

12



**Glavne osobine monokotila
Odabrane porodice podklasa
Alismatidae, Liliidae,
Arecidae i Commelinidae**

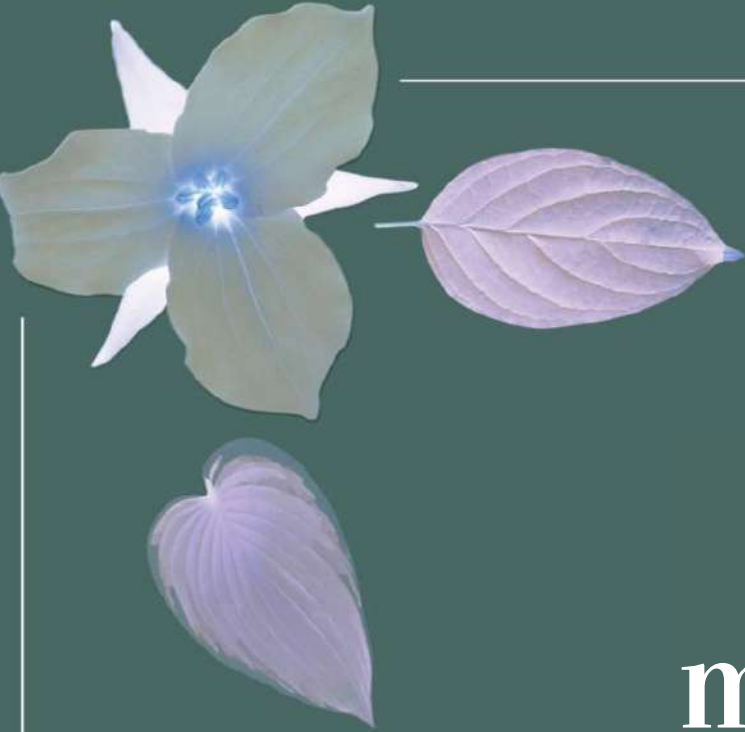
- glavni korijen slabo razvijen, umjesto njega adventivni

monokotile

• trimerni cvjetovi

većinom trajnice

• listovi najčešće sjedeći, nervatura često paralelna



Alismatidae

odabrane porodice:

Araceae

Acoraceae

Familia

ARACEAE



herba perenna (rhizoma v. tuber)



folia simplicia (rarius composita)

alterna v. rosulata
cum vagina



♂♀ v. ♀

* P_0 v. 4-6 v. (4-6) A_{1-4} v. (6-12) $G_{(1-8)}$

spadix (+ spatha)



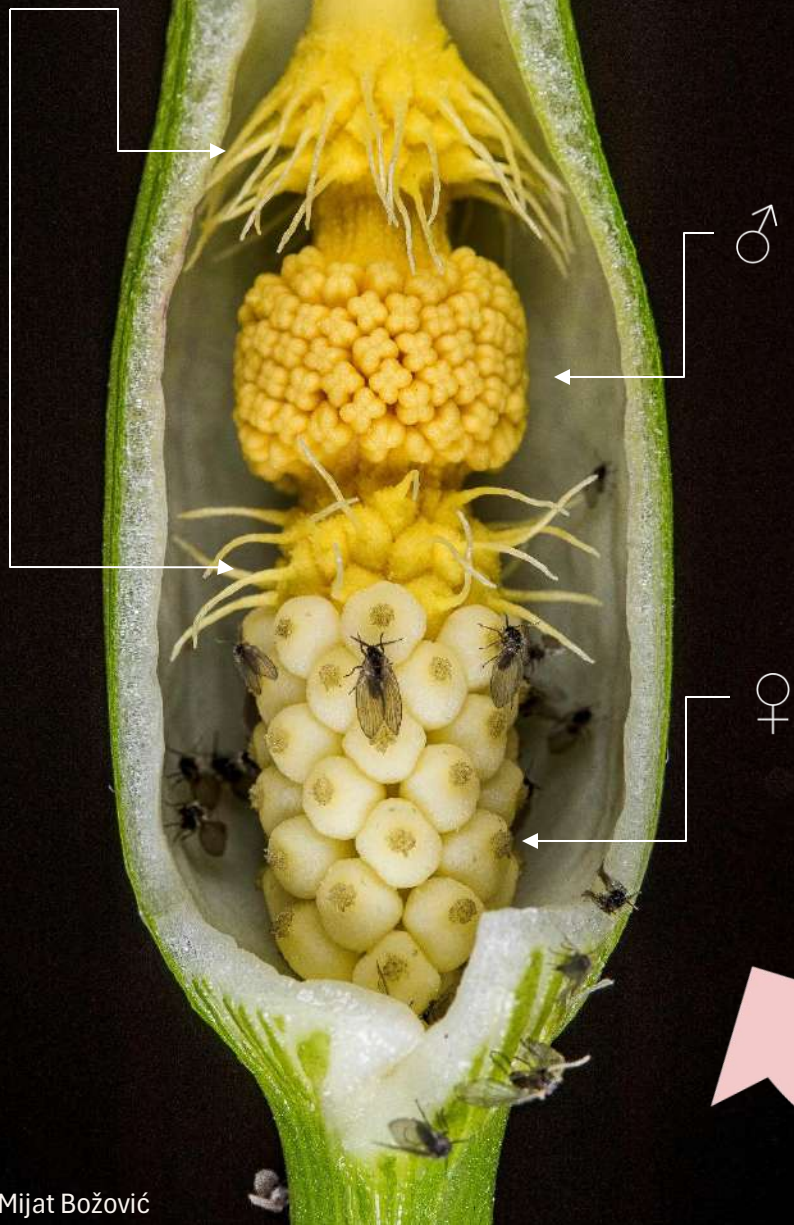
bacca



Arum italicum



sterilni
cvjetovi



spatha

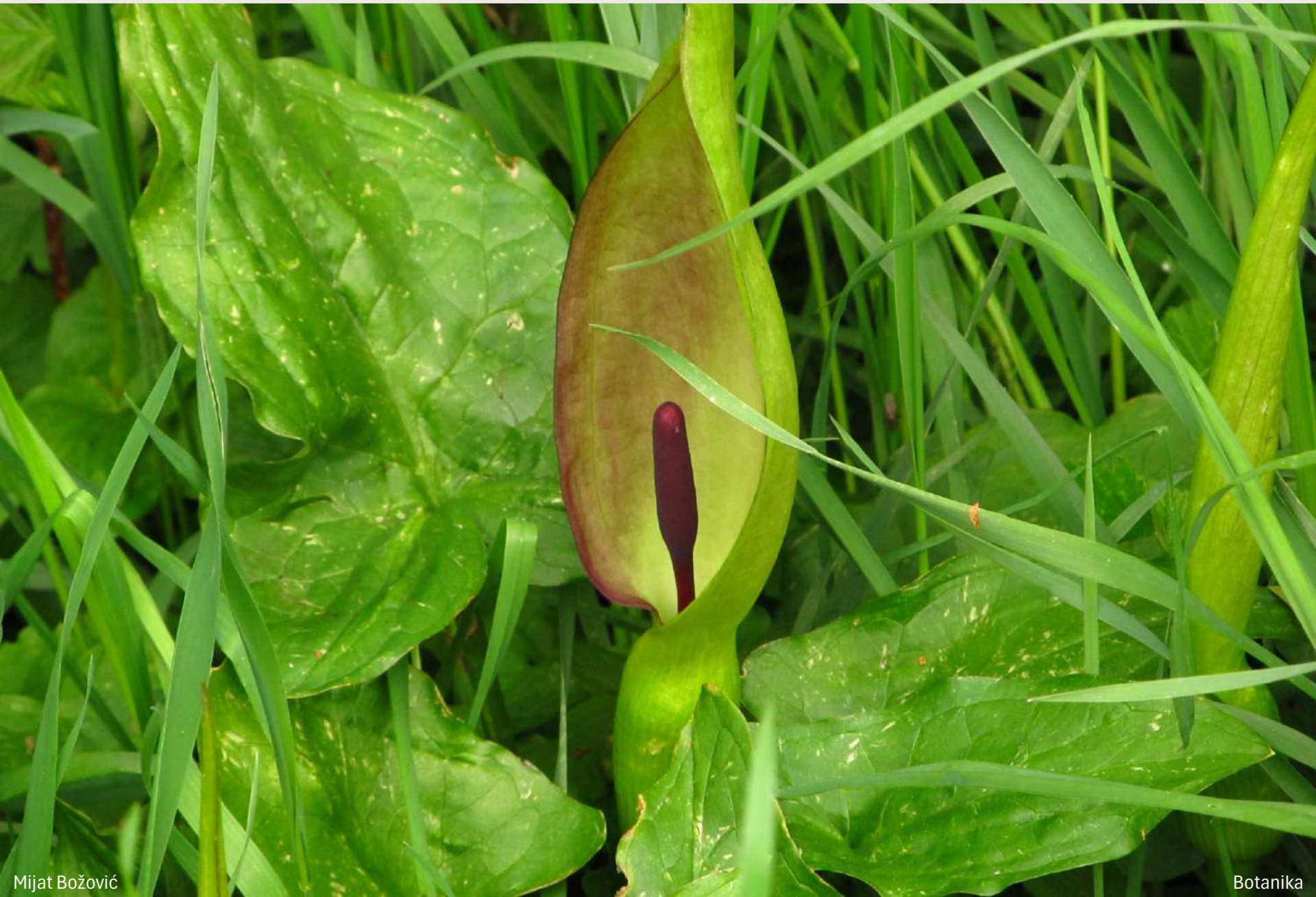
ahlamidni
jednopolni
cvjetovi

appendix





Arum maculatum



jednolično zeleni listovi često
prošarani tamnim mrljama





ljubičasti
apendiks

bjeličasta do
crvenkasta spata
često sa pjegama
iznutra

Familia

ACORACEAE



herba perenna (rhizoma)



