

# 10

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**Odabrane porodice potklasa  
Rosidae i Asteridae**

Mijat BOŽOVIĆ

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# Rosidae

*odabrane porodice:*

Vitaceae

Rosaceae

Lythraceae

Myrtaceae

Fabaceae

Hippocastanaceae

Aceraceae

Rutaceae

Anacardiaceae

Geraniaceae

Linaceae

Viscaceae

Rhamnaceae

# Familia

## VITACEAE



liana lignosa, rarius frutex  
+ cirrhis



folia simplicia v. composita  
alterna (decidua v. sempervirentia)  
+ stipulae



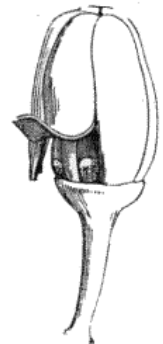
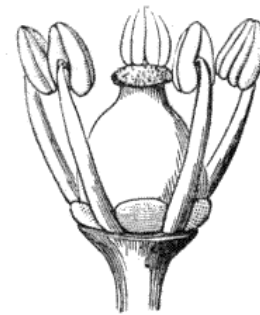
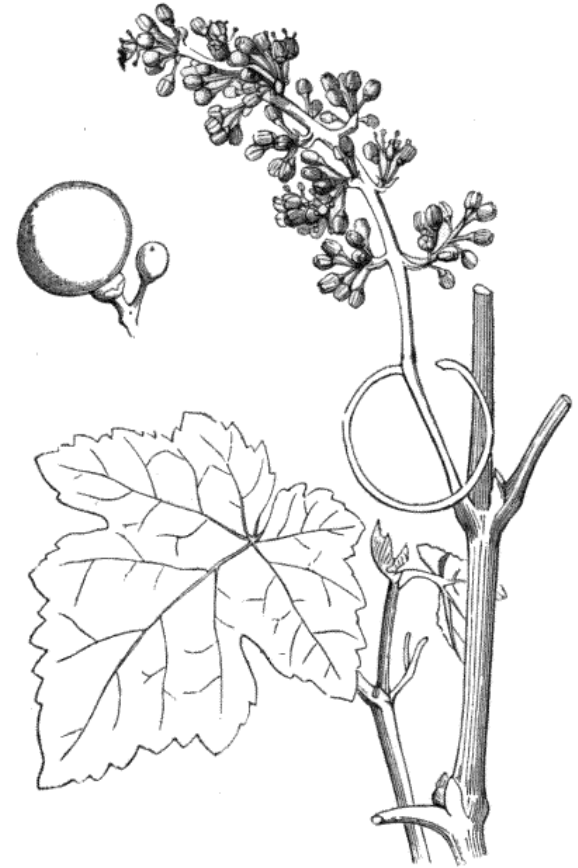
♂♀ v. ♀

\*  $K_{(4-5)} C_{(4-5)} v. 4-5 A_{4-5} \underline{G}_{(2)}$

cyma v. panicula



bacca



# *Vitis vinifera*





bifurkatne  
rašljike

kaliptra



$K_{(5)} C_{(5)} A_5 G_{(2)}$

brojni cvjetovi u  
gustim metlicama

2-3-sjemene  
bobice



# Familia

## LYTHRACEAE



herba v. frutex, rarius arbor



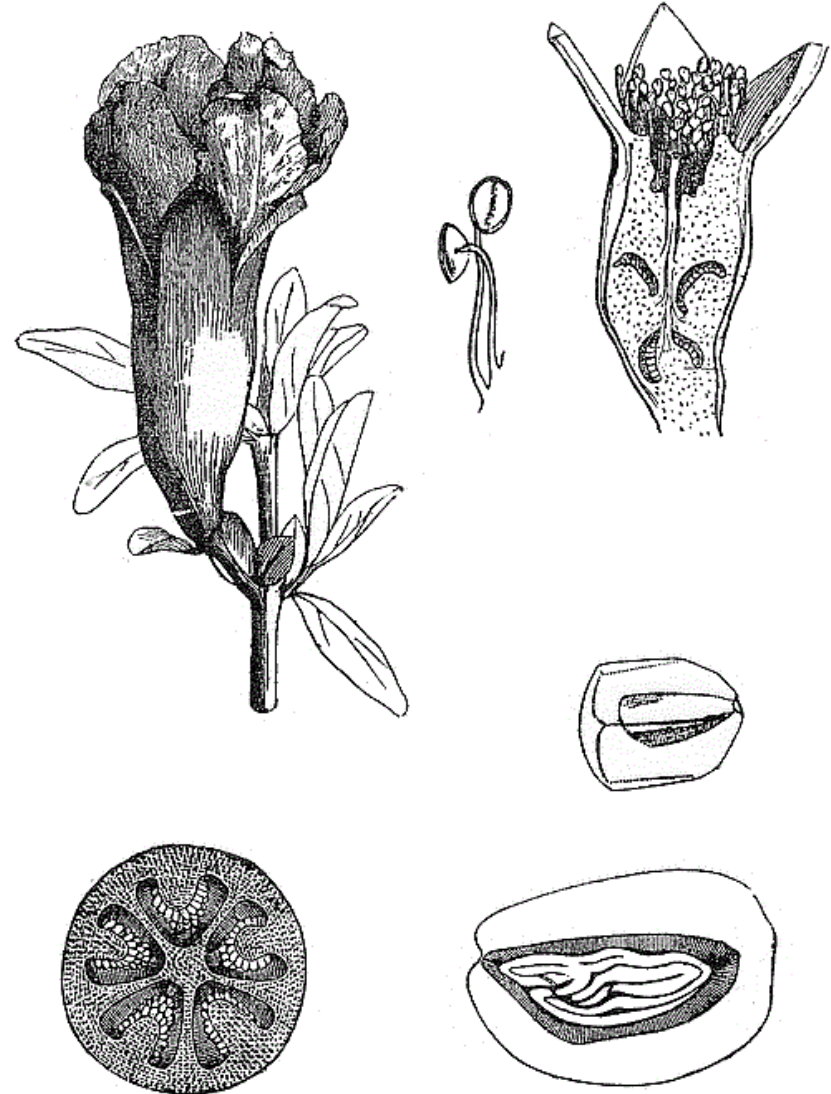
folia simplicia opposita  
rarius alterna v. verticillata



