

10

**Odabrane porodice podklasa
Rosidae i Asteridae**

Mijat BOŽOVIĆ



Rosidae

odabrane porodice:

Vitaceae

Rosaceae

Lythraceae

Myrtaceae

Fabaceae

Hippocastanaceae

Aceraceae

Rutaceae

Anacardiaceae

Geraniaceae

Linaceae

Viscaceae

Rhamnaceae

Familia

VITACEAE



liana lignosa, rarius frutex
+ cirrhis



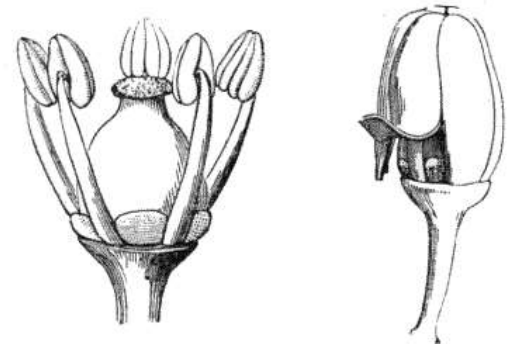
folia simplicia v. composita
alterna (decidua v. sempervirentia)
+ stipulae



♂♀ 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



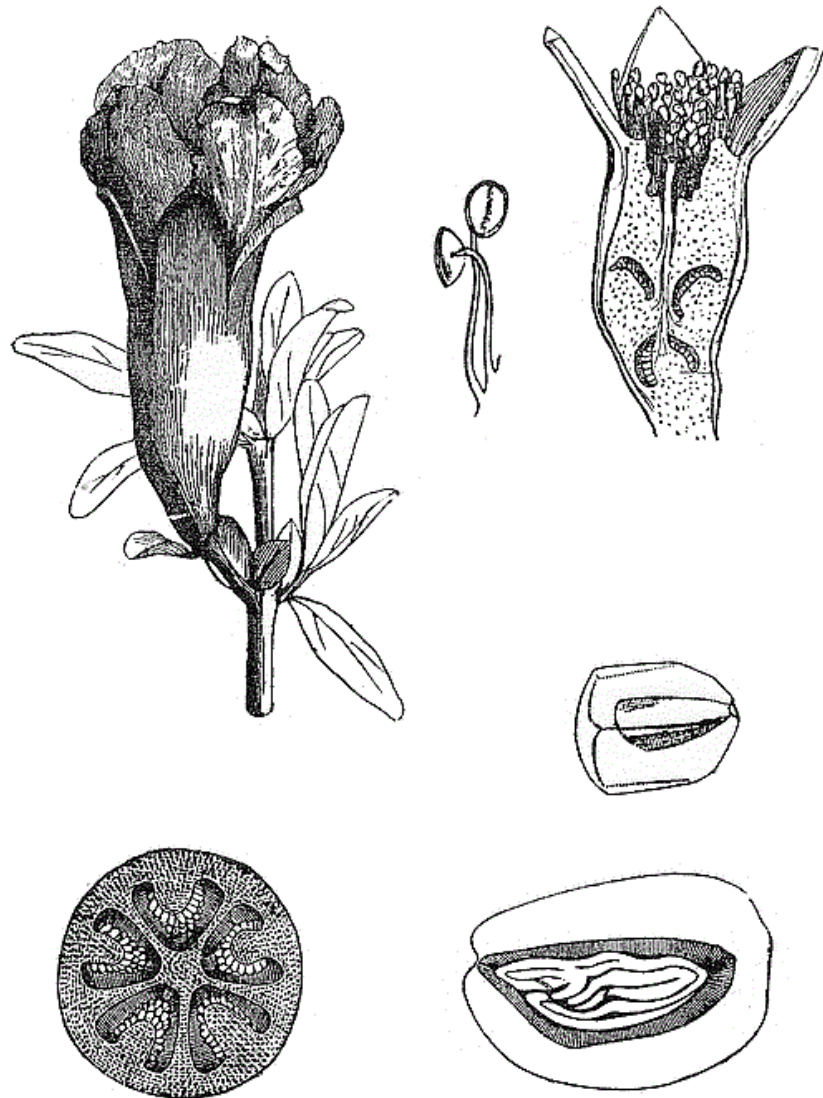
folia simplicia opposita
rarius alterna v. verticillata



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



bacca v. capsula



Punica granatum



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

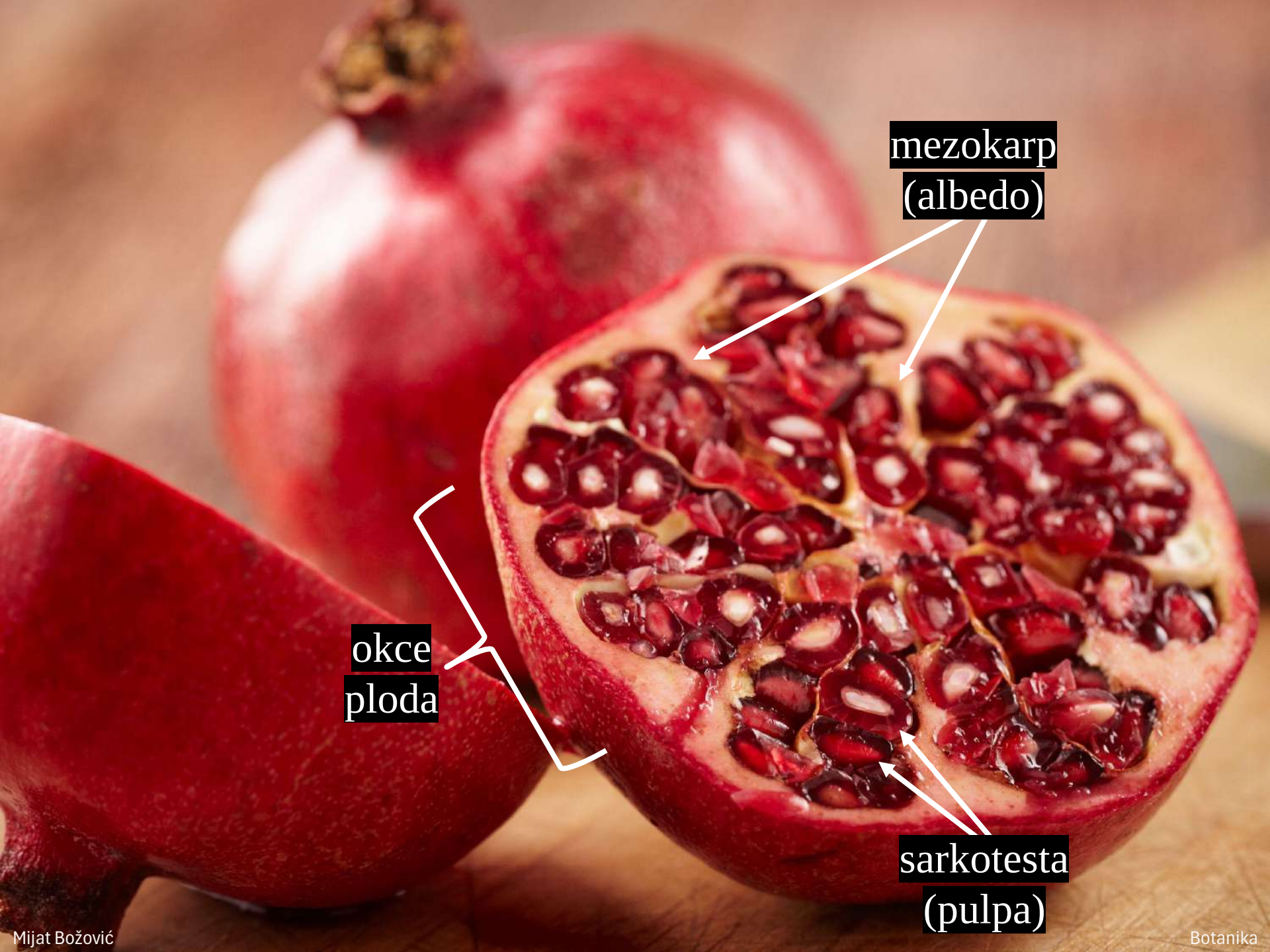




dobro razvijen hipantijum
sa mesnatom cvjetnom
ložom i čašicom



mnogosjemena
bobica



mezokarp
(albedo)

okce
ploda

sarkotesta
(pulpa)

