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# Plant Families: Visual Guide

Alexey Shipunov

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*Draft*

Shipunov, Alexey. *Visual aid to Plant Families*. This book helps to learn plant families.  
March 26, 2022 version (draft). 228 pp.

*On the cover: Haptanthus hazlettii* (Buxaceae, boxwood family) from Atlantida province, Honduras.

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# Foreword

*How to know plant families?* Famous American botanist Amos Eaton (Manual of Botany for North America, 1833) wrote about plant families: “The Natural Method should engage the attention of the student, after he has become acquainted with about 400 species of plants...”. Learning 400 species is not easy. This is exactly what this book wants to help with.

*Why to learn plant families?* If the goal is to know plants, plant families are extremely important. There are roughly 300,000 species of plants but only several hundred families. Consequently, the knowledge of families will greatly simplify the plant identification. Families are also *natural units* of plant diversity. This means that if the family is known, it is possible to guess correctly the unknown features of any plant.

*Which families are here?* Only those families which are important worldwide. Most frequent families come first.

*What is not covered?* Many small families of flowering plants, and (at the moment) most of spore plants and gymnosperms.

*How to learn with this book?* The best way is just go through photographs of one family and try to understand what all of them have in common. Then check the description to compare. Next, compare with neighbor families and understand how they are actually different. Then open the “mixture” page and guess the family—answer is provided on the next page.

There are actually **three books**, not one. Each of them have the same structure but different set and arrangement of photographs. You can use all three to make learning even more effective!

There are also “hidden exercises”: sometimes, I place 1–2 alien photographs among the proper ones; you may want to find them.

This work is under development, therefore please check for the updates. Version date is located on the on most pages.

# Chapter 1

## Three which conquered the Earth

### 1.1 Compositae























## 1.2 Leguminosae



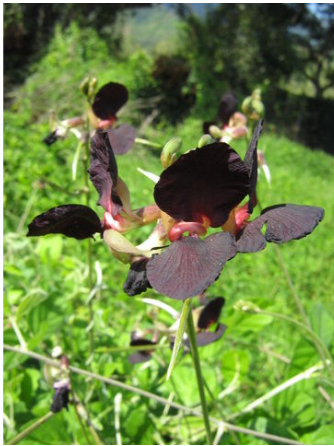
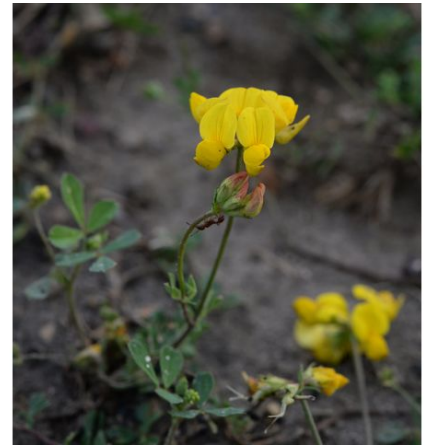






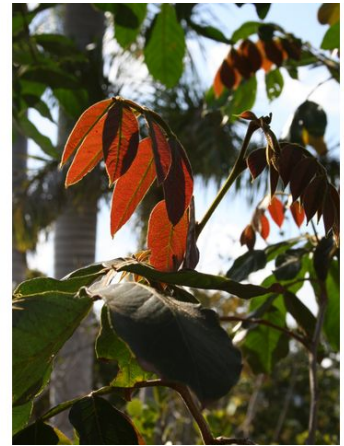








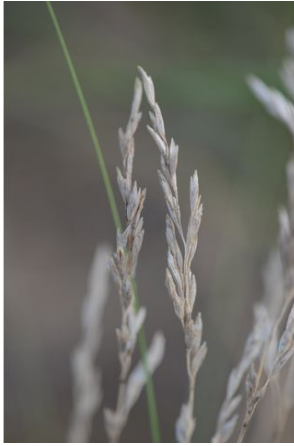






## 1.3 Gramineae and other graminoids

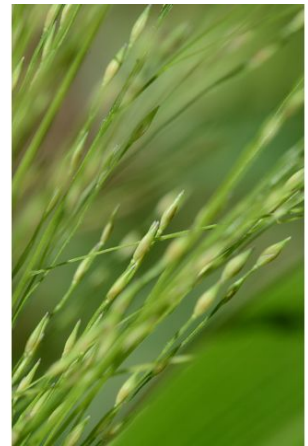
### 1.3.1 Gramineae





















### 1.3.2 Cyperaceae























### 1.3.3 Juncaceae

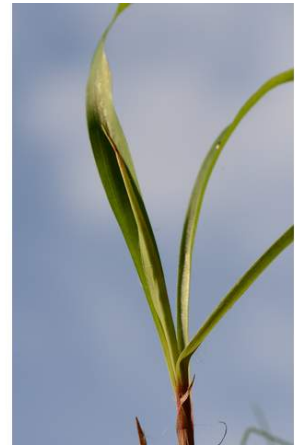




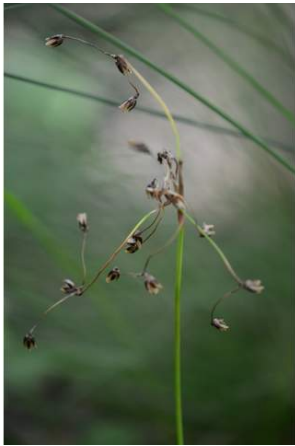








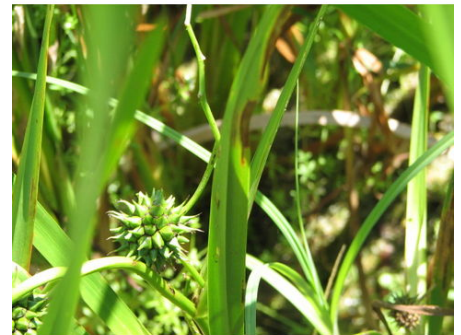




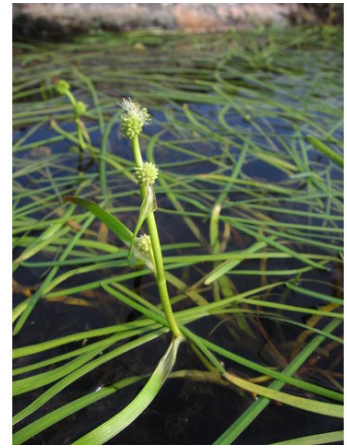




### 1.3.4 Typhaceae











# 1.4 Mixtures

## 1.4.1 Compositae, Leguminosae, Gramineae





Gramineae	Compositae	Compositae
Compositae	Compositae	Compositae
Compositae	Compositae	Compositae

### 1.4.2 Gramineae, Cyperaceae, Juncaceae, Typhaceae





Gramineae	Gramineae	Gramineae
Juncaceae	Gramineae	Cyperaceae
Gramineae	Cyperaceae	Cyperaceae

