

Lilianae

(monokotiledone)

Nekomelinide

Acorales

Alismatales

Petrosaviales

Dioscoreales

Pandanales

Liliales

Asparagales

Komelinide

Arecales

Poales

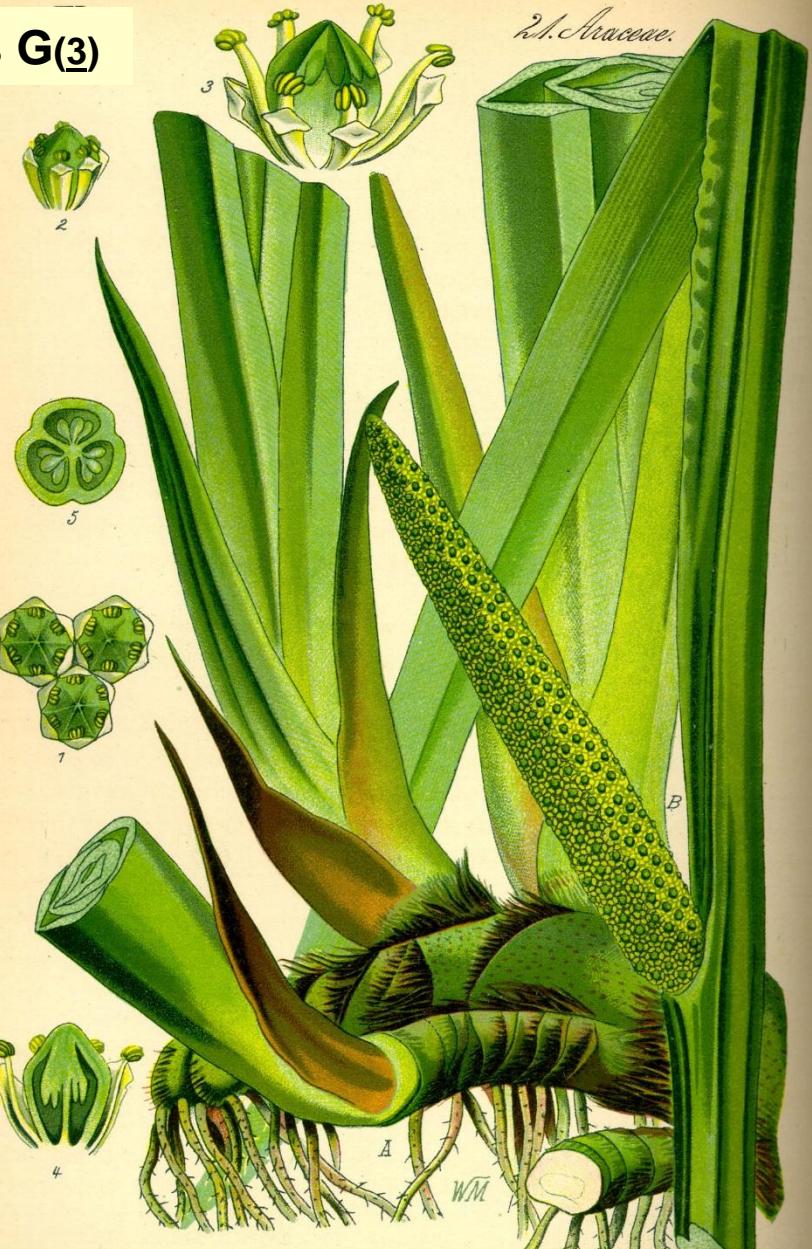
Commeliniales

Zingiberales

Nekomelinide

- Acorales (Acoraceae)
- Alismatales (Alismataceae, Butomaceae, Araceae, Hydrocharitaceae, Lemnaceae, Najadaceae, Posidoniaceae, Potamogetonaceae, Zosteraceae)
- Petrosaviales (Petrosaviaceae)
- Dioscoreales (Dioscoreaceae)
- Pandanales (Pandanaceae)
- Liliales (Asphodelaceae, Melanthiaceae, Colchicaceae, Liliaceae, Smilacaceae)
- Asparagales (Asparagaceae, Alliaceae, Amaryllidaceae, Iridaceae, Orchidaceae)

