

Liliatae, Commelinidae

- molekularni markerji (rbcL, atpB)
- večinoma neugleden P
- endosperm škrobnat
- celične stene s snovmi, ki fluorescirajo v UV svetlobi

Liliatae, Commelinidae

Bromelianae, Bromeliales

- Bromeliaceae – ananasovke



$C_3A_{3+3}G_{(3)}$



uporabne ananasovke

- Ananas comosus: ananas
- Tillandsia: okrasna, "lesna volna"
- Vriesia, Guzmania, Aechmea : okrasne



Liliatae, Commelinidae

Arecanae, Arecales

- Arecaceae (=Palmae)
– palme



Trachycarpus

* $K_3C_3A_{3/3+3/6}G_{3/3}$

uporabne palme

- *Areca*: betel
- *Attalea, Elaeis*: oljna palma
- *Cocos*: kokosova palma
- *Metroxylon*: sago palma
- *Phoenix*: dateljnova palma
- *Calamus*: ratan
- *Raphia*: rafija
- številne z užitnim apikalnim meristemom, okrasne

Liliatae, Commelinidae

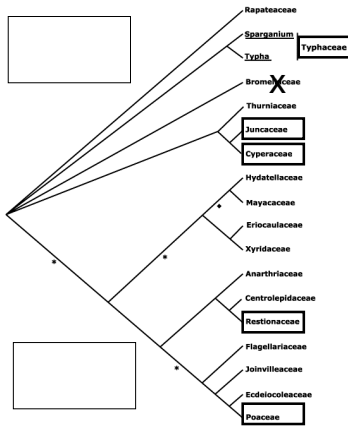
Commelinanae, Commelinales

- Commelinaceae –
komelinovke



Commelinanae, Poales s. lat.

- rafidov ni
- epidermalne kremenčeve celice
- nektarijev ± ni
- sdh3 gen mtDNA izgubljen



Liliatae, Commelinidae

Commelinanae, Poales

- Juncaceae – ločkovke



*P₍₃₊₃₎A₍₃₊₃₎G₍₃₎

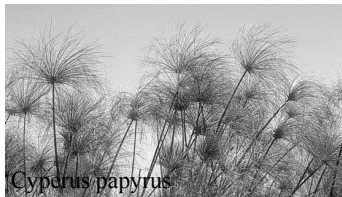


Liliatae, Commelinidae

Commelinanae, Poales

- Cyperaceae – ostričevke

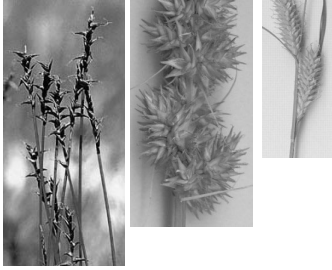
*P₆₋₀A₃₋₁G₍₃₋₂₎



Carex: delitev rodu

podrodovi:

- **Carex** (incl. Kreczetoviczia)
- **Vignea**
- **Psyllophora** (=Primocarex)
- **Vigneastr** (=Indocarex)

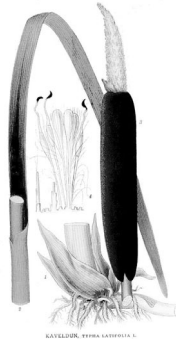
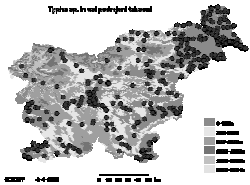


Liliatae, Commelinidae

Commelinanae,
Poales

$*P_{\infty-1}A_{1-8}/\underline{G}_{(3)}$

- Typhaceae (incl. Sparganiaceae) – rogozovke



Sparganium

KAYELEDON, SPINA LANTHORNIA L.