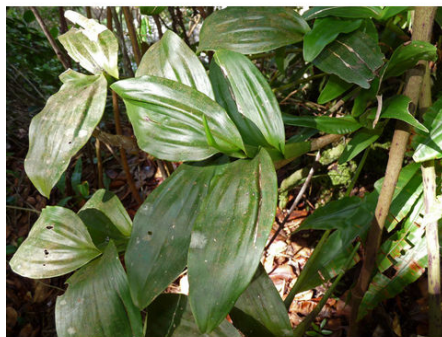
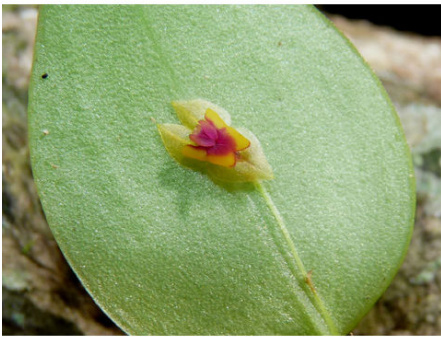
# Chapter 2

## Magnificent Seven

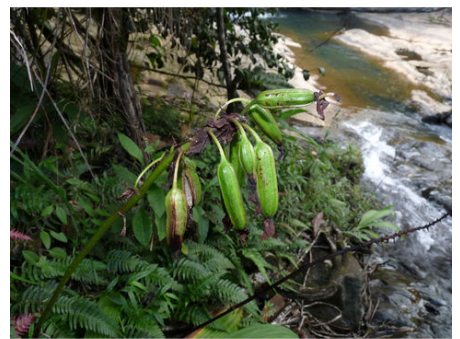
### 2.1 Orchidaceae







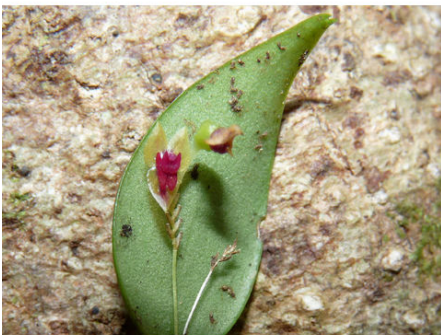
















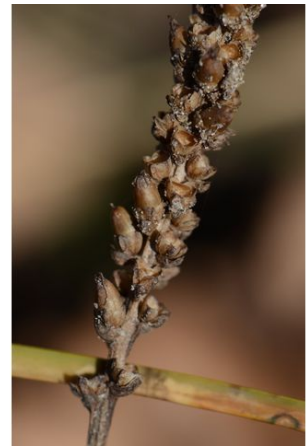
## 2.2 Labiatae, in a really broad sense



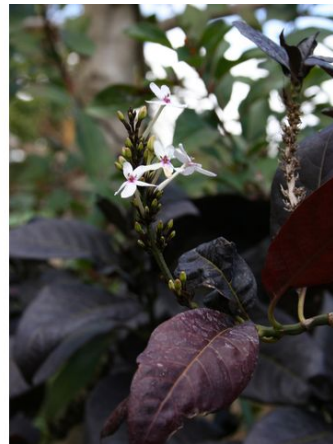
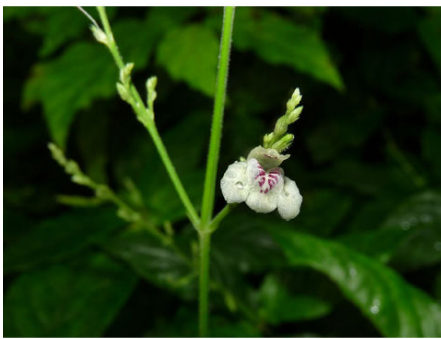












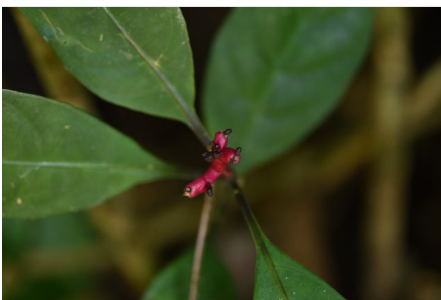








## 2.3 Rubiaceae



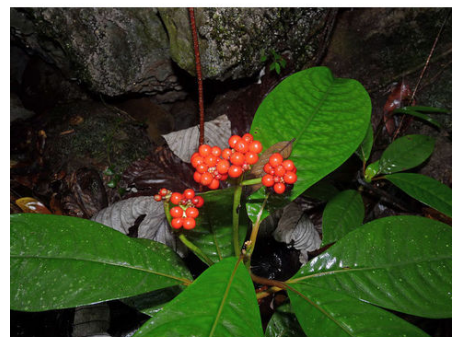
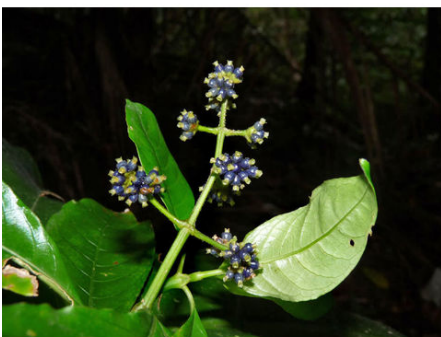
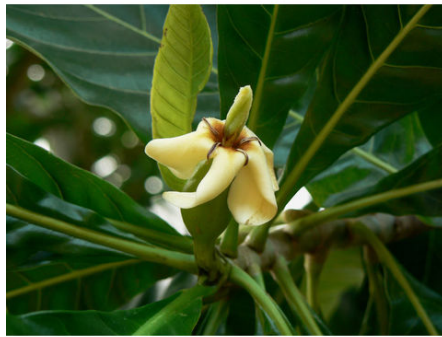












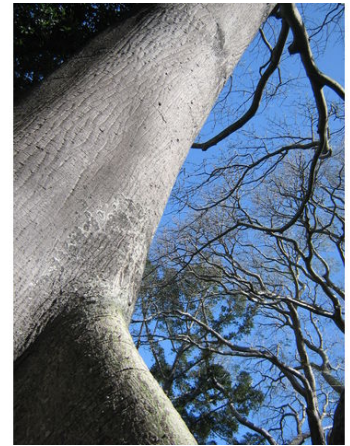
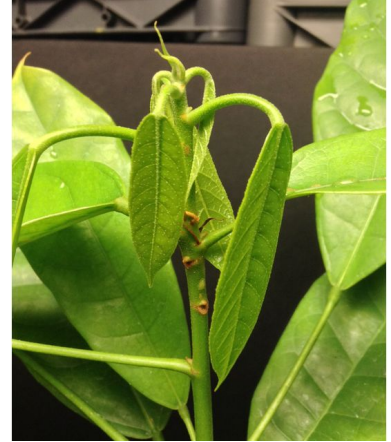