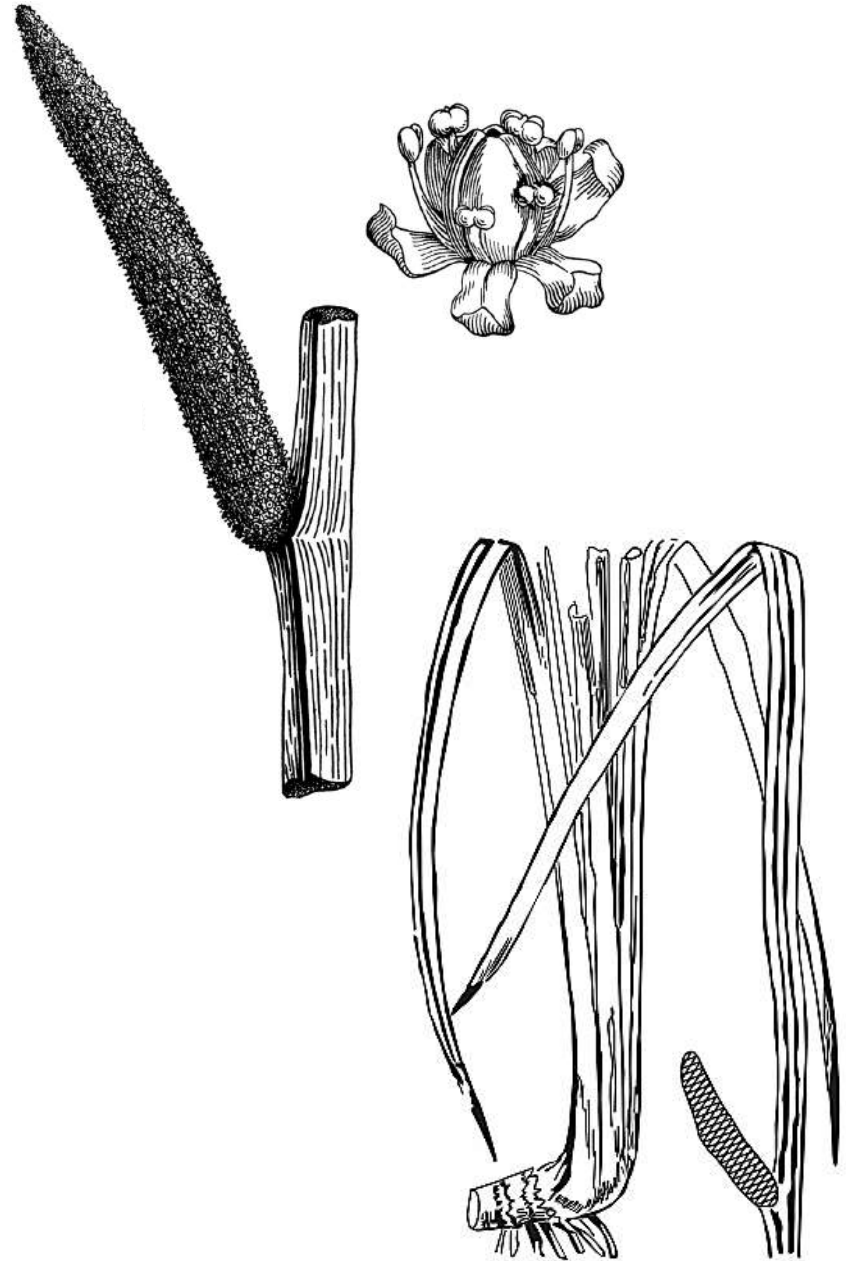
folia simplicia disticha
non petiolata



* $P_{3+3} A_{3+3} G_{\underline{(3)}}$
spadix



bacca



Acorus calamus



koso postavljen klip u osnovi
lista koji se distalno proširuje
pa podsjeća na spatu





i do 50 cm dugački rizomi
bogat i etarskim uljem

Liliidae

odabrane porodice:

Liliaceae

Asparagaceae

Alliaceae

Iridaceae

Orchidaceae

Familia

LILIACEAE



herba perenna
(rhizoma, tuber, bulbus)



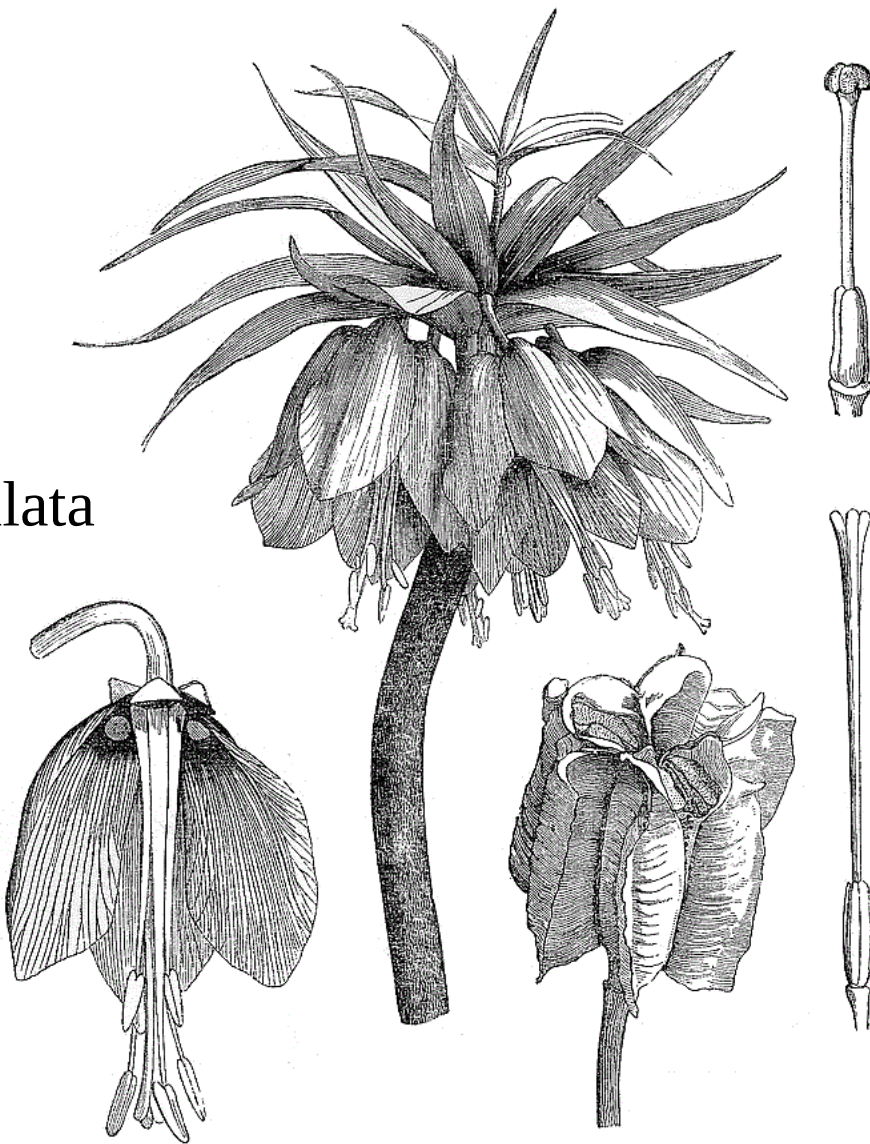
folia simplicia alterna v. rosulata
(rarius verticillata)
non petiolata



* P_{3+3} v. $(3+3)$ A_{3+3} $G_{\underline{(3)}}$
flos solitarius
racemus v. spica