Acorales



Acorus calamus, Acoraceae

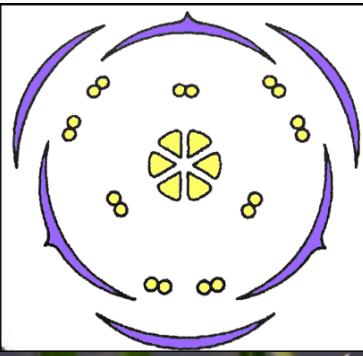
* P₃₊₃ A₃₊₃ G₍₃₎

Alismatales



Butomus umbellatus, Butomaceae

* K₃ C₃ A₆₊₃ G₆₋₉





* K₃ C₃ A₃₊₃ Gص

Alisma plantago-aquatica

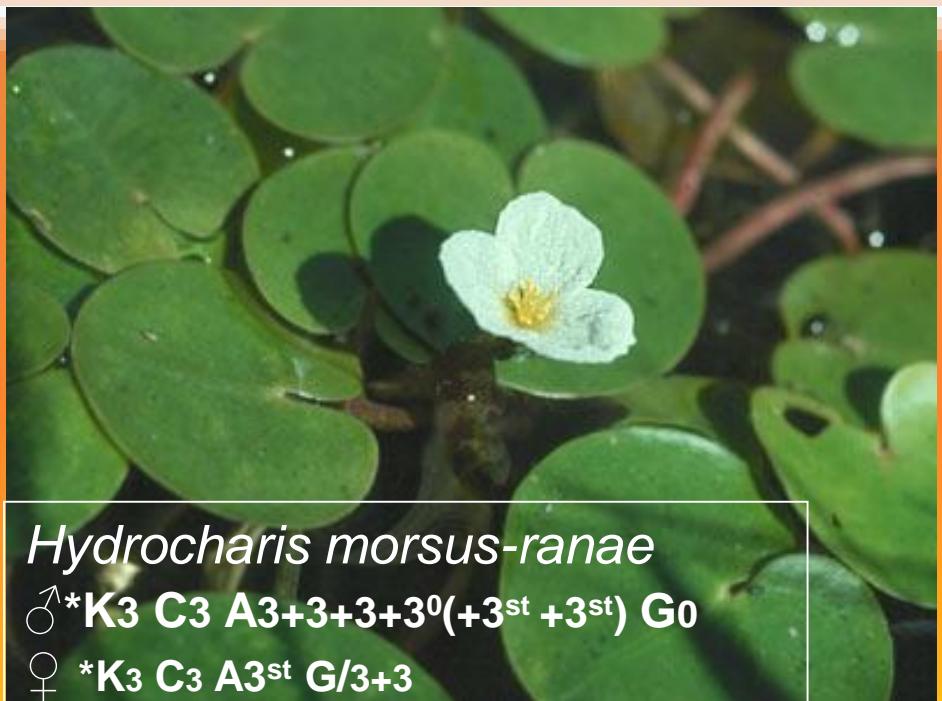
Alismatales

Alismataceae

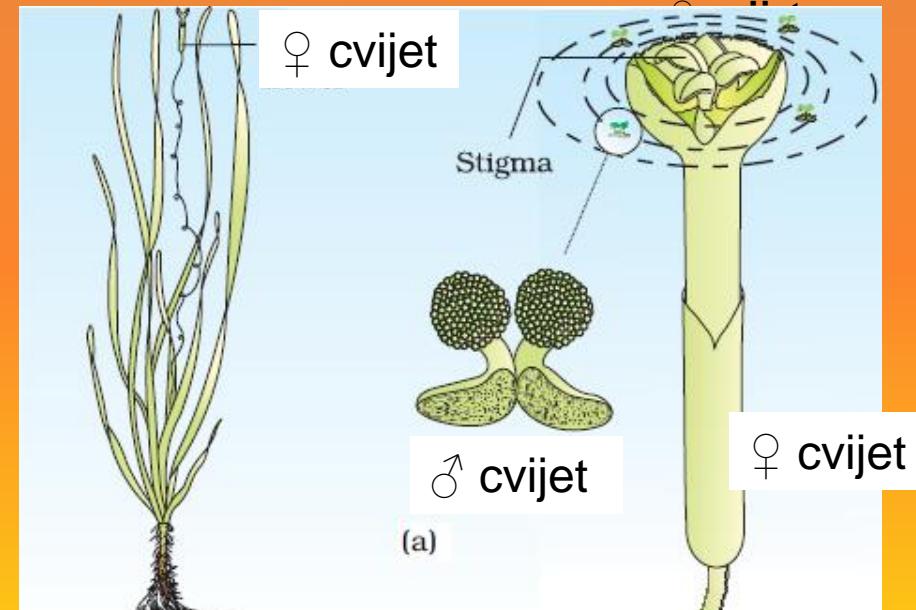


*K₃ C₃ A_ص G 3⁰+3⁰
*K₃ C₃ A⁰ Gص

Sagittaria sagittifolia



Hydrocharitaceae



Najas marina, *Najadaceae*

♂ **A₁**
♀ **G₁**



Zostera marina,
Zosteraceae

♂ **A₁**
♀ **G₁**



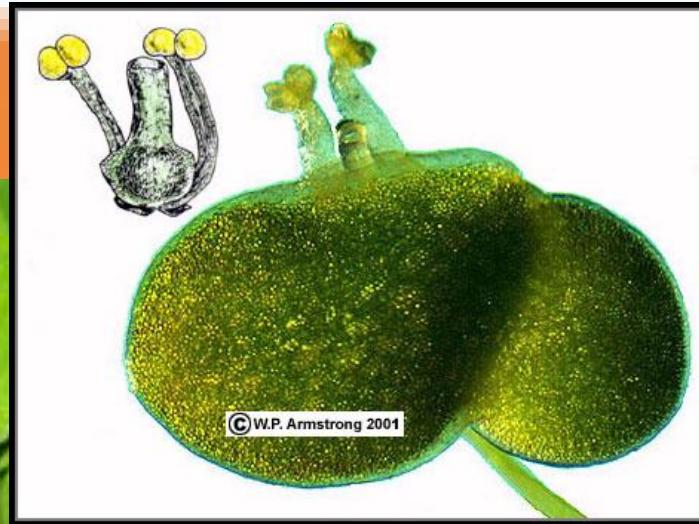
Posidonia oceanica,
Posidoniaceae

A₃ G₁



© Ramón Esteban (ISUB San José) para <http://marenostrum.org>

Lemnaceae



Potamogetonaceae

* (P4 A4) G4



Dioscoreales, *Dioscoreaceae*

Dioscorea balcanica



* P₃₊₃ A₃₊₃ G₀
*P₃₊₃ A₀ G₍₃₎



Tamus communis

* P₃₊₃ A₃₊₃ G₍₃₎

o. Pandanales
f. Pandanaceae



Liliales

Asphodelaceae (*Asphodelus*)

Colchicaceae (*Colchicum*)

Liliaceae (*Lilium*, *Tulipa*, *Fritillaria*)

Melanthiaceae (*Veratrum*, *Paris*)

Smilacaceae (*Smilax*)

Asphodelaceae, Asphodelus albus - čapljan



* P₃₊₃ A₃₊₃ G₍₃₎



Colchicaceae, Colchicum hungaricum, mrazovac

* [P(3+3) A₃₊₃] G(3)



