



Bi 6760
Základy entomologie
Cranium, trophi

2015

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evropský
sociální
fond v ČR



EVROPSKÁ UNIE



MINISTERSTVO ŠKOLSTVÍ,
MLÁDEŽE A TĚLOVÝCHOVY

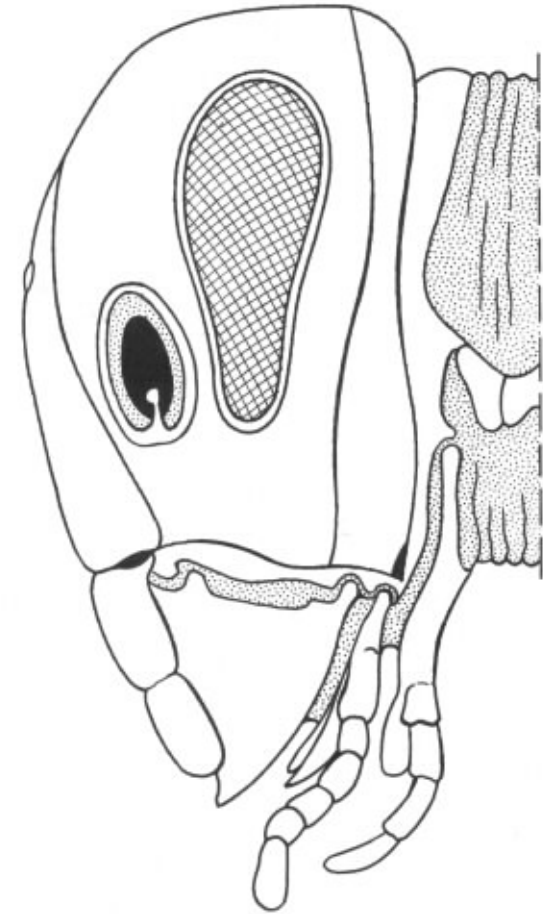
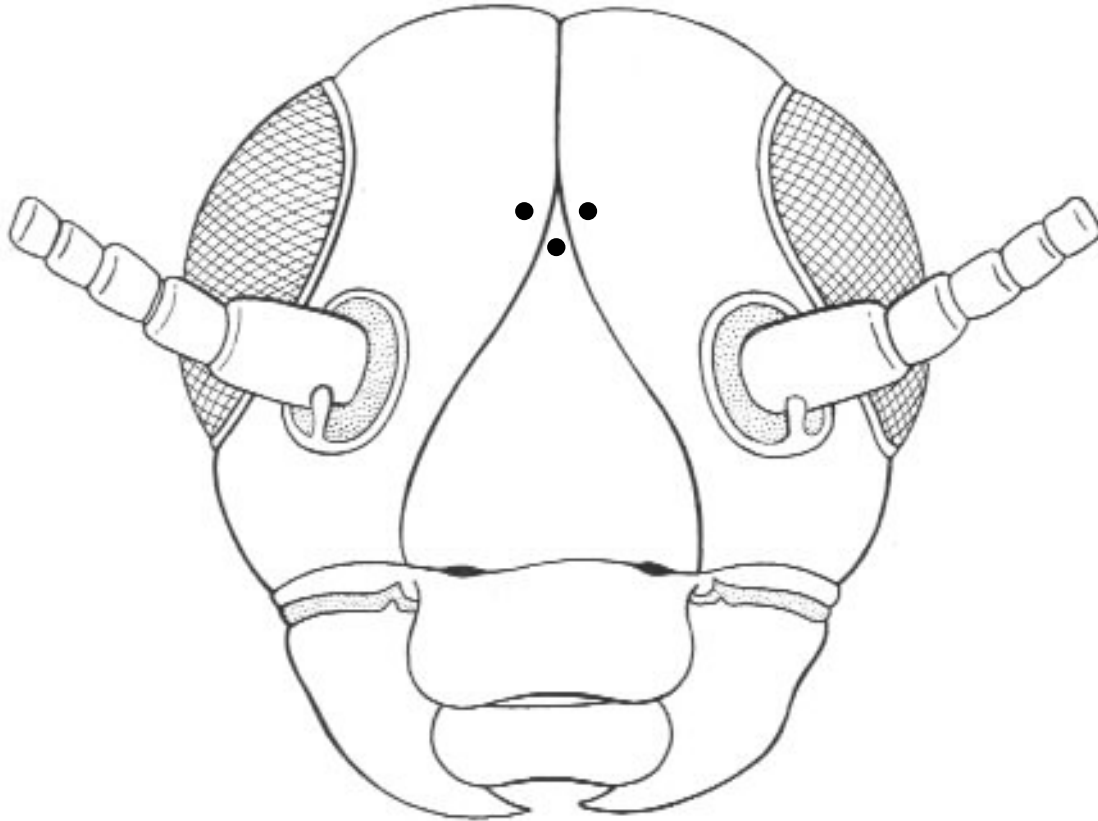