capsula



Veratrum album





razgranata
vršna metlica



stubić
tučka

prašnik



čaura

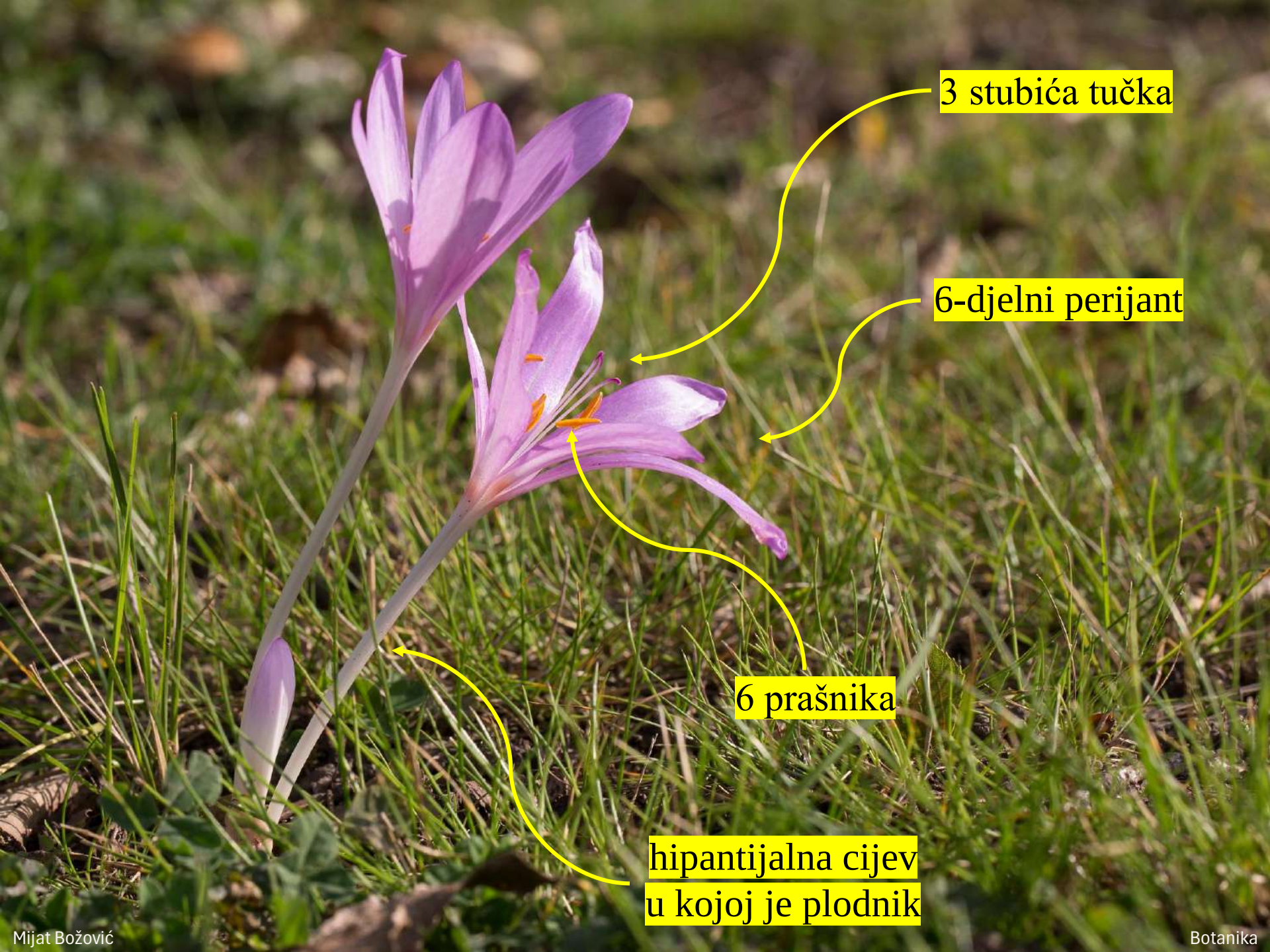


Botanika

Mijat Božović

Colchicum autumnale





3 stubića tučka

6-djelni perijant

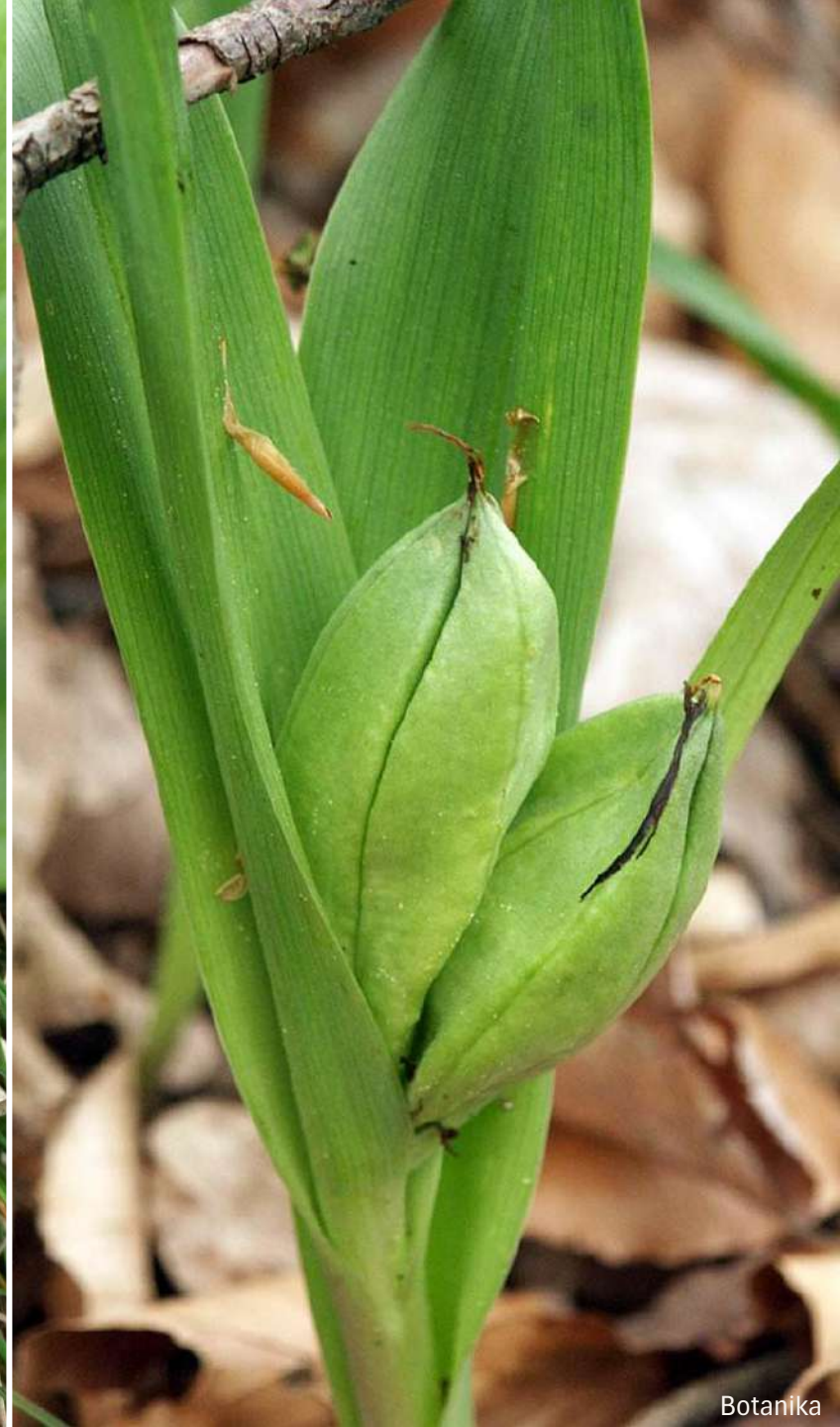
6 prašnika

hipantijalna cijev
u kojoj je plodnik



listovi koji se
pojavljuju s proljeća

čaura u
rukavcu
listova



Aloe vera





cvjetovi u
vršnim
grozdovima



Aloe ferox



Lilium martagon



pršljenasto
raspoređeni
listovi





6 listića
perijanta

6 prašnika

3-režnjeviti žig

6-uglasta
jajasta čaura



Drimia maritima





krupne
lukovice



grozd

Familia

ASPARAGACEAE



herba perenna (tuber v. bulbus)
rarius arborescens v. liana



folia simplicia alterna v. rosulata
rarius petiolata



♂♀ v. ♂

* P_{3+3} v. $(3+3)$ A_{3+3} $G_{(3)}$

racemus, spica v. panicula
(rarius flos solitarius)



bacca



Convallaria majalis



grozd okrenut
na 1 stranu



bobica



Asparagus officinalis



5-15 filokladija u čuperku

diecka vrsta

6 listića perijanta







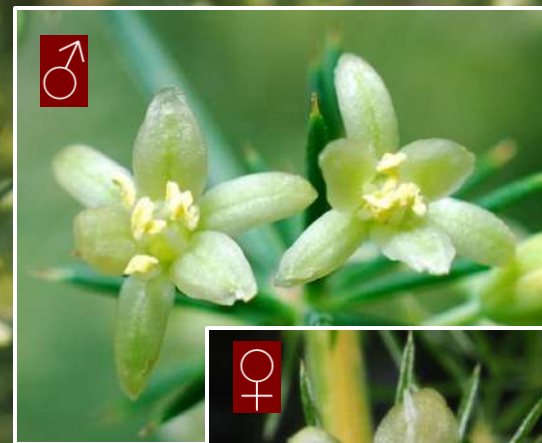
mladi izdanci se koriste u ishrani

Asparagus acutifolius



10-30 filokladija u čuperku

diecka vrsta



staminodije



Ruscus aculeatus



ljuspasta
brakteja

ljuspasti
list

filokladija



diecka vrsta



Familia

IRIDACEAE



herba perenna
(rhizoma, tuber, bulbus)



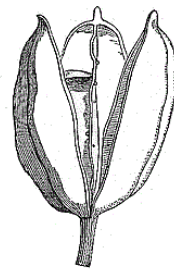
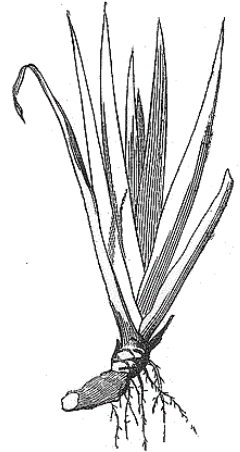
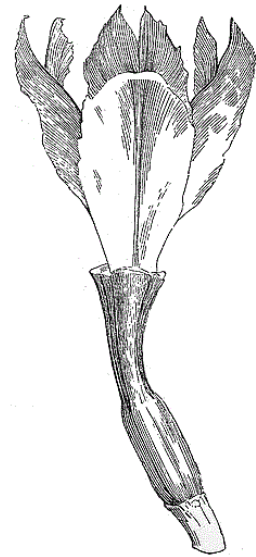
folia simplicia alterna
non petiolata



* v. $\uparrow P_{(3+3)} A_3 G_{(\overline{3})}$
flos solitarius
monochasium v. spica



