

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 (Pandanaaceae)
- Liliales (Asphodelaceae, Melanthiaceae, Colchicaceae, Liliaceae, Smilacaceae)
- Asparagales (Asparagaceae, Alliaceae, Amaryllidaceae, Iridaceae, Orchidaceae)

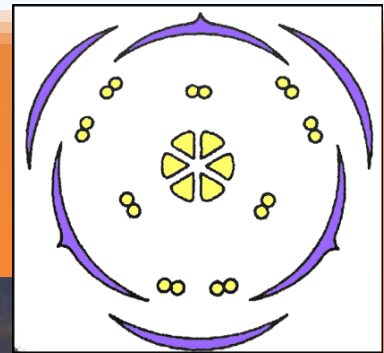
* P3+3 A3+3 G(3)

o. Acorales

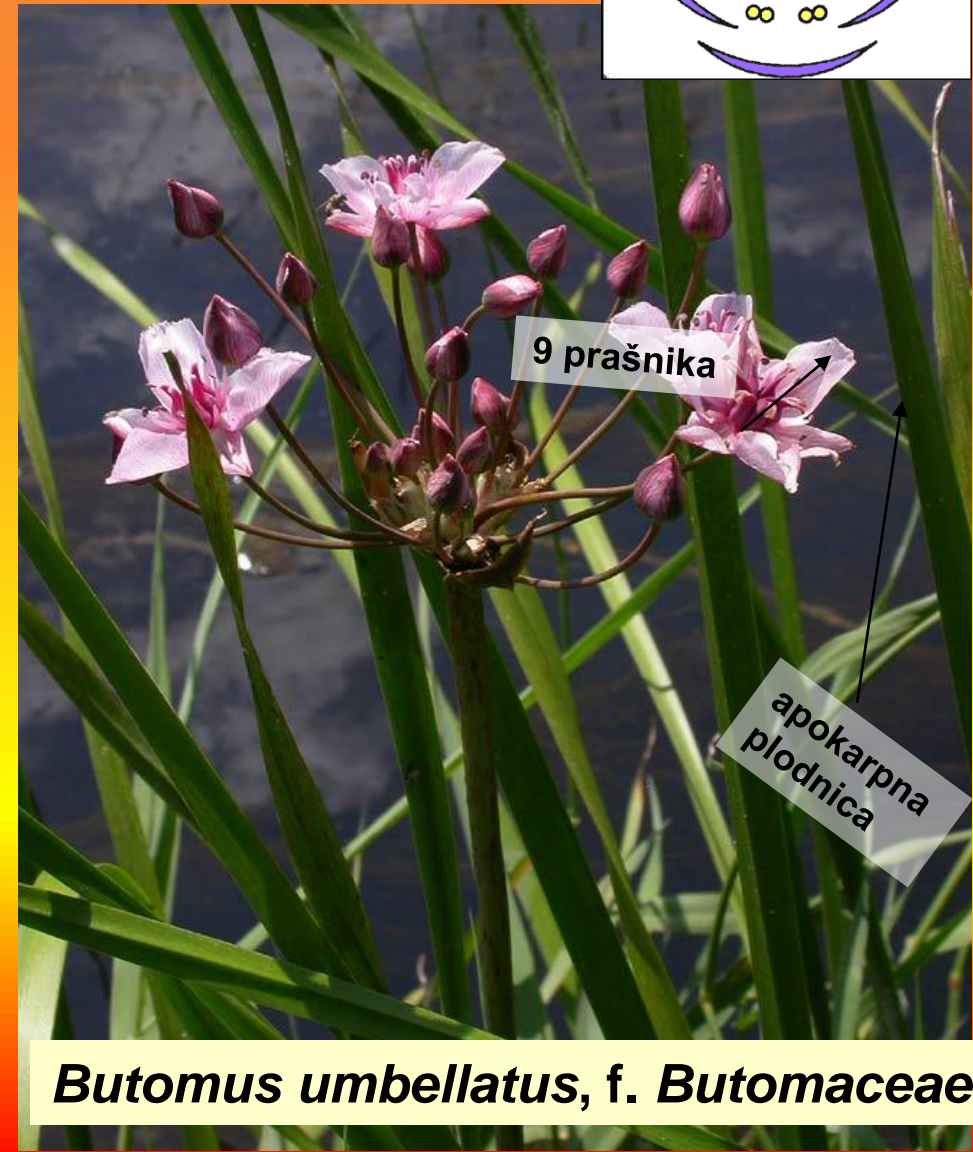


Acorus calamus, f. *Acoraceae*

* K3 C3 A6+3 G6-9



o. Alismatales



Butomus umbellatus, f. *Butomaceae*

o. Alismatales
f. Alismataceae



*K3 C3 A ص G 3⁰+3⁰
*K3 C3 A ⁰ G ص



* K3 C3 A3+3 G ص

Alisma plantago-aquatica



Sagittaria sagittifolia

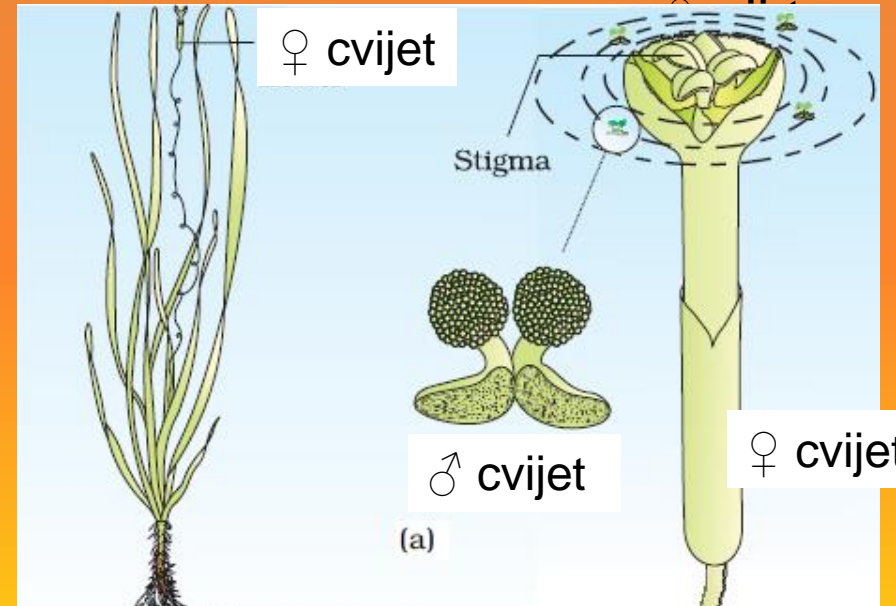
f. *Hydrocharitaceae*



Hydrocharis morsus-ranae
 ♂ *K3 C3 A3+3+3+3⁰(+3st +3st) G0
 ♀ *K3 C3 A3st G/3+3



Elodea canadensis
 ♂ *K3 C3 A3+3+3
 ♀ *K3 C3 G/(3)



