Mickel, 1935), Promecidia 81
 saturnia (Mickel, 1935), Promecidia saturnia 81, 196, 203
 saussurei Lelej, nom. n., Trogaspidia 101, 201
 saussurei Sichel et Radoszkowski, 1870, Mutilla 114
 sauteri (Zavattari, 1913), Bischoffitilla 29
 sauteri (Zavattari, 1913), Bischoffitilla sauteri 29
 scaphella (Chen, 1957), Petersenidia 70, 72

- scapus (Mickel, 1937), Trogaspidia 101, 206
Sceliphron Klug, 1801 52, 68
Sceliphron sp. 52
 sceva (Cameron, 1904), Pagdenidia 70
schlettereri Magretti, 1892, Promecidia 80
schmideggeri Lelej, nom. n., *Orientilla* 112, 201
scitula Mickel, 1935, *Smicromyrme* 63
Scolia Fabricius, 1775 90
Scolia sp. 90
Scoliidae 90
scrobiculata (Hammer, 1962), *Kurzenkotilla* 35, 171, 202
scutellaris (Gribodo, 1893), *Scolia* 90
segregata Crawford, 1910, *Tiphia* 90
sejugoides (Magretti, 1892), *Orientilla* 112, 202
selangorensis (Pagden, 1934), *Bischoffitilla* 29
selene (Pagden, 1949), *Pagdenidia* 70
selma (Cameron, 1899), *Trogaspidia* 101, 206
semiaurata Smith, 1855, *Mutilla* 119
semifasciata (André, 1896), *Odontomutilla* 116
semifasciata (André), *Odontomutilla* familiaris 116
semistriata Klug, 1829, *Mutilla* 113
semiviolacea André, 1896, *Mutilla* 34, 36, 170
semperi (Ashmead, 1904), *Mickelomyrme* 44
semperi (Ashmead, 1904), *Mickelomyrme* *semperi* 45
septemguttata Megerle, 1803, *Mutilla* 120
serafica (Zavattari, 1913), *Neotrogaspidia* 79, 80, 202
serena Cameron, 1900, *Mutilla* 89, 201
serena Gerstaeker, 1874, *Mutilla* 89
Serendibiella Lelej, gen. n. 15, **86**, 150, 155, **197**, 200
serpa (Zavattari, 1913), *Sinotilla* 55, 203
serpa (Zavattari, 1913), *Smicromyrme* *coeruleotincta* *Sinotilla* 56
serratula (Cameron, 1892), *Bischoffitilla* 29
sexguttata Megerle, 1803, *Mutilla* 120
sexmaculata Hammer, 1962, *Smicromyrme* 63, 187
sexmaculata Swederus, 1787, *Mutilla* 10, 85
sexmaculatus (Swederus, 1787), *Radoszkowskii* 82, 85, 103, 104, 203
shelfordi (Mickel, 1935), *Trogaspidia* 101, 206
sibuyanensis (Mickel, 1934), *Orientidia* *proserpina* 69
sibylla (Smith, 1857), *Trogaspidia* 101
sibylla (Smith, 1857), *Trogaspidia* *sibylla* 101
sibylla Smith, 1857, *Mutilla* 101, 102
sikkimensis André, 1904, *Odontomutilla* 116
similis Hammer, 1962, *Trogaspidia* 102
simplicata (Cameron, 1898), *Trogaspidia* 95
simplicata Cameron, 1898, *Mutilla* 207
simplicifascia (Sichel et Radoszkowski, 1870), *Radoszkowskii* 84
simplicifascia Sichel et Radoszkowski, 1870, *Mutilla* 82, 207
simulans Hammer, 1962, *Trogaspidia* 102
sinensis (Smith, 1855), *Odontomutilla* 116
singapore Mickel, 1935, *Timulla* *philippinensis* 85
singaporus (Mickel, 1935), *Radoszkowskii* 85
sinhala Lelej, sp. n., *Radoszkowskitilla* 76, 188, **191**, 192, 193, 200
Sinotilla Lelej, 1995 15, **54**, 140, 149
skeati (Cameron, 1901), *Radoszkowskii* 84
Smicromyrme Thomson, 1870 11, 15, 39, 42, 45, 49, **56**, 76, 77, 143, 149, 173, 187
Smicromyrmilla Suárez, 1965 34, 122, 127
Smicromyrmillini Argaman, 1988 14, **22**, 127
Smicromyrmina 174
Smicromyrmini Bischoff, 1920 9, 15, 18, 19, **38**, 134, 140*-148*, 174, 183
smithi Lelej, nom. n., *Bischoffitilla* 28, 29, 200
smithi Mickel, 1935, *Odontomutilla* 116
sohmi (Cockerell, 1928), *Cockerellidia* 106, 157*
sohmi Cockerell, 1928, *Mutilla* 106
sonata (Nurse, 1902), *Smicromyrme* 63, 204
sondaica (Pagden, 1949), *Pagdenidia* 70
soror (Saussure, 1867), *Trogaspidia* 102, 206, 207