capsula



Iris germanica

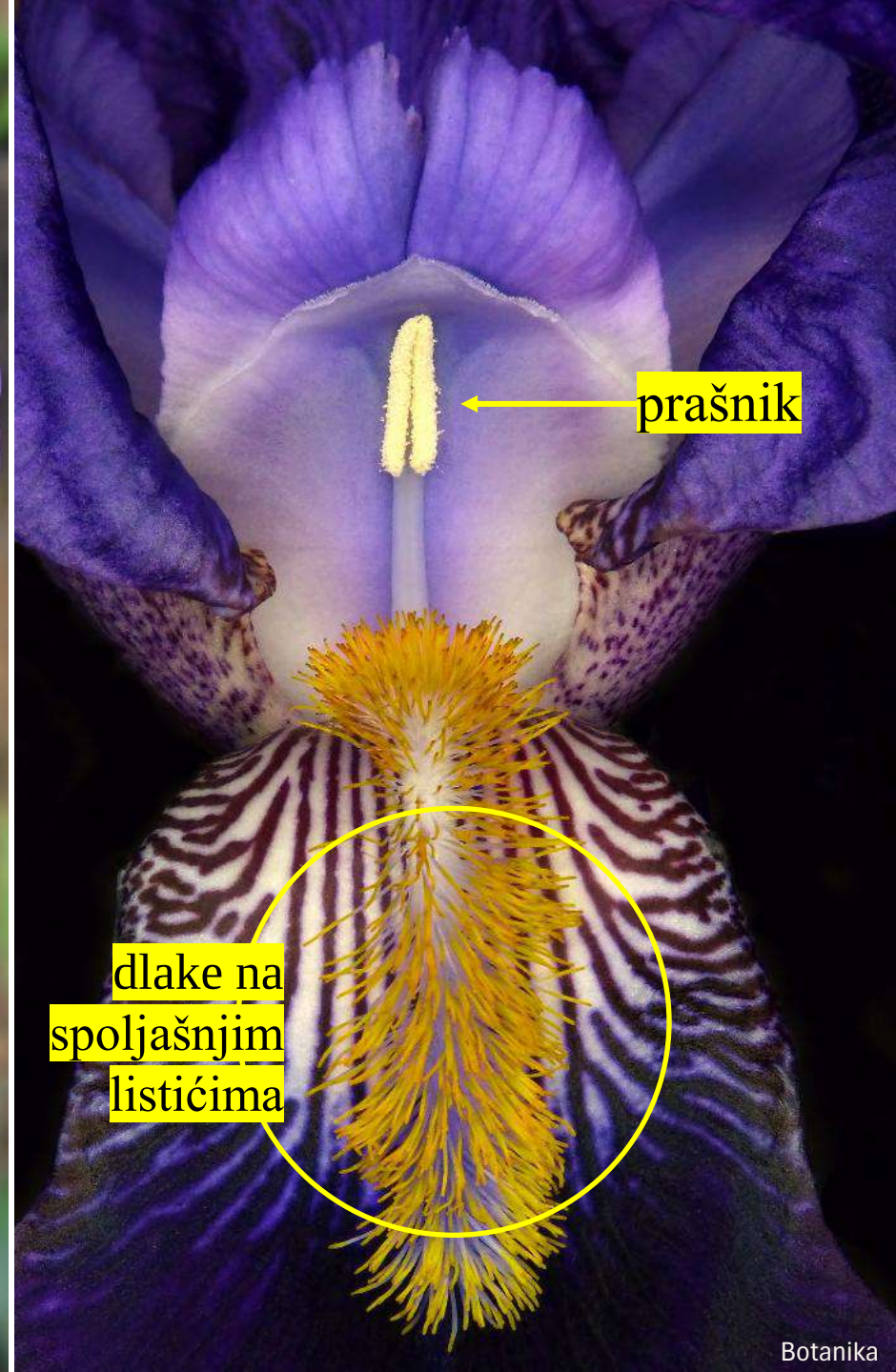




opnasta
brakteja



4-cvjetna
krivudarka



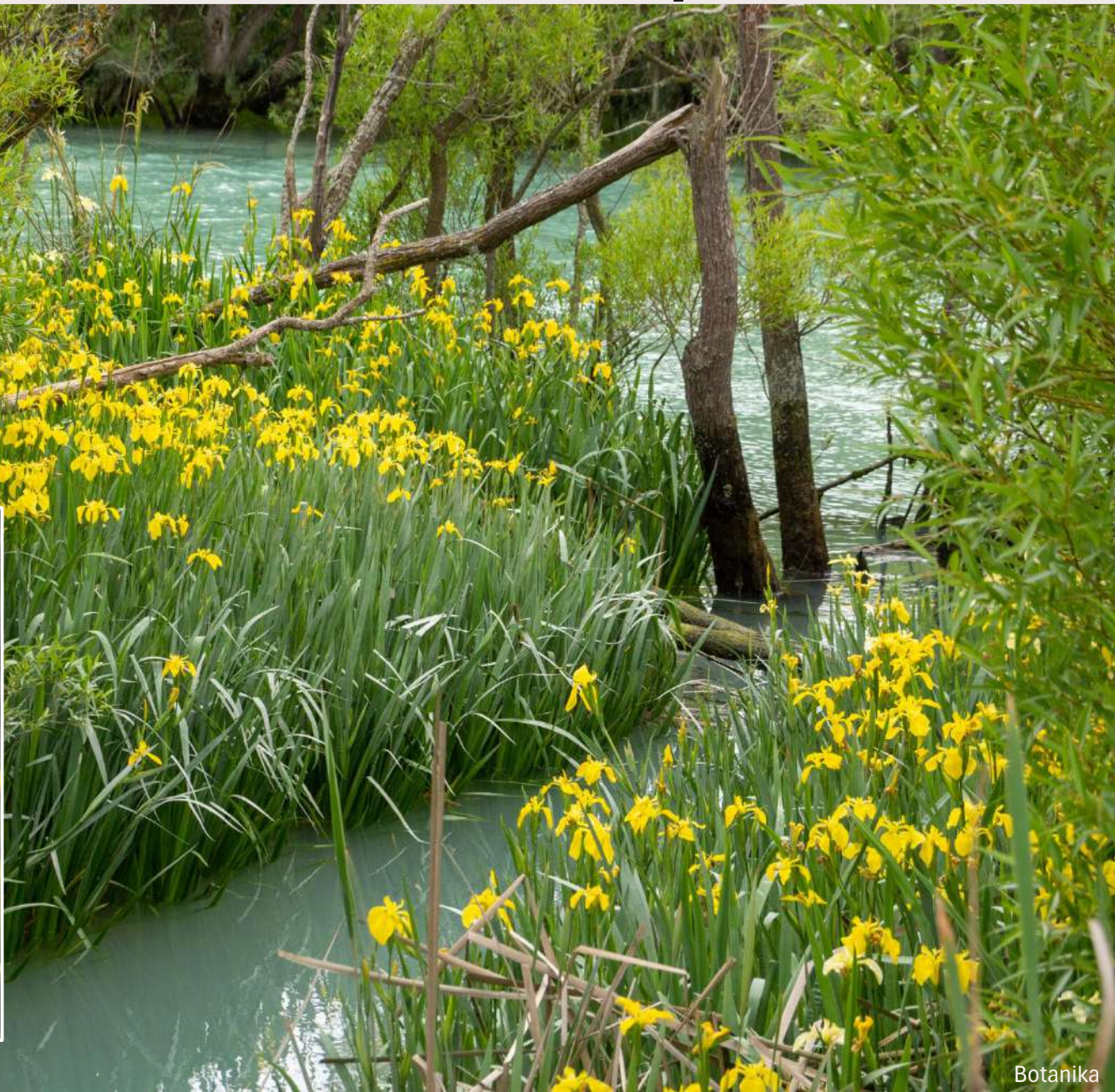


kruniolika
proširenja
vrata tučka
ispod kojih se
nalaze prašnici

valjkasta
čaura



Iris pseudacorus



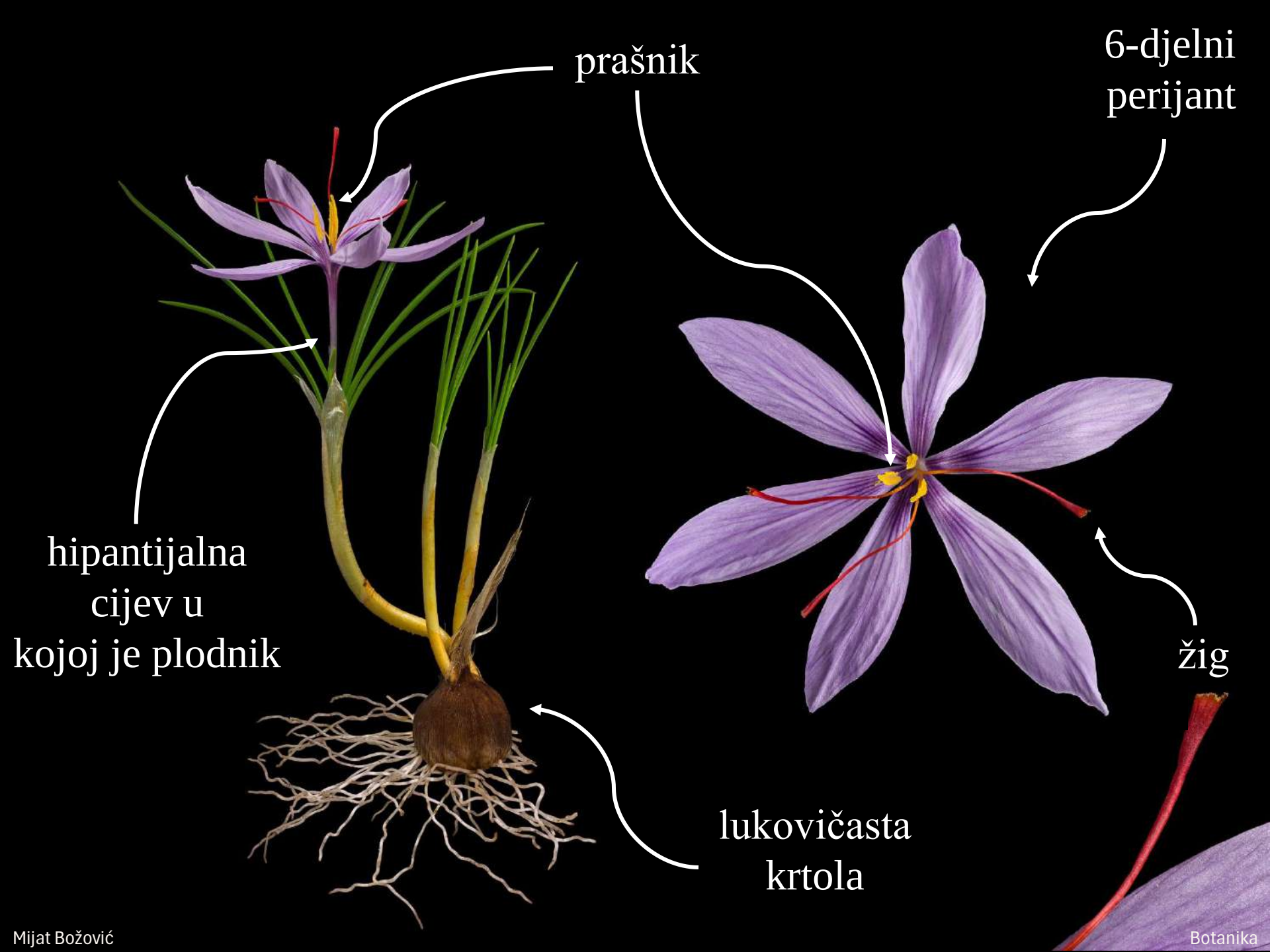
Iris orjenii





Crocus sativus





prašnik

6-djelni
perijant

hipantijalna
cijev u
kojoj je plodnik

žig

lukovičasta
krtola

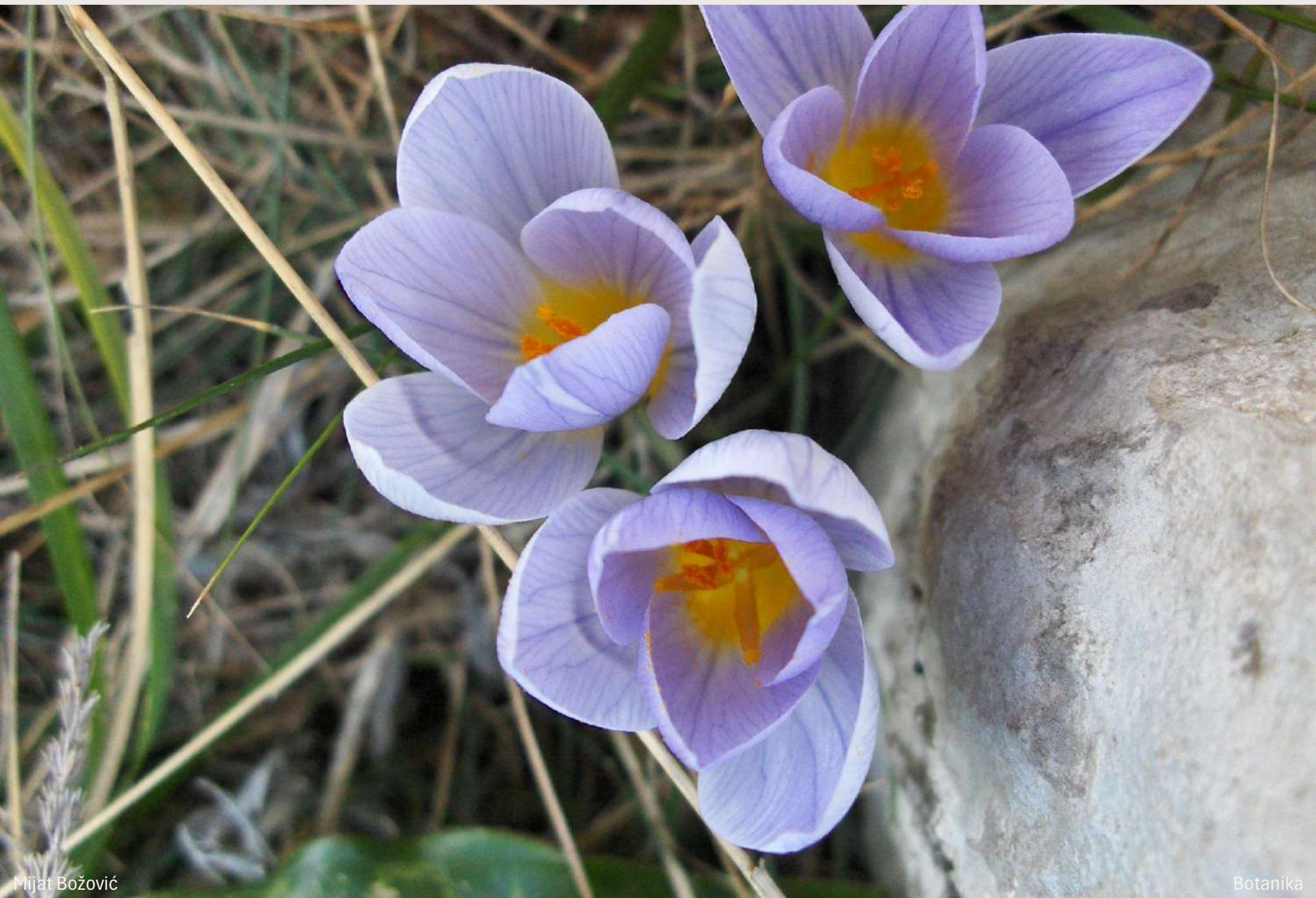