Liliatae, Commelinidae

Commelinanae, Poales

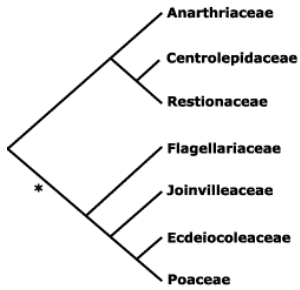
$*P_{3+3}A_{0+3}/\underline{G}_{(3)}$

- Restionaceae – vrvovke



najbližji sorodniki trav

- večinoma J polobla
- “travaste” rastline



Liliatae, Commelinidae

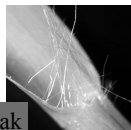
Comelinanae,
Poales

- Poaceae – trave

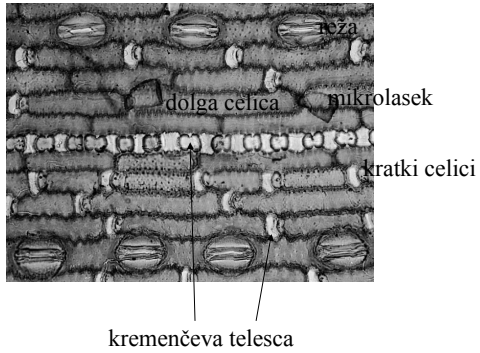
$P?_{3-0}A_3\underline{G}_{(2)}$



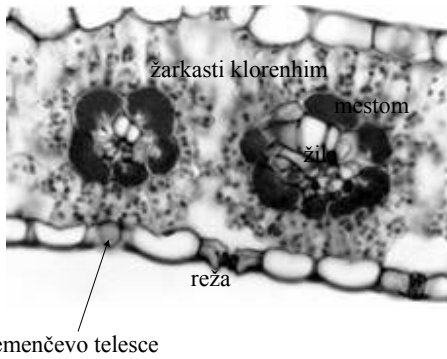
Poaceae: steblo in listi



Poaceae: listna povrhnjica



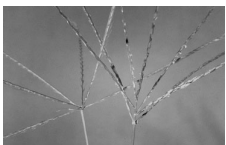
Poaceae: listni prerez



Poaceae: socvetja

socvetja drugega reda

- latasta
- klasasta
- prstasta



Poaceae: klasek

- klaskova os (koželj)
- 2 ogrinjalni plevi
- več krovnih plev
- v zalistju vsake cvetna os
- predpleva
- luskici
- cvet

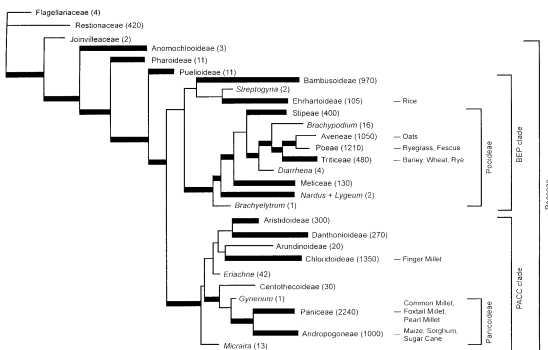


Poaceae: delitev družine

več poddružin

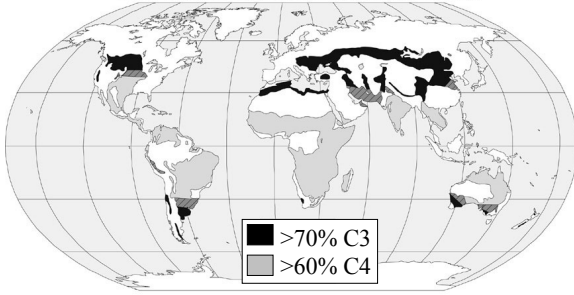
- Bambusoideae: C3, 3 luskice
- Ehrhartoideae: C3, 3 luskice
- Pooideae: C3, ni mikrolaskov
- Arundinoideae: C3, 2-3 luskice, velik kalček
- Panicoideae: C3/4, jalov cvet na dnu, v. k.
- Chloridoideae: C4, poseben tip mikrolaskov, v. k.