OP Vzdělávání
pro konkurenceschopnost

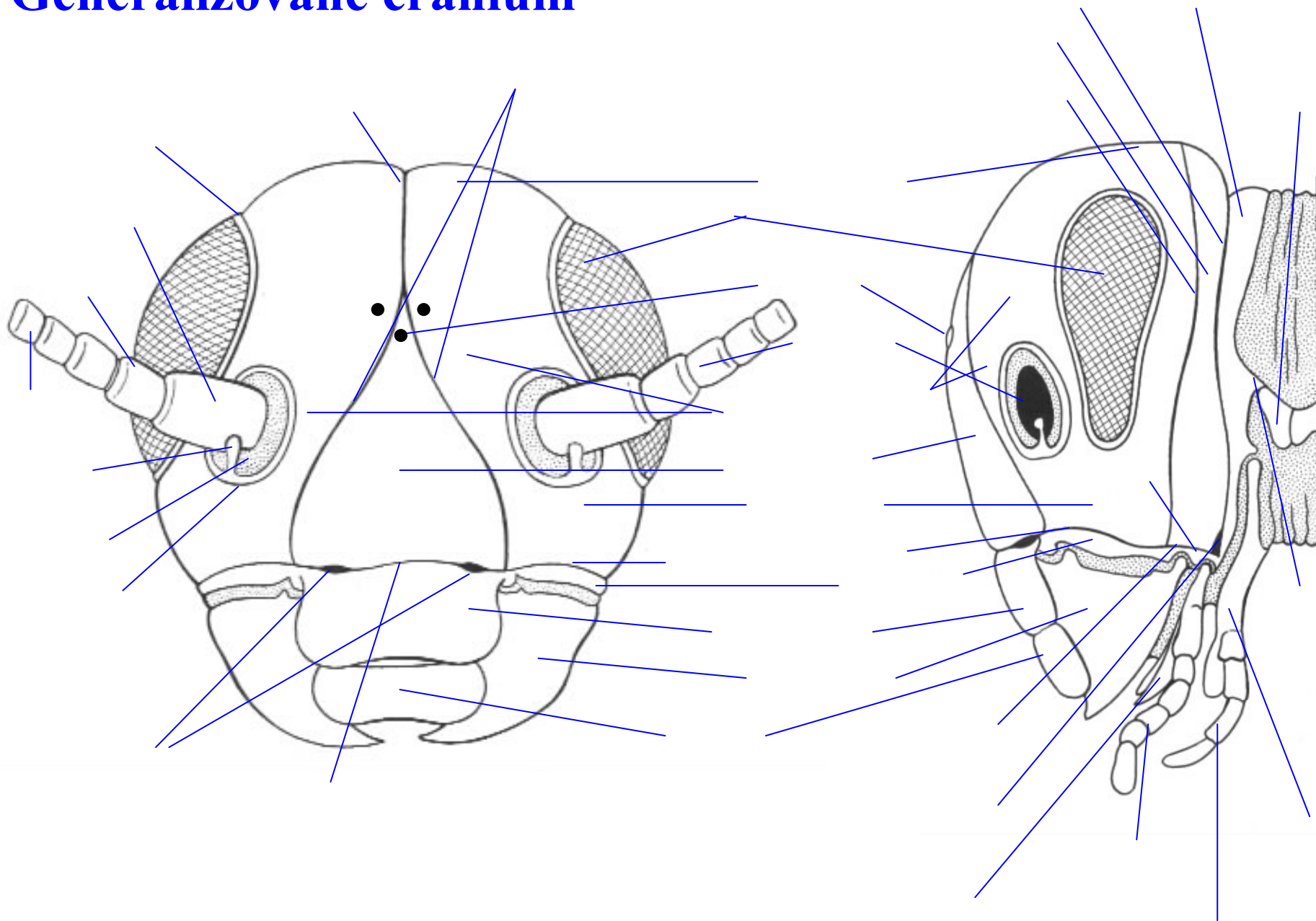


INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