- sparsilis Mickel, 1934, *Smicromyrme* ilderda 61
- spatula (Mickel, 1935), *Petersenidia* 72, 203
- speciosa (Smith, 1855), *Odontomutilla* 114, 117
- spectra (Bingham, 1908), *Odontomutilla* 117, 202
- Sphaerophthalmini* Ashmead, 1903 106
- Sphaerophthalminae** Ashmead, 1903 5, 9, 16, 18, 19, **106**, 121-123, 156, 157*, 182*
- Sphaerophthalmini** Ashmead, 1903 9, 16, 19, **107**, 158
- Sphexidae** 52, 68
- Sphex** Linnaeus, 1758 12
- Spilomutilla** Ashmead, 1903 11, 14, **32**, 122, 130, 163, **166**, 169
- spinicauda Chen, 1957, *Smicromyrme* 64
- Spinulomutilla** Nonveiller, 1994 150, 151, 155, 196
- spinulosa (André, 1898), *Pristomutilla* 36, 203
- spiracularis (Chen, 1957), *Petersenidia* 72
- spiracularis (Chen, 1957), *Petersenidia* spiracularis 72
- Squamulotilla* auct. 23
- Squamulotilla** Bischoff, 1920 11
- sri Lelej, sp. n., *Spilomutilla* 33, 131*, **167**, 168-170, 200
- srilankiensis Lelej et Krombein, 2001, *Eosmicromyrmilla* 22, 125*, 126*, 128*, 163
- Standfussidia** Lelej, gen. n. 16, **107**, 156, 159, **197**, 198, 200
- stella (Zavattari, 1913), *Petersenidia* 72, 203
- Stenomutilla** André, 1896 11, 68, 122
- stephani* (Magretti, 1892), *Pagdenidia* 70
- sticticornis (Mickel, 1934), *Petersenidia* 72, 203
- sticticornis (Mickel, 1934), *Petersenidia* sticticornis 72
- Storozhenkotilla** Lelej, gen. n. 15, **37**, 138, 139, 171, **176**, 177, 200
- strandi (Zavattari, 1913), *Smicromyrme* 64
- strangulata (Smith, 1879), *Bischoffitilla* 29, 129*
- Strangulotilla** Nonveiller, 1978 15, 34, **37**, 138, 174, 177
- stulta (Cameron, 1898), ? *Nemka* 48
- subanalis (Magretti, 1892), ? *Petersenidia* 75
- subdebilis (Mickel, 1934), *Bischoffitilla* 29
- subfossata (Chen, 1957), *Krombeinidia* 67
- subglabra (André, 1894), *Promecilla* 53, 203
- subinterrupta Zavattari, 1910, *Odontomutilla* 117
- subintrans (Sichel et Radoszkowski, 1870), *Trogaspidia* 67, 102
- subintrans Sichel et Radoszkowski, 1870, *Mutilla* 100, 102
- subparallela (Chen, 1957), *Sinotilla* 56
- substituta (André, 1896), *Smicromyrme* 64, 204
- substriolata (Chen, 1957), *Andreimyrme* 38
- subtriangularis (Mickel, 1934), *Bischoffitilla* 29
- subzonalis Chen, 1957, *Trogaspidia* 103
- Sudila** Cameron, 1898 23
- sulpicilla (Mickel, 1934), *Bischoffitilla* 29
- sumatrensis (André, 1896), *Petersenidia* 73, 203
- sumbana Pagden, 1949, *Timulla philippinensis* 85
- sumbanus (Pagden, 1949), *Radoszkowskius* 85
- sumbawae (Zavattari, 1913), *Eurymutilla* 108, 201
- sunda* (Mickel, 1935), *Radoszkowskius* 83
- suspecta André, 1902, *Mutilla* 110
- suspecta* Nurse, 1903, *Mutilla* 110
- suspiciosa* (Smith, 1857), *Trogaspidia* 101
- suspiciosa* Smith, 1857, *Mutilla* 101