\*  $K_{(4-6)} C_{4-6} A_{2-12 \text{ v. } \infty} G_{\underline{(2-4)} \text{ v. } \overline{(7-9)}}$   
+ hypanthium  
flos solitarius, cyma v. racemus



bacca v. capsula





# *Punica granatum*



pojedinačni ili po 1-3 u  
grupama ljevkaсти cvjetovi  
terminalno postavljeni

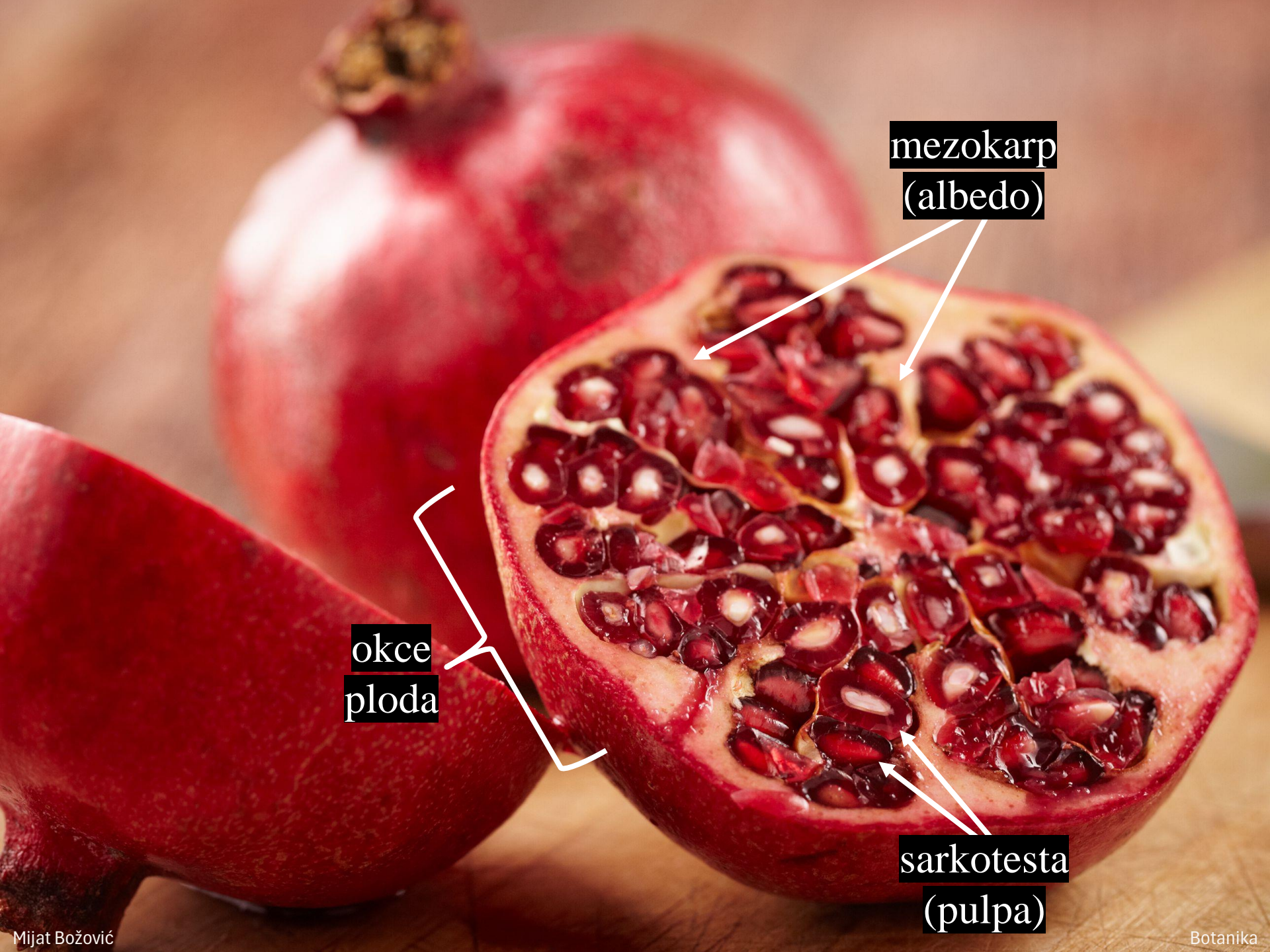




dobro razvijen hipantijum  
sa mesnatom cvjetnom  
ložom i čašicom



mnogosjemena  
bobica



mezokarp  
(albedo)

okce  
ploda

sarkotesta  
(pulpa)

# Familia

## MYRTACEAE



arbor v. frutex



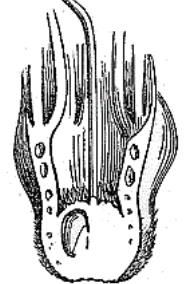
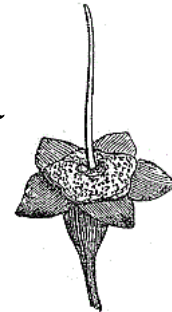
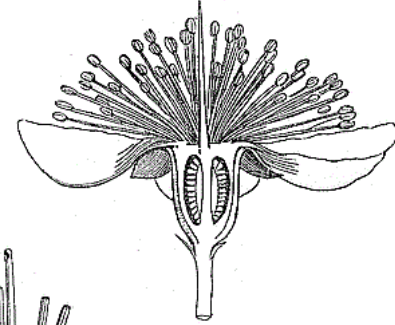
folia simplicia opposita v. alterna  
sempervirentia



\*  $K_{(4-5)} C_{4-5} v. (4-5) A_{\infty} \overline{G}_{(2-5)}$   
flos solitarius, racemus v. umbella