Familia

MYRTACEAE



arbor v. frutex



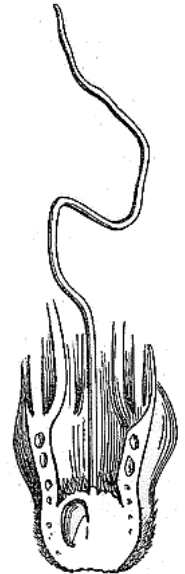
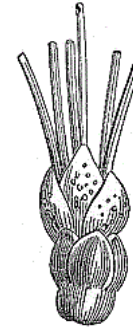
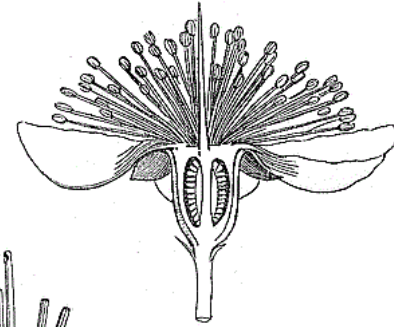
folia simplicia opposita v. alterna
sempervirentia



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



capsula v. bacca



Myrtus communis





pojedinačni 5-merni cvjetovi
na drškama u pazuhu listova



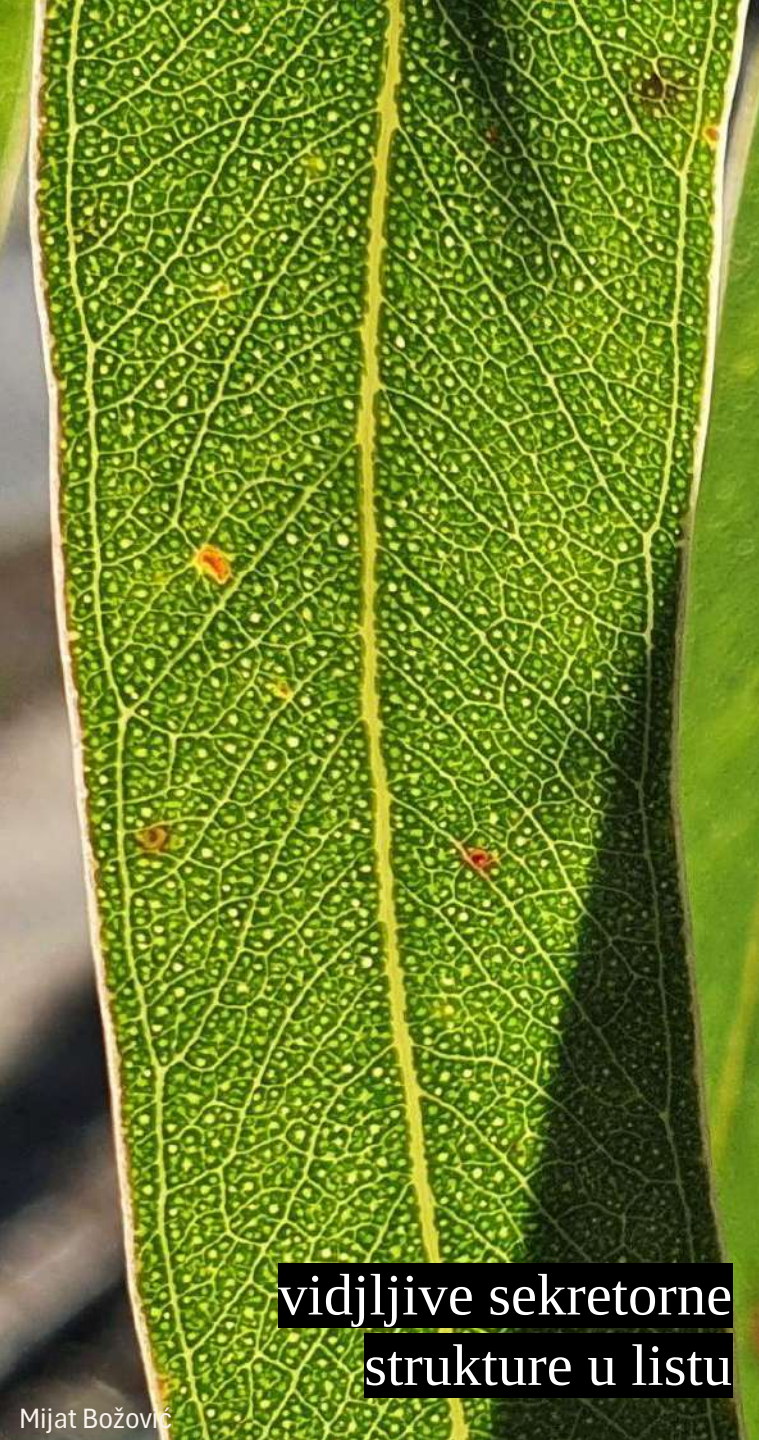
bobica sa ostacima
čašice na vrhu

Eucalyptus globulus



naspramni listovi
na mladim granama





vidljive sekretorne
strukture u listu

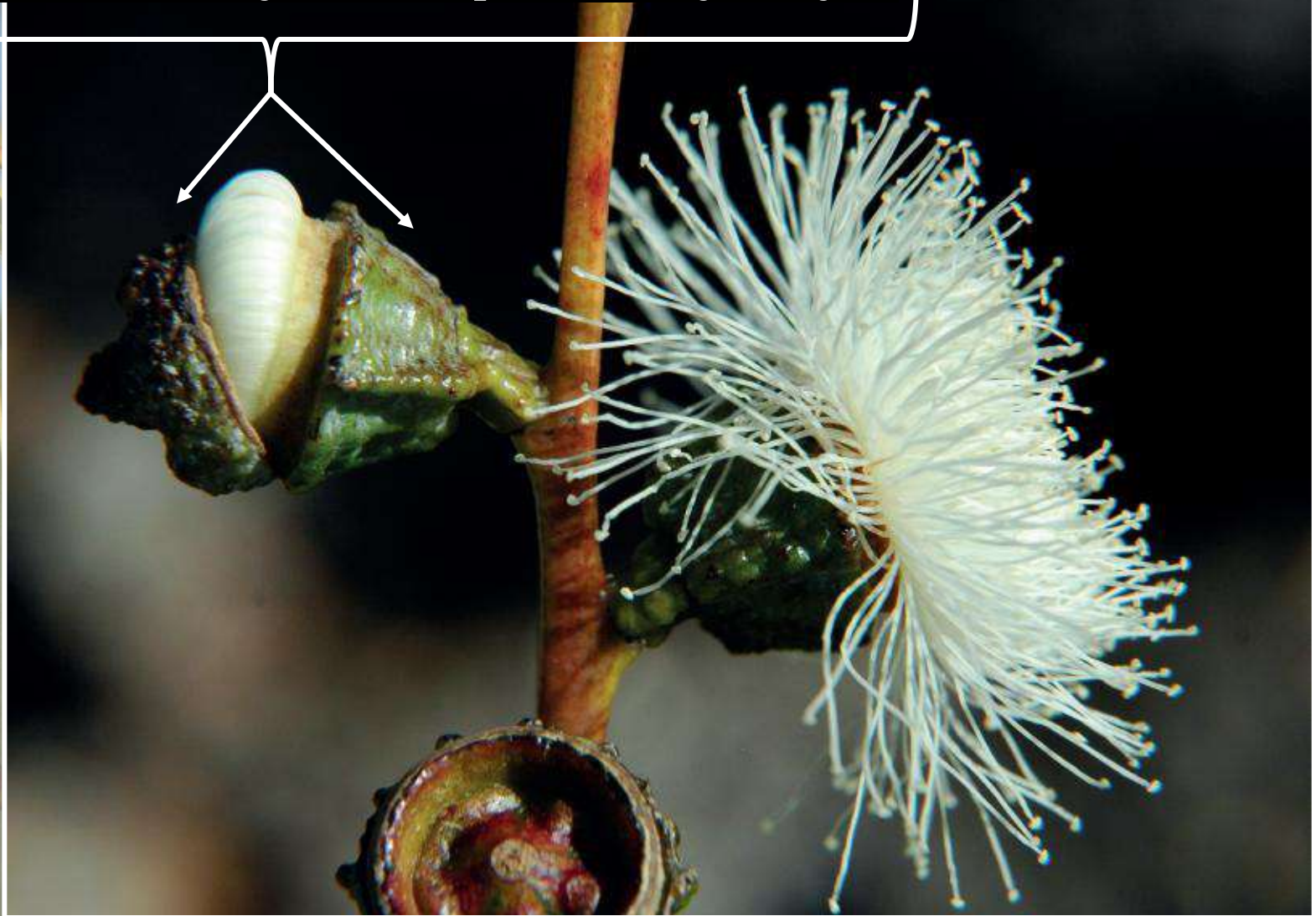


stariji listovi
naizmjenično
raspoređeni

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 začini i zubarski antiseptik