Liliaceae

P₃₊₃ A₃₊₃ G₍₃₎





Erythronium dens-canis- pasji zub

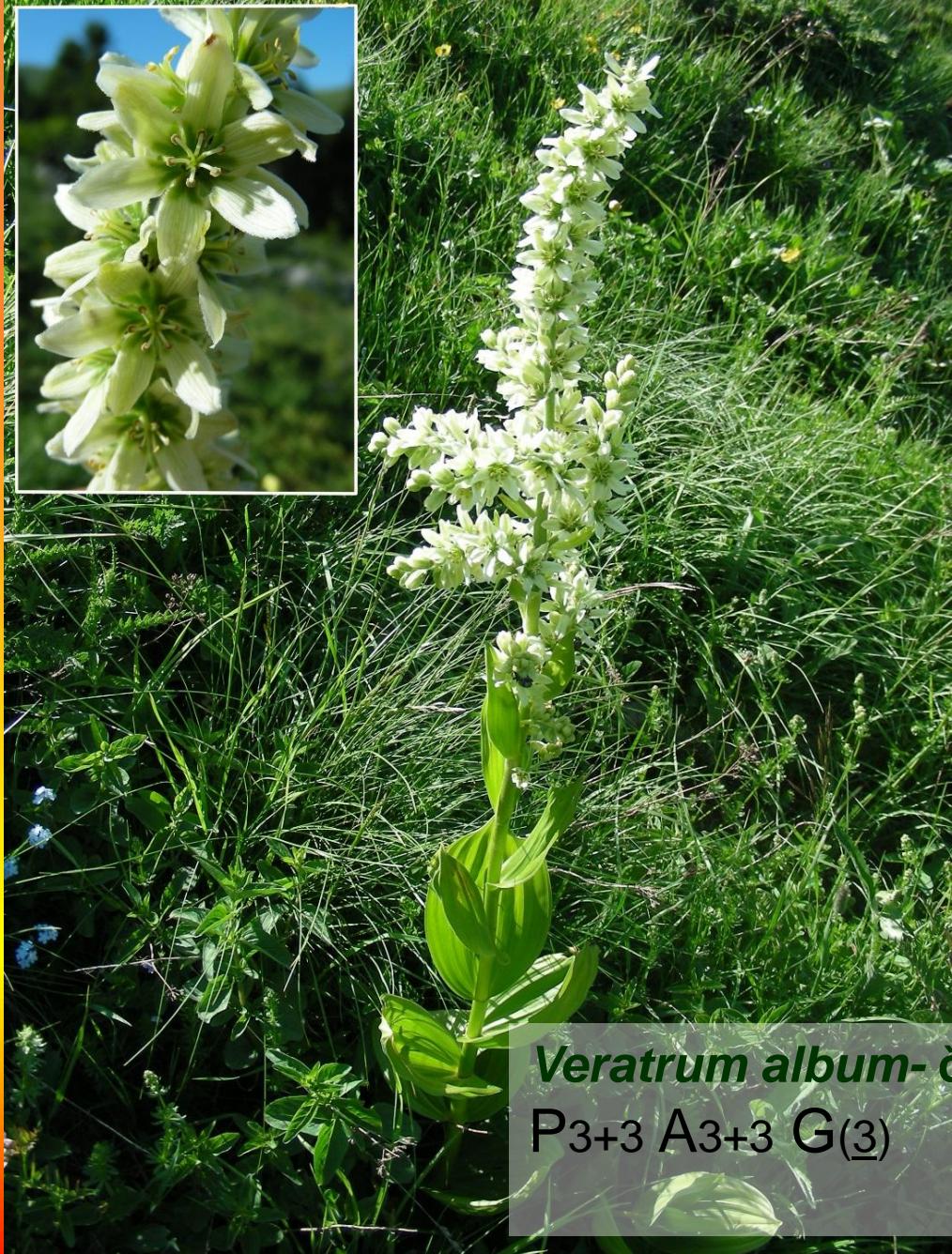


Lilium martagon- Ijljan

Melanthiaceae



Paris quadrifolia- Petrov krst *K₄ C₄ A₄₊₄ G₍₄₎



Veratrum album- čemerika
P₃₊₃ A₃₊₃ G₍₃₎

Smilacaceae



Asparagales

Alliaceae (*Alium*)

Amaryllidaceae (*Narcissus*, *Galanthus*, *Leucojum*)

Asparagaceae (*Convallaria*, *Polygonatum*, *Asparagus*, *Ruscus*)

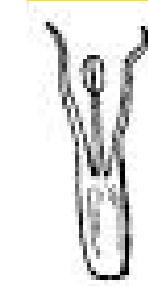
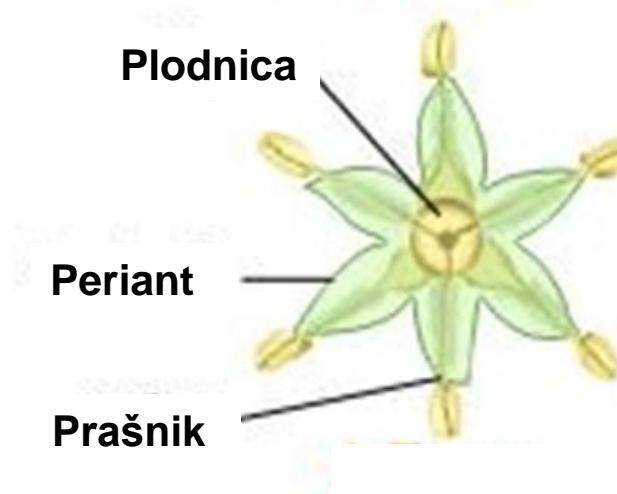
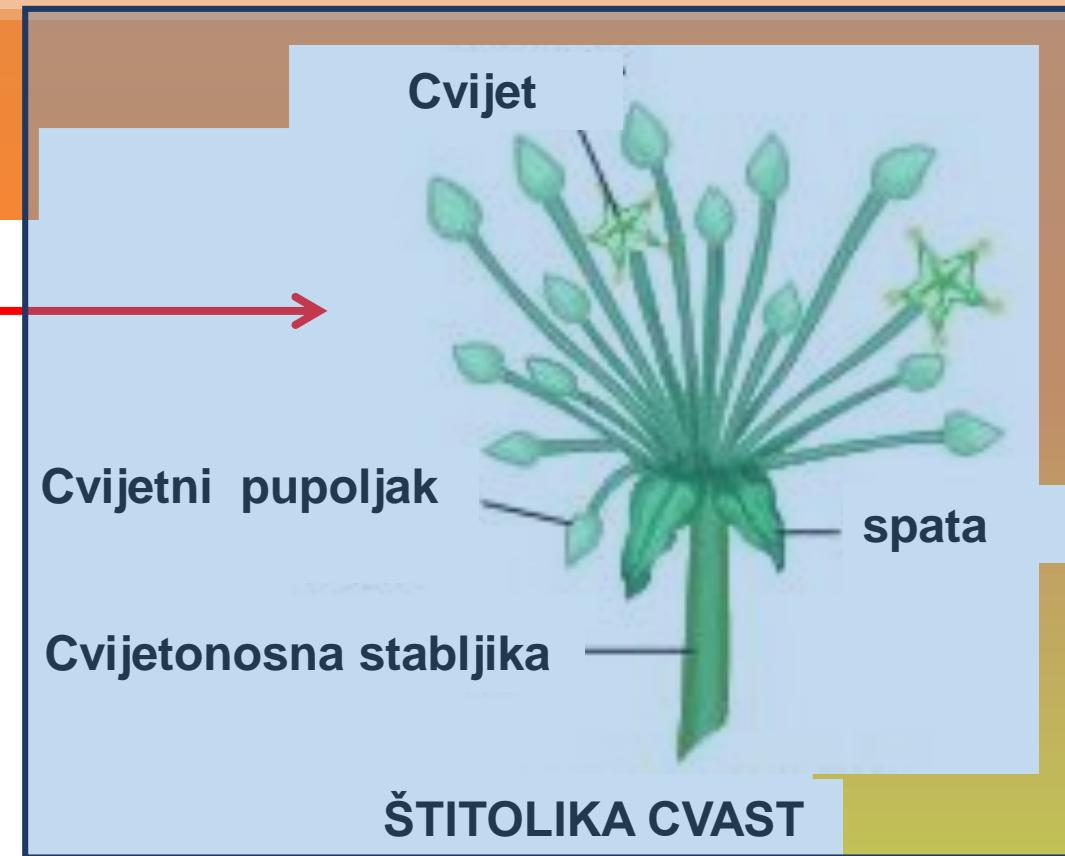
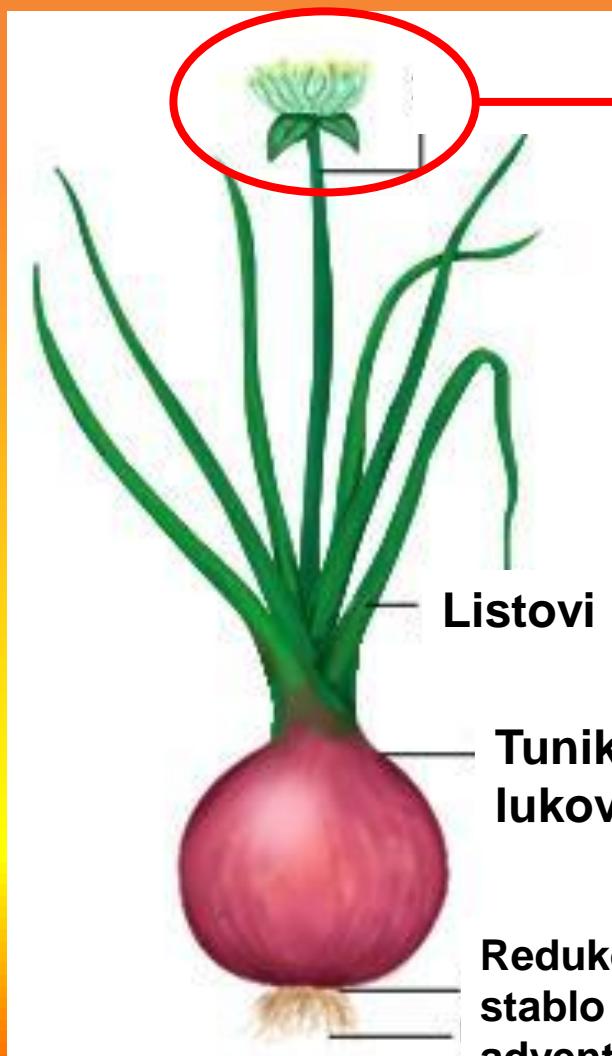
Araceae (*Arum*)