T

- taihorina* (Mickel, 1933), *Trogaspidia* 100
- Taimyrmosa** Lelej, gen. n. 14, **20**, 123, **161**, 162, 200
- taiwana (Tsuneki, 1993), *Taiwanomyrme* 76
- taiwana Tsuneki, 1993, *Smicromyrme* 76
- taiwanensis (Mickel, 1933), *Nemka* 47
- taiwaniana (Zavattari, 1913), *Yamanetilla* 118
- Taiwanomyrme** Tsuneki, 1993 15, **76**, 150, 154, 188, 196
- takasago Tsuneki, 1972, *Trogaspidia* 103
- tamensis (Cameron, 1906), *Odontomutilla* 117

- tamila Lelej, sp. n., Radoszkowskitilla 76, 150*, 188, **189**, 190, 192, 200
- tanoi (Tsuneki, 1972), Mickelomyrme 45
- taprobanae* (Cameron, 1892), Nemka 47
- taprobane Lelej, sp. n., Standfussidia 107, 182*, 197, **198**, 199, 200
- tau (Dalla Torre, 1897), Promecilla 53, 203
- tausignata (Chen, 1957), Orientilla 113
- tayabasensis (Mickel, 1934), Trogaspidia castellana 90
- taylori (André, 1894), Bischoffitilla 30, 201
- teglaria (Mickel, 1934), Trogaspidia 103
- temeraria (Mickel, 1934), Petersenidia 73, 203
- tenasserimica (Magretti, 1892), Smicromyrme 64, 204
- tethys (Mickel, 1934), Trogaspidia 103
- tethys (Mickel, 1934), Trogaspidia tethys 103
- tetraops (Sichel et Radoszkowski, 1870), Trogaspidia 103, 104, 206
- teuta (Mickel, 1934), Bischoffitilla 30
- teuta (Mickel, 1934), Bischoffitilla teuta 30
- thai Lelej, 1995, Phytetopoda 51, 148*
- thalia (Mickel, 1933), Ephucilla 41, 201
- tharensis Lelej, 1995, Tricholabiodes 113, 159*
- thera (Smith, 1863), Eurymutilla 109, 201
- thermophila (Turner, 1911), Nordeniella 49, 182*, 185, 186, 202
- thermophila Turner, 1911, Mutilla 48, 185, 200
- thia Mickel, 1933, Smicromyrme 64
- thoracica (Smith, 1860), Petersenidia 73, 203
- thoracosulcata (Magretti, 1905), Strangulotilla 179
- thoracosulcata Magretti, 1905, Mutilla 37, 177
- thymele Mickel, 1935, Odontomutilla 117
- tibiata (Mickel, 1934), Orientidia proserpina 69
- Ticopliinae** Nagy, 1970 9, 14, 18, 19, **22**, 121, 122, 125*, 126*, 127, 128*
- timorensis (O'Toole, 1975), Radoszkowskii 85
- Timulla** Ashmead, 1899 11, **86**
- Timulla* auct. 87
- Timullini* Schuster, 1947 77
- Tiphia** Fabricius, 1775 90
- Tiphiidae** 90, 120
- tirhootensis (Cameron, 1900), ? Petersenidia 75
- tiza (Cameron, 1904), Trogaspidia 104, 206
- tokunosimana* Tsuneki, 1973, Smicromyrme fukudai 71
- tokunosimana* Tsuneki, 1973, Trogaspidia fukudai 70
- tornatorei (Magretti, 1892), ? Petersenidia 75
- Traumatomutilla** André, 1901 10, **109**
- trebia (Cameron, 1904), Krombeinidia 67, 202
- tricarinata (Zavattari, 1907), Trogaspidia 104, 206
- trichocondyla (André, 1894), Odontomutilla 117
- Tricholabiodes** Radoszkowski, 1885 16, **113**, 160
- tridentiens (Chen, 1957), Andreimyrme 38, 141*
- tridepressa Tsuneki, 1993, Trogaspidia 104
- tridungulata (Magretti, 1892), Trogaspidia 104, 206
- trifida (Chen, 1957), Bischoffitilla 30
- triguttata Mickel, 1933, Smicromyrme 64
- triguttata Mickel, 1933, Smicromyrme triguttata 64
- trimaculata* Cameron, 1892, Mutilla 53
- trimaculata Hammer, 1962, Odontomutilla familiaris 115
- trimaculata Lepeletier, 1845, Mutilla 53
- trisecta Chen, 1957, Smicromyrme 64
- Trispilotilla** Bischoff, 1920 15, **86**, 152, 154
- trituberculata (Mickel, 1933), Bischoffitilla 30
- Trogaspidia** Ashmead, 1899 10, 11, 15, 42, **87**, 134, 152, 156
- Trogaspidia** subg. 11
- Trogaspidiini** Bischoff, 1920 9, 15, 18, 19, 42, **77**, 134, 150, 154, 155*, 193
- truncomalica* Radoszkowski, 1885, Mutilla 86
- trunconomalica (Radoszkowski, 1885), Serendibiella 86, 197, 203