capsula v. bacca



# *Myrtus communis*





**pojedinačni 5-člani cvjetovi  
na drškama u pazuhu listova**





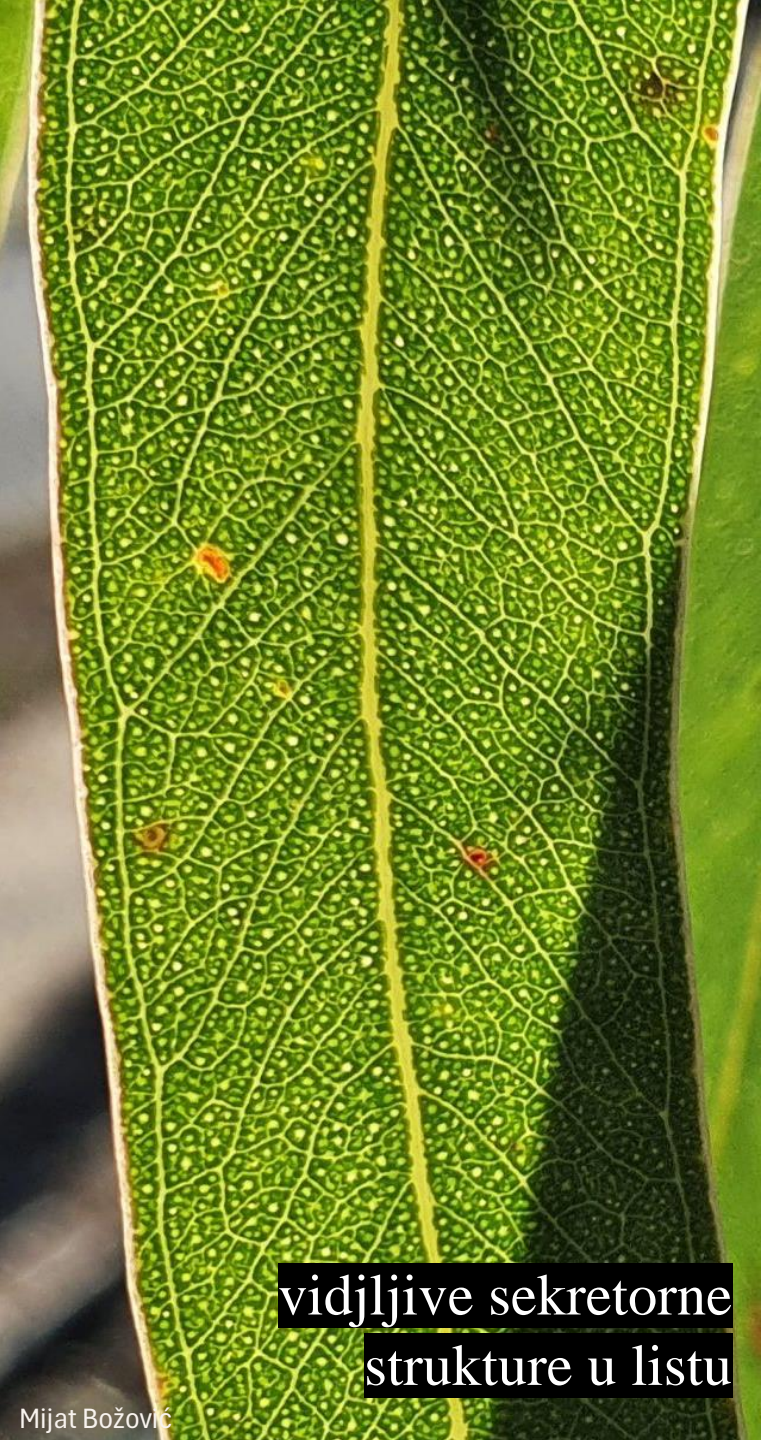
**bobica sa ostacima  
čašice na vrhu**

# *Eucalyptus globulus*



naspramni listovi  
na mladim granama





**vidljive sekretorne  
strukture u listu**



**stariji listovi  
naizmjenično  
raspoređeni**

štitovi redukovani  
na 1 cvijet



operkulum od sraslih perijantnih listića čiji se gornji dio odbacuje odmah po otvaranju cvijeta





**lignificirana  
sjedeća čaura**






# *Syzygium aromaticum*







karanfilić je poznati začin i zubarski antiseptik



# *Melaleuca alternifolia*





*tea tree oil*: standard među etarskim uljima antisepticima

# Familia

## HIPPOCASTANACEAE



arbor v. frutex



folia composita opposita  
decidua v. sempervirentia



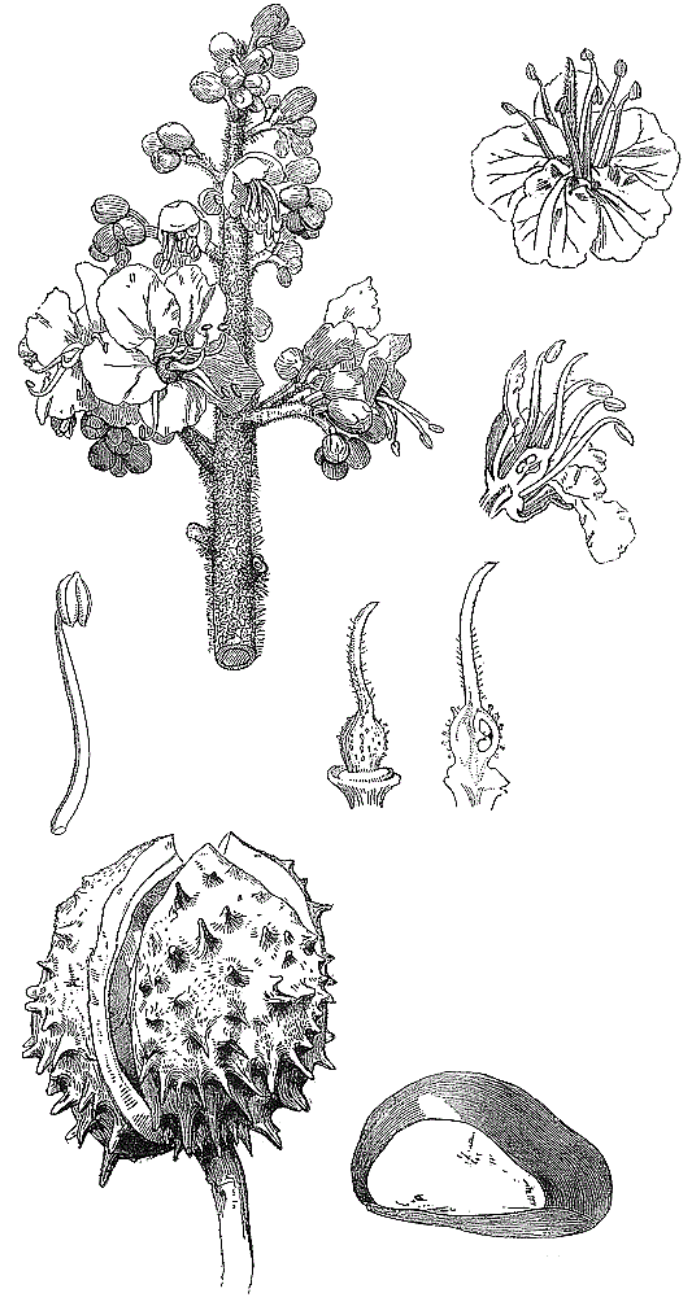
♀ v. ♂

↑  $K_{(4-5)} C_{4-5} A_{5-9} \underline{G}_{(3)}$

cyma




capsula



# *Aesculus hippocastanum*





prstasto složeni listovi  
na dugim drškama



dugački prašnici (5-8)  
koji vire iz krunice



2-3 krupna sjemena  
sa bijelim hilumom

zelena čaura koja  
se otvara sa 3 zaklopca





# Familia

## ACERACEAE



arbor v. frutex



folia simplicia v. composita  
opposita (decidua v. sempervirentia)

♀ v. ♂

\*  $K_5 C_5 v. 0 A_8 G_{(2)}$

racemus, corymbus v. umbella



schizocarpium (samara)



# *Acer platanoides*



mlječni sok iz  
lisne drške





samare krilima čine tupi ugao



pentamerni cvjetovi sa  
izraženim nektarnim diskom



# *Acer pseudoplatanus*



samare krilima čine  
gotovo oštar ugao

# *Acer heldreichii*



duboko 5-režnjeviti listovi i samare  
sa blago razmaknutim krilima

# *Acer campestre*

krila samara gotovo u istoj ravni



3-5-režnjeviti  
listovi

# *Acer monspessulanum*

3-režnjeviti listovi i krila samara  
manje-više paralelno postavljena



# Familia

## RUTACEAE



arbor, frutex v. herba



folia simplicia v. composita

alterna v. opposita

decidua v. sempervirentia

♂♀ v. ♀

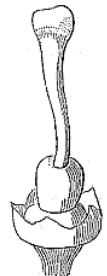
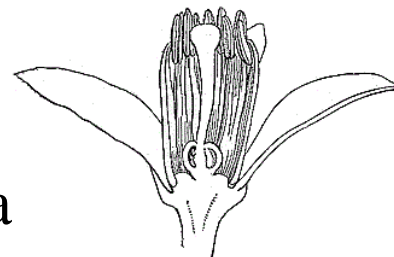
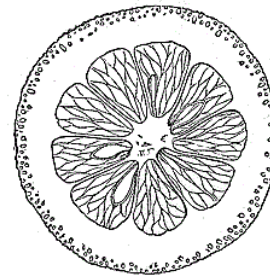
\* v. ↑  $K_{(4-5)}$  v. 4-5  $C_0$  v. (4-5) v. 4-5