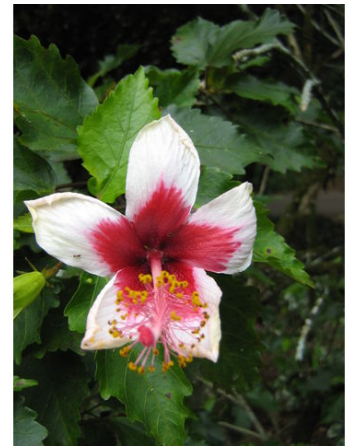




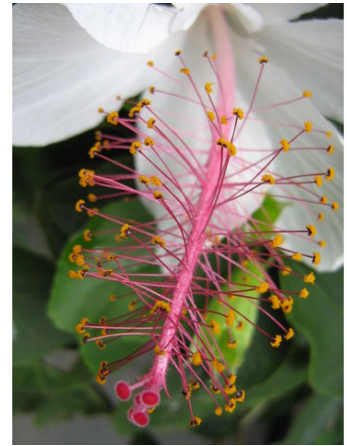
## 2.4 Malvaceae















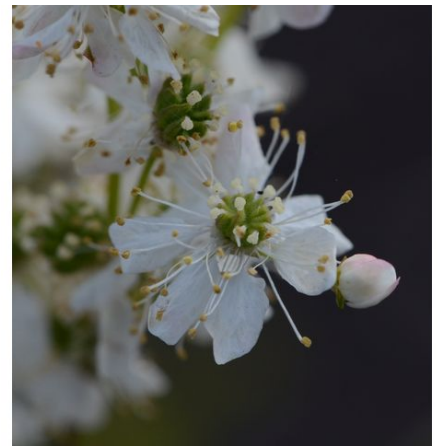








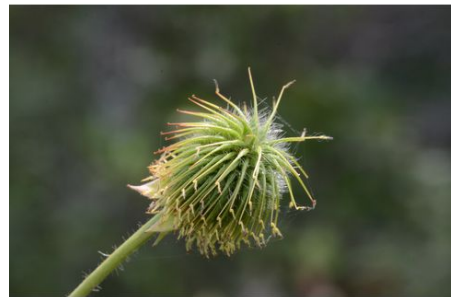
## 2.5 Rosaceae



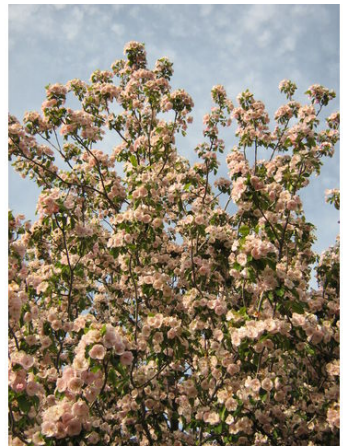




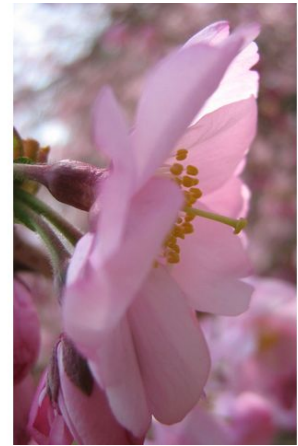
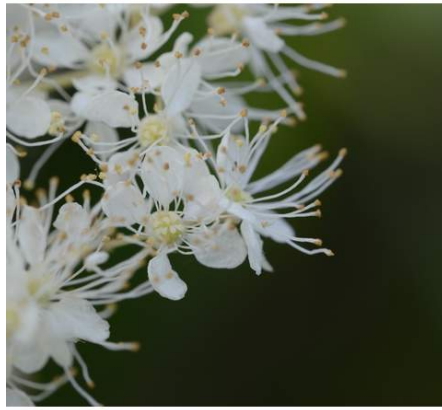
















## 2.6 Umbelliferae









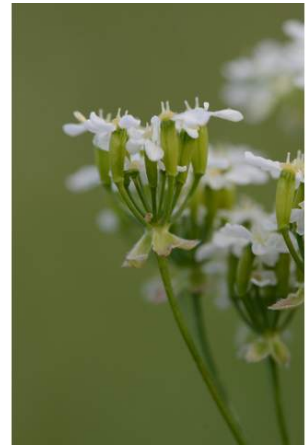








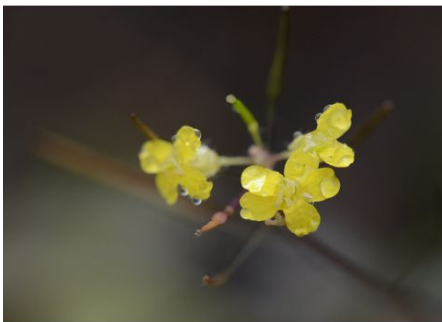




## 2.7 Cruciferae



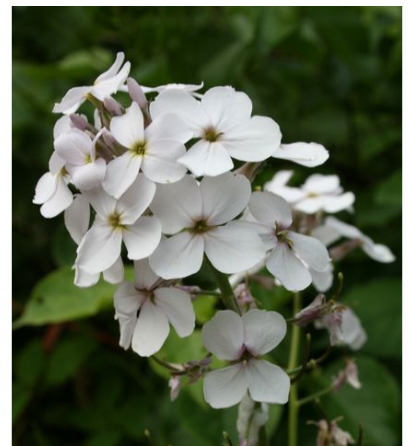












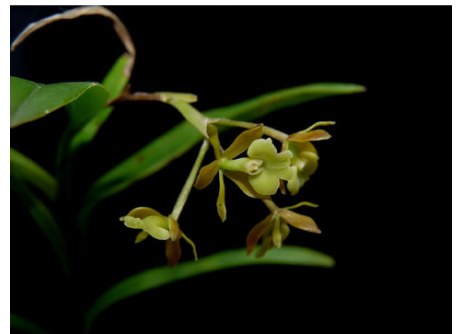






## 2.8 Mixtures

### 2.8.1 Orchidaceae, Labiatae, Rubiaceae





Labiatae	Labiatae	Rubiaceae
Labiatae	Orchidaceae	Labiatae
Labiatae	Orchidaceae	Orchidaceae

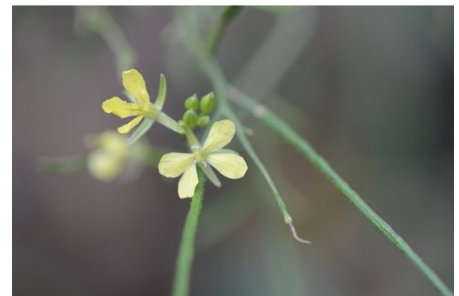
### 2.8.2 Malvaceae, Rosaceae, Umbelliferae, Cruciferae





Rosaceae	Cruciferae	Cruciferae
Cruciferae	Malvaceae	Rosaceae
Malvaceae	Rosaceae	Rosaceae

### 2.8.3 Orchidaceae, Labiatae, Rubiaceae, Malvaceae, Rosaceae, Umbelliferae, Cruciferae





Labiatae	Malvaceae	Rosaceae
Rubiaceae	Labiatae	Cruciferae
Cruciferae	Rubiaceae	Labiatae