Melaleuca alternifolia





tea tree oil: standard među etarskim uljima antisepticima

Familia

HIPPOCASTANACEAE



arbor v. frutex



folia composita opposita
decidua v. sempervirentia



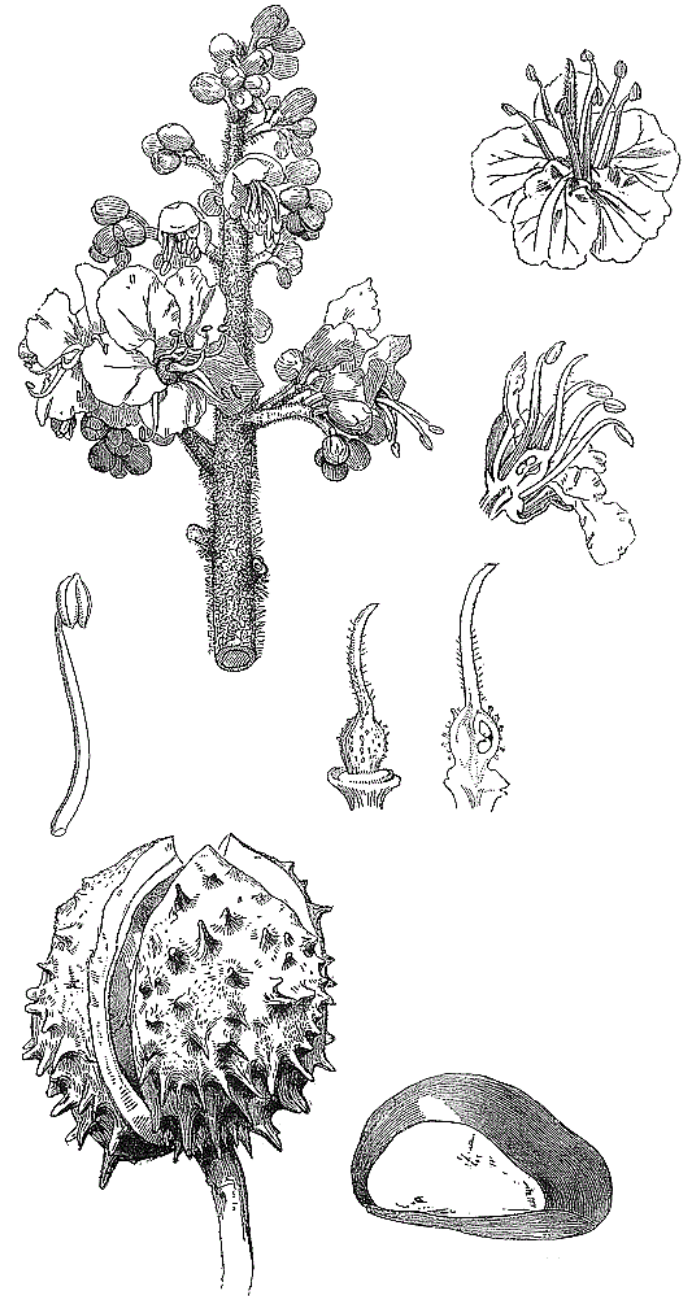
♀ v. ♂

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

cyma



capsula



Aesculus hippocastanum





prstasto složeni listovi
na dugim drškama



dugački prašnici (5-8)
koji vire iz krunice



2-3 krupna sjemenka
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

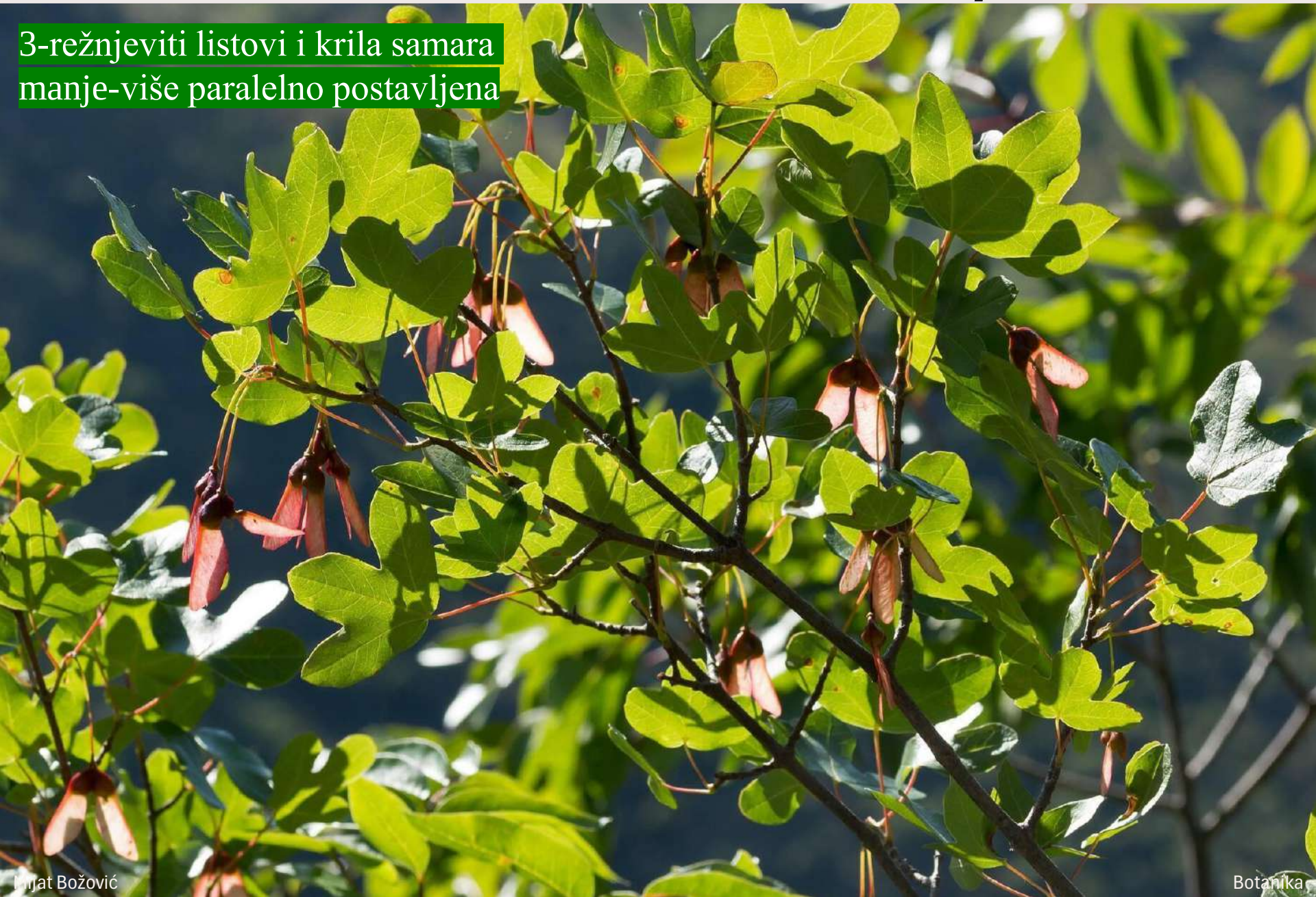
krila samara gotovo u istoj ravni



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. ♂

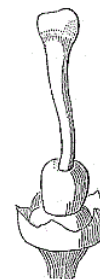
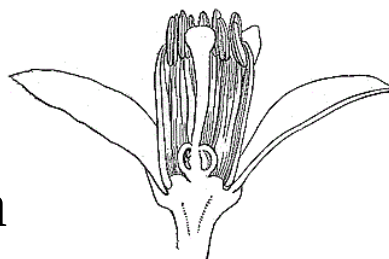
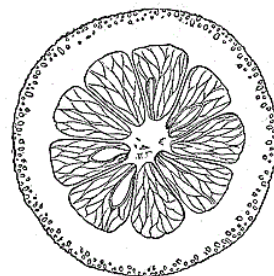
* v. ↑ $K_{(4-5)}$ v. 4-5 C_0 v. (4-5) v. 4-5