šafan: najskuplji začin

Crocus tomassinianus



Crocus dalmaticus



Familia

ORCHIDACEAE



herba perenna (rhizoma, tuber)
epiphytica, rarius saprophytica



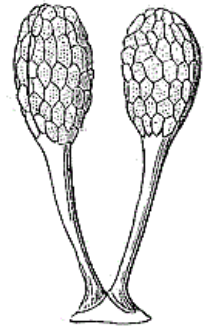
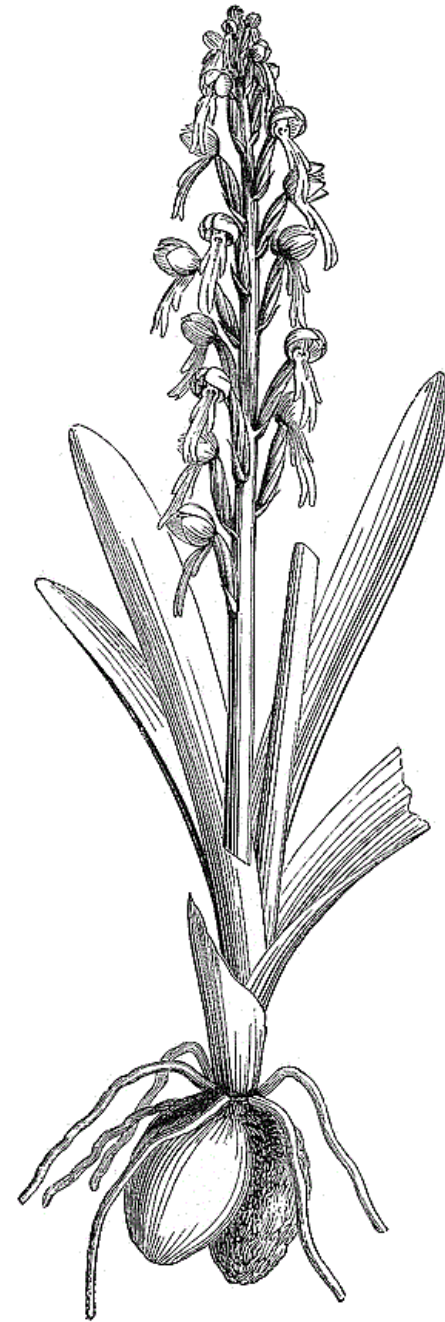
folia simplicia alterna
cum vagina



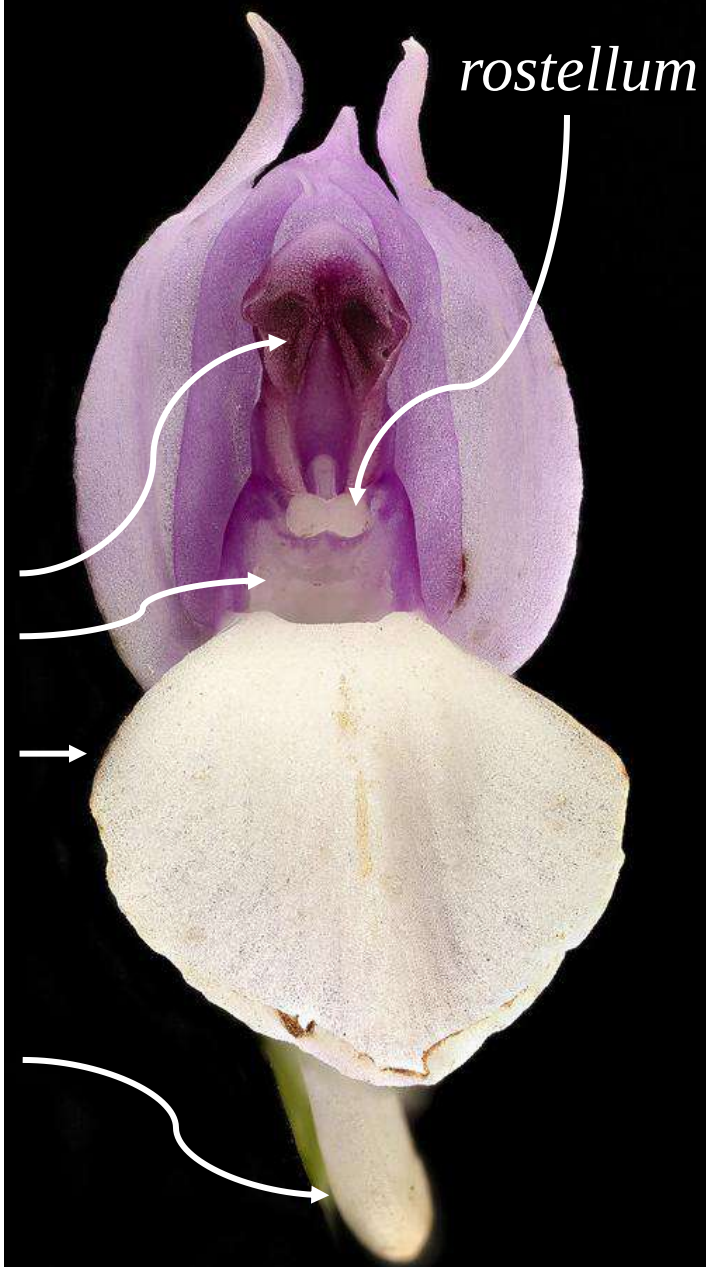
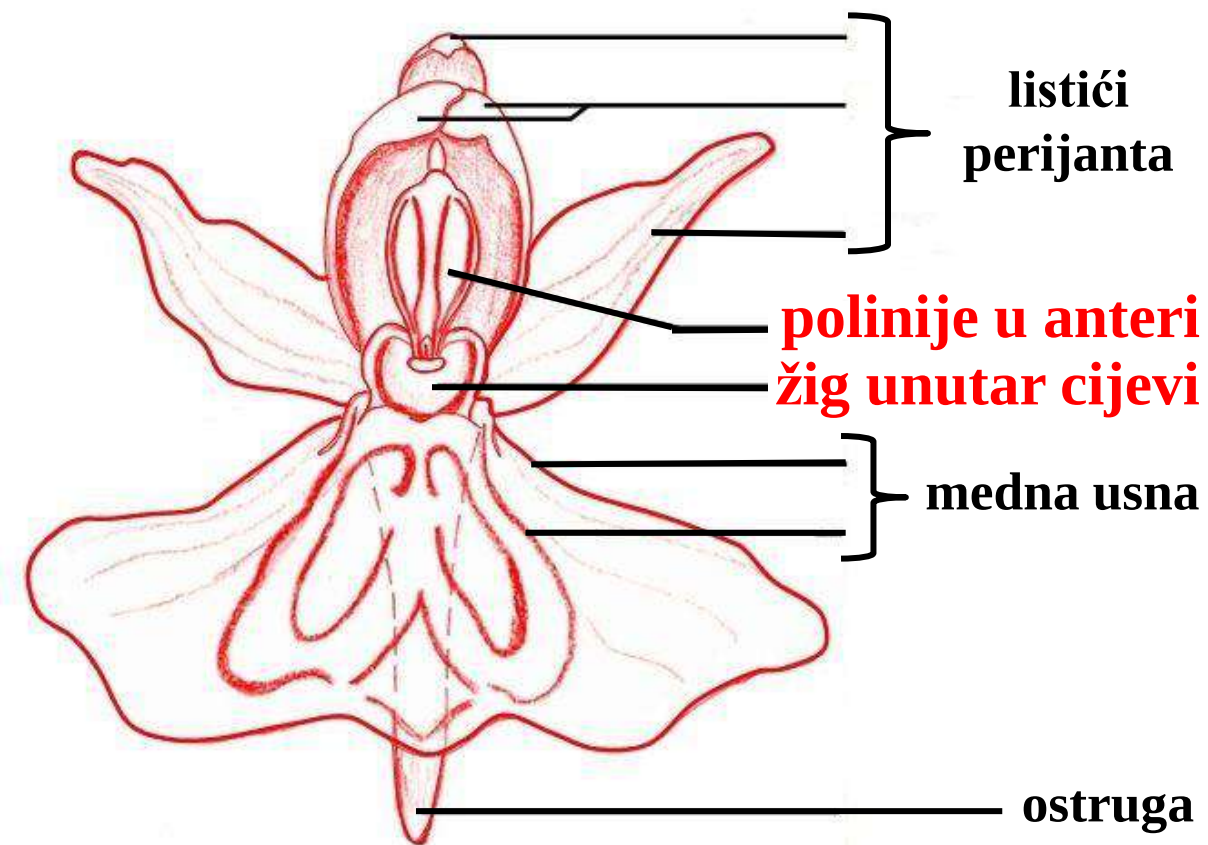
$\uparrow P_{3+3 \text{ v. } (3+3)} [A_1 \text{ v. } 2 \ G_{(3)}^-]$
flos solitarius, racemus v. spica