**2.8.4 Compositae, Leguminosae, Gramineae, Cyperaceae, Juncaceae, Typhaceae, Orchidaceae, Labiatae, Rubiaceae, Malvaceae, Rosaceae, Umbelliferae, Cruciferae**



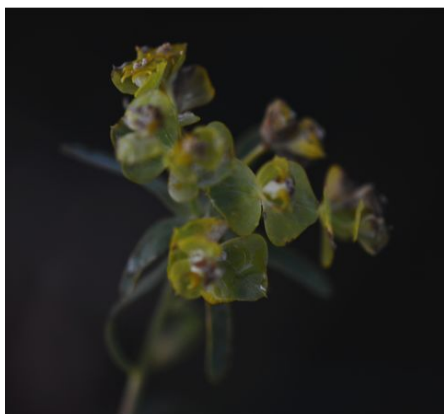


Cyperaceae	Malvaceae	Compositae
Malvaceae	Rosaceae	Cruciferae
Compositae	Rosaceae	Leguminosae

# Chapter 3

## Twelve Good

### 3.1 Euphorbiaceae and allies







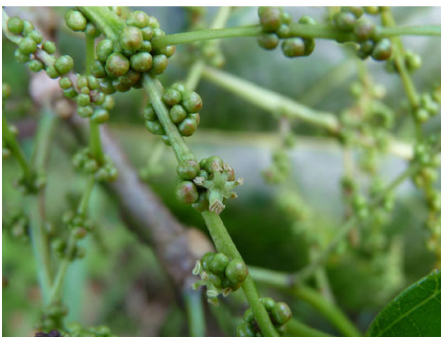
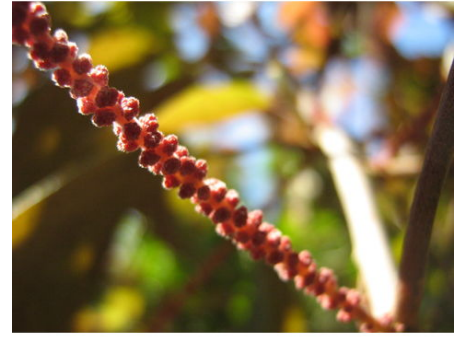












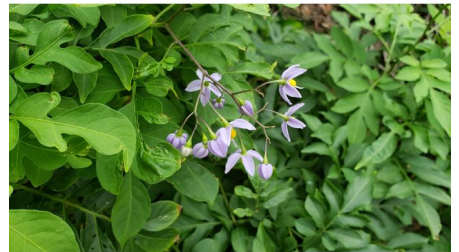




### 3.2 Solanaceae







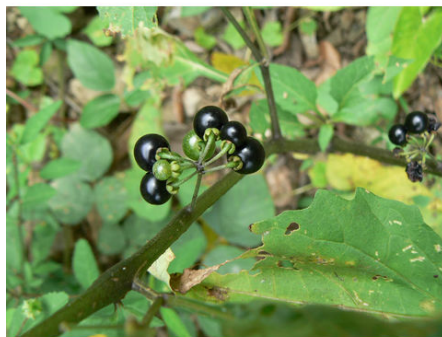
















### 3.3 Amaranthaceae



















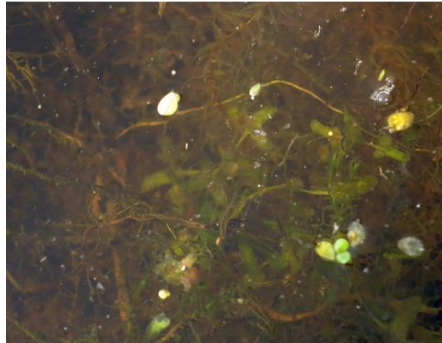
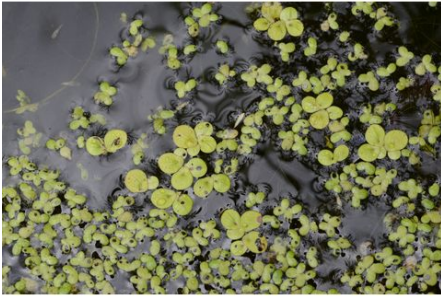




### 3.4 Araceae



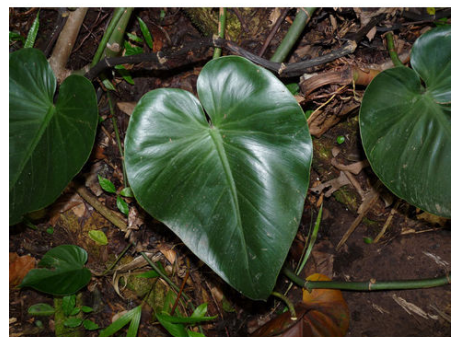












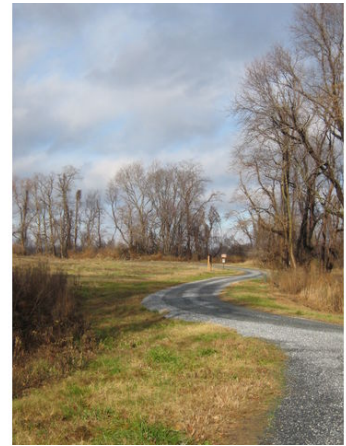
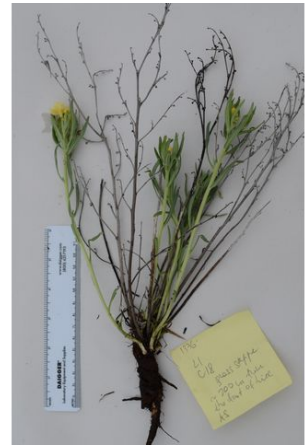




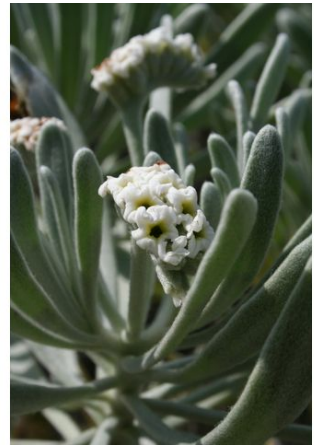




### 3.5 Boraginaceae



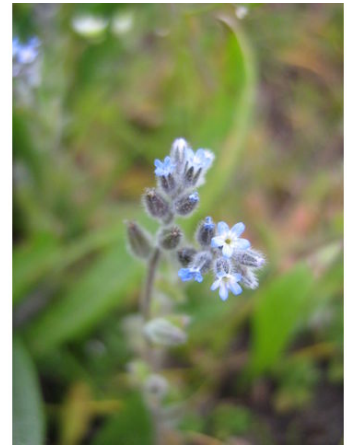




















### 3.6 Cucurbitaceae







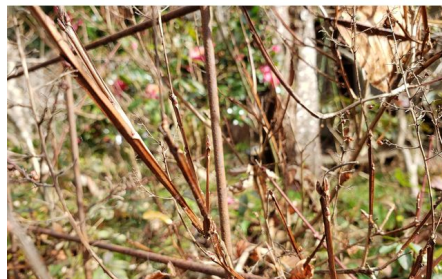
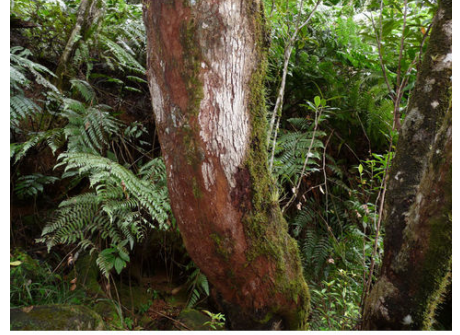
### 3.7 Ericaceae