A_{4-5} v. 8-10 v. ∞ G_{1-5} v. (2-∞)

cyma, racemus v. flos solitarius



bacca, capsula, folliculus v. drupa



Citrus aurantium



Citrus sinensis



Citrus limon



agrumi: mediteransko voće



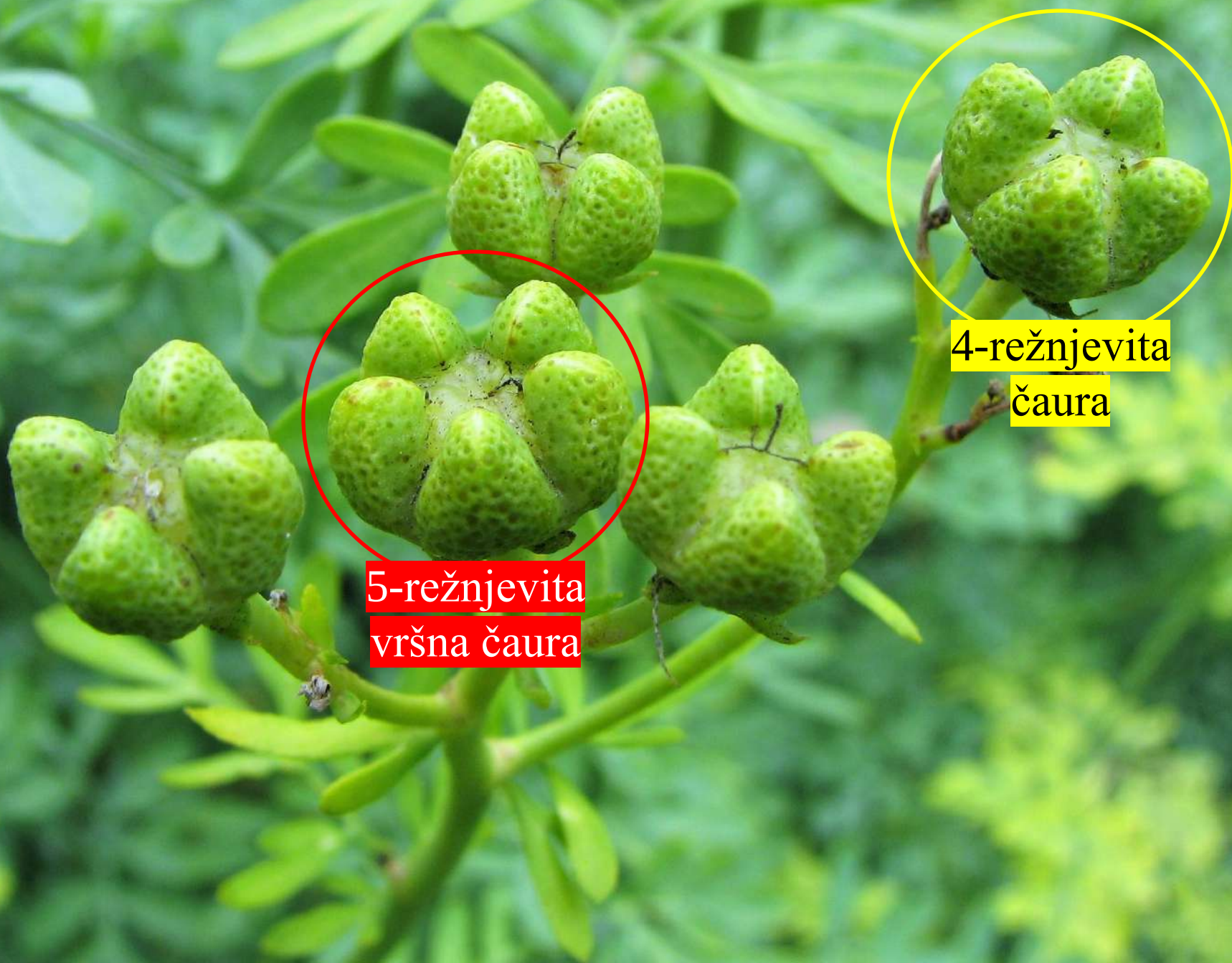
Ruta graveolens



perasto složeni listovi

4-merni cvijet





5-režnjevita
vršna čaura

4-režnjevita
čaura

Dictamnus albus



perasto složeni listovi

blago zigomorfni
5-merni cvjetovi



10 prašnika
iskrivljenih
nagore

5-režnjevita
žljezdasto
dlakava čaura



Familia

ANACARDIACEAE



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



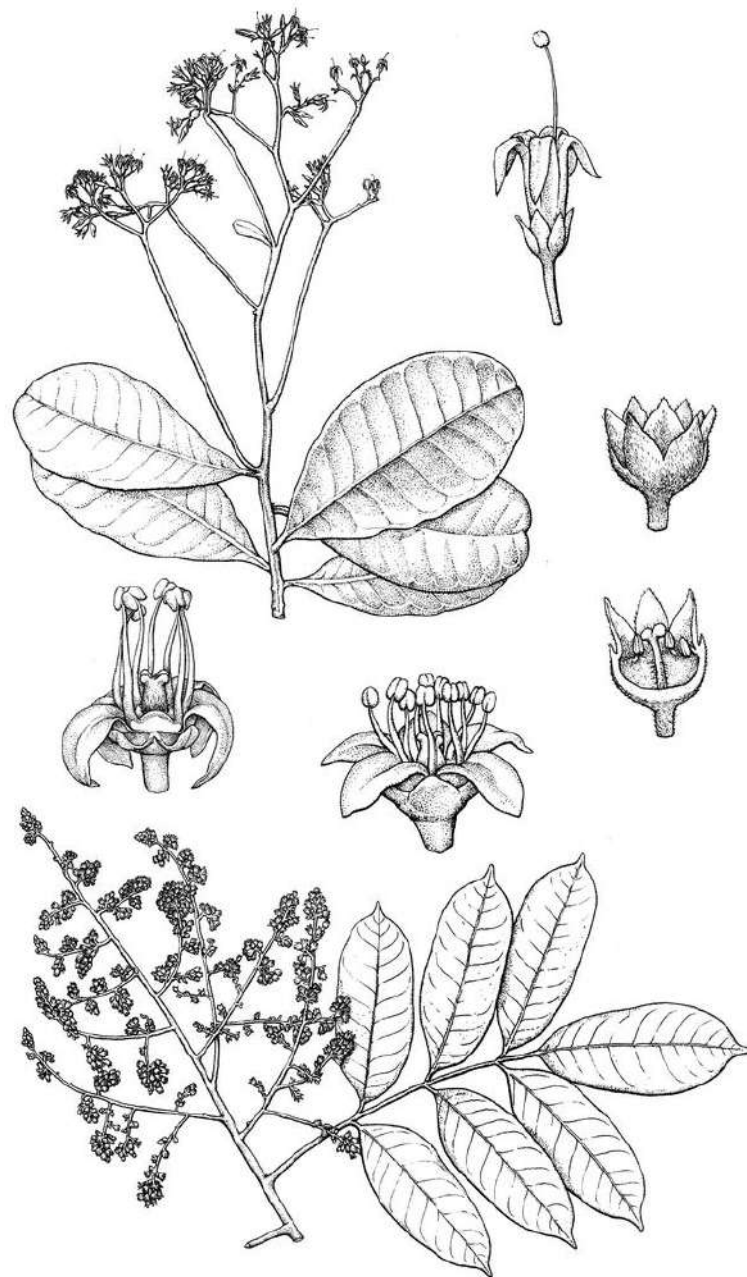
folia alterna
simplicia v. composita
decidua v. sempervirentia