capsula



Cvijet orhideje



Orchis morio





rozeta



donji listovi
koji
obuhvataju
stabljiku



medna
usna

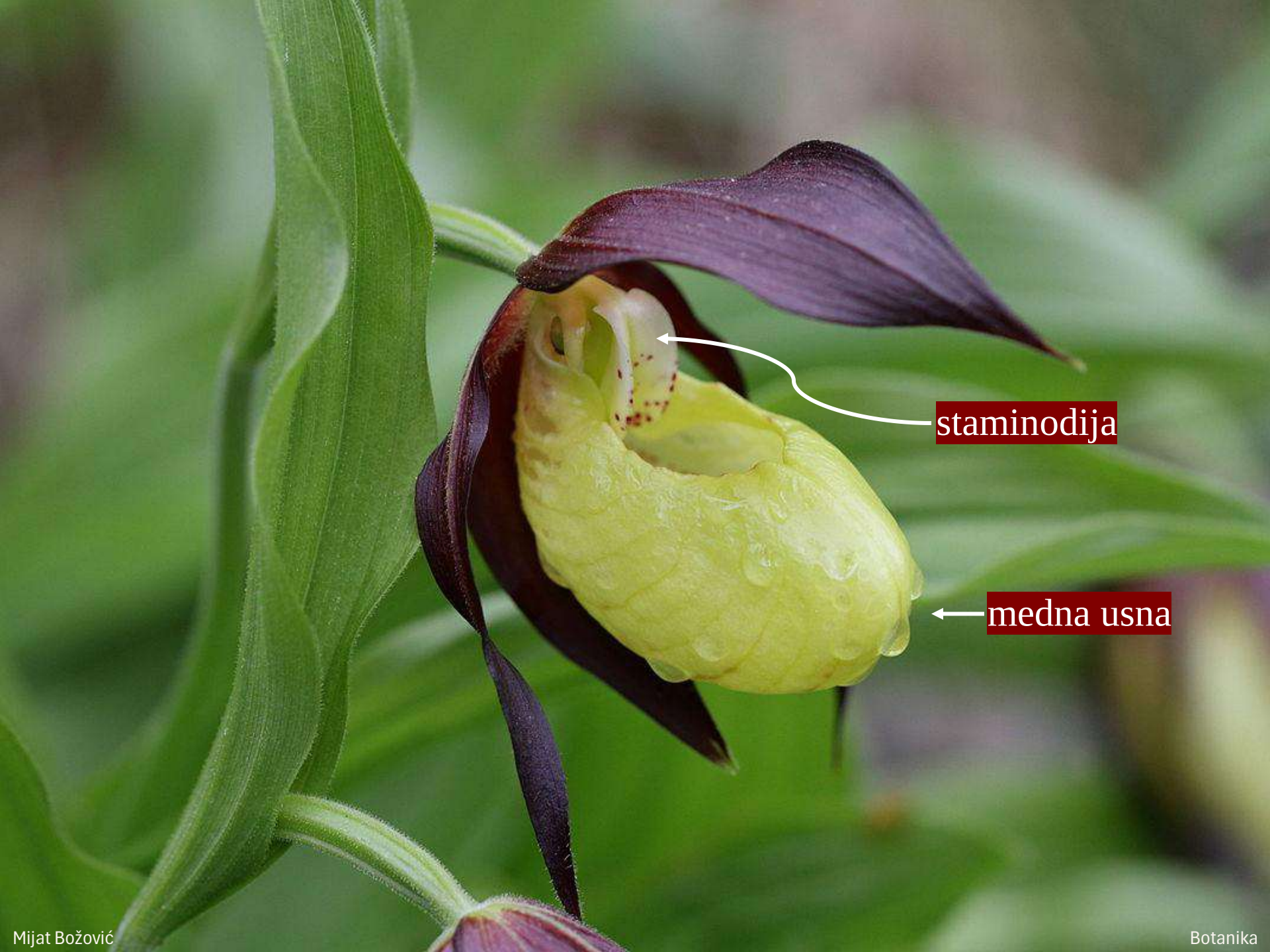
brakteja

ostruga

5 perijantnih
listića koji
formiraju kacigu

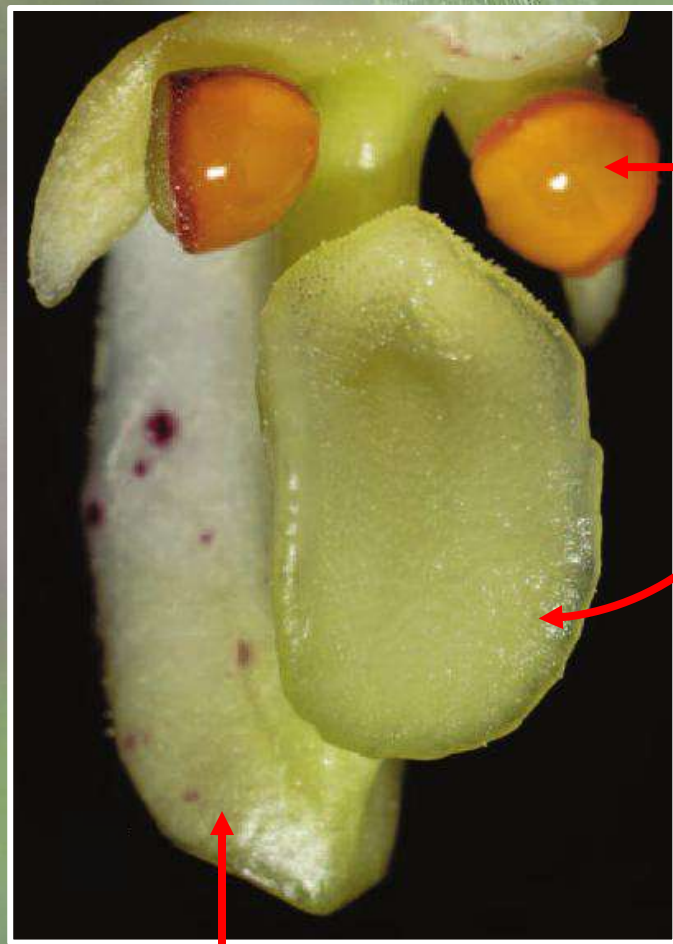
Cypripedium calceolus





staminodija

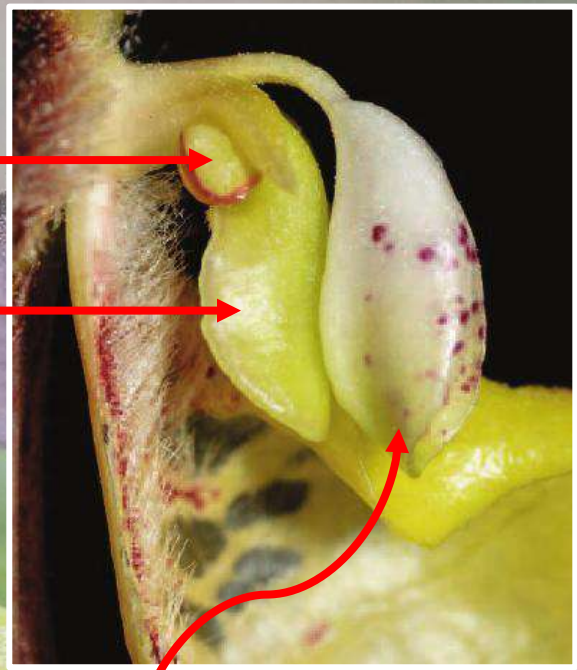
medna usna



staminodija

2 prašnika

žig



staminodija

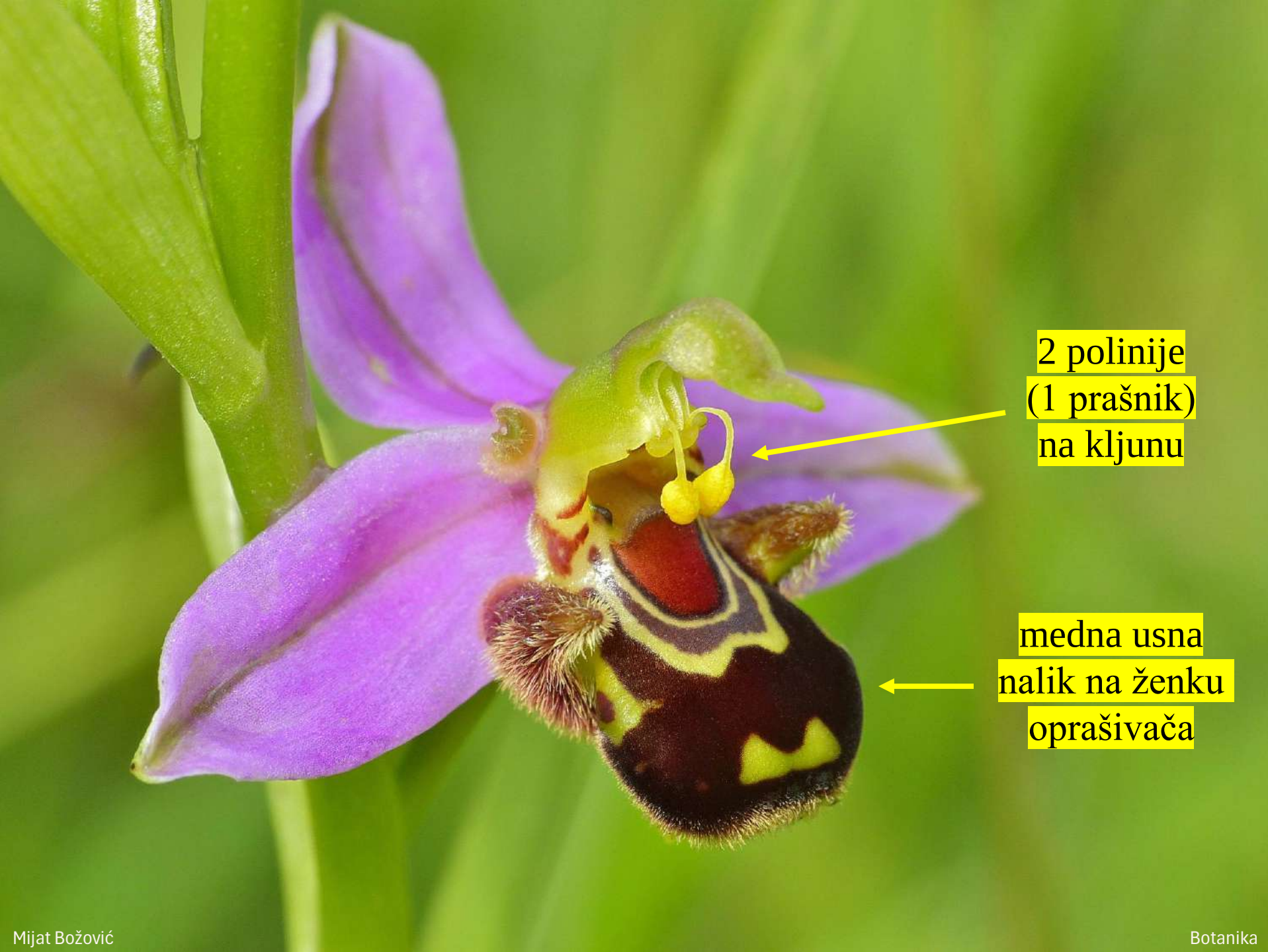


Ophrys sphegodes



Ophrys apifera





2 polinije
(1 prašnik)
na kljunu

medna usna
nalik na ženku
oprašivača

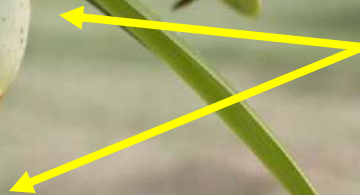


Vanilla planifolia





čaura koja
liči na mahunu





plod vanile tek nakon fermentacije dobija specifičan miris

Arecidae

odabrana porodica:

Arecaceae

Familia

ARECACEAE



arbor v. frutex
rarius liana



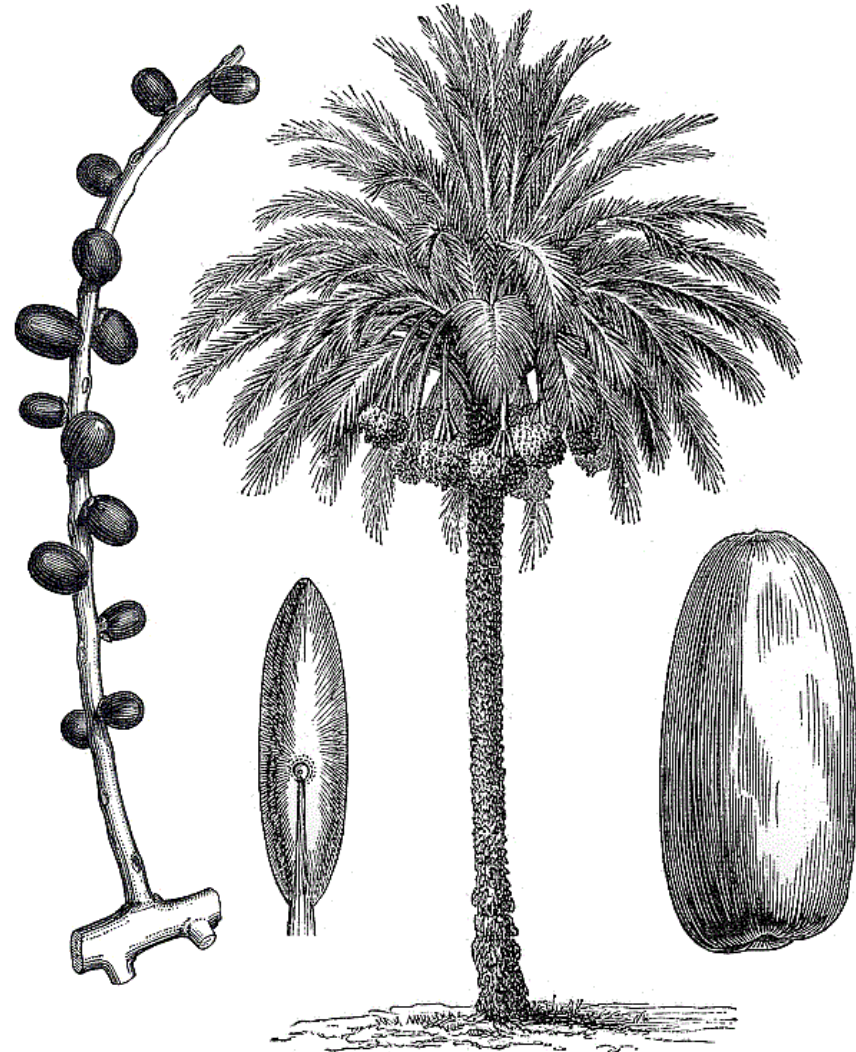
folia simplicia v. composita
alterna



♂♀ (rarius ♀)
* $P_{3+3 \text{ v. } (3+3)} A_{3+3 \text{ v. } (3+3)} G_{\underline{3} \text{ v. } (\underline{3})}$
spadix v. panicula (+ spatha)



bacca v. drupa





Phoenix dactylifera









1-sjemene
bobice



sa preko 400 sorti urme su među najstarijim kultivisanim biljkama

Phoenix canariensis





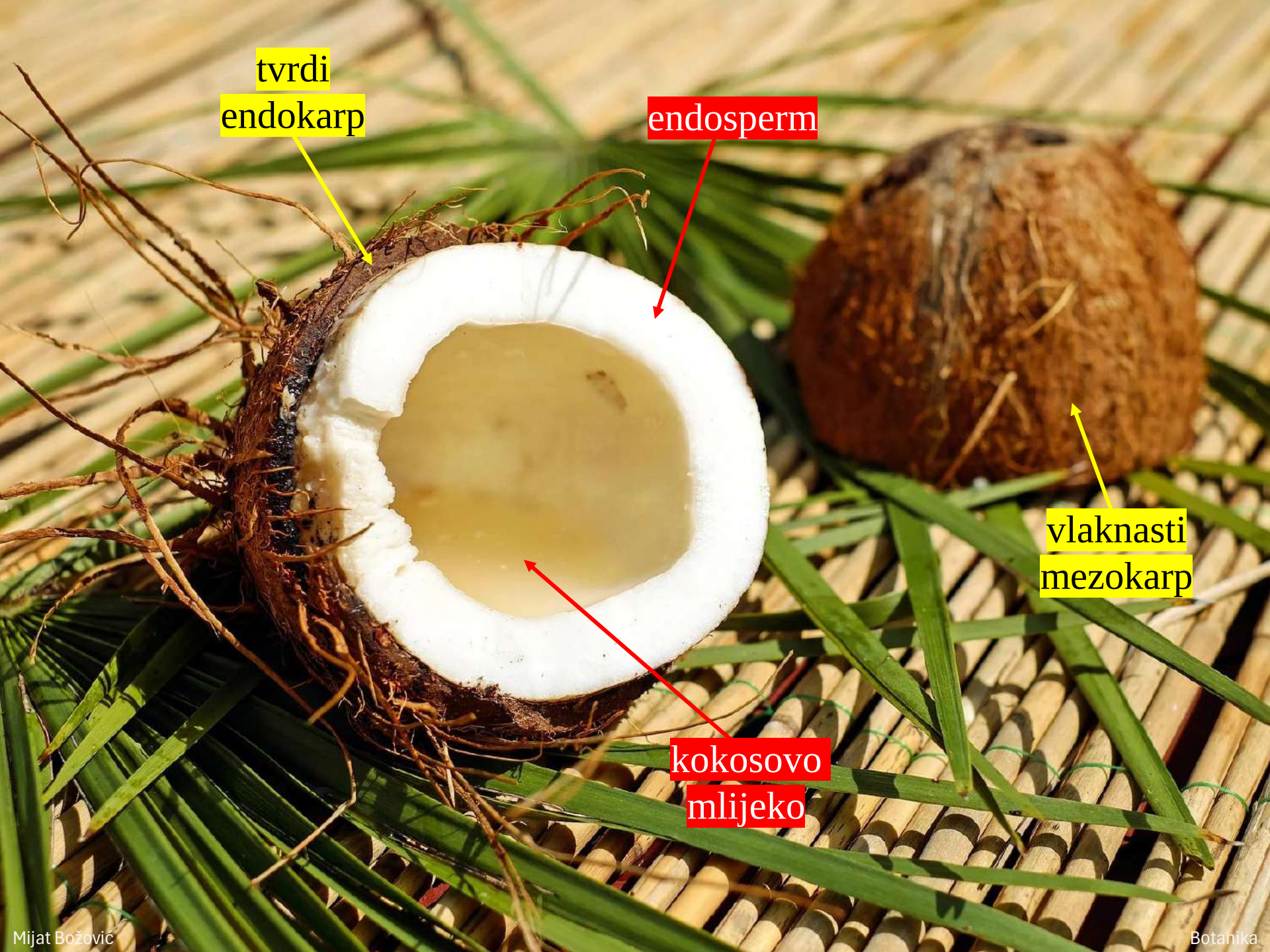
Cocos nucifera





3-strana
koštunica





tvrđi
endokarp

endosperm

vlaknasti
mezokarp

kokosovo
mlijeko



Areca catechu



jajolika
bobica





sjeme

tzv. areka orah

Calamus rotang



Chamaerops humilis



Commelinidae

odabrana porodica:

Poaceae

Familia

POACEAE



herba (annua v. perenna)
rarius lignescente



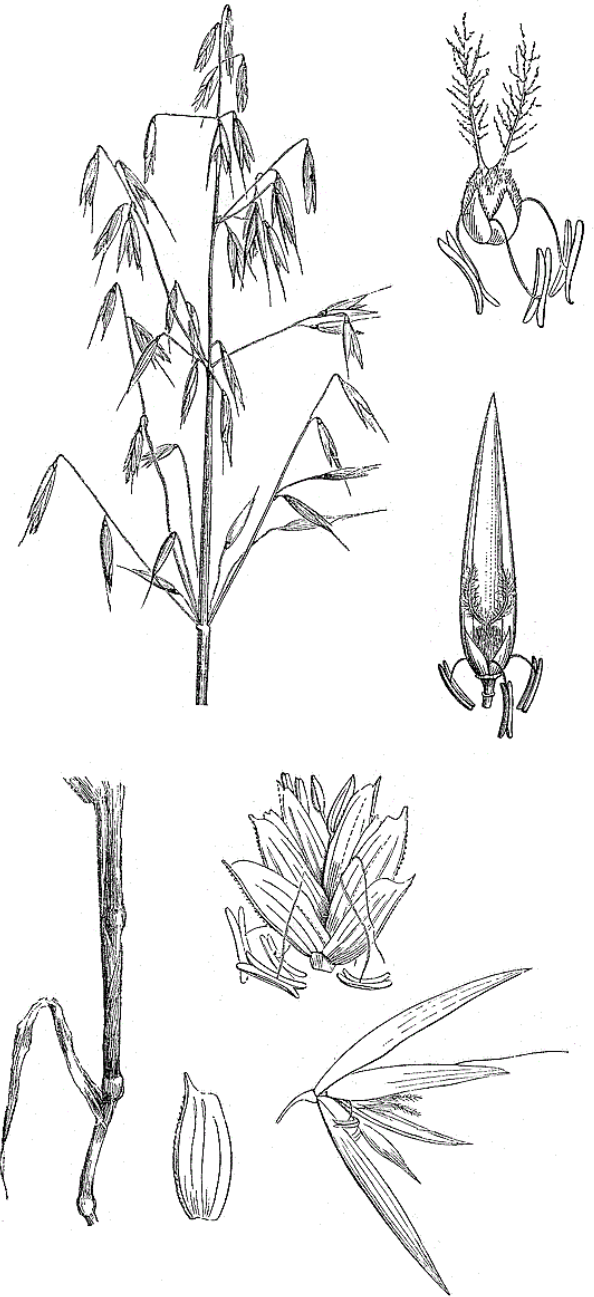
folia simplicia disticha
cum vagina (+ ligula)



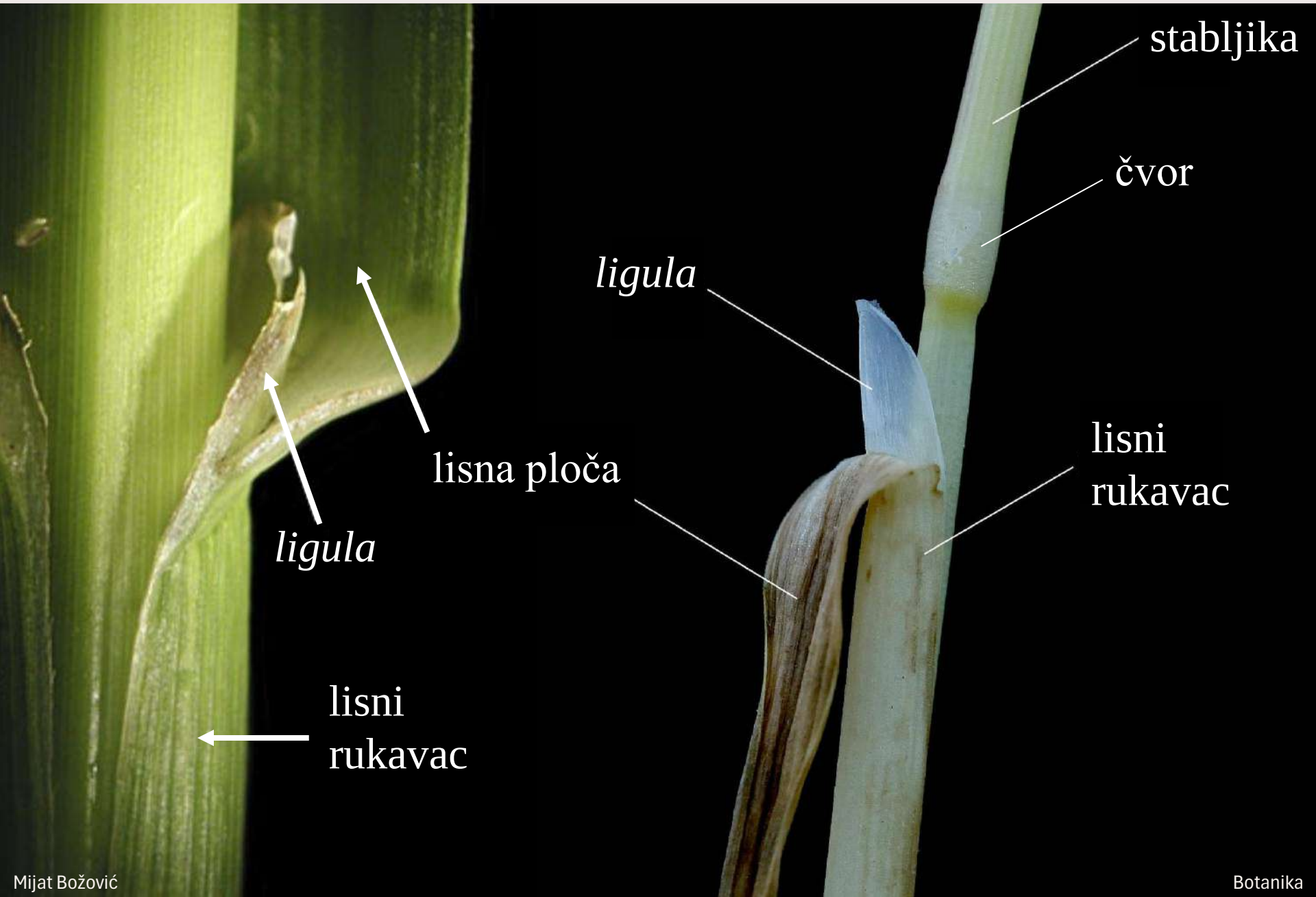
♀ v. ♂♀
 $\uparrow P_0 \text{ v. } 2-3 A_3 \text{ v. } 6 G_{(2)}$
spica, racemus v. panicula