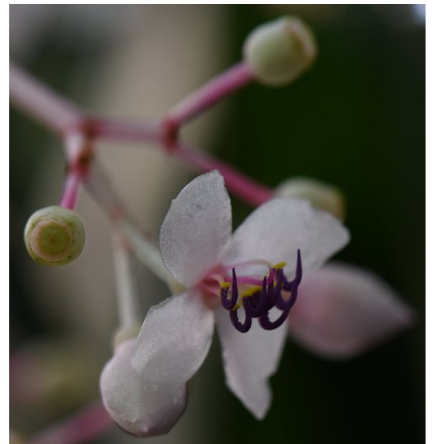
### 3.8 Melastomataceae



















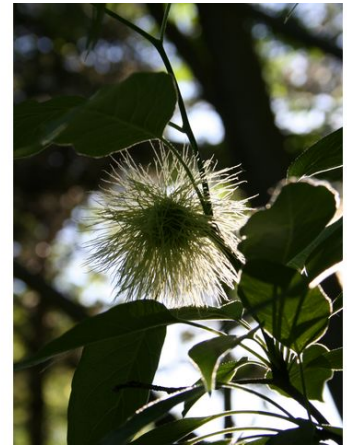




### 3.9 Moraceae



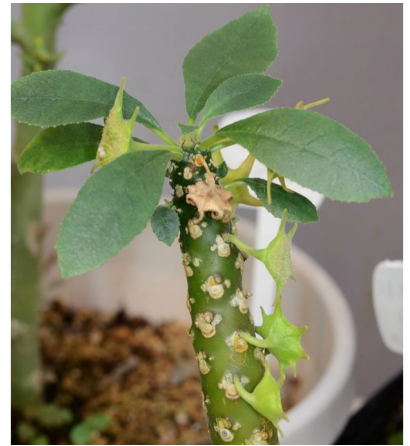
















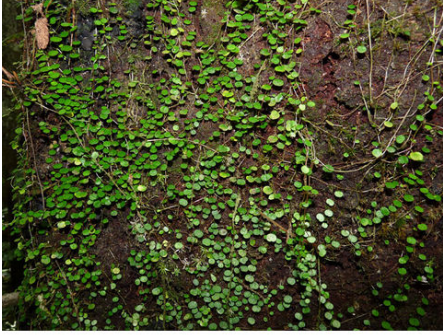




### 3.10 Piperaceae

























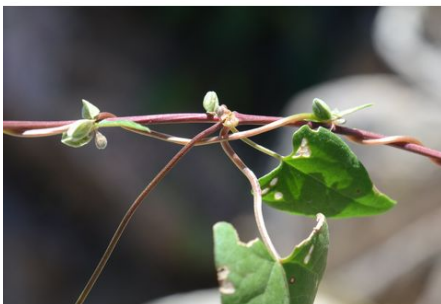
### 3.11 Polygonaceae

























### 3.12 Ranunculaceae



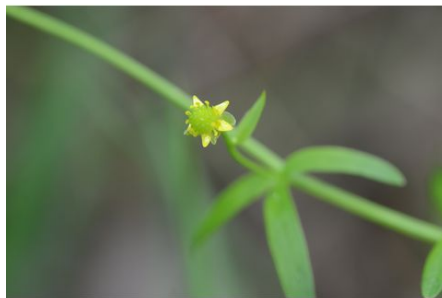


















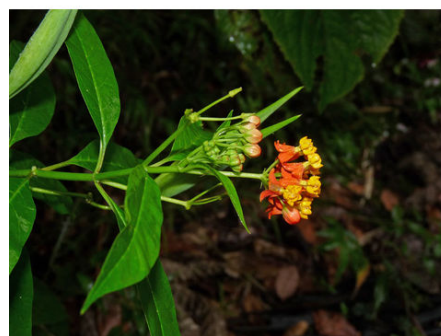
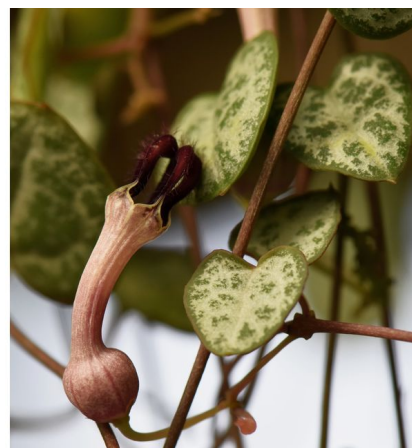
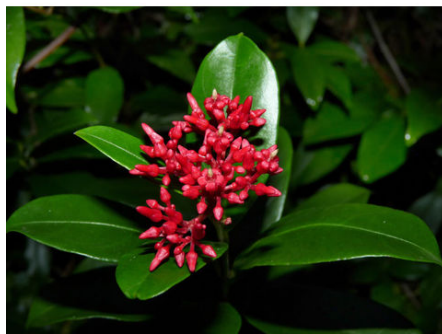




# Chapter 4

## And some more, great and small

### 4.1 Apocynaceae







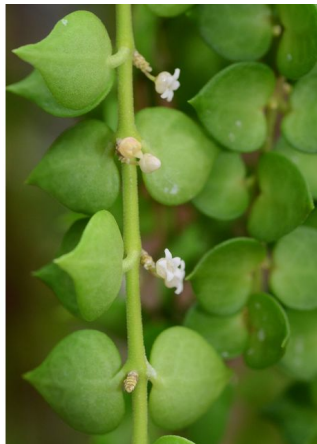










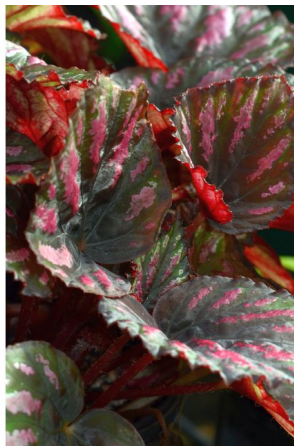




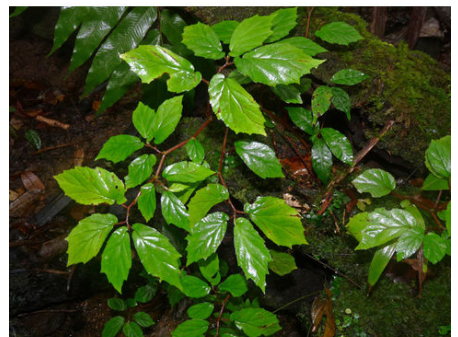
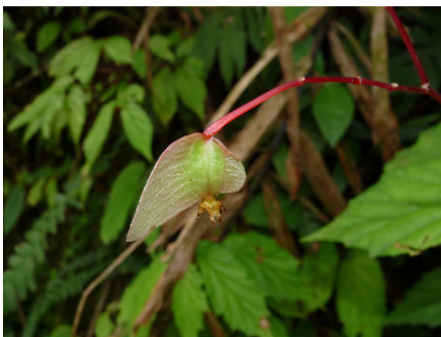