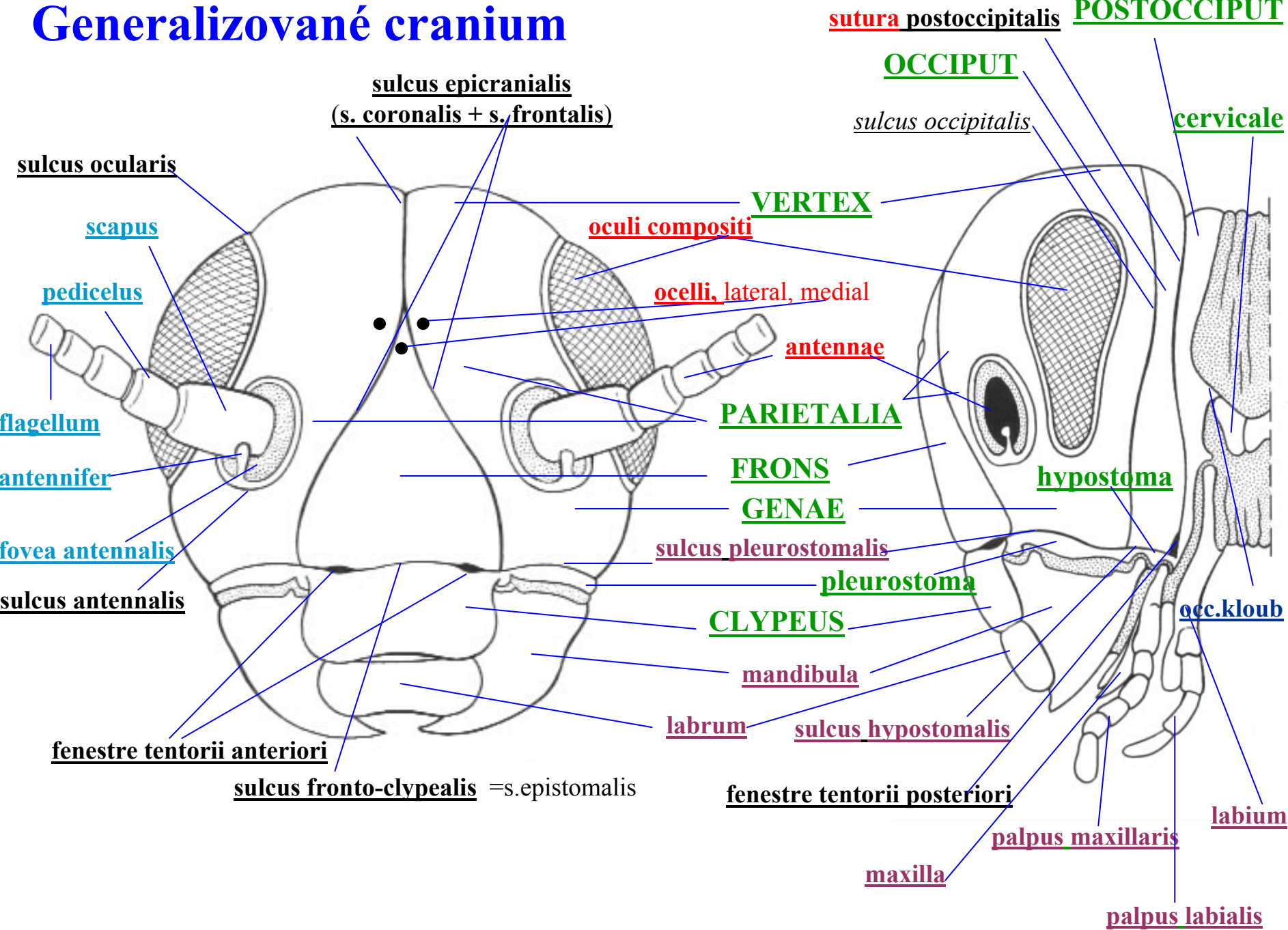
Generalizované cranium



Generalizované cranium