Iridaceae (*Iris*, *Crocus*, *Gladiolus*)

Orchidaceae (*Ophrys*, *Orchis*, *Spiranthes*, *Gymnadenia*...)

Alliaceae

* [P₃₊₃ A₃₊₃] G₍₃₎



Prašnik
sa končastim
privjescima



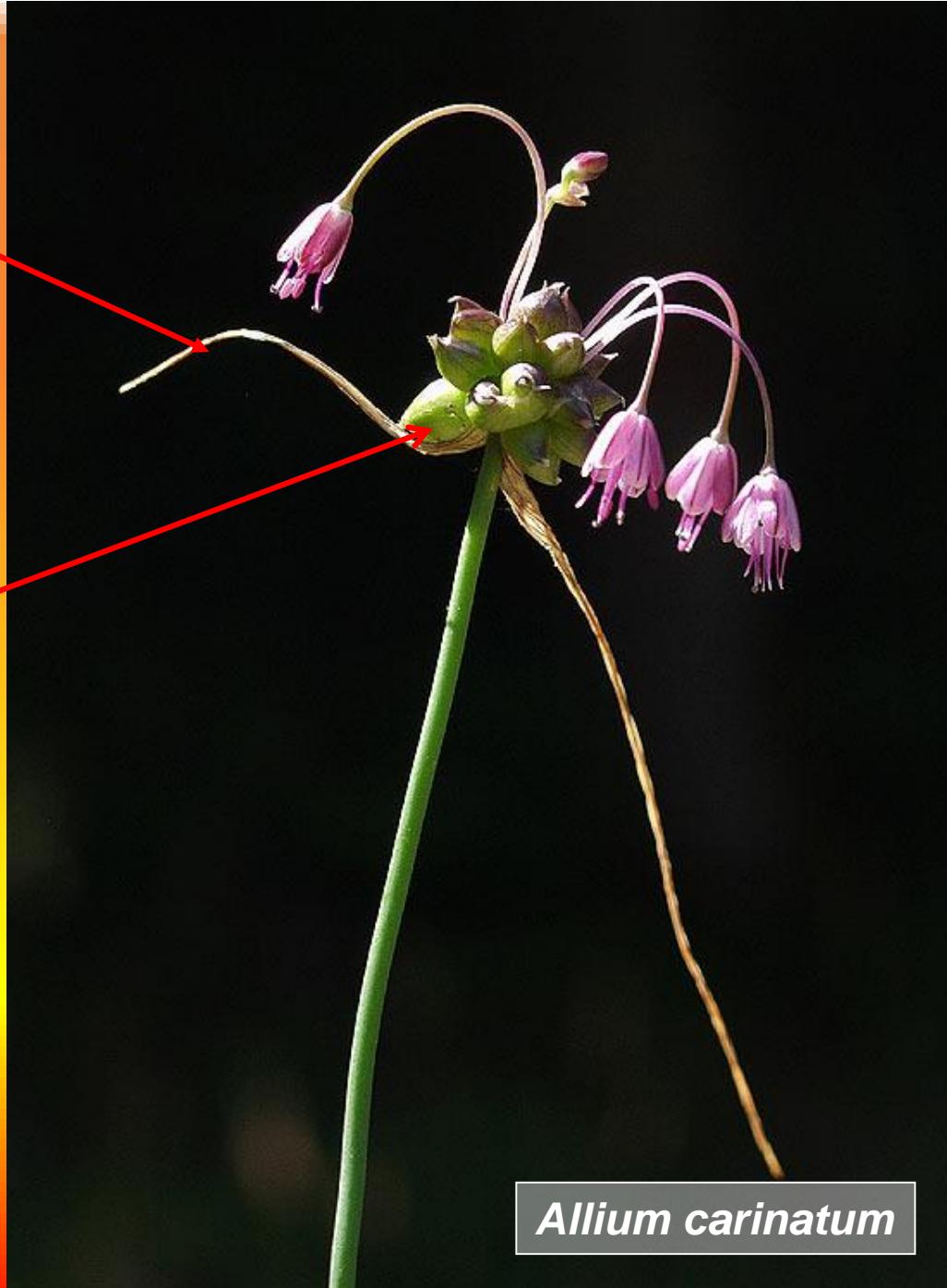