$A_{4-5}$  v. 8-10 v. ∞  $G_{\underline{1-5}}$  v.  $(\underline{2-\infty})$

cyma, racemus v. flos solitarius



bacca, capsula, folliculus v. drupa





# *Citrus aurantium*



# *Citrus sinensis*



# *Citrus limon*



# agrumi: mediteransko voće

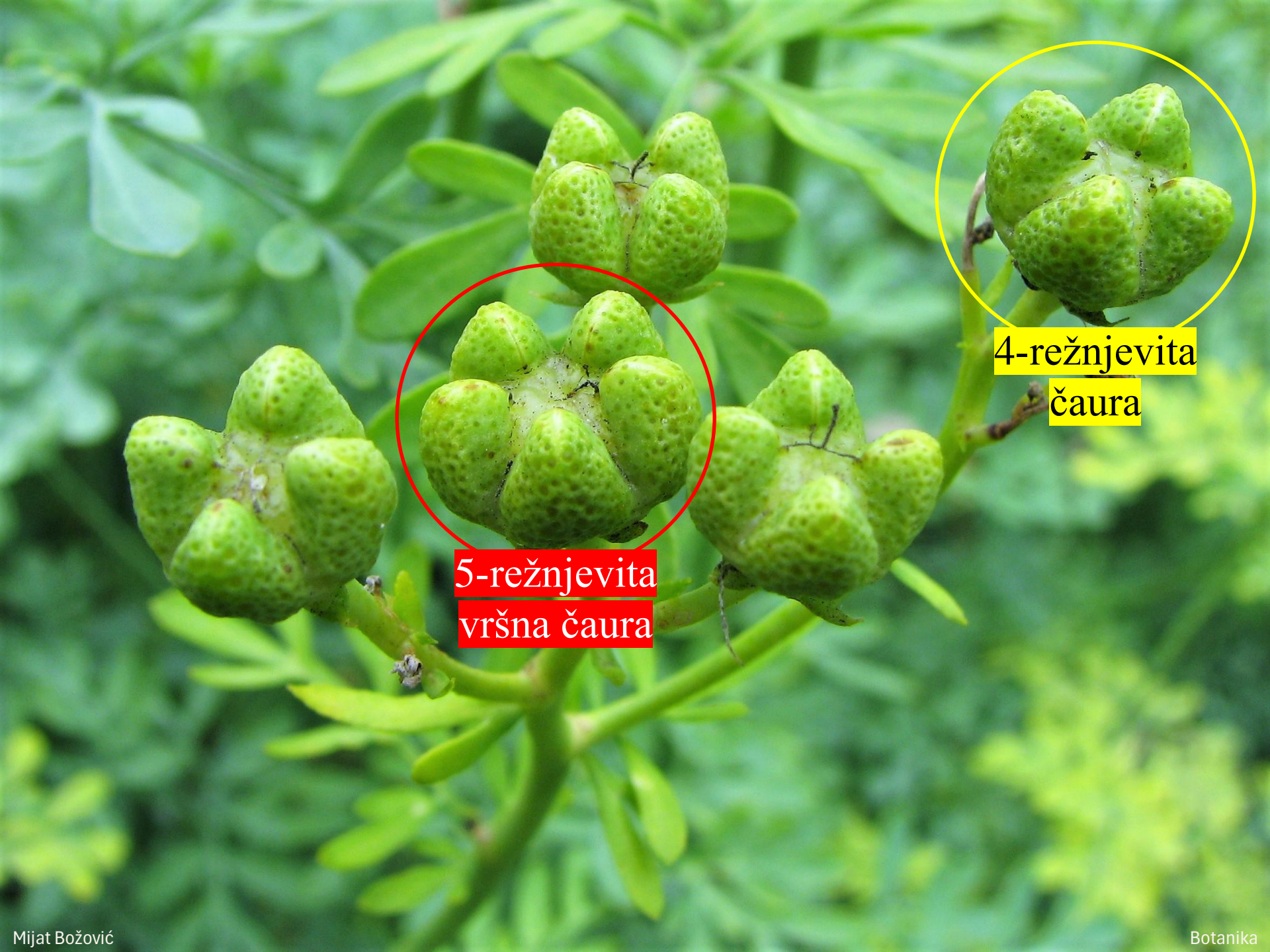


# *Ruta graveolens*



4-člani  
cvijet





5-režnjevita  
vršna čaura

4-režnjevita  
čaura

# *Dictamnus albus*





blago  
zigomorfni  
5-člani cvjetovi



10 prašnika  
iskrivljenih  
nagore

5-režnjevita  
žljezdasto  
dlakava čaura



# Familia

## ANACARDIACEAE



arbor v. frutex, rarius liana v. herba  
+ ducti resiniferi



folia alterna

simplicia v. composita

decidua v. sempervirentia

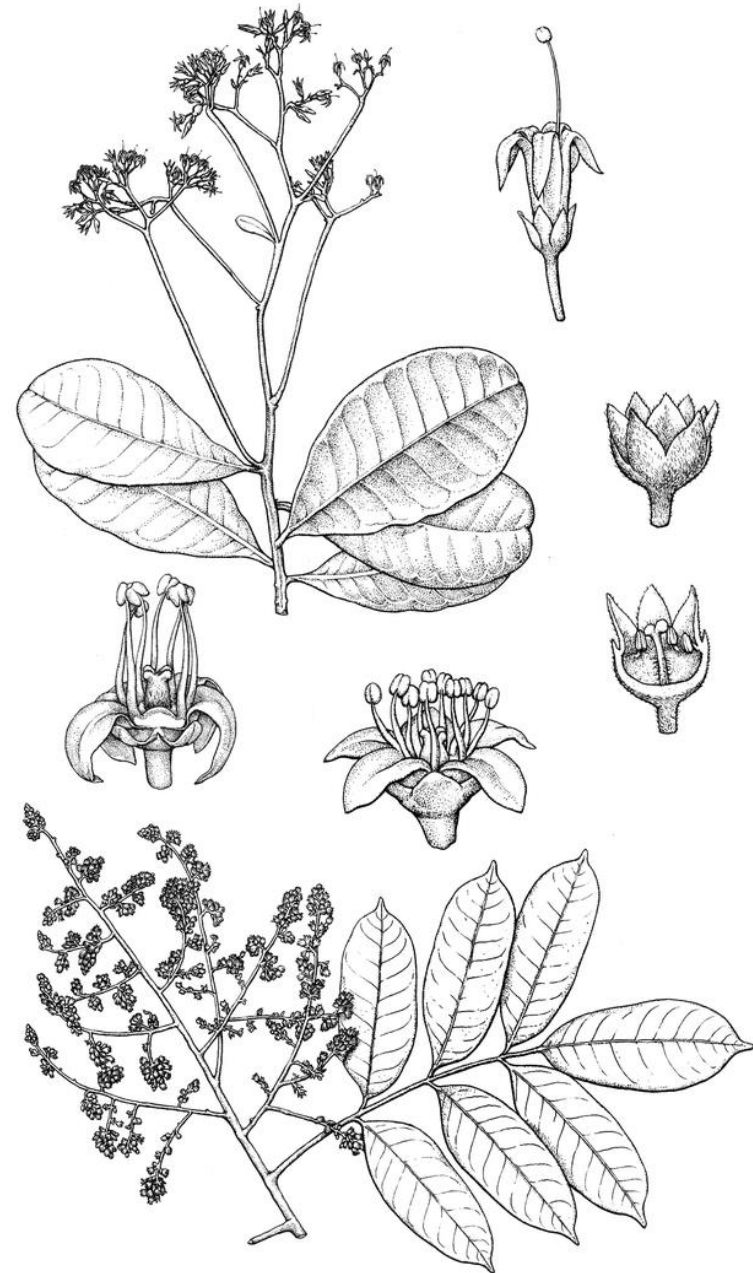
♂♀ v. ♀

\*  $K_{(5)} C_0 \text{ v. } 5 \text{ v. } (5) A_{3-5 \text{ v. } 10} \underline{G_{1-5 \text{ v. } (2-5)}}$