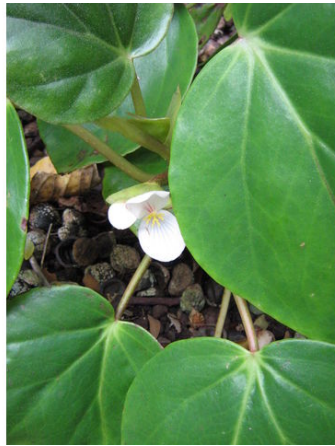
## 4.2 Begoniaceae





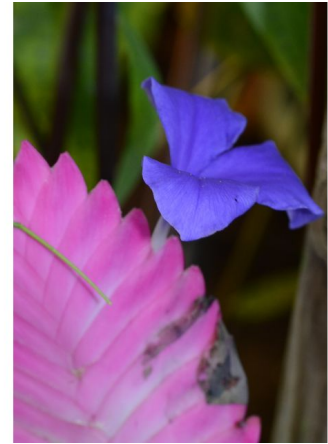




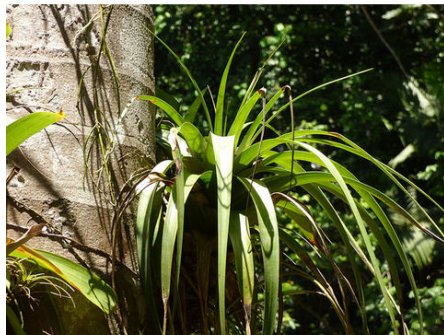




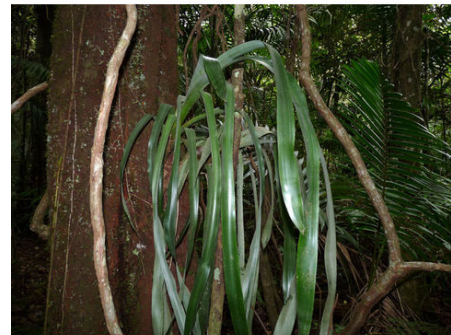
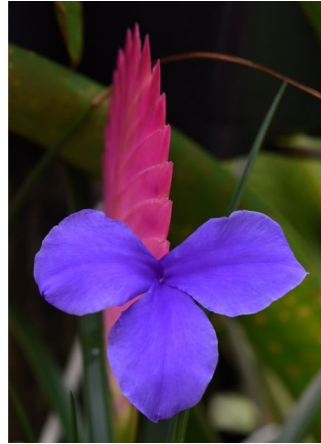
### 4.3 Bromeliaceae













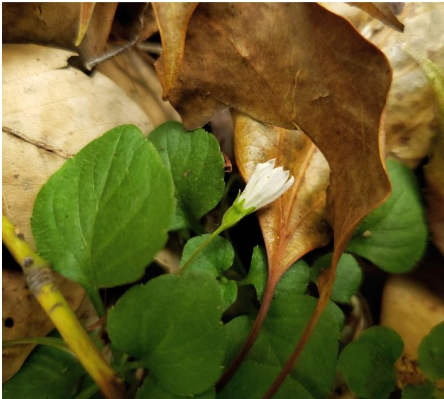








### 4.4 Campanulaceae





















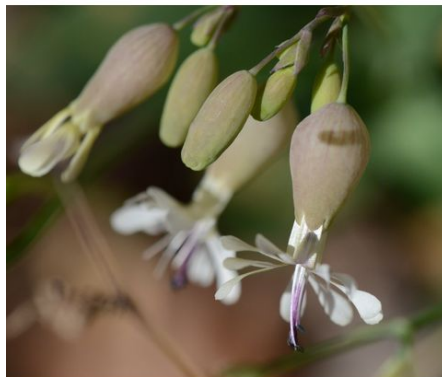
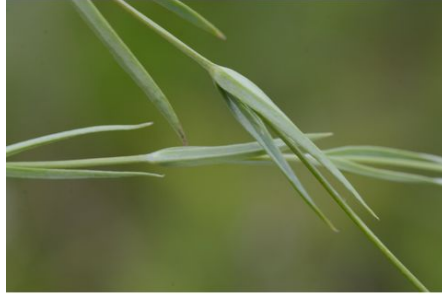
## 4.5 Caryophyllaceae



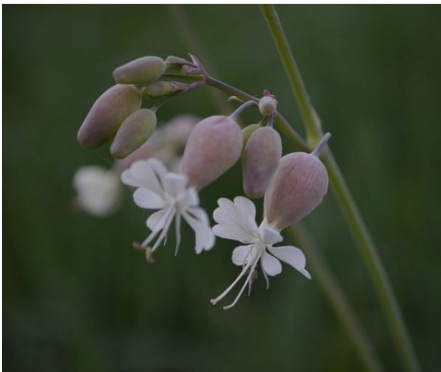




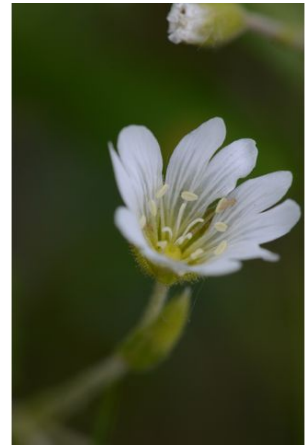














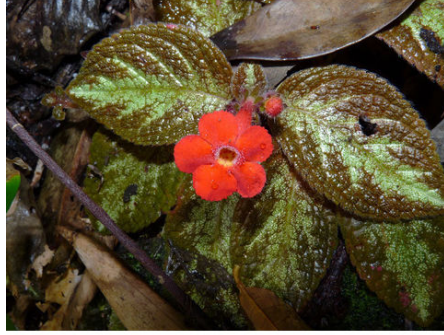
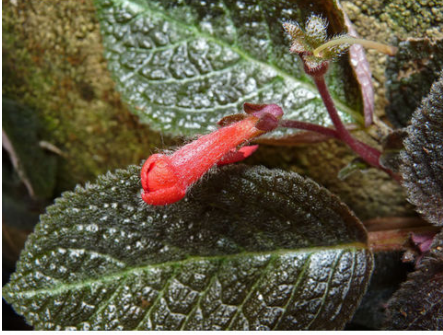