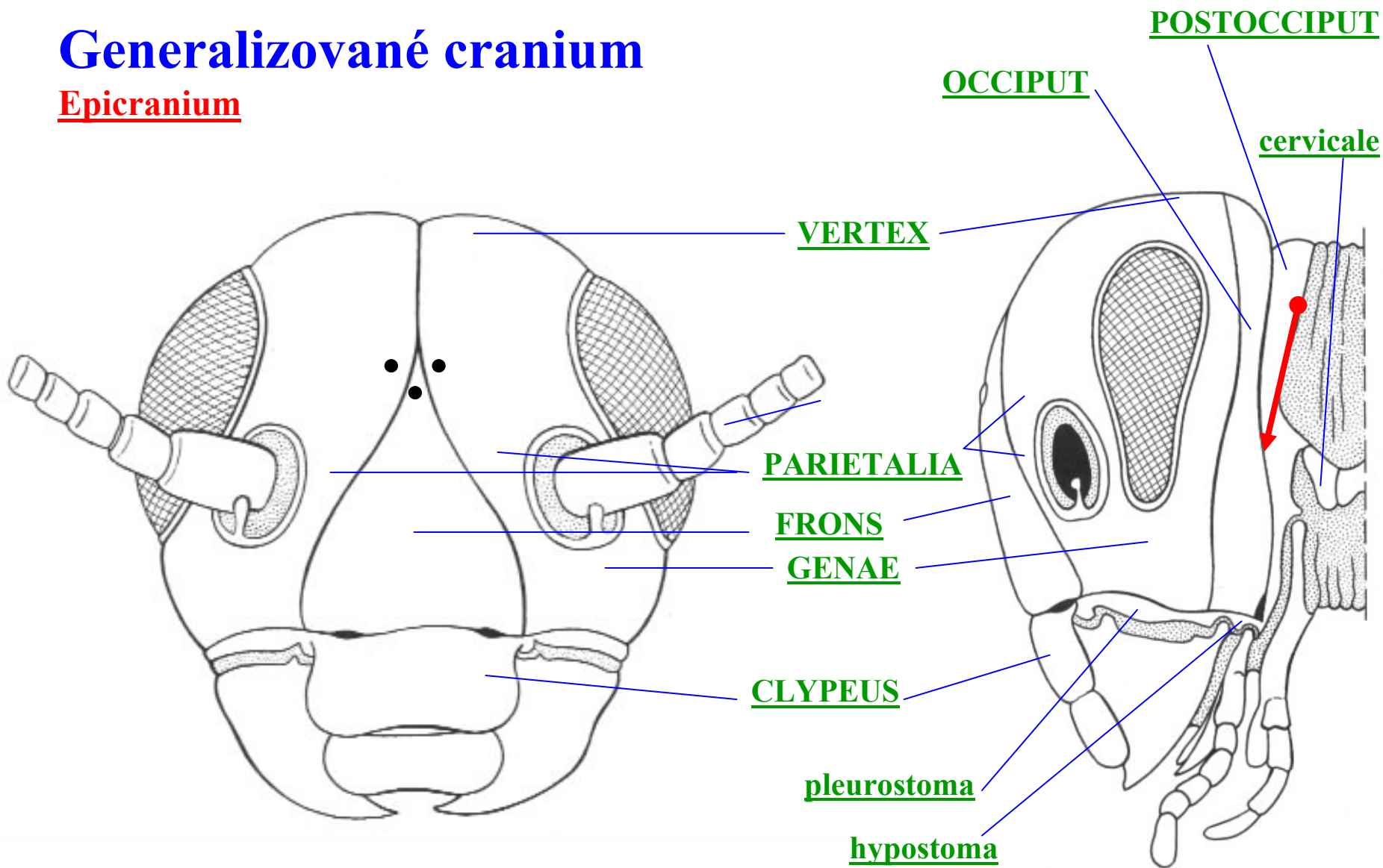


Generalizované cranium



Generalizované cranium

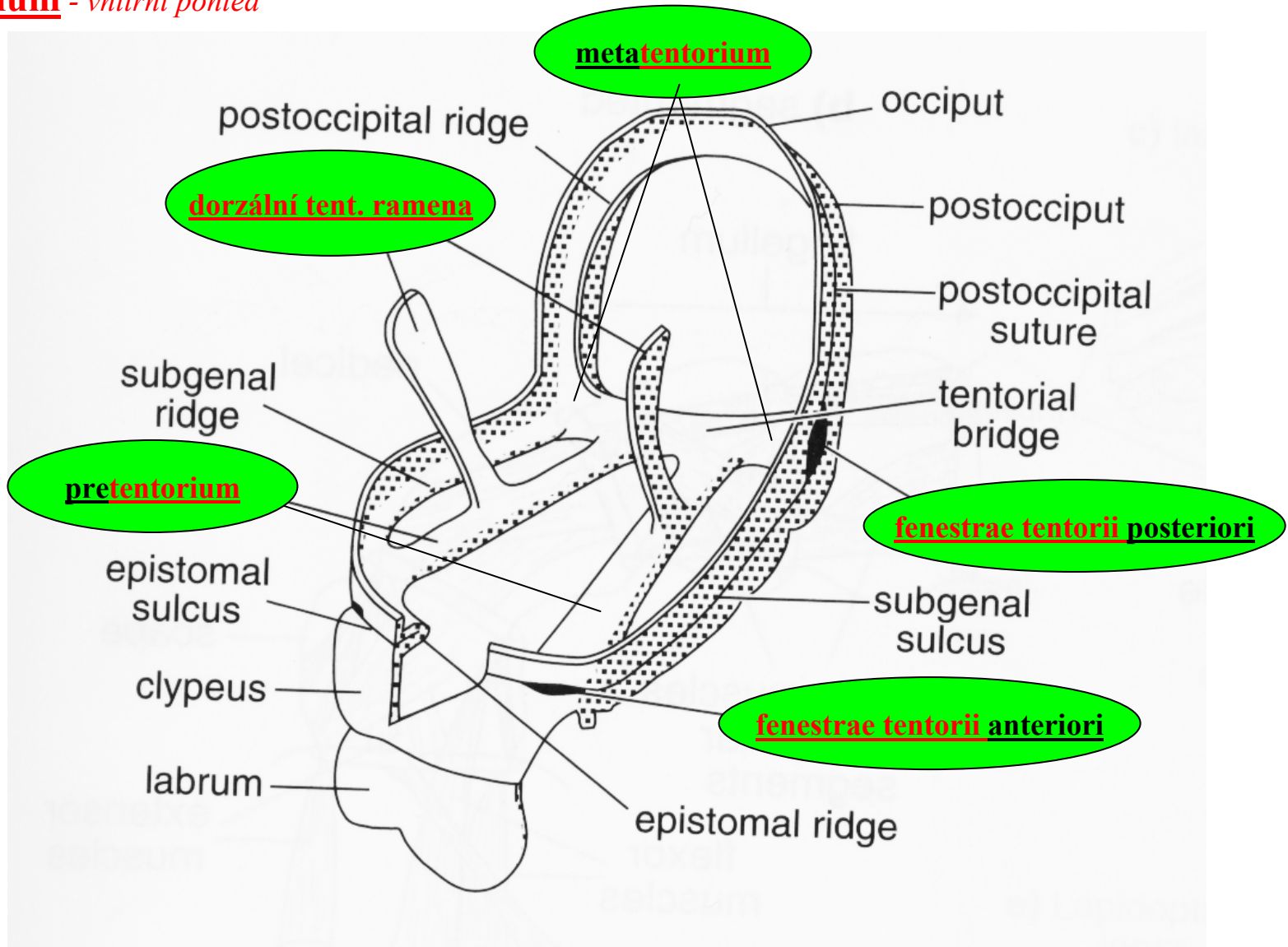