Poaceae: delitev družine



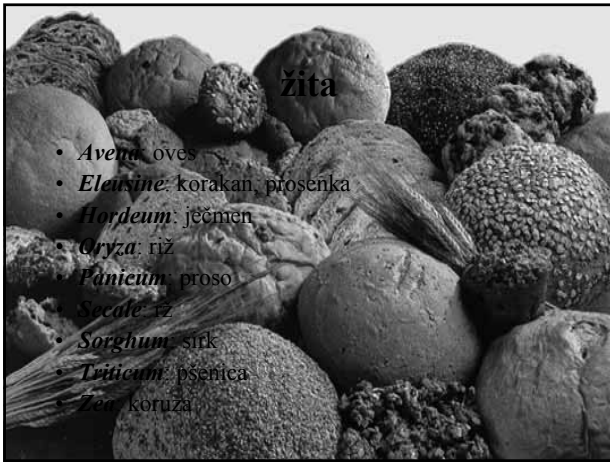
Poaceae: razširjenost C3 in C4

Distributions of C₃ and C₄ grasses in the savanna and steppe ecosystems



žita

- *Avena*: oves
- *Eleusine*: korakan, prosenka
- *Hordeum*: ječmen
- *Oryza*: riž
- *Panicum*: proso
- *Secale*: žr
- *Sorghum*: sirik
- *Triticum*: pšenica
- *Zea*: koruza



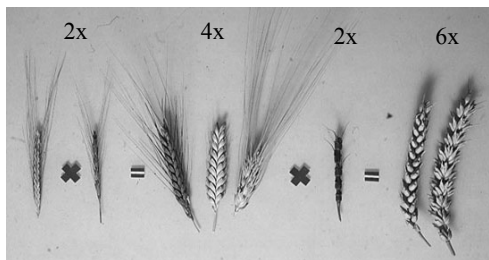
selekcija žit

večje število klaskov v socvetju, število cvetov v klasku, vsi cvetovi v klasku so postali plodni, večja velikost zrn in endosperma

- manjše rese in dlake na kalusu, zrno ni zraslo s plevami
- skrajšana **dormantnost** semen
- selekcija **ozimnih** in **jarih** sort
- obstojnost zrelih klaskov
- prilagojenost na nižje temperature in na različne vodne režime
- poliploidizacija



Aegilops/Triticum: evolucija pšenice



T. boeoticum

T. turgidum

T. vulgare

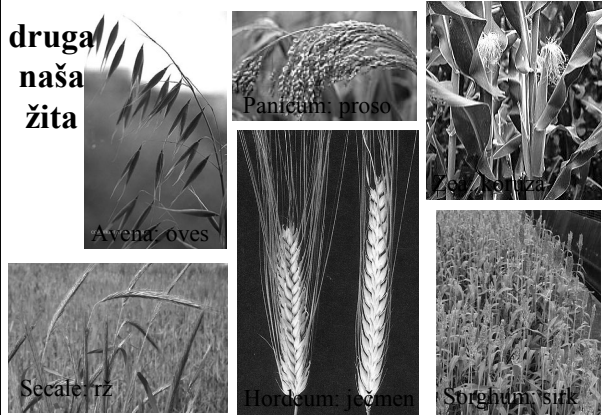
x

x

Ae. sect. Sitopsis

Ae. squarrosa

druga naša žita

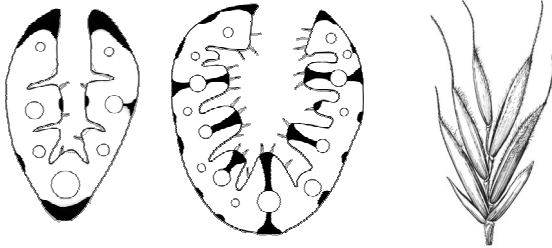


druge uporabne trave

- krmne trave
- bambusi
- Saccharum: sladkorni trs
- *Cymbopogon citratus*: limonska trava
- proti eroziji
- okrasne
- seneni nahod
- pleveli
- invazivke

Poaceae: naša flora

Festuca – bilnica: 49 taksonov, 1800 podatkov



Poaceae: naša flora

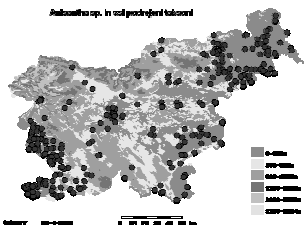
Poa – latovka: 24 taksonov, 1500 podatkov