panicula



drupa



# *Cotinus coggygria*



intenzivno crveni listovi  
u jesenjem aspektu





# *Mangifera indica*





spljoštani  
endokarp



koštunica



# *Anacardium occidentale*





sjeme



hipokarp (lažni plod)

koštunica



# *Pistacia vera*





zrele koštunice



sjeme

sjemenjača

endokarp

# *Pistacia lentiscus*



apetalni muški  
cvjetovi sa  
3-5 prašnika



apetalni ženski  
cvjetovi sa  
3-režnjevitim žigom



koštunica  
do 3 mm



# *Pistacia terebinthus*





ženski cvjetovi



muški cvjetovi





koštunica  
do 6 mm

# Familia

## LINACEAE



herba (annua v. perenna)  
rarius frutex



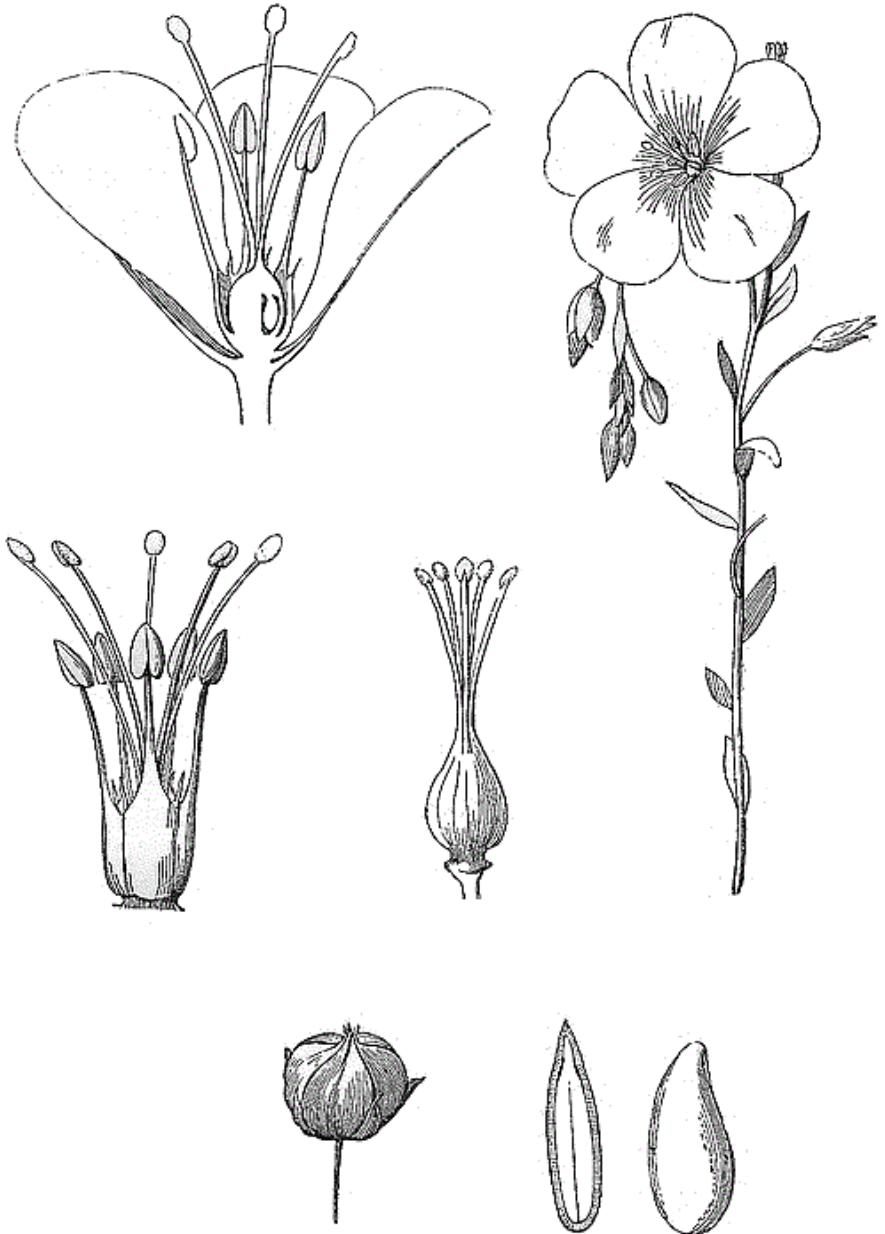
folia simplicia alterna  
(rarius opposita)



\*  $K_{4-5} C_{4-5} A_{(4-10)} \underline{G}_{(2-5)}$   
cyma (rarius racemus)



capsula



# *Linum usitatissimum*



5-člani  
cvjetovi



Mijat Božović



sjedeći  
lancetasti  
listovi

Botanika

loptasta  
čaura



10 sjemena  
u čauri





**lan: industrijska biljka**

# Familia

## VISCACEAE



frutex in arboribus semiparasiticus  
+ haustoria



folia simplicia opposita  
sempervirentia

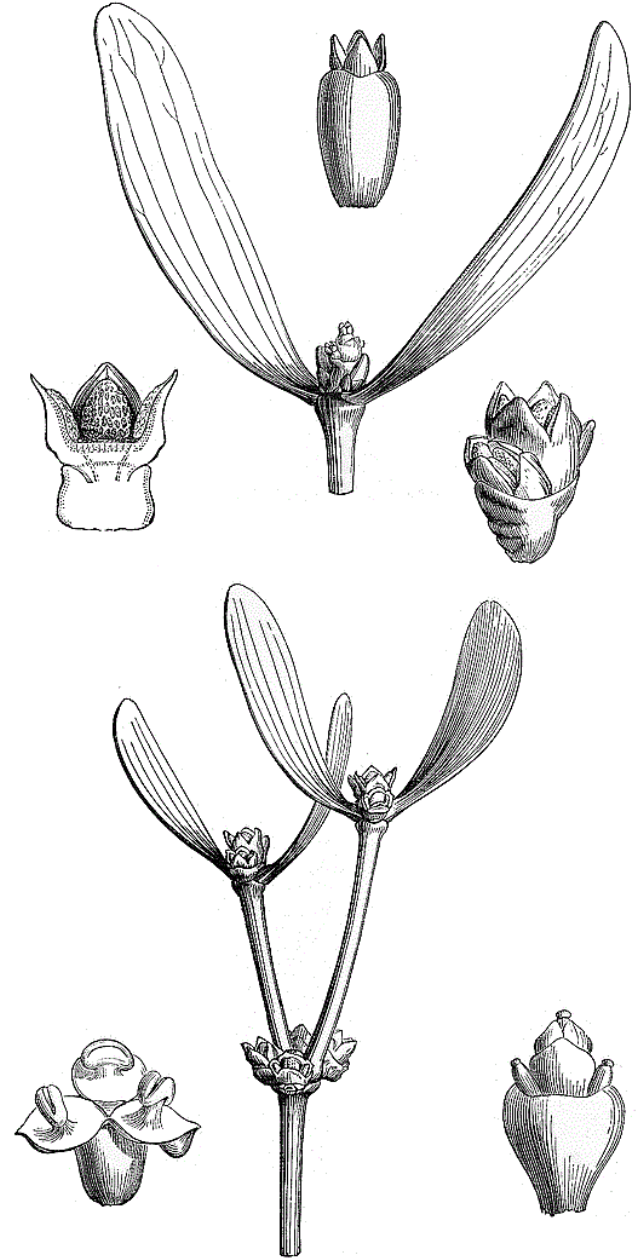
♂♀

\*  $K_0 C_{3-4} A_{3-4} \overline{G_{(3-4)}}$

cyma



bacca





# *Viscum album*





naspramni  
sjedeći listovi



♀  
cvjetovi



♂  
cvjetovi

diecka je vrsta



1-sjemena bobica

# Familia

## RHAMNACEAE



arbor v. frutex (rarius herba)