Epicranium



- sutura postoccipitalis-jediná línie dokládající segmentální původ crania

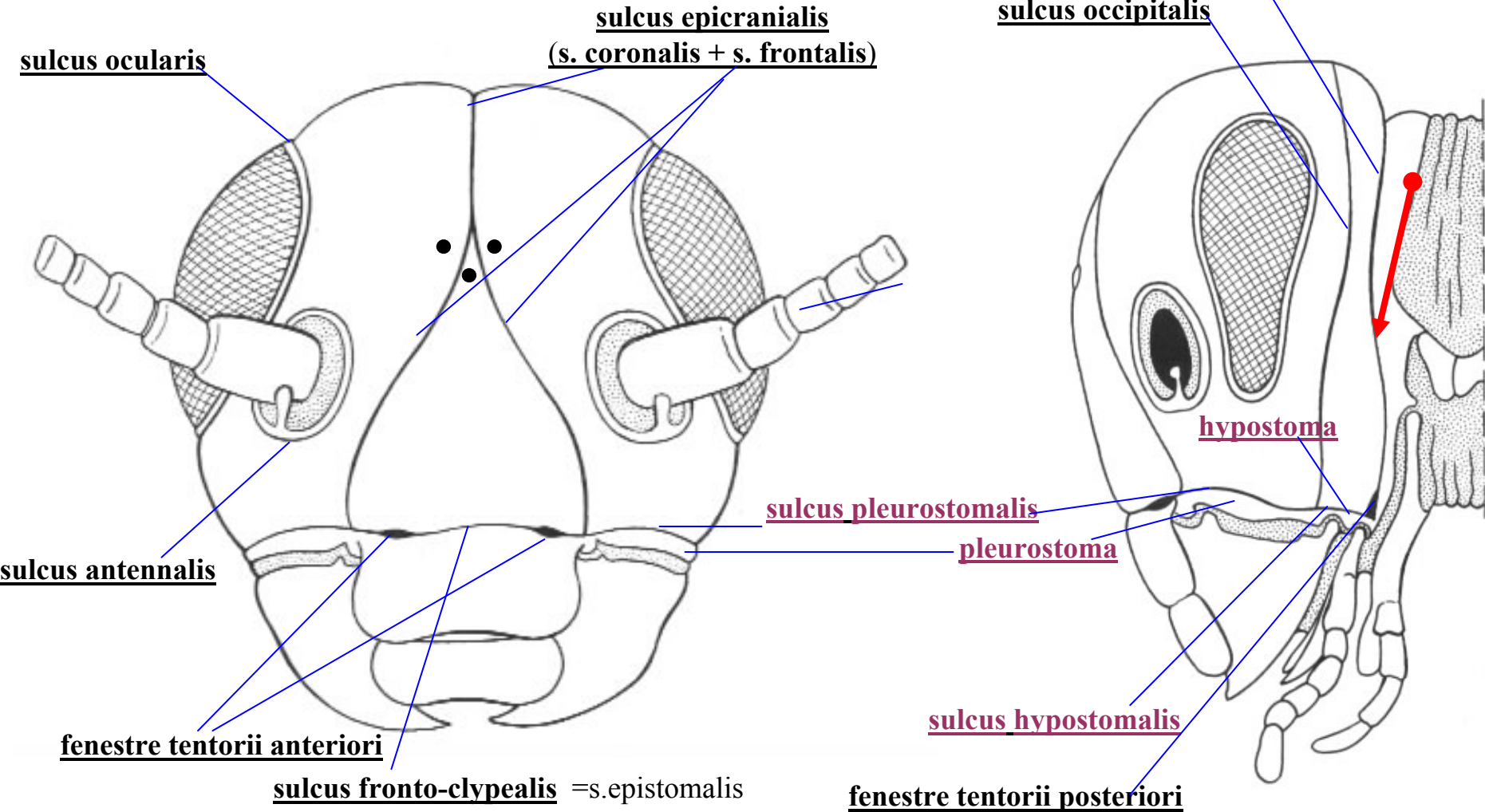
Generalizované cranium

Tentorium - vnitřní pohled



Generalizované cranium