♂♀ v. ♀
* $K_{(5)} C_{0 \text{ v. } 5 \text{ v. } (5)} A_{3-5 \text{ v. } 10} G_{\underline{1-5} \text{ v. } (\underline{2-5})}$
panicula



drupa



Cotinus coggygria



intenzivno crveni listovi
u jesenjem aspektu





Mangifera indica





koštunica

spljošteni
endokarp





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





koštnica
do 6 mm

Familia

GERANIACEAE



herba (annua v. perenna)
rarius suffrutex



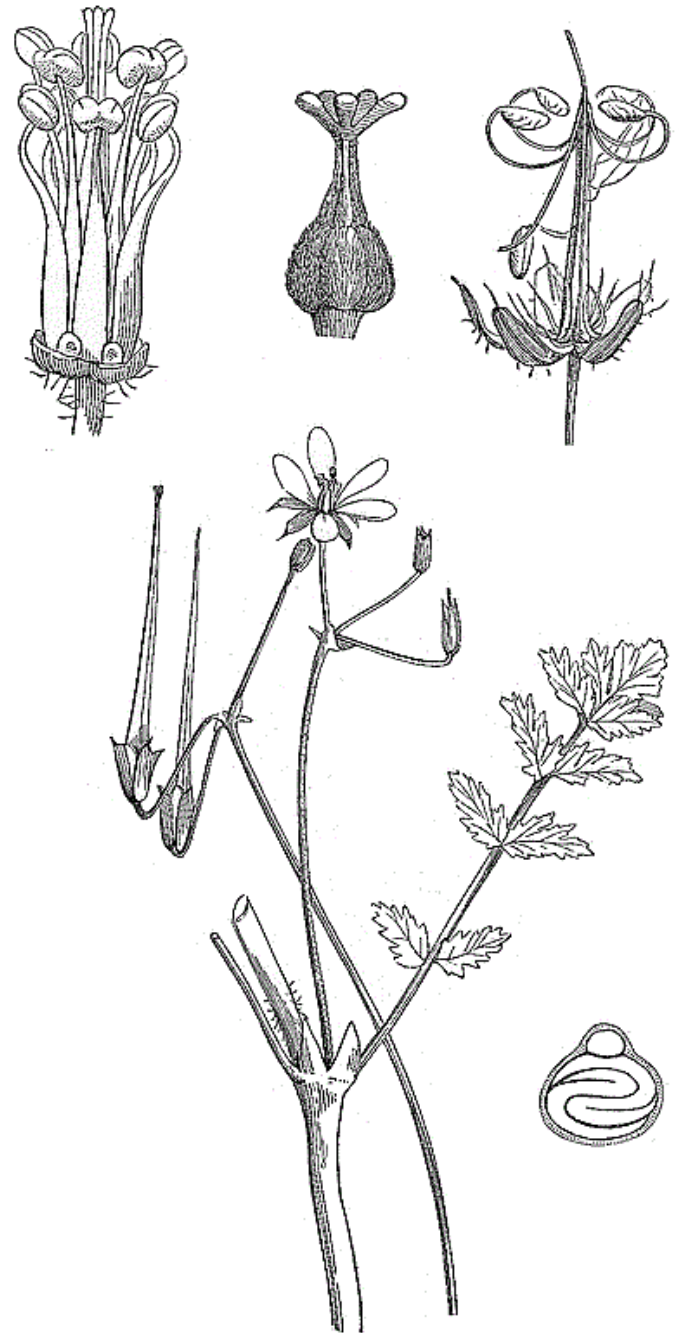
folia simplicia v. composita
alterna v. opposita
+ stipulae



* v. $\uparrow K_5 C_5 A_{5+5} \underline{G_{(5)}}$
+ staminodia
cyma v. umbella



schizocarpium



Geranium molle



goli merikarpi
poprečno izbrazdani

Geranium dissectum



kljun ploda
žljezdasto dlakav

dlakavi
merikarp

merikarpi se
lučno savijaju
prema gore

Geranium lucidum



poprečne
brazde na
čašici

mrežasto
naborani
merikarpi



Geranium robertianum







kljun ploda

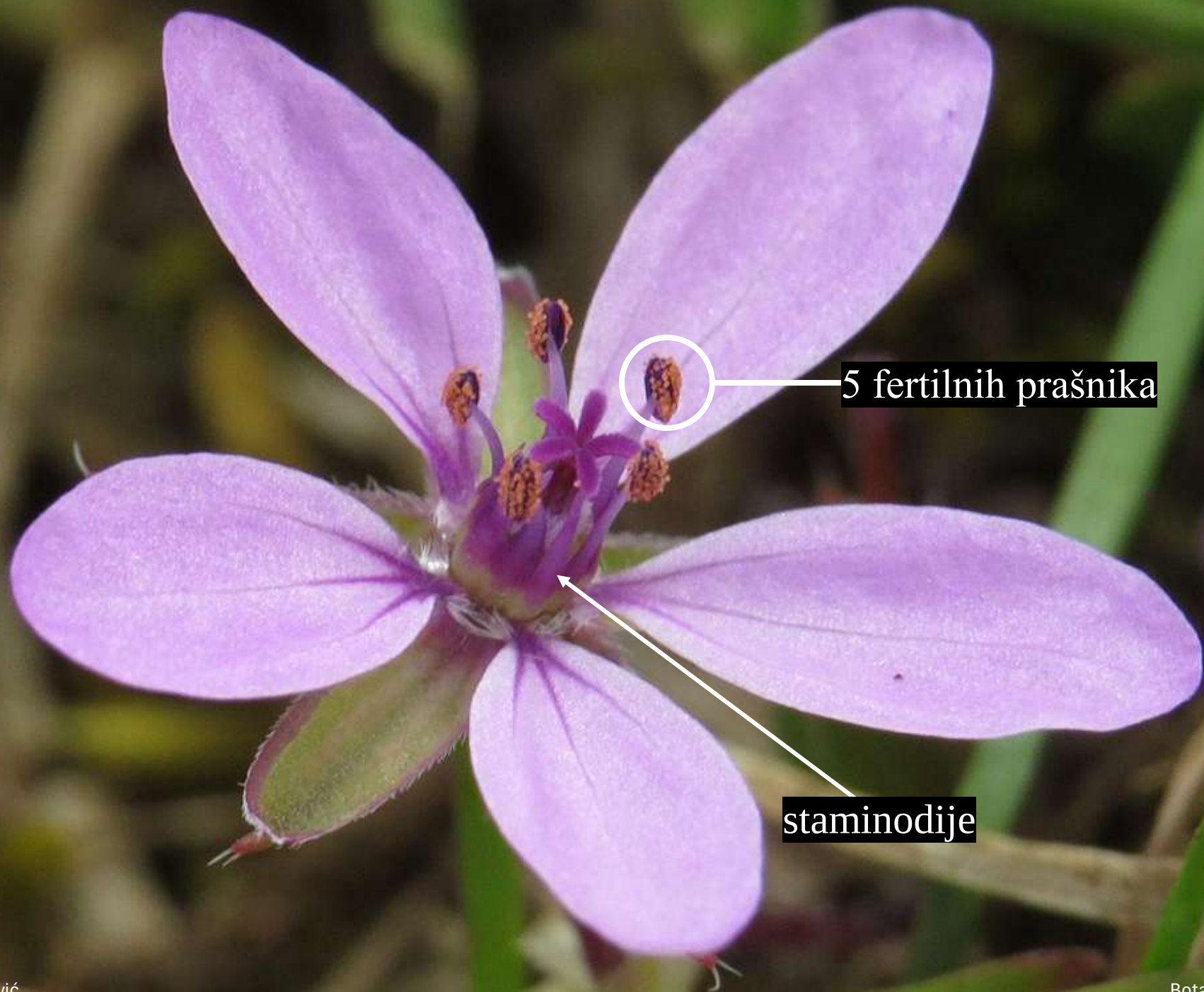
nezreli
šizokarpi

duboko perasto
dijeljeni listovi



Erodium cicutarium





5 fertilnih prašnika

staminodije

3-10 cvjetova u štitu

↑
opnaste
brakteje



perasto složeni listovi

kljunić ploda se spiralno uvija



Familia

LINACEAE



herba (annua v. perenna)
rarius frutex



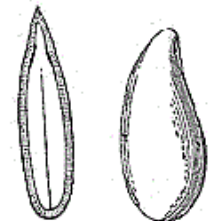
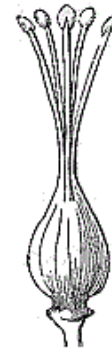
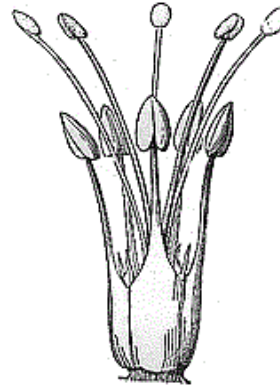
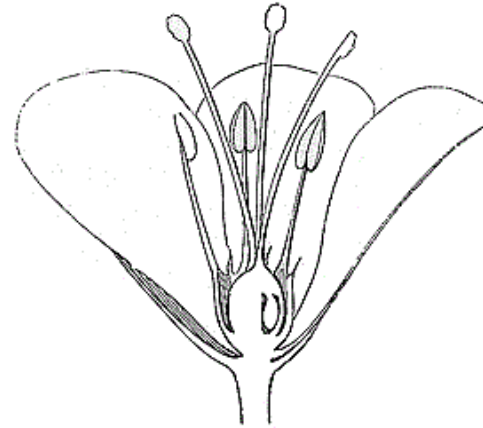
folia simplicia alterna
(rarius opposita)