Vallisneria spiralis

Najas marina, f. *Najadaceae*

♂ A1
♀ G1



Zoostera marina,
f. *Zosteraceae*

♂ A1
♀ G1



Posidonia oceanica,
Posidoniaceae

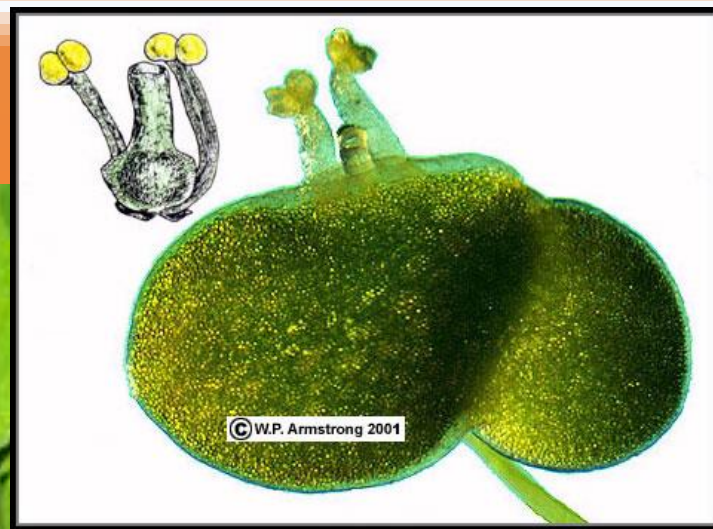
A3 G1

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

f. *Lemnaceae*



Lemna minor



Wolfia arrhiza

f. *Potamogetonaceae*

* (P4 A4) G4



Potamogeton natans



Potamogeton perfoliatus

o. Dioscoreales



Dioscorea balcanica

* P3+3 A3+3 G0

*P3+3 A0 G(3)

f. *Dioscoreaceae*



Tamus comunis

* P3+3 A3+3 G(3)

o. Pandanales
f. *Pandanaceae*



ص A P0
ص G P0

Pandanus gracilis

o. Liliales

- f. Asphodelaceae (Asphodelus)
- f. Colchicaceae (Colchicum)
- f. Liliaceae (Lilium, Tulipa, Fritillaria)
- f. Melanthiaceae (Veratrum, Paris)
- f. Smilacaceae (Smilax)

f. *Asphodelaceae*, *Asphodelus albus* - čapljan

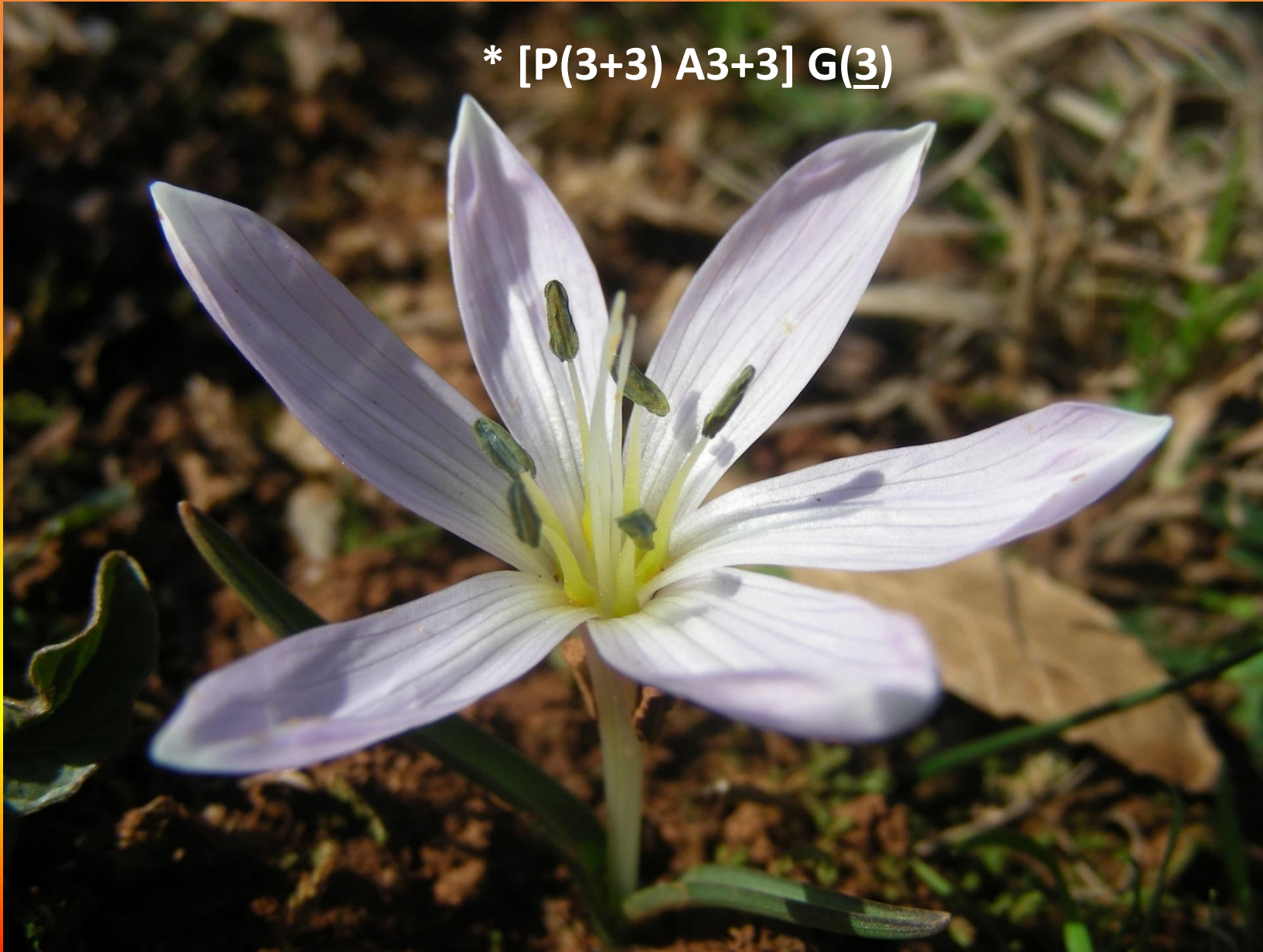


* P3+3 A3+3 G(3)



f. *Colchicaceae*, *Colchicum hungaricum*, mrazovac

* [P(3+3) A3+3] G(3)