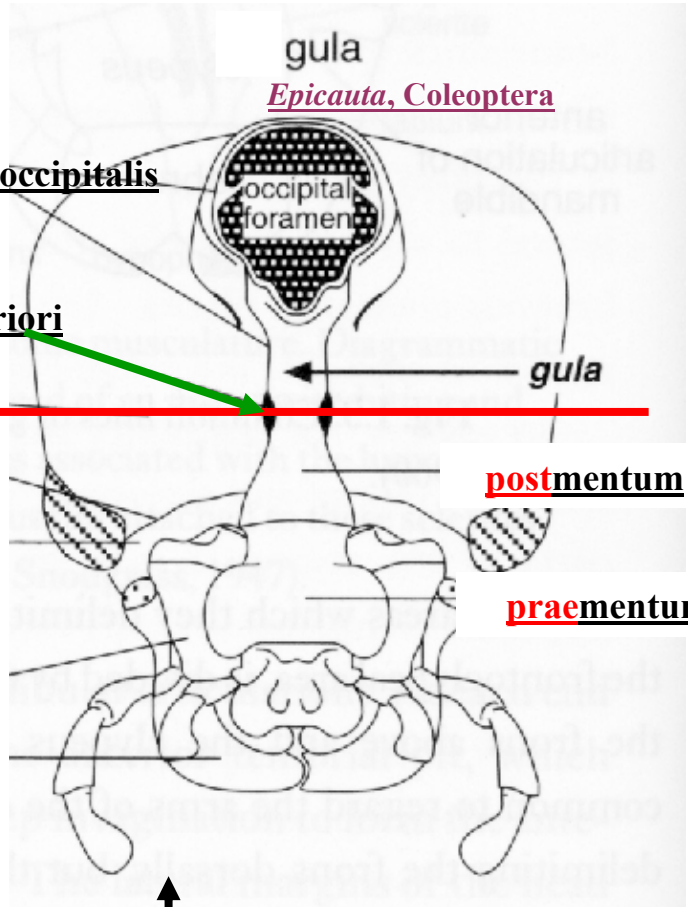
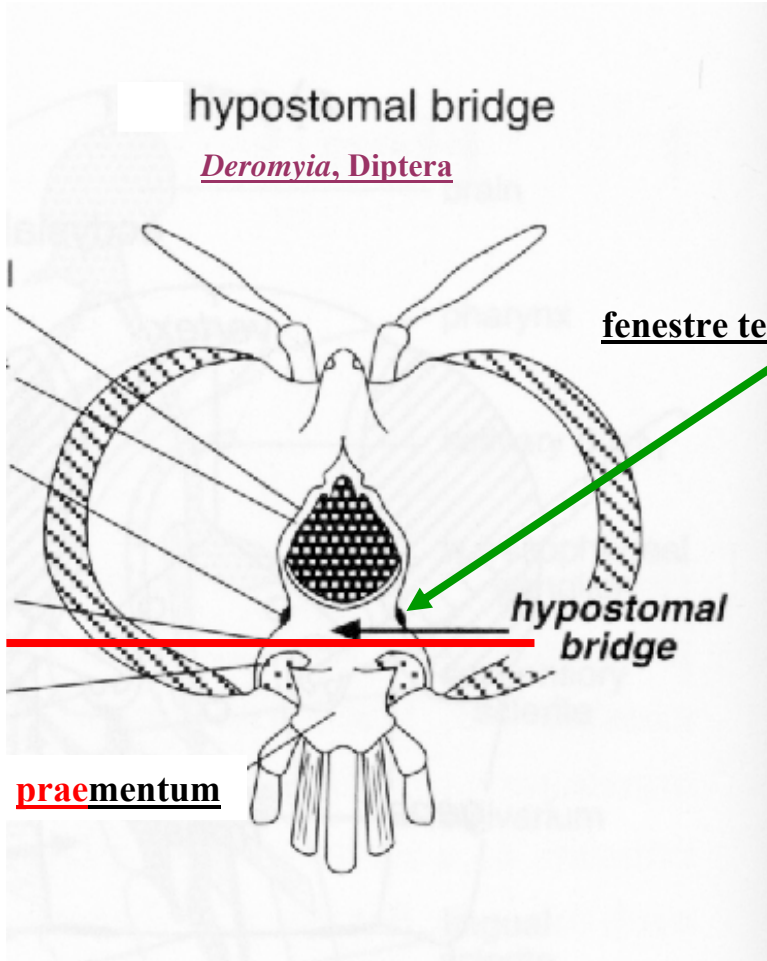
Tentorium a hlavové švy - vnější pohled