Allium cepa- crni luk



Allium ursinum- srijemuš

Ovojni list (spata)
nadvisuje cvast

Rasplodni bulbili u zoni cvasti



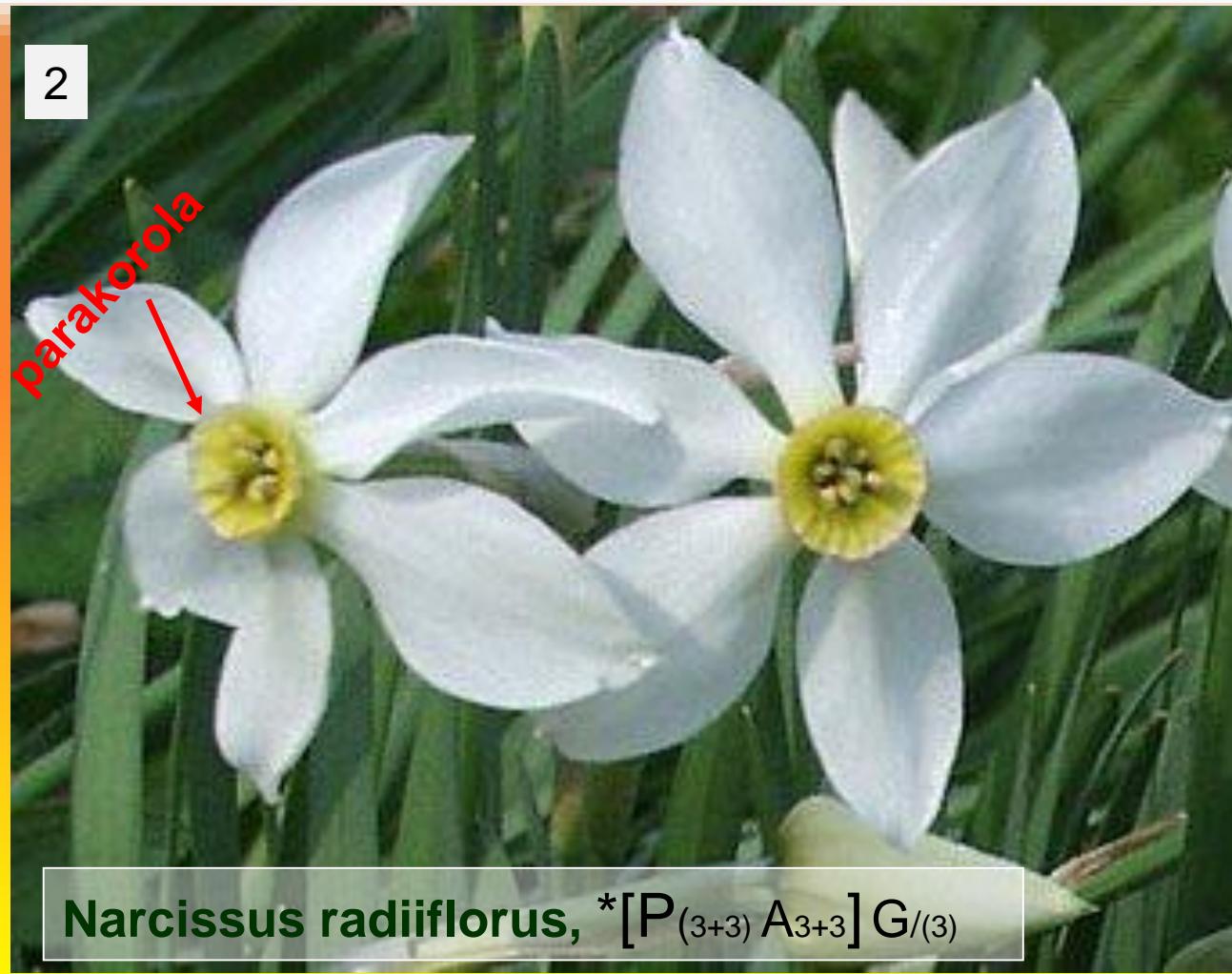
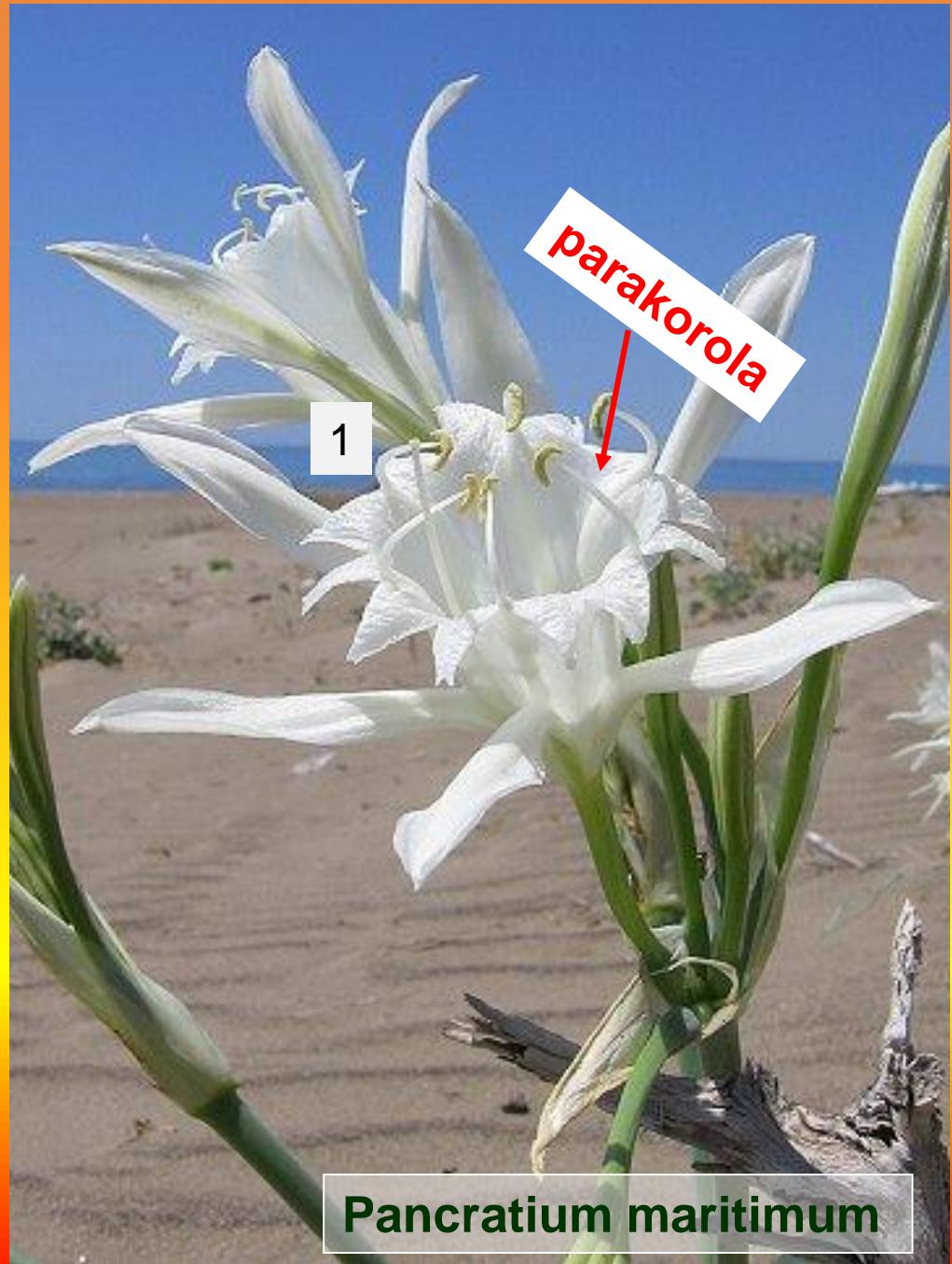