- trunconomalica* (Radoszkowski, 1885), *Trogaspidia* 197
trunconomalica Radoszkowski, 1885, *Mutilla* 86, 197, 200
Tsunekimyrm Lelej, 1995 15, **65**, 141*, 146
tuberosterna (Chen, 1957), *Bischoffitilla* 30
tulagiensis (Mickel, 1935), *Trogaspidia* *oceanica* 98, 205
tumidula (Mickel, 1933), *Bischoffitilla* 30
turcestanica (Dalla Torre, 1897), *Ephutomma* 41
turneri Lelej, nom. n., *Karlissaidia* 79, 193, 195, 200
- U**
- umbra* (Mickel, 1934), *Trogaspidia* *eremita* 92, 205
umbrosa (Mickel, 1934), *Bischoffitilla* 30
undata (Chen, 1957), *Ephucilla* 41
unifasciata (Smith, 1855), *Krombeinidia* 67, 202
unimaculata Lucas, 1846, *Mutilla* 116
unimaculata Smith, 1857, *Mutilla* 116, 200
urania (Smith, 1857), *Odontomutilla* 115, 117
uranioides Mickel, 1933, *Odontomutilla* 117
- V**
- valida* Cameron, 1897, *Mutilla* 35, 200
valida Smith, 1855, *Mutilla* 35
vallicola Tsuneki, 1993, *Trogaspidia* 104
variegata (Smith, 1855), *Orientilla* 112
vaticinia (Chen, 1957), *Physetopoda* 50
veda (Cameron, 1892), *Bischoffitilla* 30, 201
venatrix (Mickel, 1935), *Bischoffitilla* 31
versicolor (Hammer, 1962), *Krombeinidia* 67, 202
Vespidae 41, 53
vesta Cresson, 1865, *Mutilla* 112
vesta Nurse, 1904, *Mutilla* 112, 201
vicina Sichel et Radoszkowski, 1870, *Mutilla* 85
vicinaria (Mickel, 1934), *Bischoffitilla* *teuta* 30
vicinissima (Gribodo, 1884), *Krombeinidia* 67, 202
- vicinus* (Sichel et Radoszkowski, 1870), *Radoszkowskii* 85
viduata (Pallas, 1773), *Nemka* *viduata* 48
viduata Pallas, 1773, *Mutilla* 45
viet (Lelej, 1995), *Ephucilla* 41, 146*, 201
vietnamica Lelej, 1979, *Orientilla* 111, 113
villosa (Fabricius, 1775), *Trogaspidia* 104, 194, 207
villosa Fabricius, 1775, *Sphex* 10, 12, 104
vincula (Nurse, 1903), ? *Mickelomyrme* 45
vinuta (Nagy, 1972), *Promecilla* 53, 203
violenta (Cameron, 1900), *Trogaspidia* 105
violenta Cameron, 1900, *Mutilla* 207
virriata (Mickel, 1934), ? *Andreimyrm* 39
virriata (Mickel, 1934), ? *Andreimyrm* *virriata* 39
visayensis (Mickel, 1934), *Trogaspidia* *castellana* 90
visrara (Cameron, 1898), *Kurzenkotilla* 35, 171, 202
volatilis (Smith, 1858), *Protrogaspidia* 82, 155*
volatilis Smith, 1858, *Mutilla* 81
volupia (Mickel, 1935), ? *Andreimyrm* 39
- W**
- wallacei* (Cockerell, 1907), *Trogaspidia* 87
whiteheadi (Mickel, 1934), *Trogaspidia* *castellana* 90
wickwari (Turner, 1911), *Nordeniella* 49, 185, 202
willeyi (Wickwar, 1908), *Dasylabris* 110, 111
willeyi Wickwar, 1908, *Mutilla* 206
williamsi (Mickel, 1934), *Radoszkowskii* 85
wotani (Zavattari, 1913), *Nemka* 48, 142*
wroughtoni (Cameron, 1892), *Trogaspidia* 105, 206
- Y**
- yakushimensis* (Yasumatsu, 1934), *Sinotilla* 56, 203
yamanei Lelej, 1996, *Promecidia* 80, 81, 153*, 195, 196
Yamanetilla Lelej, 1996 16, **117**, 160