f. *Liliaceae*

P_{3+3} A_{3+3} $G_{(3)}$

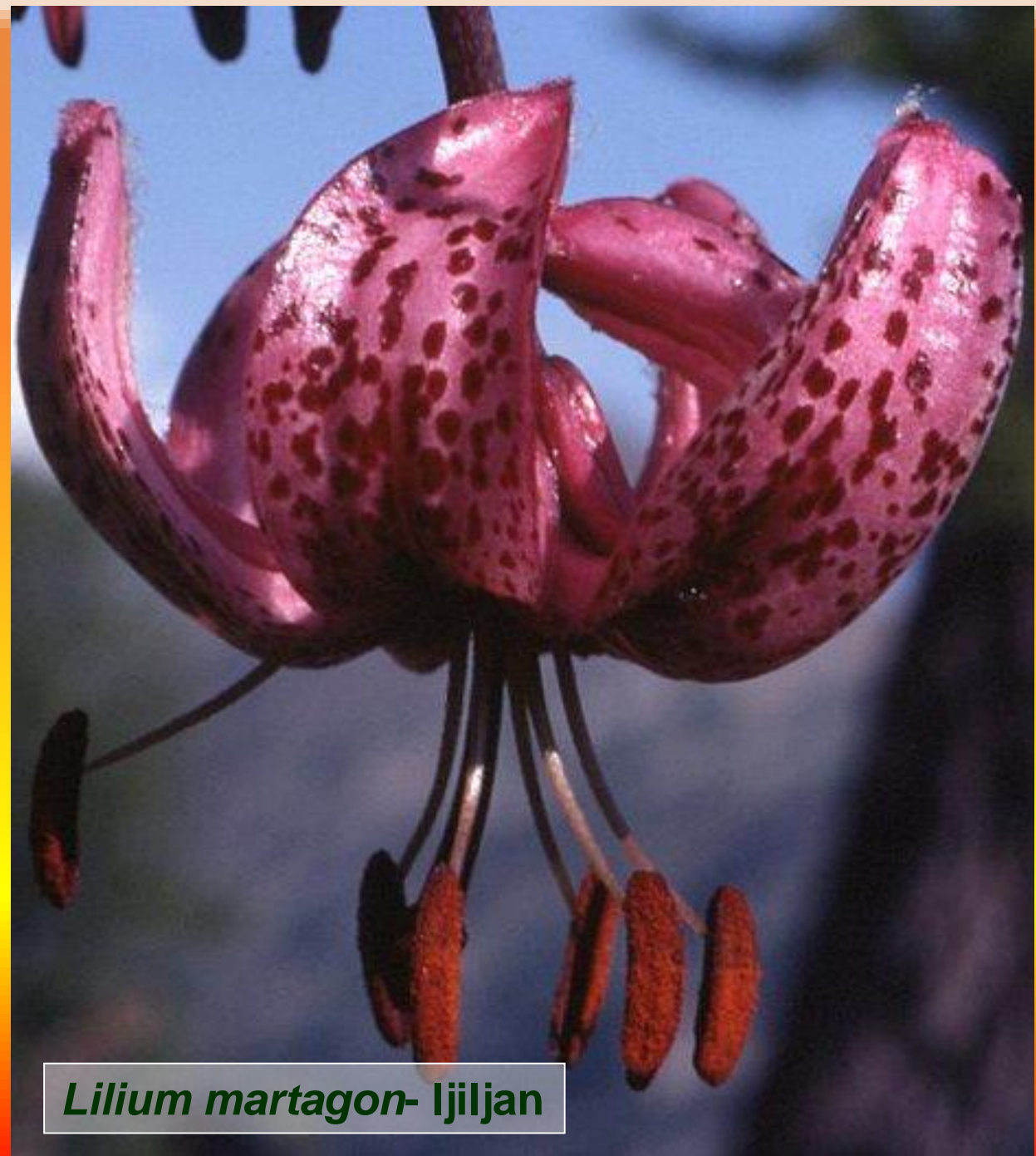
Tulipa sylvestris – lala, tulipan



Fritillaria gracilis- kockalica



Erythronium dens-canis- pasji zub



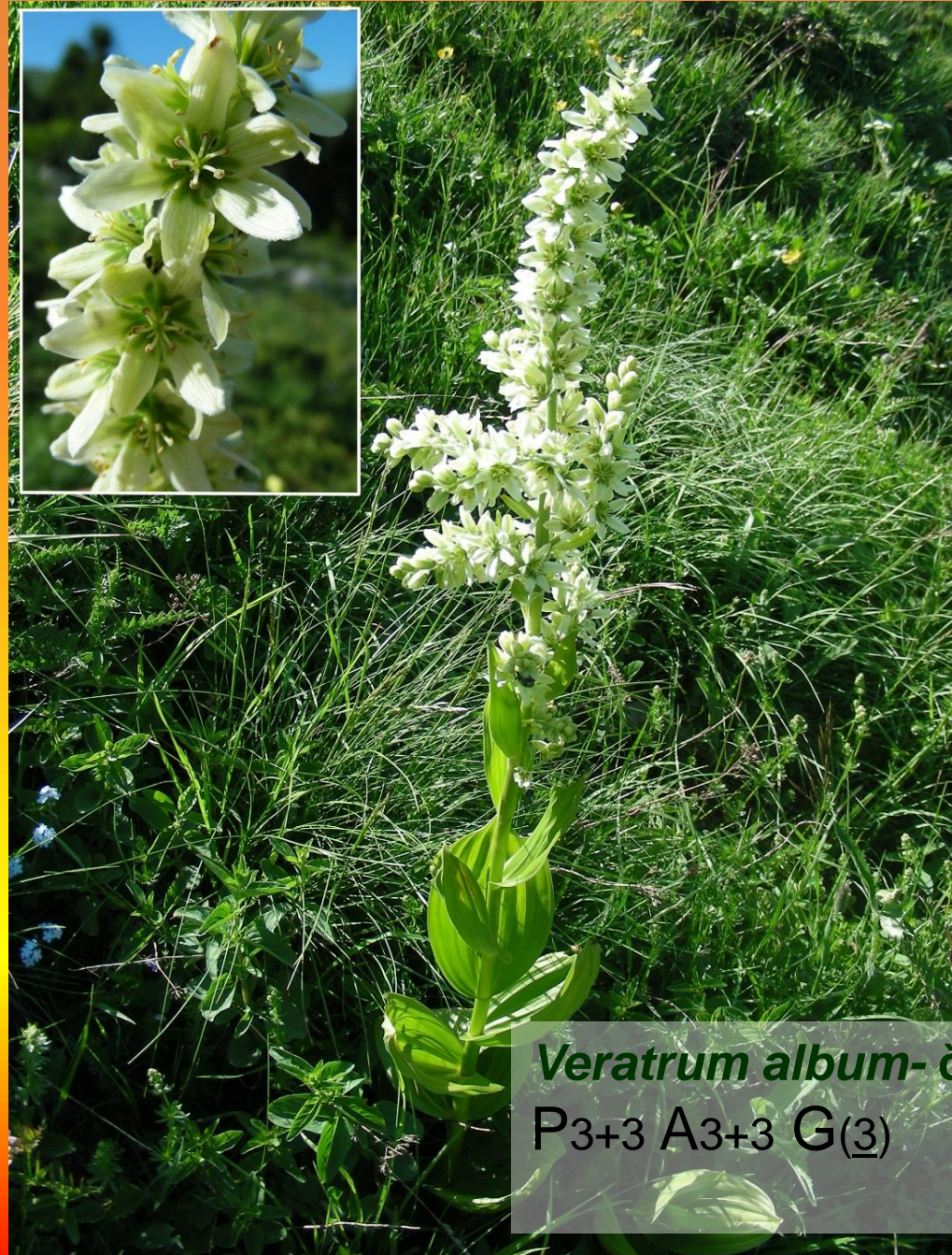
Lilium martagon- Ijiljan

f. *Melanthiaceae*



Tetrameran perigon!!!