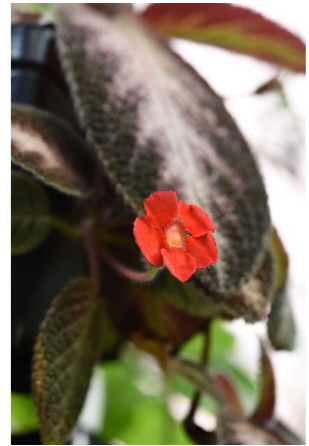
## 4.6 Gesneriaceae













## 4.7 Iridaceae







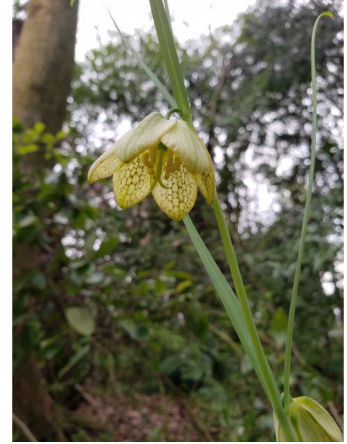




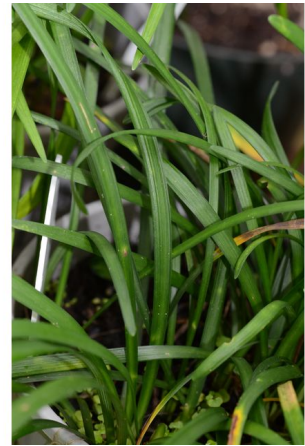


## 4.8 "Lilies"

### 4.8.1 Liliaceae









### 4.8.2 Melanthiaceae

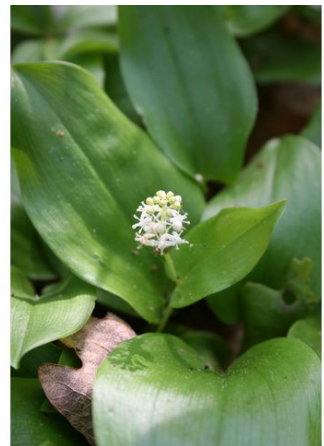








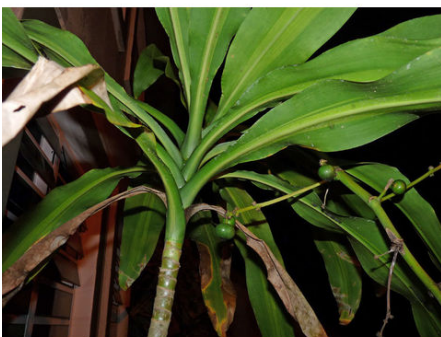
### 4.8.3 Asparagaceae



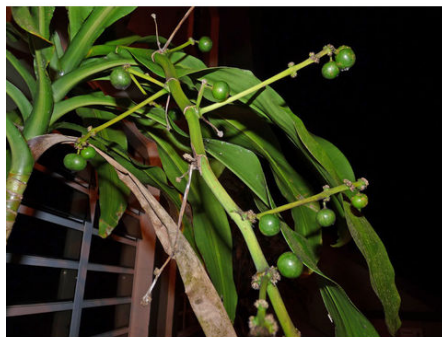
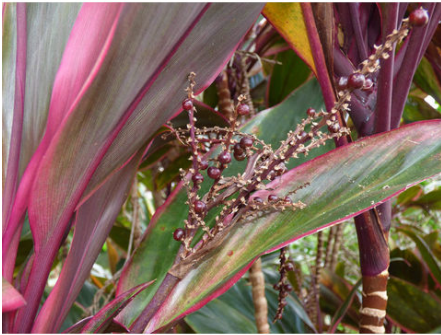
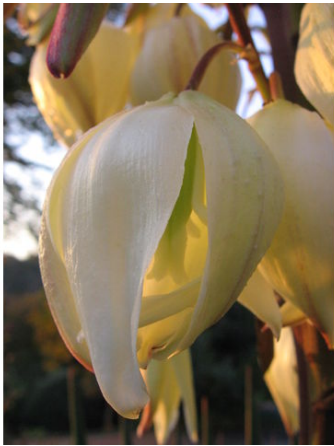




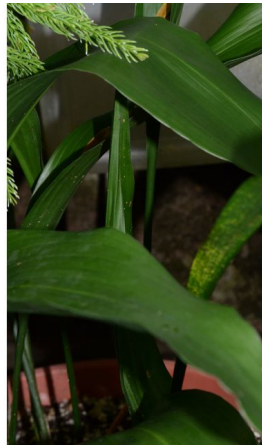










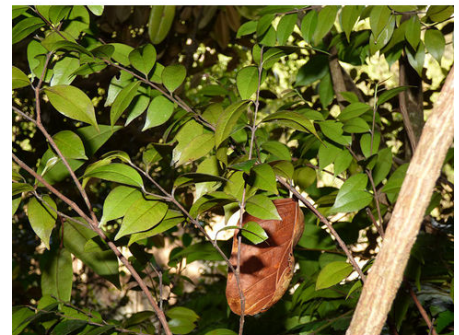
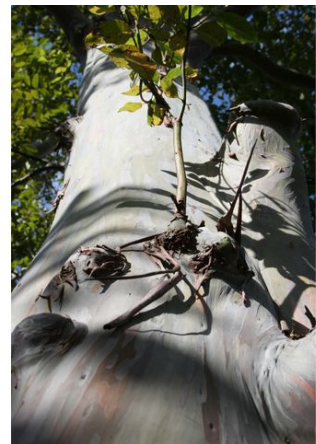








## 4.9 Myrtaceae







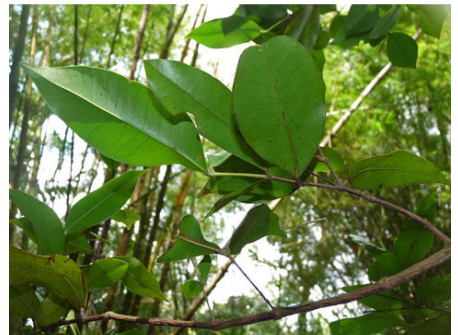
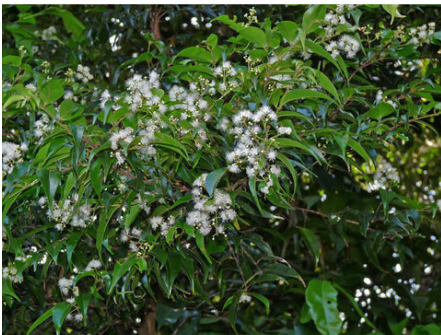