Leucojum aestivum, *P₃₊₃ A₃₊₃ G/(3)

f. Amaryllidaceae

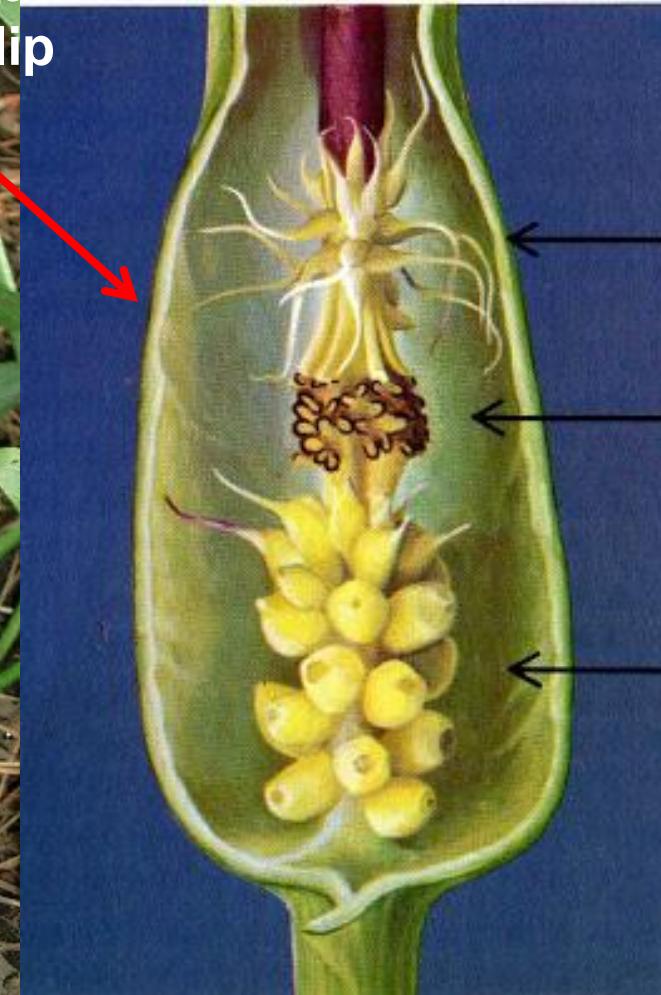


Galanthus nivalis, *P₃₊₃ A₃₊₃ G/(3)



Parakorola izvodi porijeklo od prašničkih niti (1) ili cijevi vijenca (2)...

Araceae



Ploid

Asparagaceae

Subfam. Asparagoideae



Asparagus acutifolius- šparoga, *[P₍₃₊₃₎ A₃₊₃] G₍₃₎

Subfam. Nolinoideae



Ruscus aculeatus- kostruika,

*P₍₃₊₃₎ A₍₃₊₃₎ G₍₃₎^r

*P(3+3) (A3+3)^r G(3)