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



Veratrum album- čemerika

P₃₊₃ A₃₊₃ G(3)

f. *Smilacaceae*



o. Asparagales

f. Alliaceae (Allium)

f. Amaryllidaceae (Narcissus, Galanthus, Leucojum)

f. Asparagaceae (Convallaria, Polygonatum, Asparagus, Ruscus)

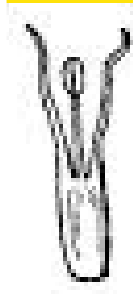
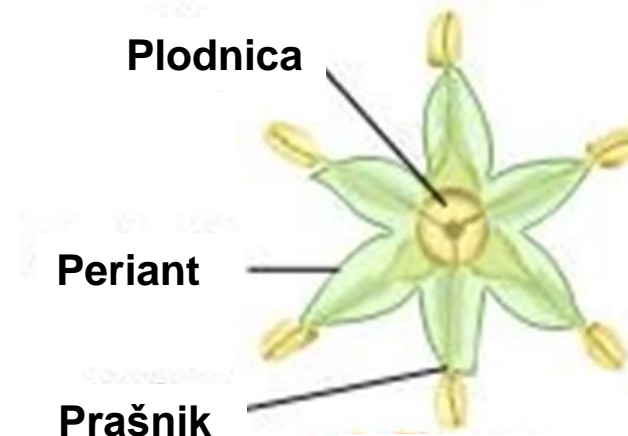
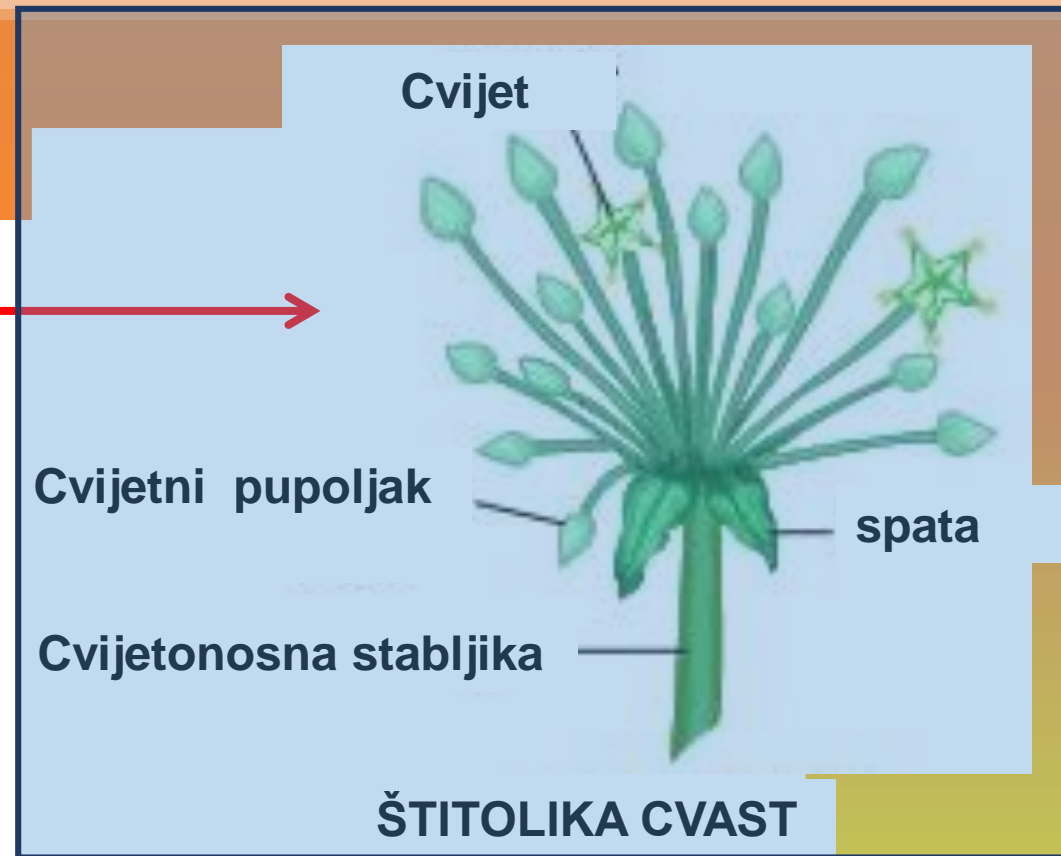
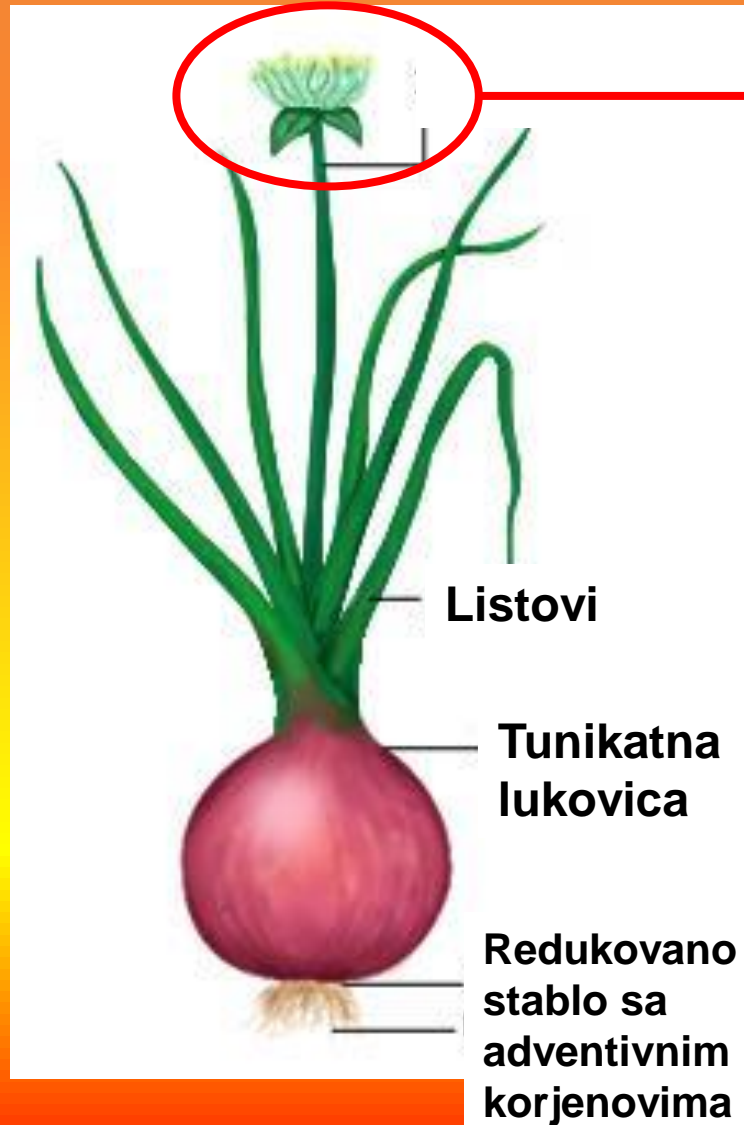
f. Araceae (Arum),

f. Iridaceae (Iris, Crocus, Gladiolus)