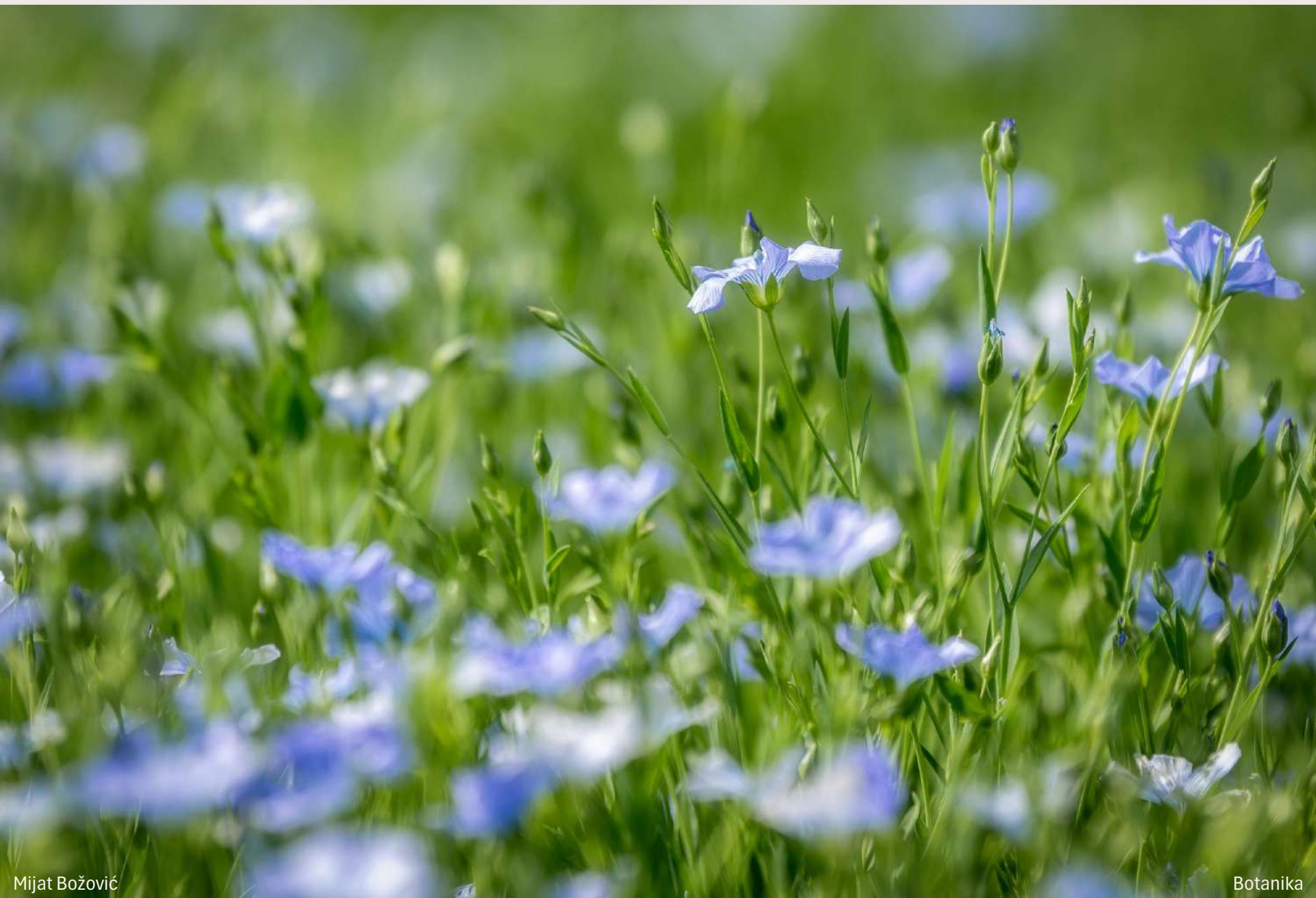
* $K_{4-5} C_{4-5} A_{(4-5)} \underline{G_{(2-5)}}$
cyma (rarius racemus)



capsula



Linum usitatissimum





5-merni
cvjetovi



sjedeći
lancetasti
listovi

loptasta
čaura



10 sjemenaka
u čauri





lan: industrijska biljka

Familia

VISCACEAE



frutex in arboribus semiparasiticus
+ haustoria



folia simplicia opposita
sempervirentia



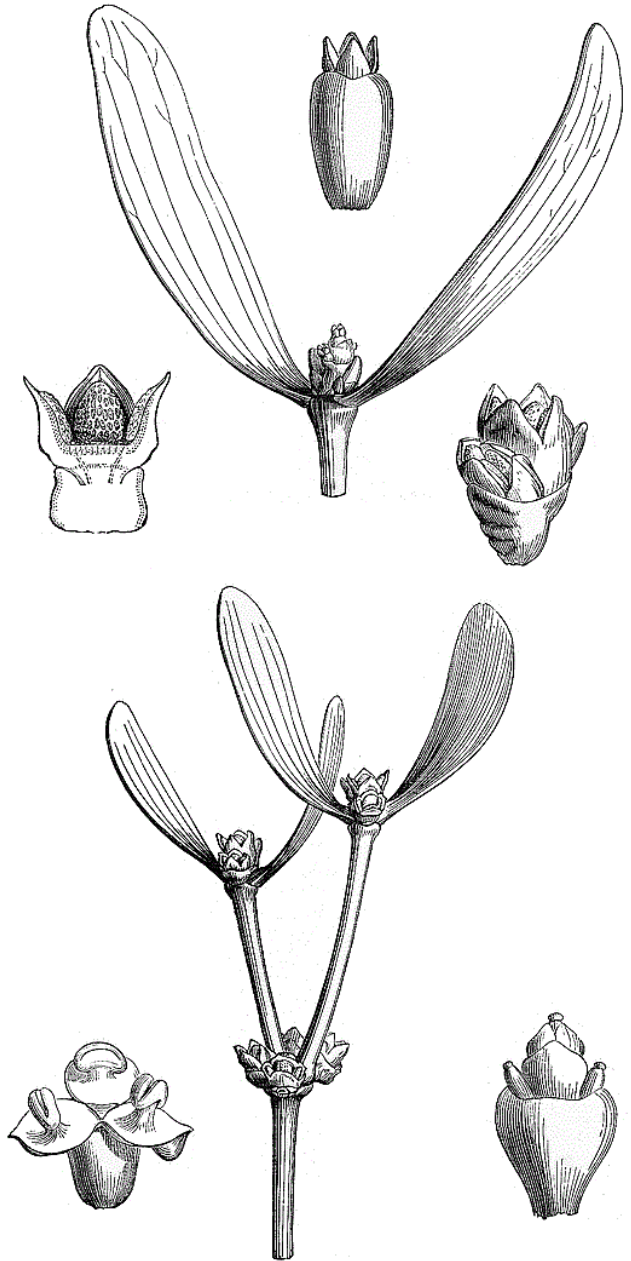
♂♀

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

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
decidua v. sempervirentia

+ stipulae

♂♀ v. ♂



* $K_{4-5} C_0 \text{ v. } 4-5 A_{4-5} \underline{G}_{(3)}$

+ hypanthium

cyma



drupa (rarius capsula)