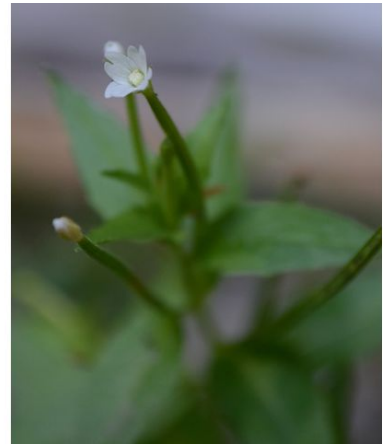




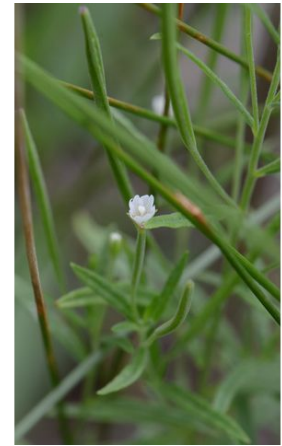




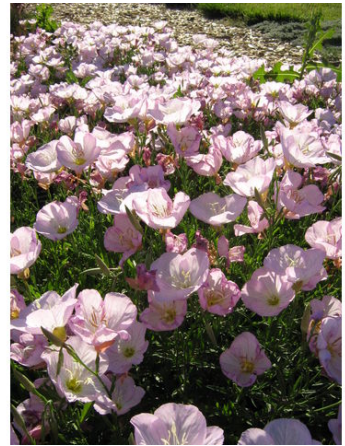
### 4.10 Onagraceae











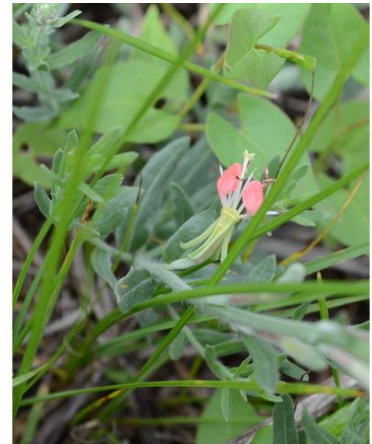






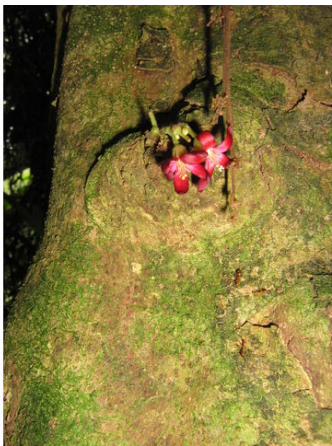








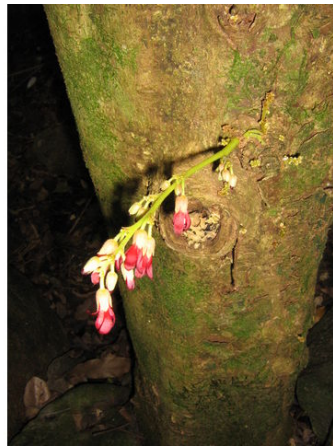
### 4.11 Oxalidaceae



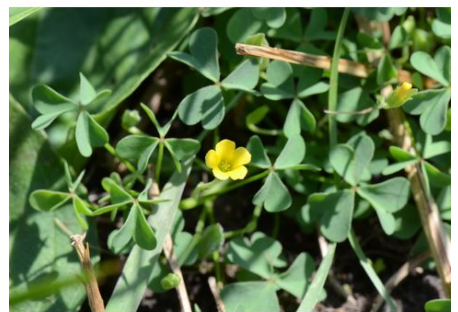
















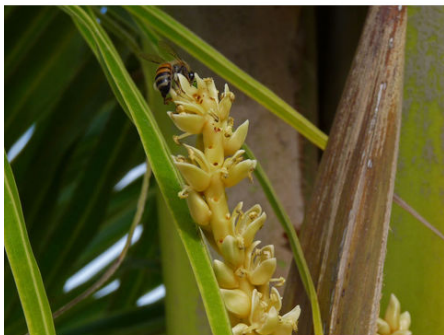
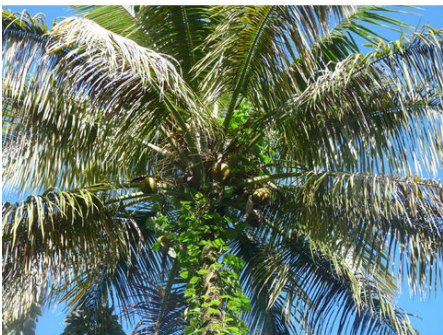
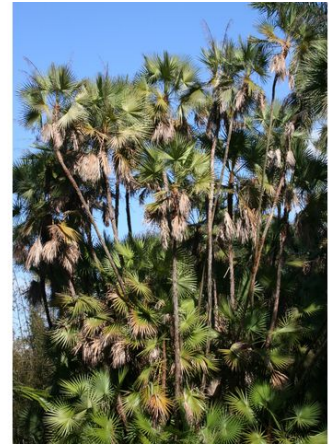


## 4.12 Palms and tree ferns

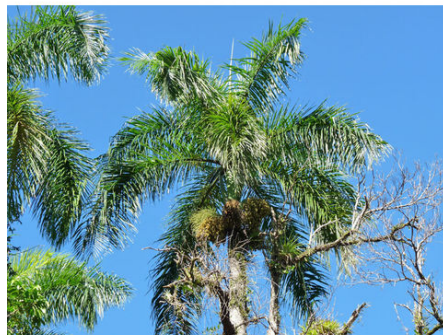
### 4.12.1 Palmae



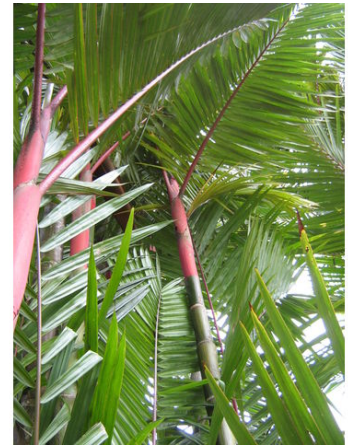














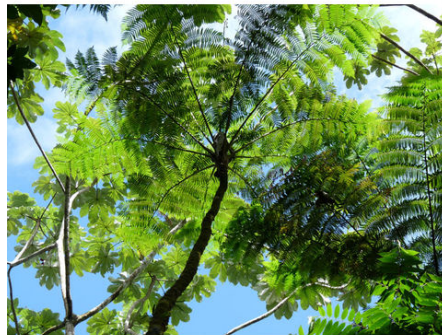




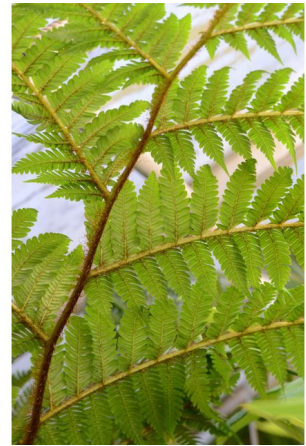




### 4.12.2 Cyatheaceae













### 4.13 Polemoniaceae