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

f. *Alliaceae*

* [P₃₊₃ A₃₊₃] G₍₃₎



Prašnik sa končastim privjescima



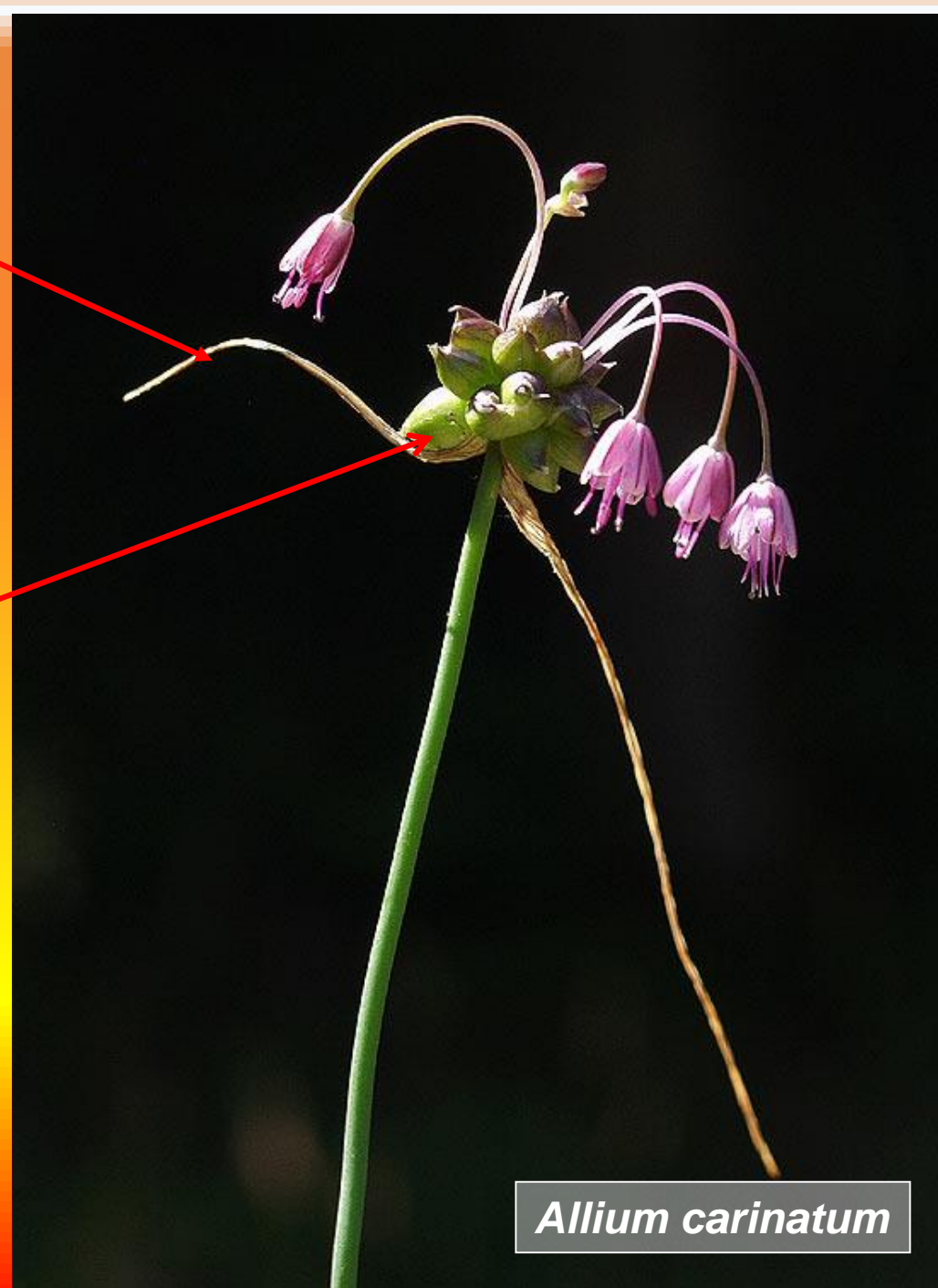
Allium cepa- crni luk



Allium ursinum- srijemuš

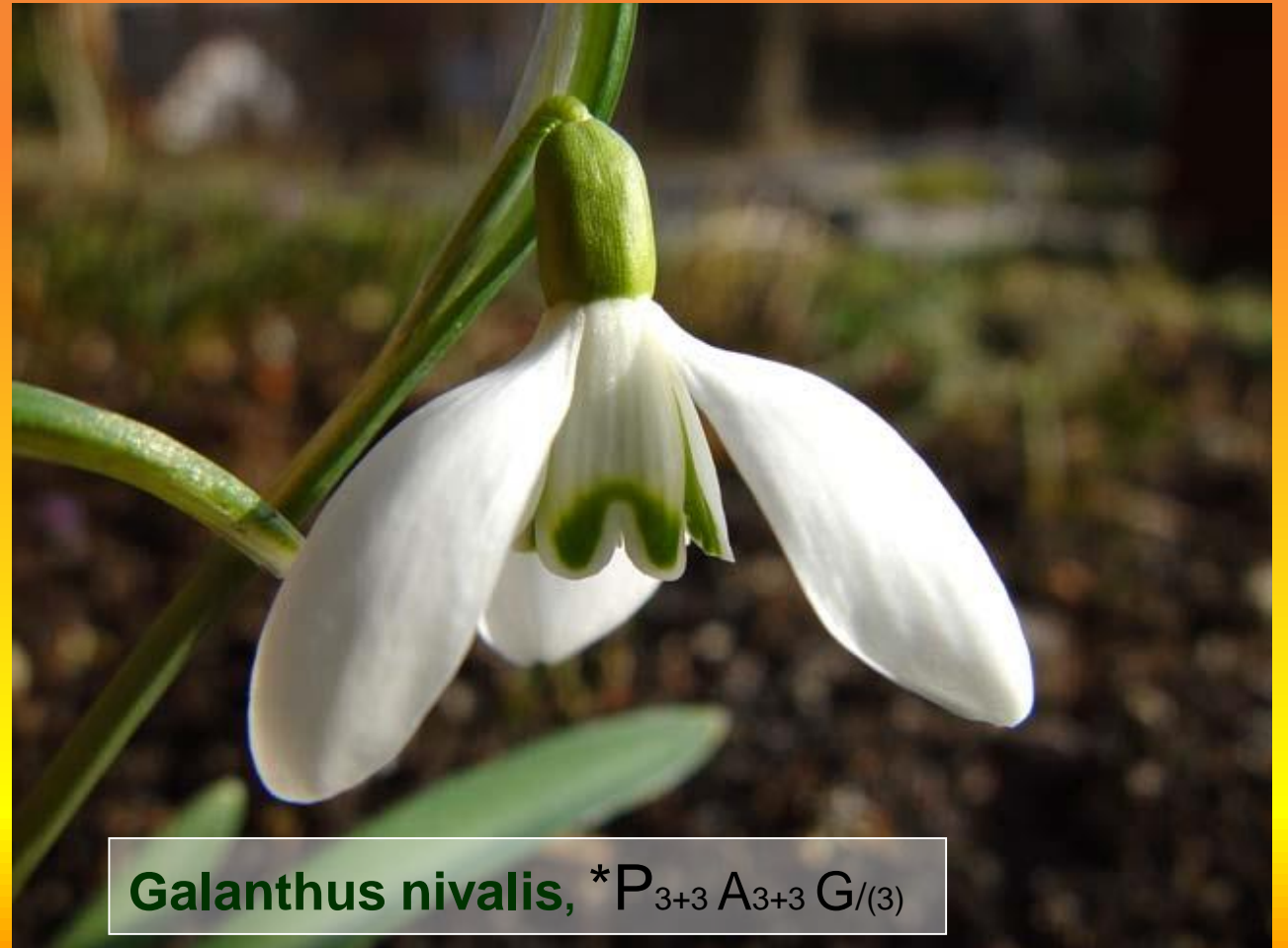