Ziziphus jujuba



Frangula alnus



sitni zvonasti 5-merni
hermafroditni cvjetovi



glatka koštunica
crnoljubičaste 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

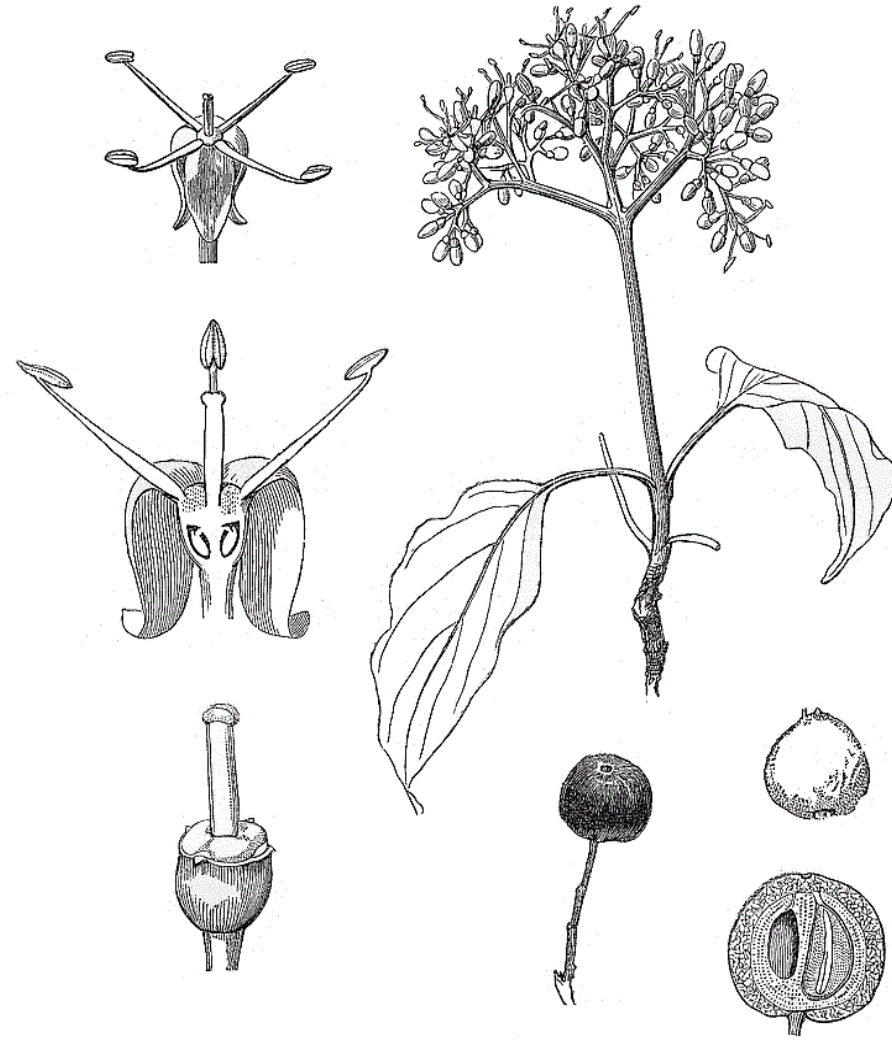


* $K_{(4)} C_{0 \text{ v. } 4} A_4 \overline{G}_{(2)}$

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)



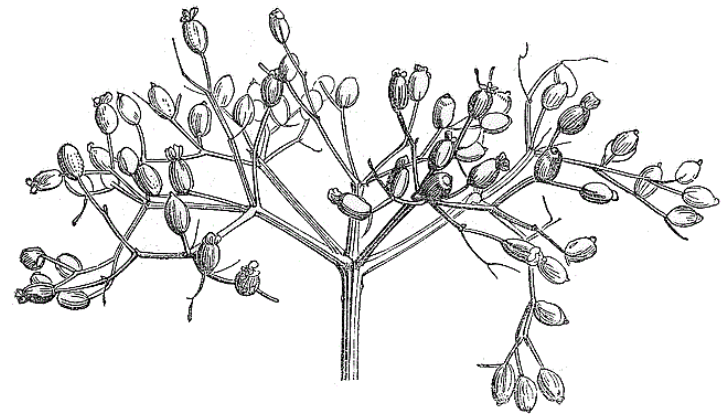
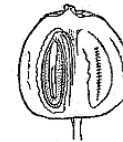
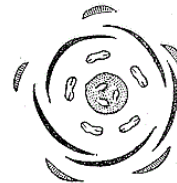
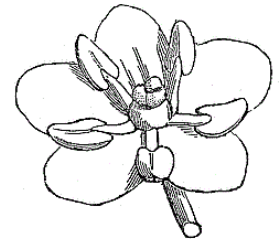
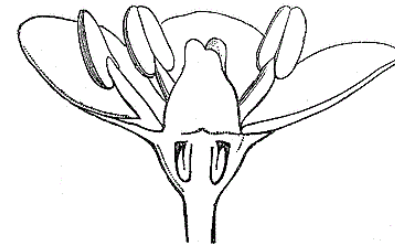
folia composita opposita
decidua



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



drupa



Sambucus nigra





5-merni 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



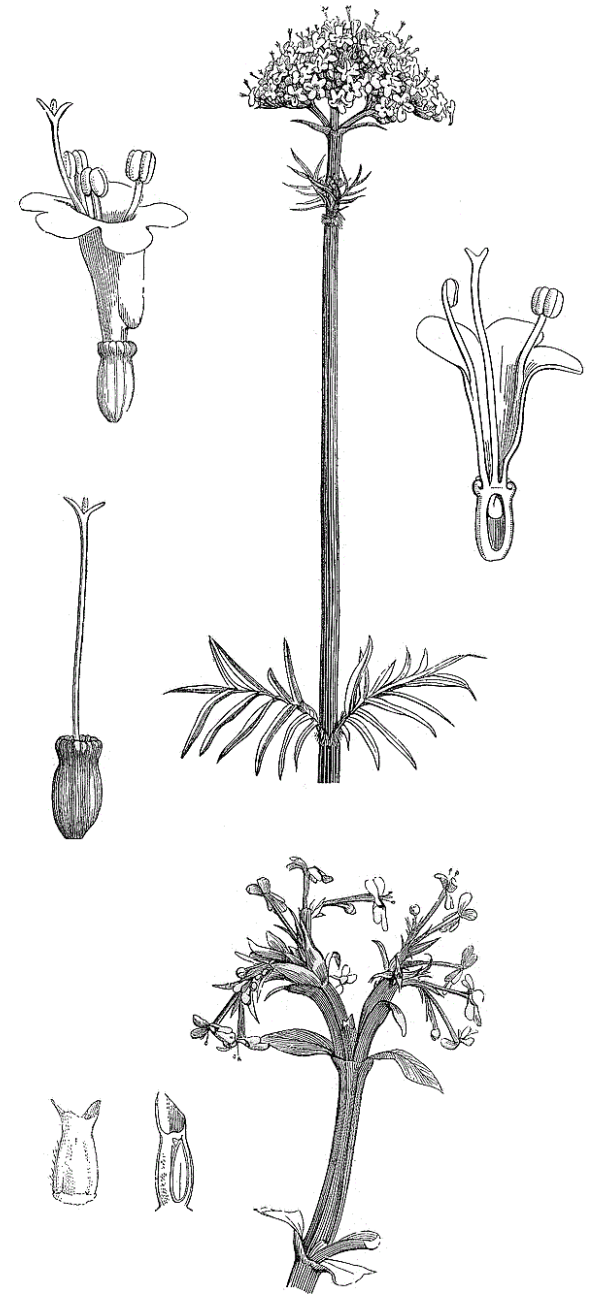
♀ (rarius ♂♀)

$\uparrow K_{(5)} C_{(5)} A_{1-4} G_{(3)}$

cyma



achenia



Valeriana officinalis



perasto složeni
listovi ili duboko
perasto usiječeni



složena cimozna cvast
koja podsjeća na gronju





5-režnjevita
ljevka krunica

ahenija sa papusom
(ostatkom čašice)