folia simplicia alterna v. opposita

+ stipulae

decidua v. sempervirentia

♂♀ v. ♀

\*  $K_{4-5} C_0$  v.  $4-5 A_{4-5} G_{(3)}$

+ hypanthium

cyma



drupa (rarius capsula)



# *Ziziphus jujuba*



# *Frangula alnus*



sitni zvonasti 5-člani  
hermafroditni cvjetovi



glatka koštunica  
crnojubičaste boje

# *Paliurus spina-christi*





okriljena  
koštunica



# Asteridae

*odabrane porodice:*

Cornaceae

Sambucaceae

Valerianaceae

Araliaceae

Apiaceae

Asteraceae

# Familia

## CORNACEAE



frutex v. arbor (rarius herba)



folia simplicia opposita

(rarius alterna)

decidua, rarius sempervirentia

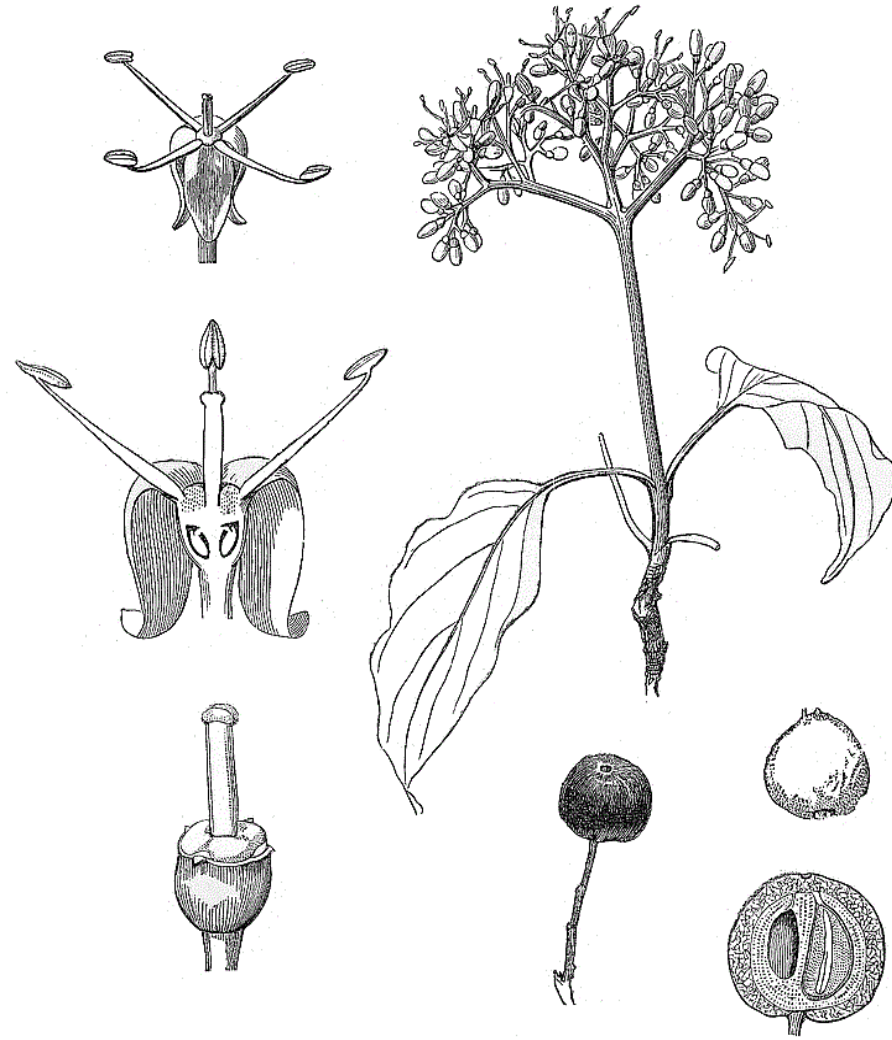


\*  $K_{(4)} C_{0 \text{ v. } 4} A_4 \overline{G}_{(2)}$

cyma, corymbus v. umbella



drupa (rarius bacca)



# *Cornus mas*



cvjeta prije  
listanja



žutozelena  
brakteja

zlatnožuti  
cvjetovi u  
štitovima



elipsoidna  
koštunica  
(drenjina)