Ovojni list (spata)
nadvisuje cvast

Rasplodni bulbili u zoni cvasti



Allium carinatum

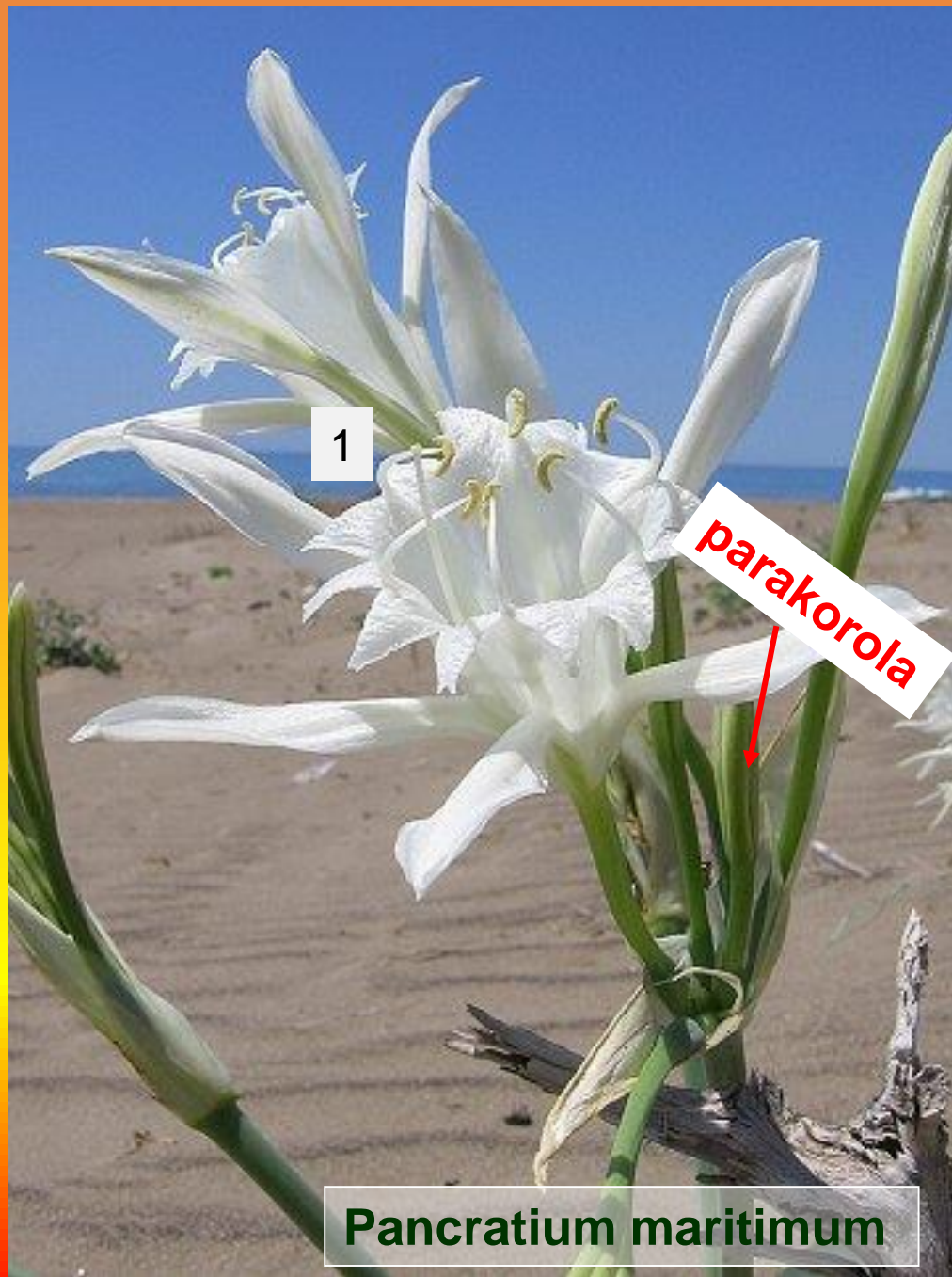
f. *Amaryllidaceae*



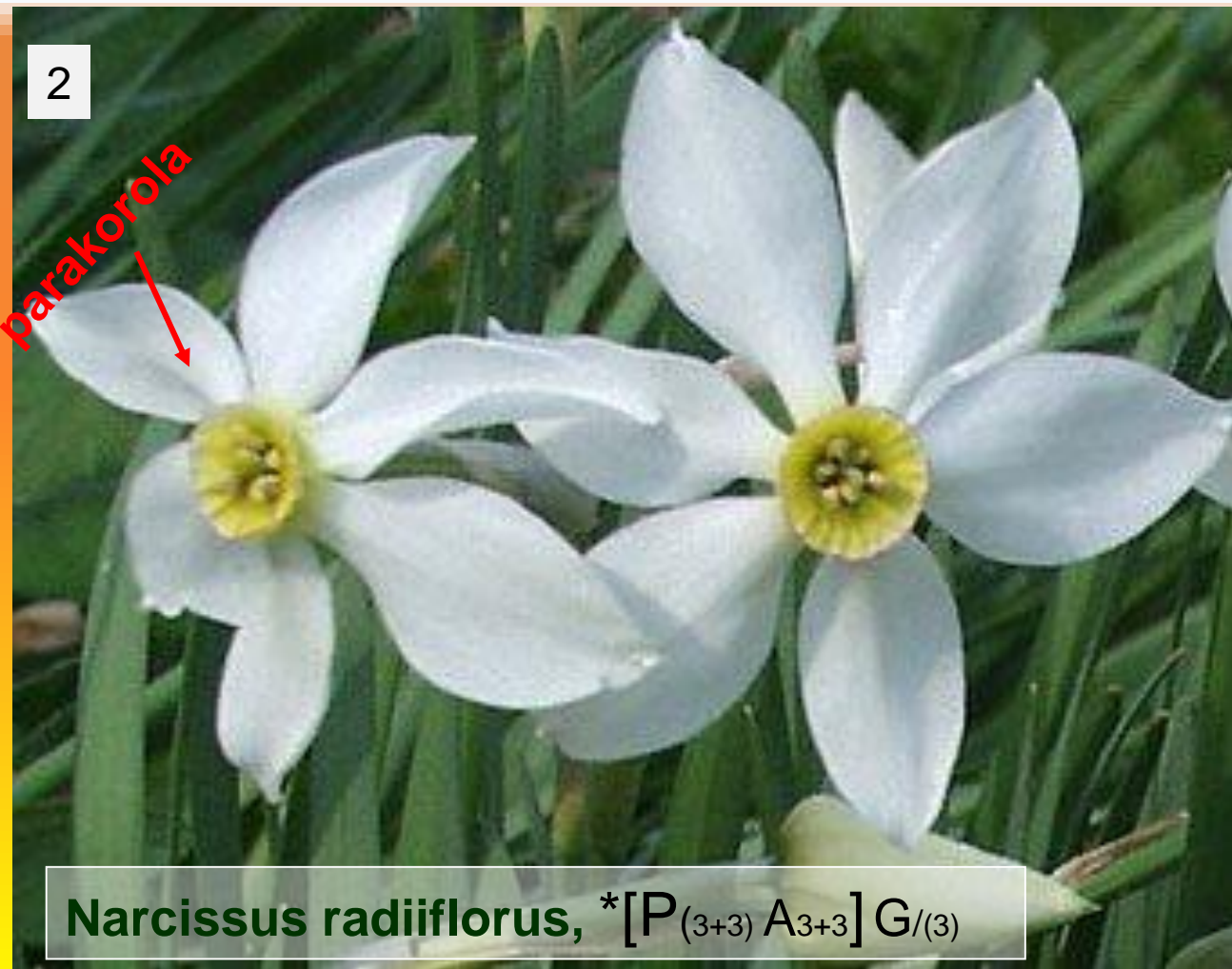
Galanthus nivalis, *P₃₊₃ A₃₊₃ G/(3)