- yasumatsui* (Mickel, 1936), Nemka 48
yerburghi (Cameron, 1892), Promecilla 53,
 54, 203
yerburghi Cameron, 1892, Mutilla 54
yerburghii Dalla Torre, 1897, Mutilla 54
yerburgi Cameron, 1892, Mutilla 54
yerburyi Bingham, 1897, Mutilla 54
ypsilon Chen, 1957, Dasylabris 110
yuliana (Tsuneki, 1972), Ephucilla 41, 201
yuliensis Tsuneki, 1972, Trogaspidia 105
yunnanensis Lelej, 1996, Mickelomyrme 45,
 143*, 144*
- Z**
- zamboangae* (Tsuneki, 1993), Mickelo-
 myrme aborlana 43, 202
zarudnyi Skorikov, 1927, Myrmilla 31
zarudnyi Skorikov, 1935, Pseudophotopsis
 komarovii 21
Zavatilla Tsuneki, 1993 15, 77, 151, 154
zavattarii Invrea, 1932, Smicromyrme 55
zavattarii Mickel, 1935, Smicromyrme 55
zebina (Smith, 1860), Mickelomyrme 43, 45
Zeugomutilla Chen, 1957 15, 37, 136, 138,
 174
zodiaca (Cameron, 1899), Trogaspidia 105,
 206

CONTENTS

Предисловие	5
Preface	6
Introduction	9
Catalogue of Oriental Mutillidae	20
Family Mutillidae Latreille, 1802	20
I. Subfamily Myrmosinae Fox, 1894	20
II. Subfamily Kudakrumiinae Krombein, 1979	20
III. Subfamily Pseudophotopsidinae Bischoff, 1920	21
IV. Subfamily Ticoplinae Nagy, 1970	22
Tribe Smicromyrmillini Argaman, 1988	22
V. Subfamily Myrmillinae Bischoff, 1920	23
VI. Subfamily Mutillinae Latreille, 1802	34
Tribe Mutillini Latreille, 1802	34
Tribe Smicromyrmini Bischoff, 1920	38
Tribe Peterseniini Lelej, 1996	65
Tribe Trogaspidiini Bischoff, 1920	77
VII. Subfamily Rhopalomutillinae Schuster, 1949	105
VIII. Subfamily Sphaerophthalminae Ashmead, 1903	106
Tribe Pseudomethocini Schuster, 1947	106
Tribe Sphaerophthalmini Ashmead, 1903	107
IX. Subfamily Dasylabrinae Invrea, 1964	109
X. Subfamily Ephutinae Ashmead, 1903	113
Tribe Odontomutillini Lelej, 1983	113
X. Mutillidae incertae sedis	118
Appendix	121
Key to the Oriental subfamilies, tribes and genera	121
Key to the subfamilies	121
Key to the tribes and genera	123
Descriptions of genera and species	161
Summary	200
References	208
Index of Latin names	231

Научное издание

Аркадий Степанович ЛЕЛЕЙ

КАТАЛОГ ОС-НЕМОК (HYMENOPTERA, MUTILLIDAE)
ОРИЕНТАЛЬНОЙ ОБЛАСТИ

Утверждено к печати Биолого–почвенным институтом
Дальневосточного отделения
Российской Академии Наук

Оператор верстки *А.С. Лелей*
Художник *Г.П. Писарева*

Отпечатано с оригинал-макета, изготовленного
в Биолого–почвенном институте ДВО РАН,
минуя редподготовку

Изд. лиц. ИД № 05497 от 01.08.2001 г. Подписано к печати 30.12.2004 г.
Формат 60x90/16. Печать офсетная Усл.п.л. 15,75. Уч.-изд.л. 15,64
Тираж 300 экз. Заказ 142

Отпечатано в типографии ФГУП Издательство «Дальнаука» ДВО РАН
690041, г. Владивосток, ул. Радио, 7