# *Cornus sanguinea*

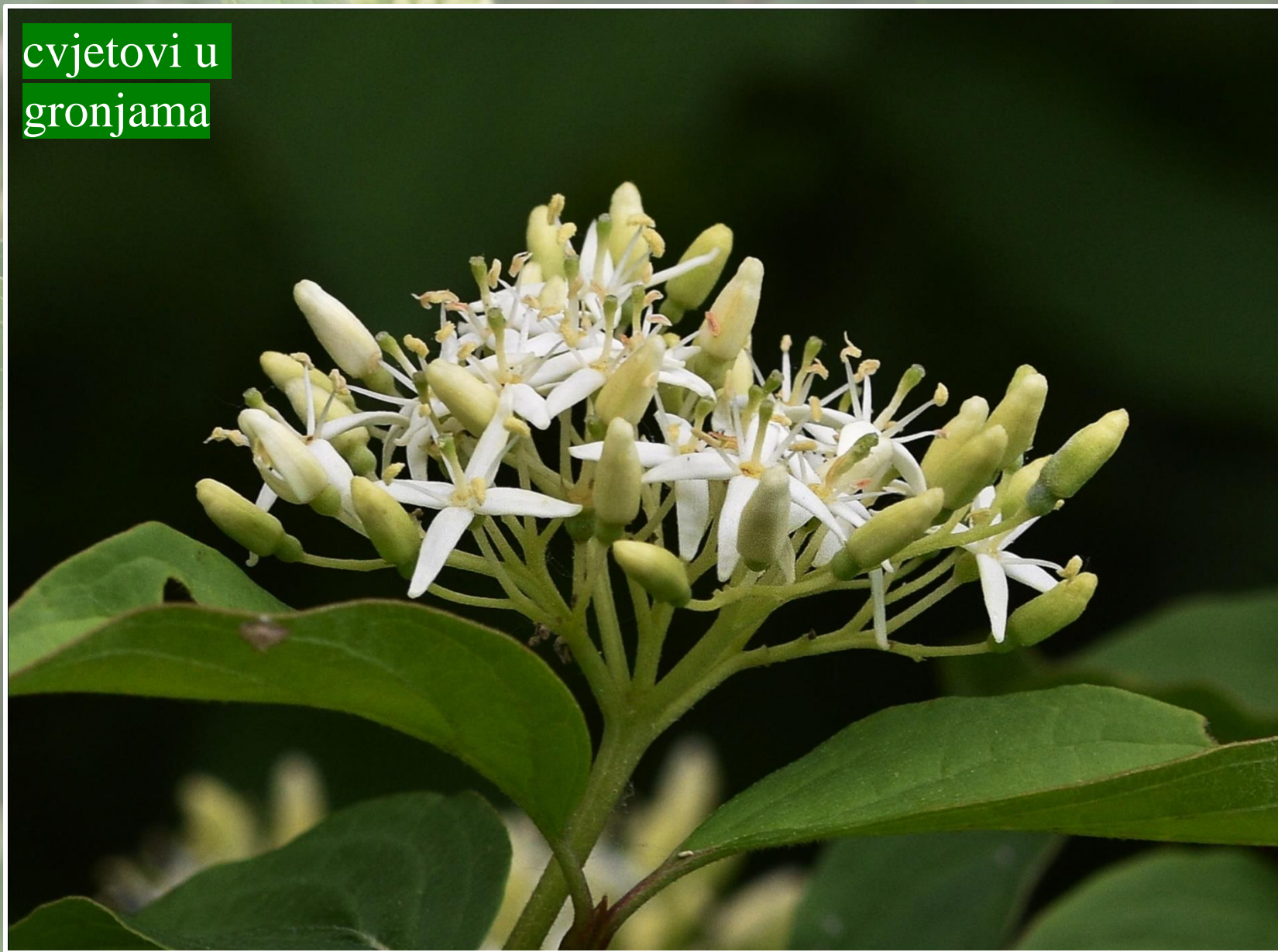




cvjeta nakon  
listanja



cvjetovi u  
gronjama



purpurnocrne  
koštunice



# Familia

## SAMBUCACEAE



frutex v. arbor (rarius herba)



folia composita opposita  
decidua

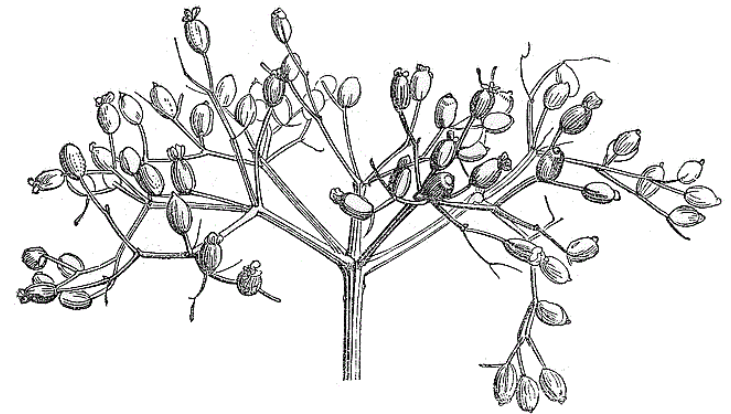
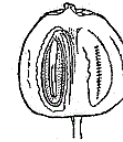
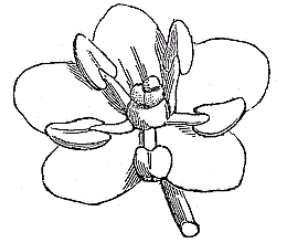
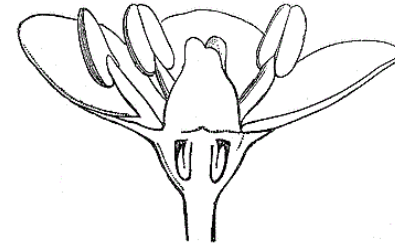


\*  $K_{(5)} C_{(5)} A_5 \overline{G_{(3-5)}}$

cyma

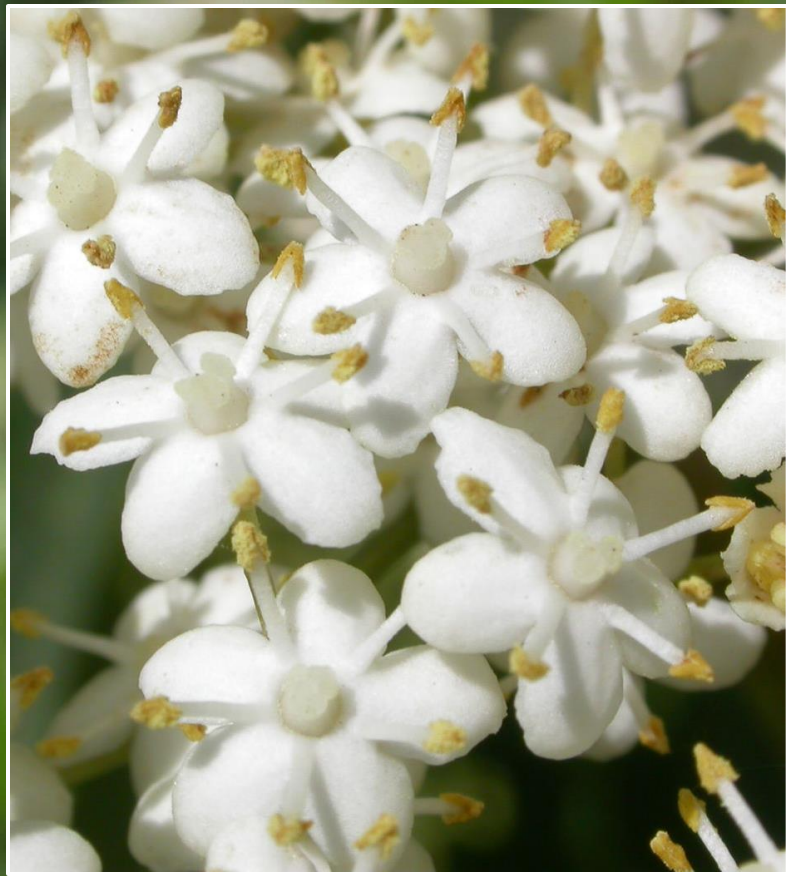


drupa



# *Sambucus nigra*





**pentamerni cvjetovi u  
plejohazijumima**



sjajna  
crnojubičasta  
koštunica



# *Sambucus ebulus*



višegodišnja  
zeljasta  
biljka



gronjolika cimozna cvast



crne koštunice



# *Sambucus racemosa*



guste metlice i  
crvene koštunice



# Familia

## VALERIANACEAE



herba (annua v. perenna)