Leucojum aestivum, *P₃₊₃ A₃₊₃ G/(3)



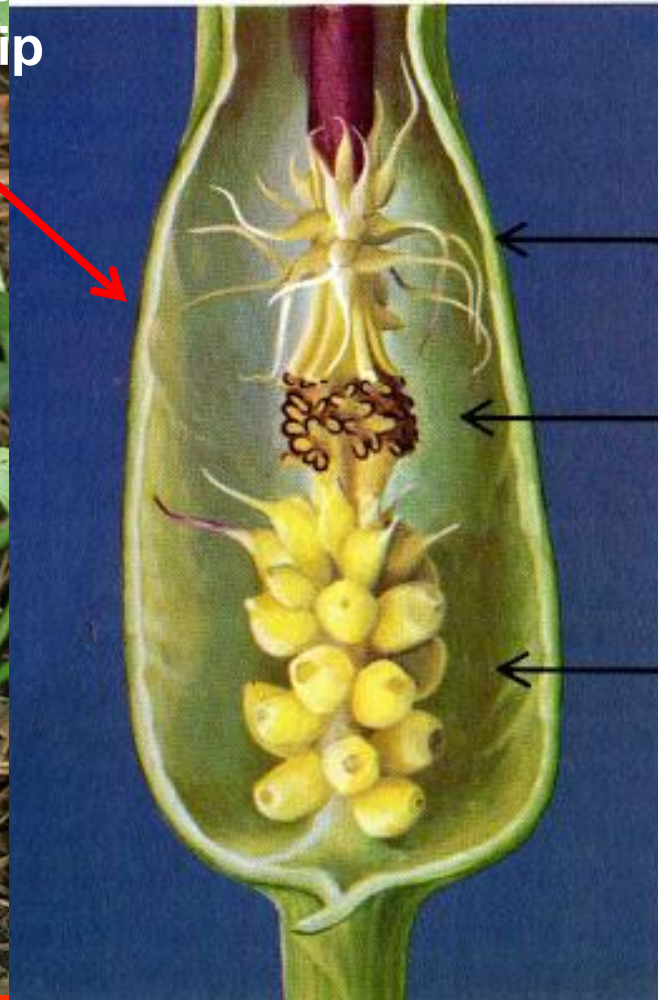
Pancratium maritimum



Narcissus radiiflorus, $*[P_{(3+3)} A_{3+3}] G_{/3}$

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

f. Araceae



Sterilni muški cvijet

Muški cvijet

♂ P₀ A(2-4)