Poaceae: naša flora

Bromus s. l. – stoklasa:
30 taksonov, 1900 podatkov [incl.
Bromopsis – stoklasec, Anisantha –
glistnik]

Anisantha sp. in celopodročnem taksonu



Poaceae: naša flora

Agrostis – latovka:

12 taksonov,

1000 podatkov

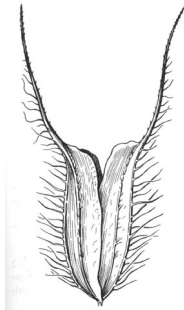


Poaceae: naša flora

Phleum – mačji rep:

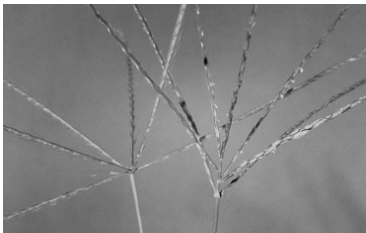
9 taksonov,

400 podatkov



Poaceae: naša flora

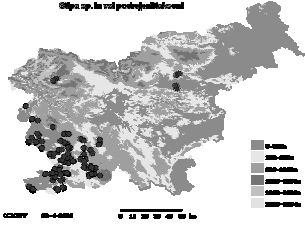
Digitaria – latovka: 8 taksonov, 250 podatkov



Poaceae: naša flora

Stipa – bodalica: 7 taksonov,
100 podatkov

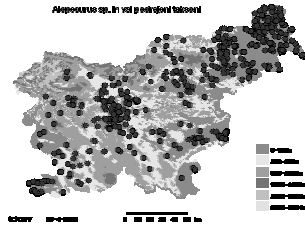
Stipa sp. in vsi podskupinski taksoni



Poaceae: naša flora

Alopecurus – lisičji rep: 7 taksonov, 300
podatkov

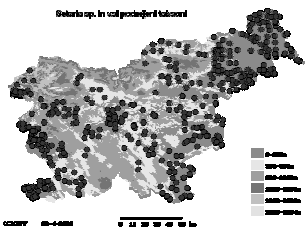
Alopecurus sp. in vsi podskupinski taksoni



Poaceae: naša flora

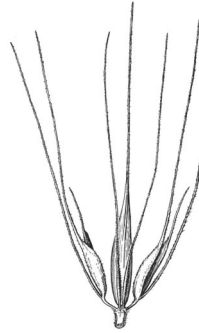
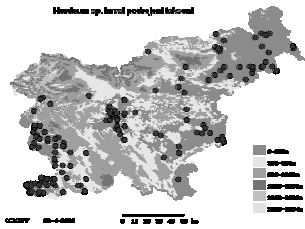
Setaria – muhvič: 7 taksonov,
400 podatkov

Setaria sp. in vsi podskupinski taksoni



Poaceae: naša flora

Hordeum – ječmen: 7
taksonov, 150 podatkov



Liliatae, Commelinidae

Zingiberanae, Zingiberales

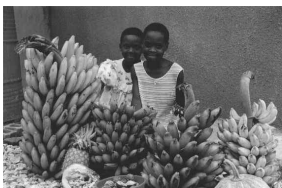
- rbcL, atpB, 18s rDNA
- listi diferencirani v pecelj in ploskev
- pernato ožiljeni
- cvetovi ↓ do sekundarno asimetrični
- plodnica podrasla
- škrobnati perisperm prevladuje
- tendenca k A1 in petaloidnim staminodijem

Liliatae, Commelinidae

Zingiberanae, Zingiberales

- Musaceae – bananovke

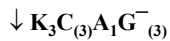
$\zeta P_6 A_{5-6} / G^-_{(3)}$



Liliatae, Commelinidae

Zingiberanae, Zingiberales

- Zingiberaceae – ingverjevke



uporabne ingverjevke

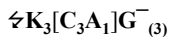
- *Eleotaria*: kardamon
- *Zingiber*: ingver
- *Curcuma*: kurkuma
- številne okrasne vrste



Liliatae, Commelinidae

Zingiberanae, Zingiberales

- Cannaceae – kanovke



Konec