Subfam. Nolinoideae



Convallaria majalis- đurđevak

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



Polygonatum multiflorum

Subfam. Scilloideae



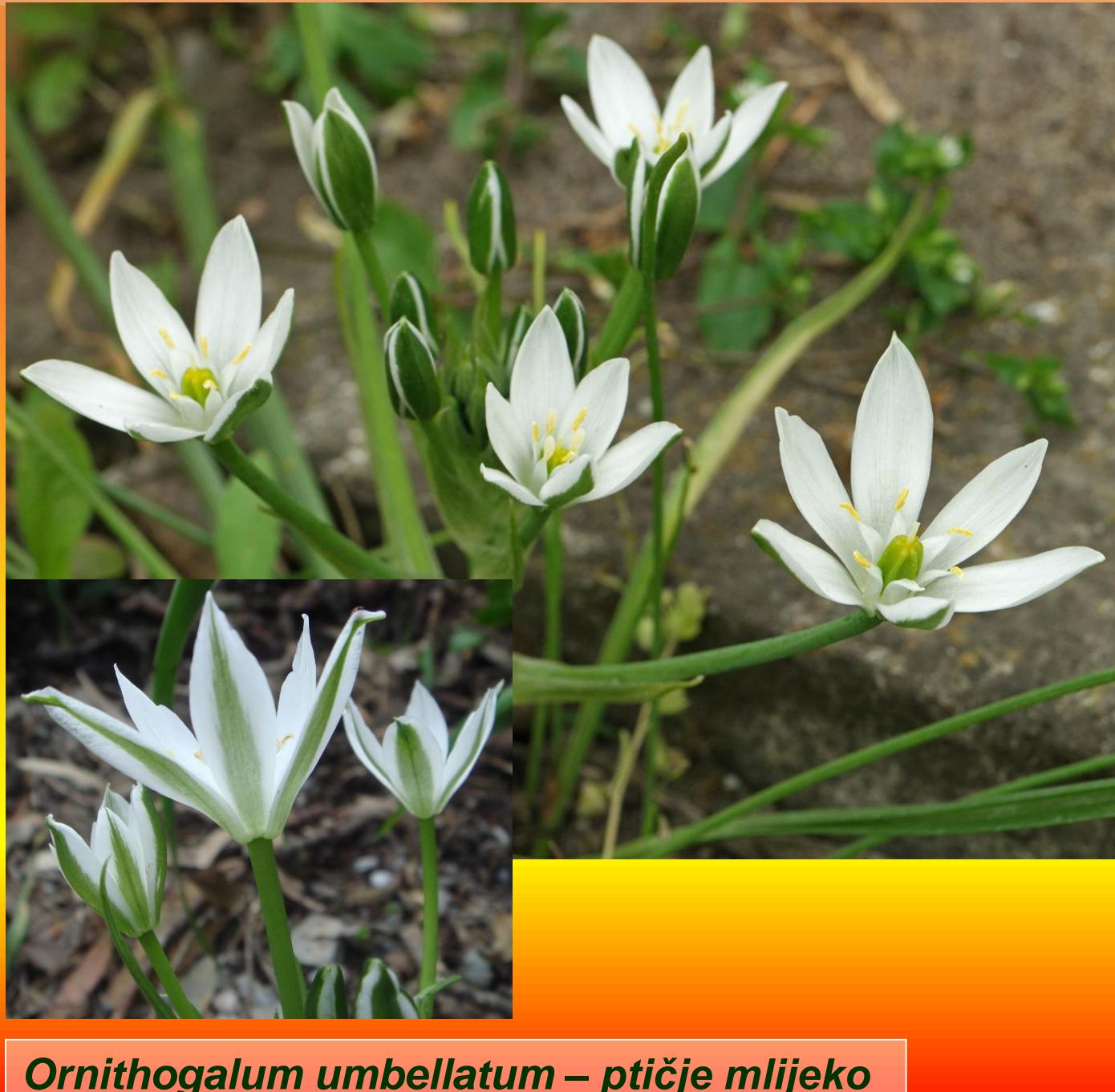
Muscari comosum



Hyacinthella dalmatica



Scilla bifolia



Ornithogalum umbellatum – ptičje mlijeko

Agavaceae



Agave americana



Yucca sp.

Gladiolus palustris- gladiola



Iridaceae

[P₃₊₃ A₃] G_{/(3)}



Iris pseudoacorus- iris

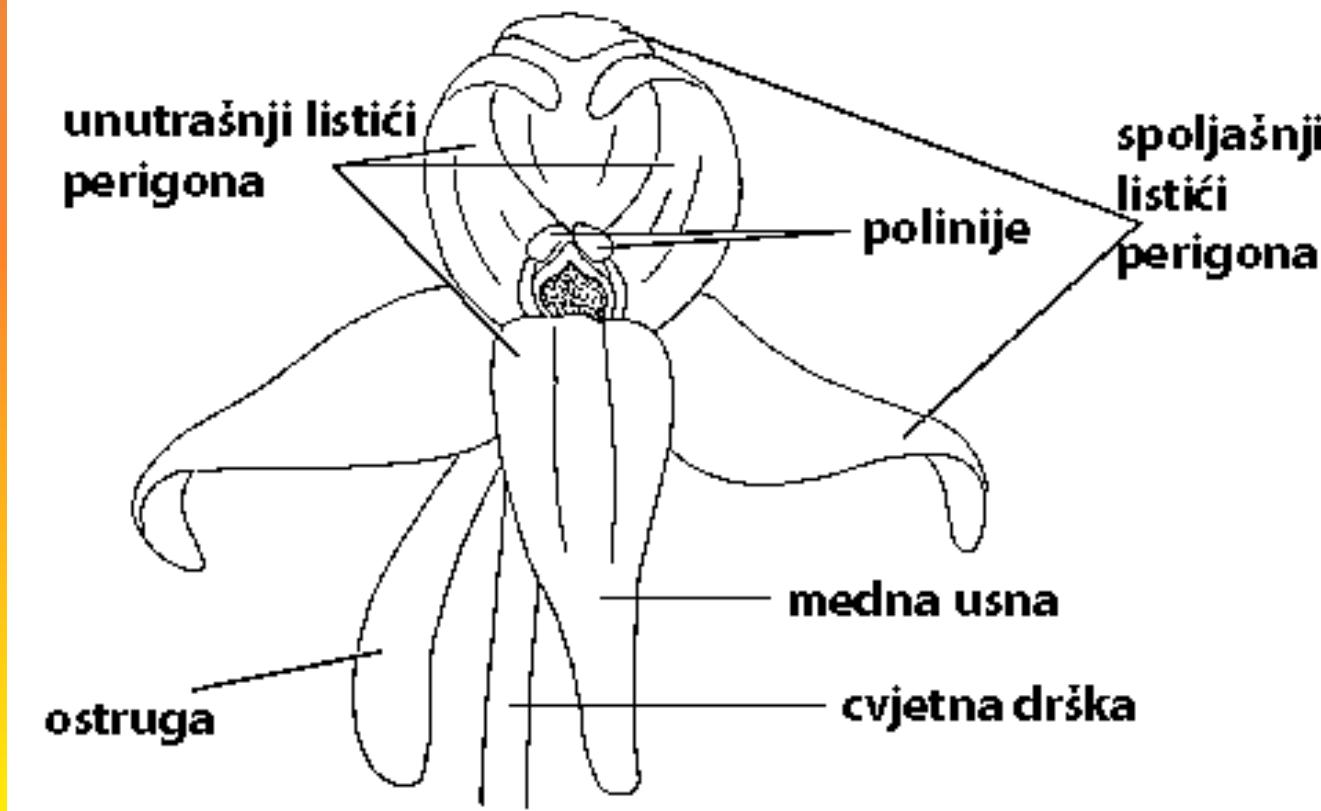
**3 spoljašnja lista perigona
prema nazad savijena**