Ženski cvijet

♀ P₀ G₁



Plod

f. Asparagaceae

Subfam. Nolinoideae

Subfam. Asparagoideae



Asparagus acutifolius- šparoga, $*[P_{(3+3)} A_{3+3}] G_{(3)}$



filokladija

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



Polygonatum multiflorum

*[P₍₃₊₃₎ A₃₊₃] G₍₃₎

Subfam. Scilloideae





Scilla bifolia



Ornithogalum umbellatum – ptičje mlijeko

f. Agavaceae



f. *Iridaceae* [$P_{3+3} A_3$] $G_{/(3)}$

Gladiolus palustris- gladiola



Zigomorfan cvijet



Iris pseudoacorus- iris

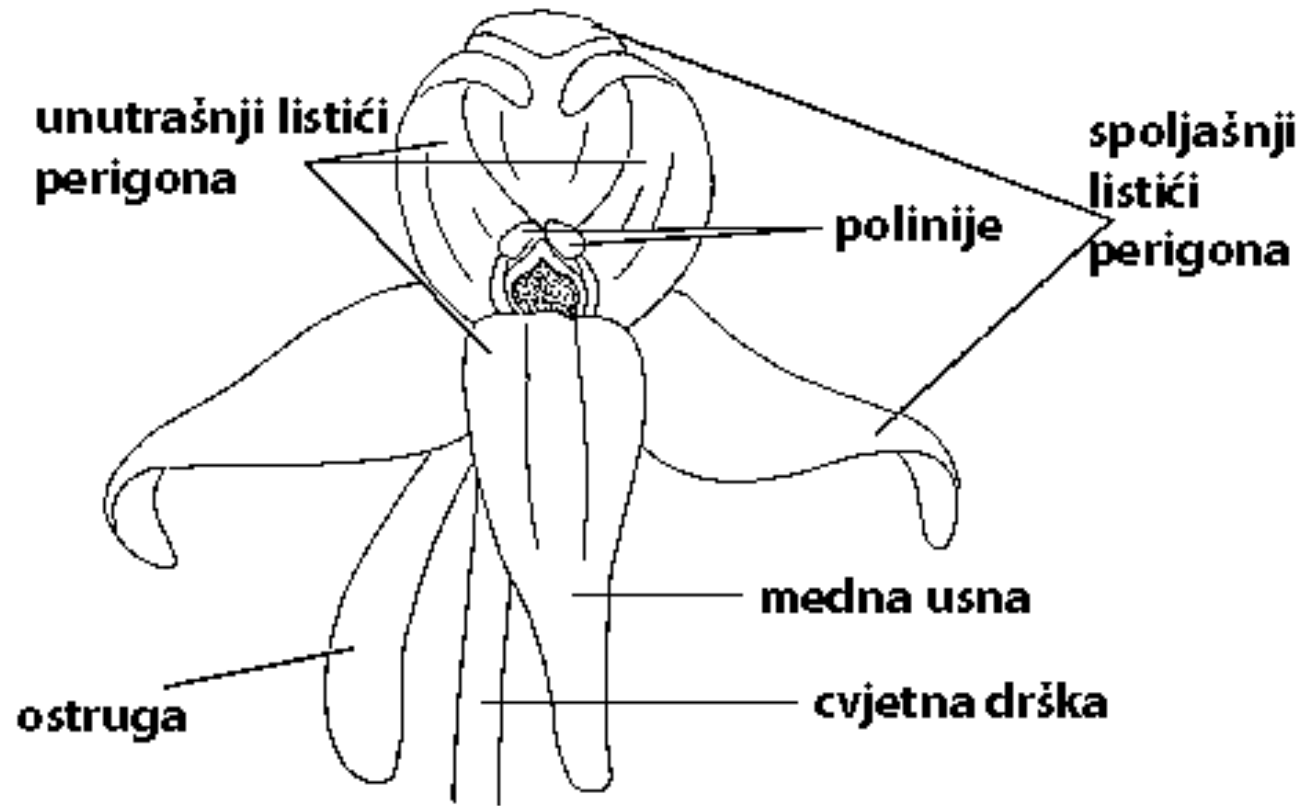
**3 spoljašnja lista perigona
prema nazad savijena**

Crocus dalmaticus- šafran



Romulea bulbocodium

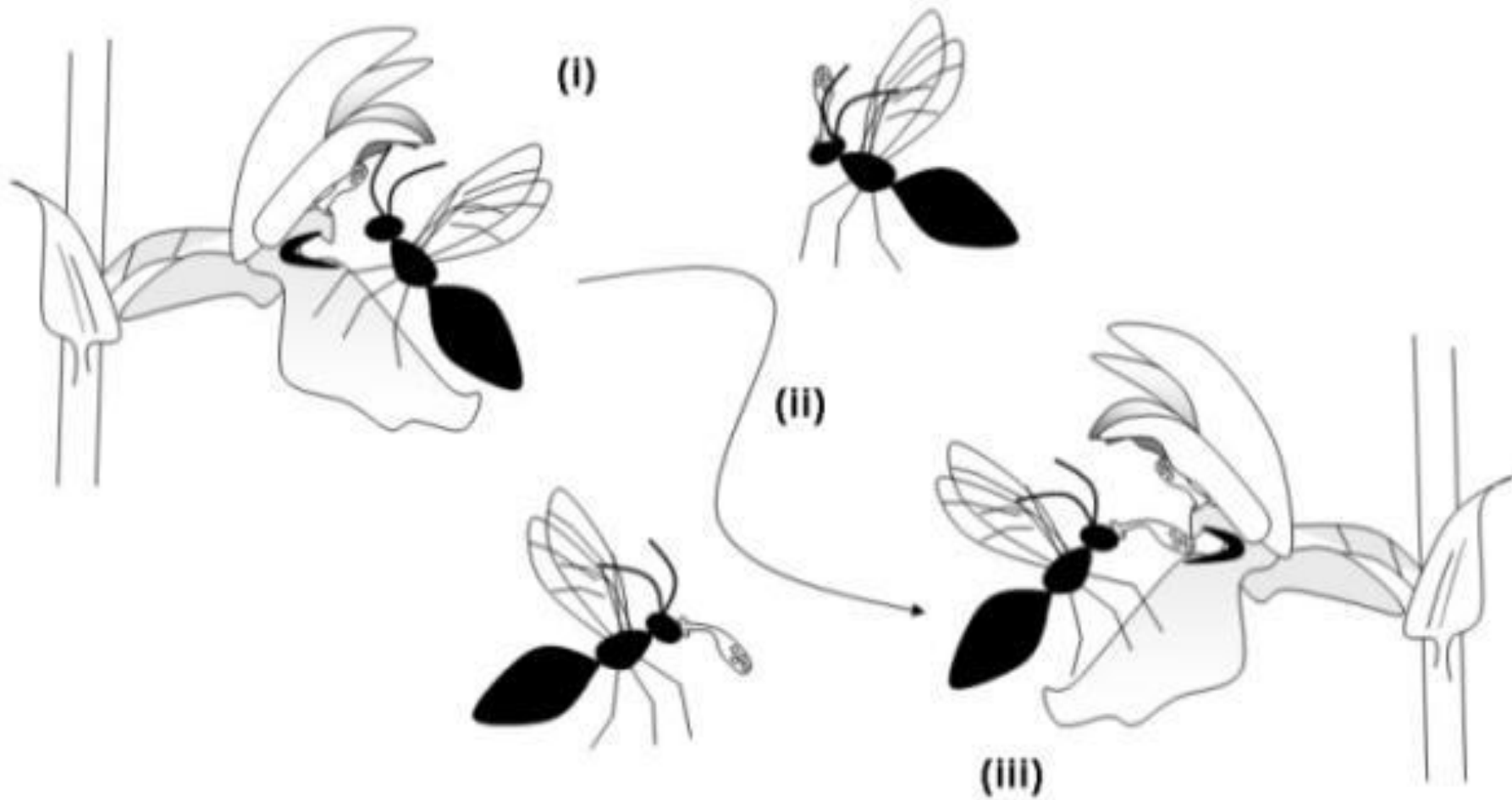
f. *Orchidaceae*



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

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

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



Mehanizam opašivanja



Himanthoglossum adriaticum

Medna usna sa
ostrugom!

Orchideoideae (Monoandre)

Anacamptis pyramidalis





Orchis papilionaceae



Orchis morio

Ophrys insectifera - pčelica



Medna usna
bez ostruge!

Ophrys cornuta - pčelica



Ophrys bertochonii - pčelica





Neottia nidus-avis- ptičje gnijezdo



Spiranthes spiralis



Serapias sp.

Cypripedioideae
(Diandre)



Cypripedium calceolum