Valerianella carinata



ahenije



ostatak čašice

dihotomo granata
stabljika i dihozijum

Familia

ARALIACEAE



arbor, frutex v. liana lignosa
rarius herba perenna



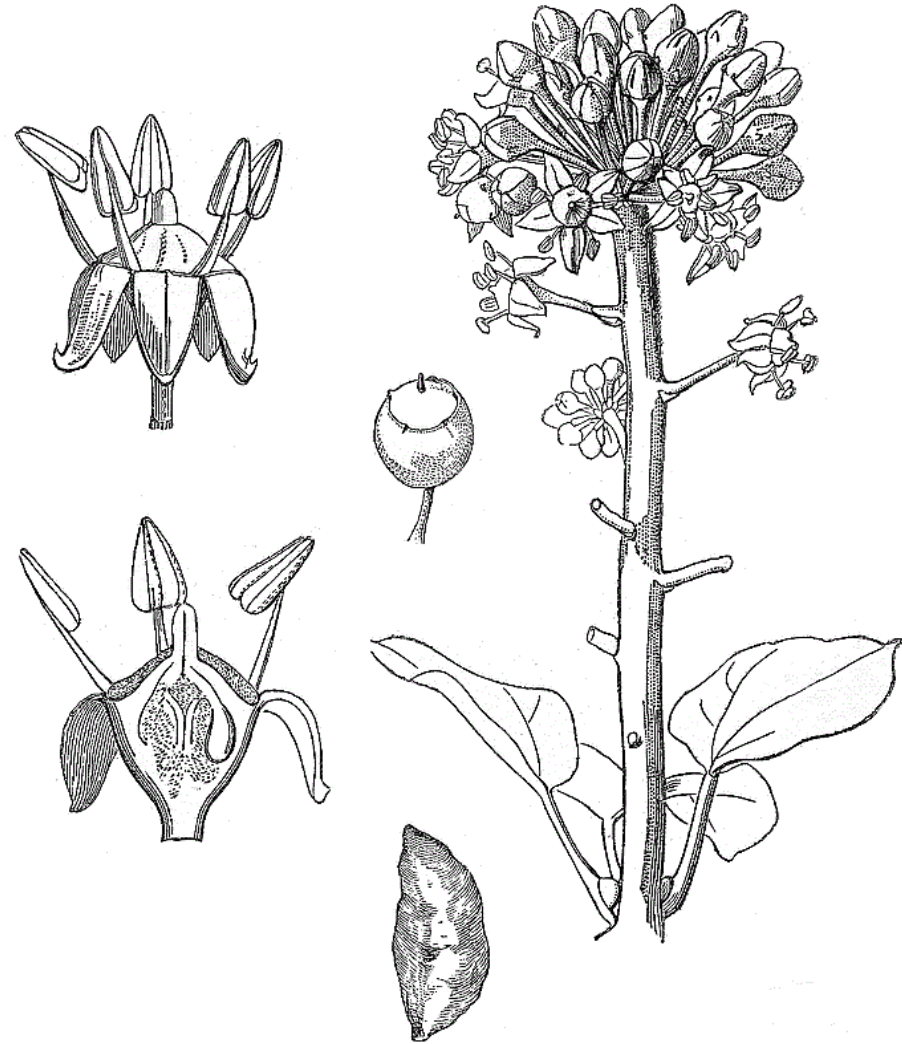
folia simplicia v. composita
alterna
decidua v. sempervirentia



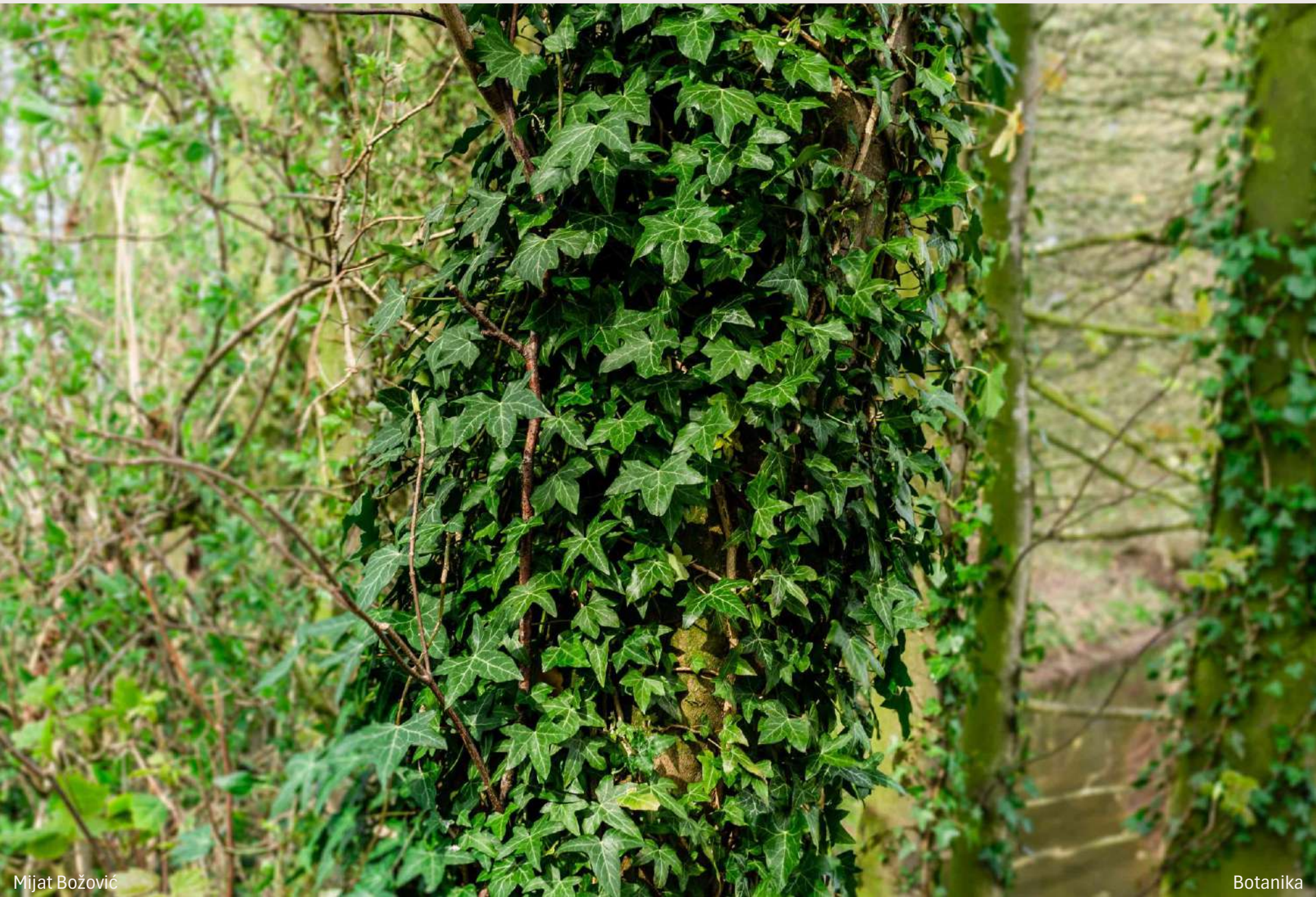
* K_0 v. (4-5) C_5 A_5 $\overline{G_{(2-5)}}$
plerumque umbella



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
grozdolike metlice

2-3-sjemena
plavocrna bobica



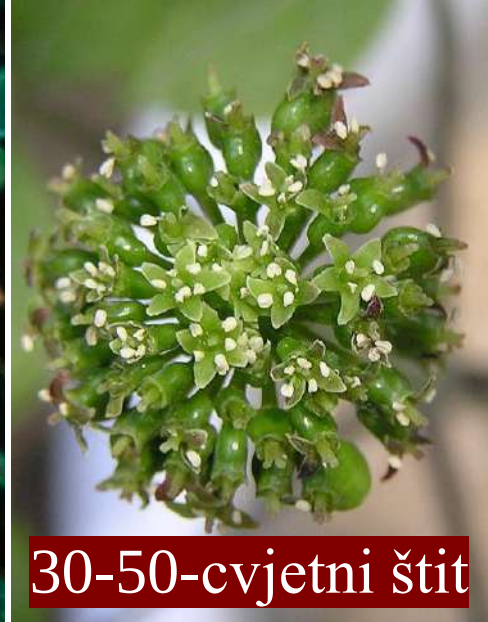


koristi drvo domaćina samo kao oslonac pa se
označava kao parazit prostora

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