Crocus dalmaticus- Šafran



Romulea bulbocodium

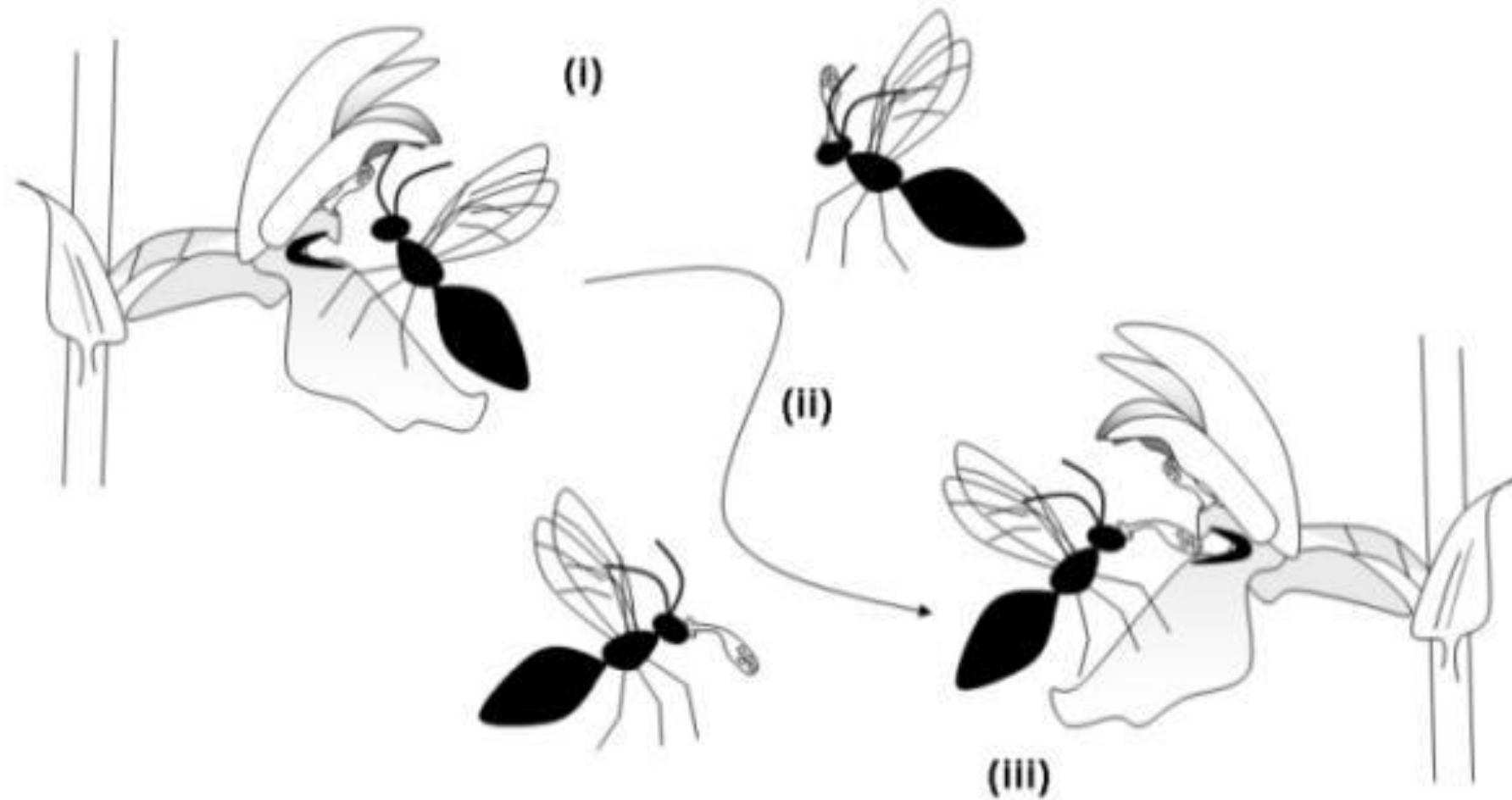
Orchidaceae



Subfam. Apostasioideae, $\uparrow/*P_{3+3} [A_{2-3} G_{/(3)}]$

Subfam. Cypripedioideae, $\uparrow P_{3+3} [A_{1^{st}+2} G_{/(3)}]$

Subfam. Orchidoideae, $\uparrow P_{3+3} [A_{1+2^{st}} G_{/(3)}]$



Mehanizam opašivanja



Medna usna sa
ostrugom!

Orchideoideae (Monoandre)

Anacamptis pyramidalis





Orchis papilionacea



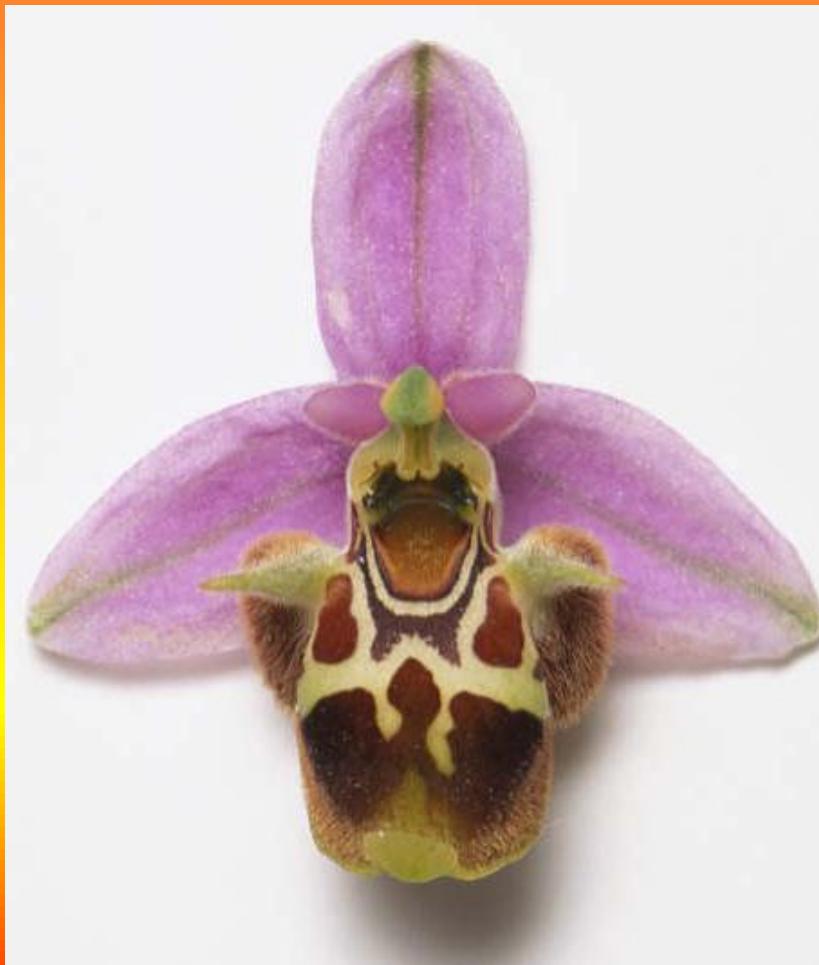
Orchis morio

Ophrys insectifera - pčelica



Medna usna
bez ostruge!

Ophrys cornuta - pčelica



Ophrys bertolonii - pčelica





***Neottia nidus-avis* - ptičje gnezdo**



***Spiranthes spiralis* - zasukica**



Serapias sp.

Cypripedioideae
(Diandre)



Cypripedium calceolus – gospina papučica