folia simplicia v. composita  
opposita v. rosulata



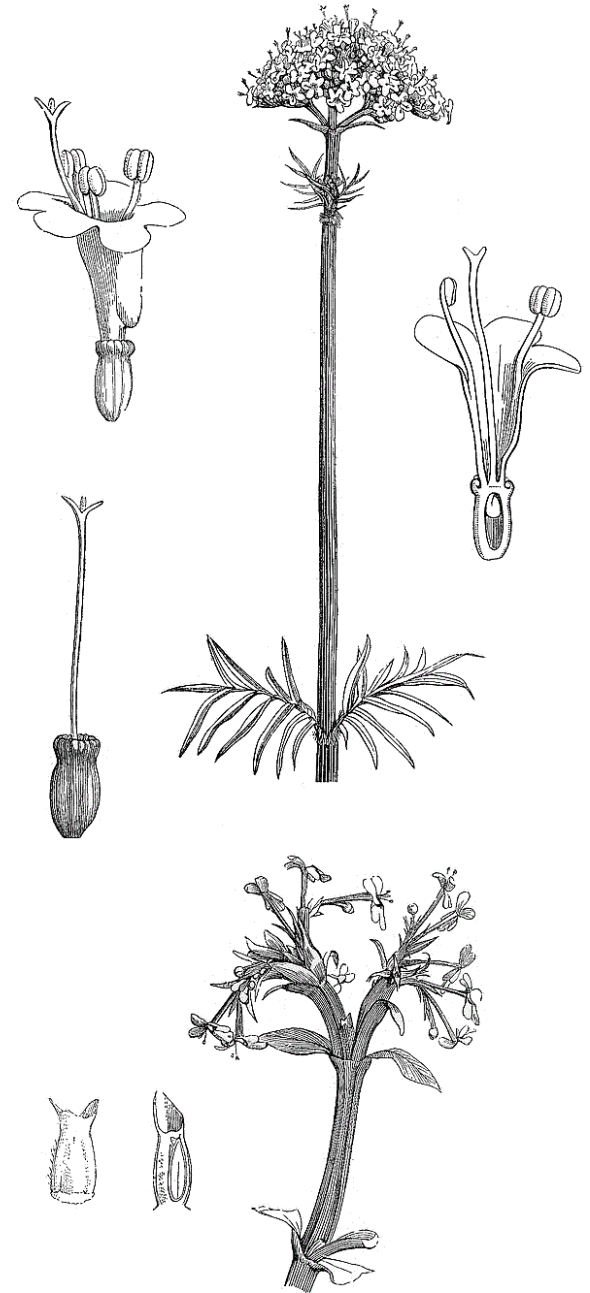
♂ (rarius ♂♀)

↑  $K_{(5)} C_{(5)} A_{1-4} \overline{G}_{(3)}$

cyma



achenia



# *Valeriana officinalis*



perasto složeni  
listovi ili duboko  
perasto usiječeni



složena cimozna cvast  
koja podsjeća na gronju





5-režnjevita  
ljevkastrunica

ahenija sa papusom  
(ostatkom čašice)



# *Valerianella carinata*

dihotomo granata  
stabljika i dihajijum

# Familia

## ARALIACEAE



arbor, frutex v. liana lignosa  
rarius herba perenna



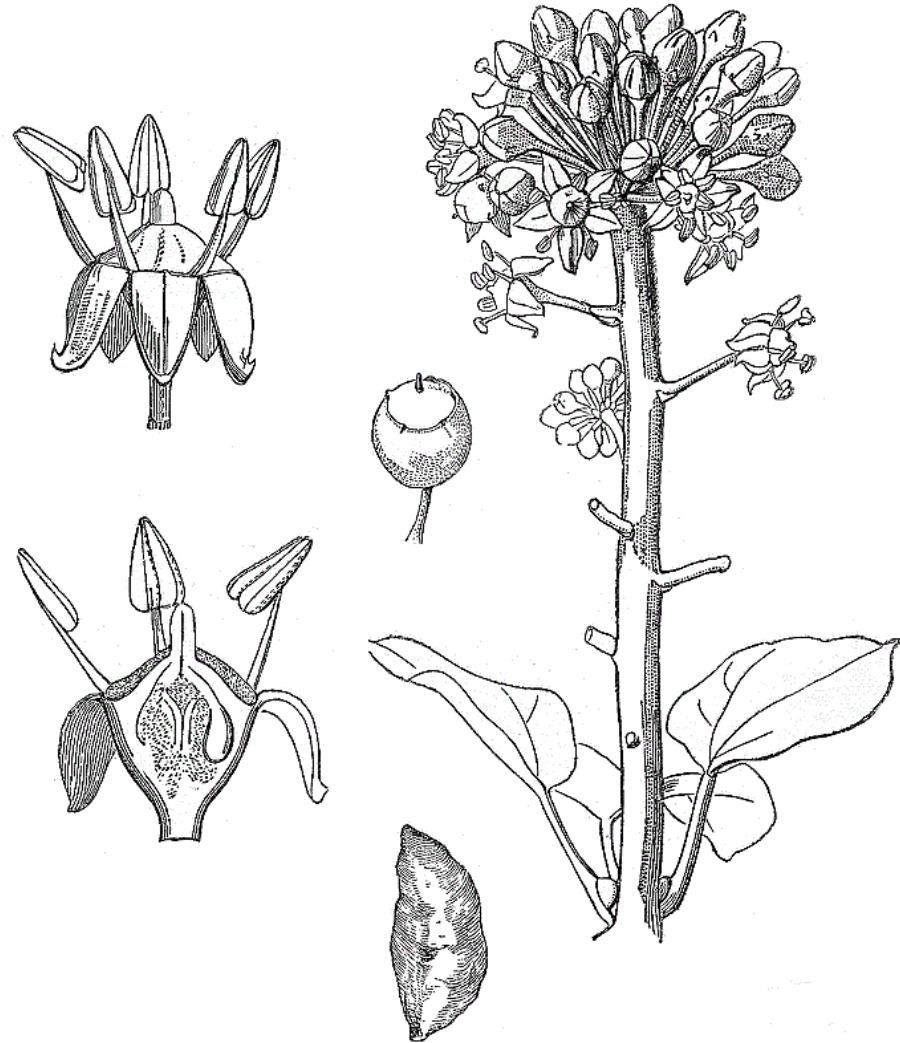
folia simplicia v. composita  
alterna  
decidua v. sempervirentia



\*  $K_0$  v.  $(4-5)$   $C_5$   $A_5$   $G_{(2-5)}$   
plerumque umbella



bacca v. drupa



# *Hedera helix*





jajoliki do eliptični listovi sa ušiljenim vrhom (na cvjetnim izdancima)



srcasti i prstasto režnjeviti listovi  
(na vegetativnim izdancima)






štitovi udruženi u  
grozdo-like metlice

2-3-sjemena  
plavocrna bobica





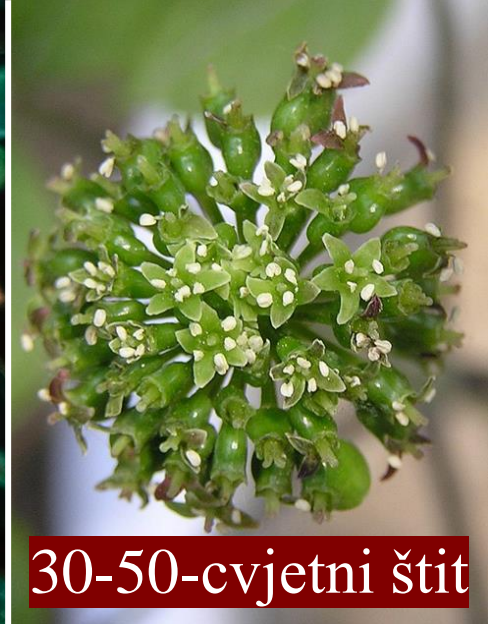


koristi drvo domaćina samo kao oslonac pa se  
označava kao parazit prostora

# *Panax ginseng*



prstasto složeni listovi



30-50-cvjetni štit



crvena  
koštunica

Botanika



čovjekoliki korijen (kin. *rénshēn*):  
čudotvorni lijek u zemljama Dalekog istoka

# Pitanja?

**Mijat BOŽOVIĆ**

**Botanika**

