

# Ethnobotany. Lecture 16

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# Outline

- 1 Rosaceae fruits
  - Rosaceae with stone fruits



## *Rubus chamaemorus*, cloudberry

- One of the northernmost berry plants
- Semi-shrub; the only dioecious *Rubus*
- Food of many Arctic mammals and birds, e.g. reindeer
- When ripe (yellow), have a creamy texture and tart taste
- Contains benzoic acid content acting as a natural preservative:: stays all winter without additional preparations
- Rich of vitamin C: used against scurvy



# *Rubus chamaemorus*



# Rosaceae fruits

## Rosaceae with stone fruits



# Rosaceae with stone fruits, *Prunus*

- Multiple ( $\approx 430$ ) species often separated in different genera on the base of fruit morphology
- Often hairy exocarp, juicy mesocarp and stone endocarp
- Distributed almost equally among Eurasia and North America
- Flower before appearance of leaves, inflorescences are umbels



# *Prunus avium*, cherry

- Mediterranean tree, cultivated from Roman times
- Used also as timber and ornamental plant
- All parts except “berries” (drupes) contain cyanogenic glycosides
- Sweet/early and sour/late groups of cultivars.



# *Prunus*





# Cherry



# Other cherries

- Black cherry (*Prunus serotina*) and choke cherry (*Prunus virginiana*) are two frequently cultivated North American species
- Choke cherry is a state fruit of North Dakota
- It is also a hosts of tent caterpillar, *Malacosoma* sp.



# Choke cherry



# “Nest” of tent caterpillars



# *Prunus armeniaca*, apricot

- Old culture of Central Asian origin, later spread into China and Europe
- Dry fruits were traditionally used as sugar source (along with melon)
- Fruits contain oil of cooking quality
- Biggest producer is Turkey



# Drying apricots in Cappadocia, Turkey

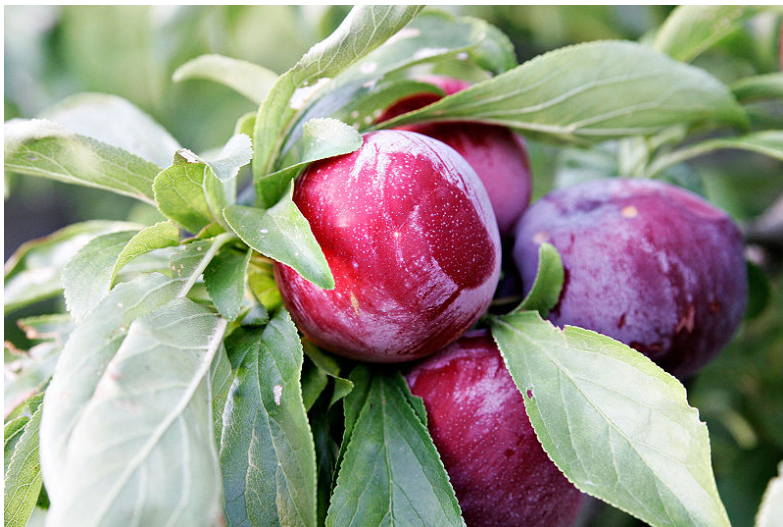


# *Prunus* × *domestica*, plum

- Hybrid hexaploid ( $2n = 48$ ) species, originated from cherry plum *Prunus divaricata* ( $2n = 16$ ) and blackthorn *P. spinosa* ( $2n = 32$ )
- Probably of Caucasian origin, contemporary cultivars are even more complicated hybrids
- Well-known laxative fruit
- Chinese “plum” is a separate species, *Prunus mume*—kind of intermediate between apricot and plum



# Plums





# Blackthorn



# Cherry plum



# Chinese plum drawing



# *Prunus mume*



# *Prunus persica*, peach

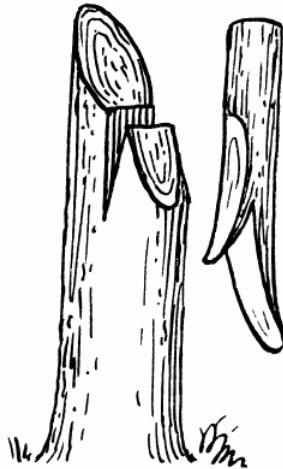
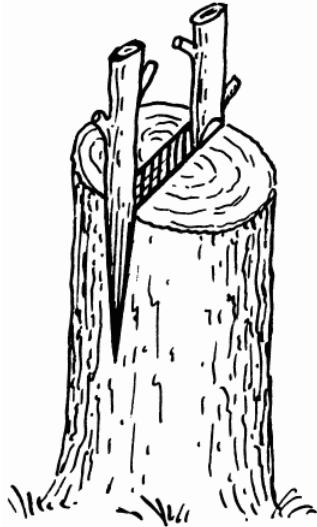
- Tree of Chinese origin, cultivated from 1,100 BC and spread to Europe with Alexander the Great army
- Multiple cultivars including nectarines (result of bud sport mutation) and Chinese flat peaches
- Propagated mostly by grafting on adequate rootstocks (many other *Prunus* species)
- China is still a biggest producer



# Chinese flat peach



# Grafting



# Summary

- Rosaceae is one of the most important temperate fruit families
- Most of Rosaceae cultivated fruits are result of long selection involved multiple hybridization
- Most of Rosaceae cultivated fruits are propagated by grafting on appropriate rootstocks





# For Further Reading



A. Shipunov.

*Ethnobotany* [Electronic resource].

2011—onwards.

Mode of access:

[http://ashipunov.info/shipunov/school/biol\\_310](http://ashipunov.info/shipunov/school/biol_310)



P. M. Zhukovskij.

*Cultivated plants and their wild relatives* [Electronic resource].

Commonwealth Agricultural Bureaux, 1962.

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[http://ashipunov.info/shipunov/school/biol\\_310/zhukovskij1962\\_cultivated\\_plants.pdf](http://ashipunov.info/shipunov/school/biol_310/zhukovskij1962_cultivated_plants.pdf)

**Pages 28–74.**