caryopsis



List trawa



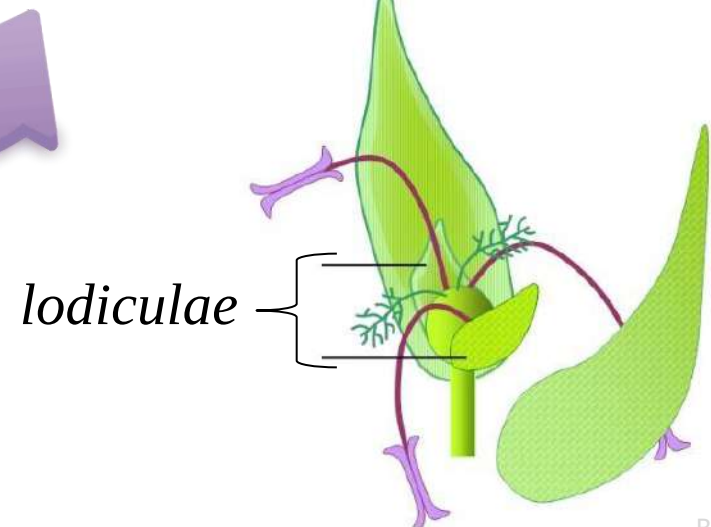
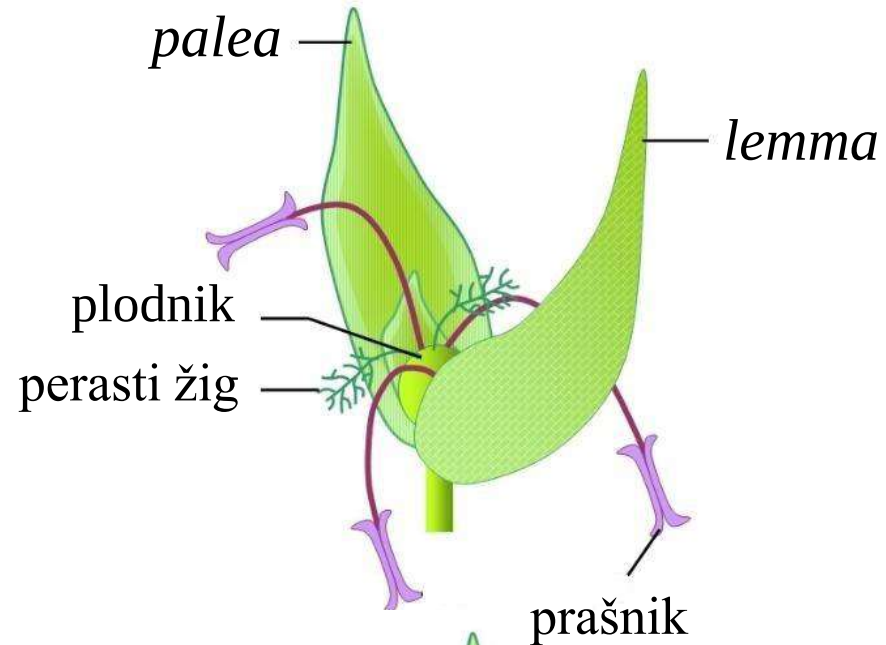
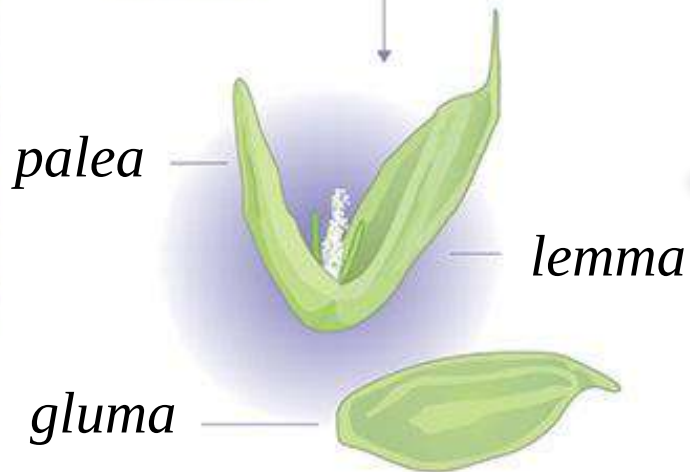
Klasić vs. cvijet trava

složeni
klas

višecvjetni
klasić



- cvijet 1
- cvijet 2
- cvijet 3
- cvijet 4



Cvast trava

složeni
klas



žigovi

cvijet

palea

lemma

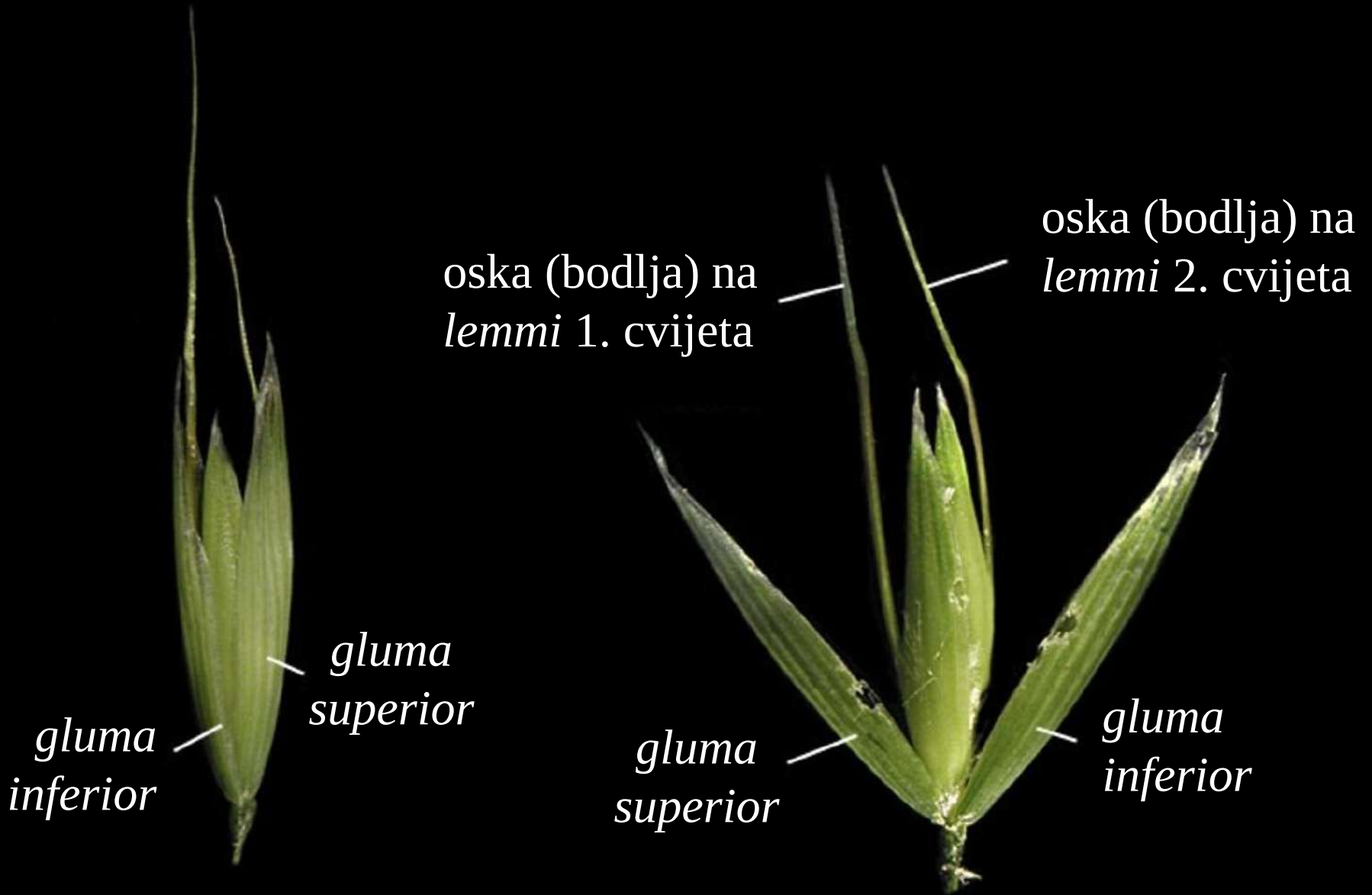
klasić

*gluma
superior*

*gluma
inferior*



Osje trava



Secale cereale





2-cvjetni klasići u složenom klasu



krupa sa
dubokom
brazdom

*Secale
cornutum*



Triticum aestivum



**3-6-cvjetni klasići u
debelom 4-stranom klasu**





krupa sa
plitkom
brazdom

Hordeum vulgare





1-cvjetni klasići po
3 u svakom čvoru



vretenasta pljevičasta
krupa s brazdom

Avena sativa



2-3-cvjetni klasići u
rastresitim metlicama

oske





vretenasta krupa koja
srasta sa pljevicom

Zea mays



metlica
♂ cvjetova



klip
♀ cvjetova





klinasta
krupa

kukuruzna
svila

Oryza sativa



1-cvjetni klasići u metlicama





krupa
zatvorena
pljevicama



kruha sa linearnim
hilumom po cijeloj dužini

Phragmites communis



Pitanja?

Mijat BOŽOVIĆ

Botanika