Generalizované cranium

Hypostomální most a gula

u prognátního hmyzu



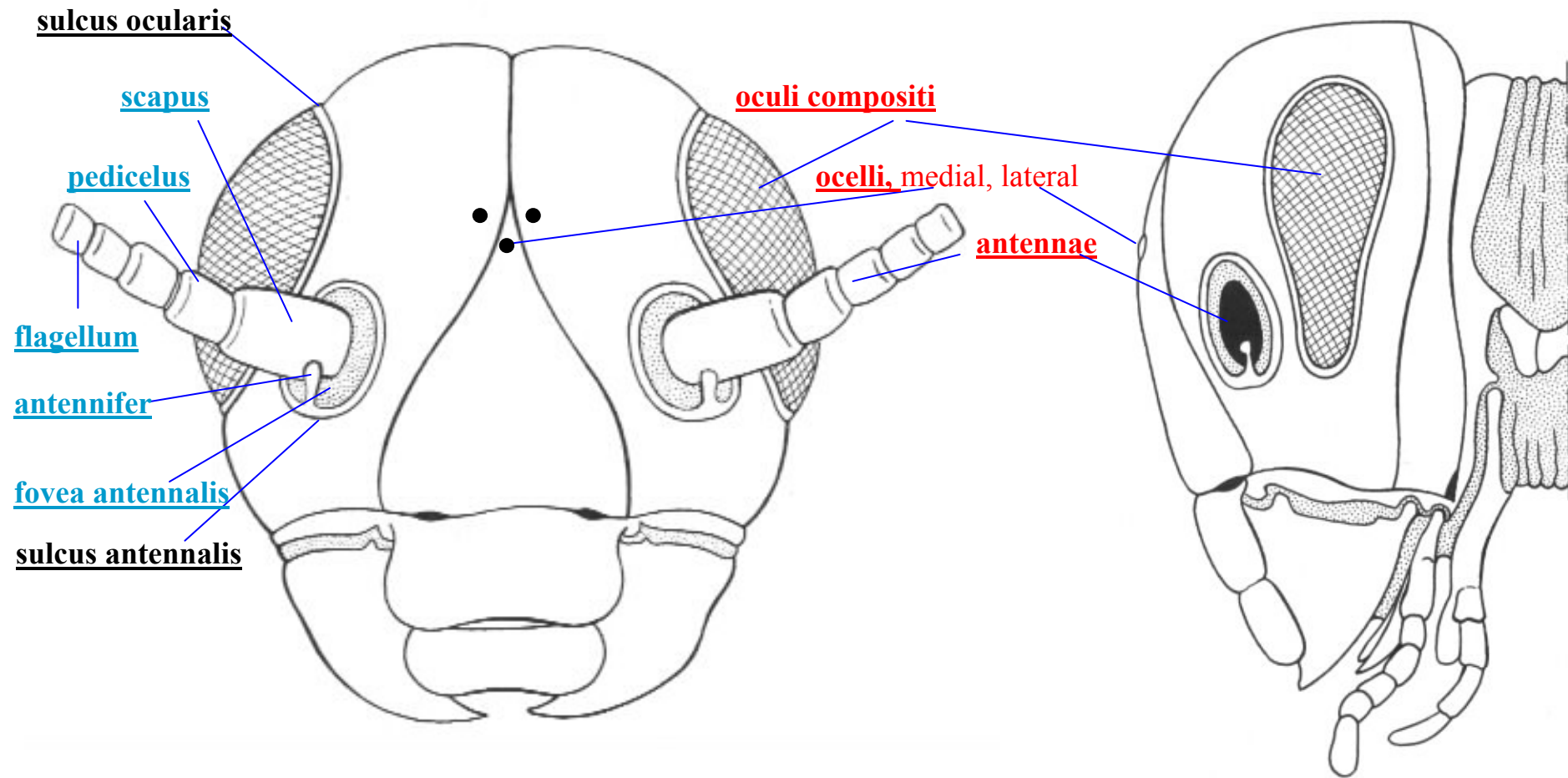
fenestre tentorii posteriori

sutura postoccipitalis

řez v transversální rovině - posteriorní pohled

Generalizované cranium

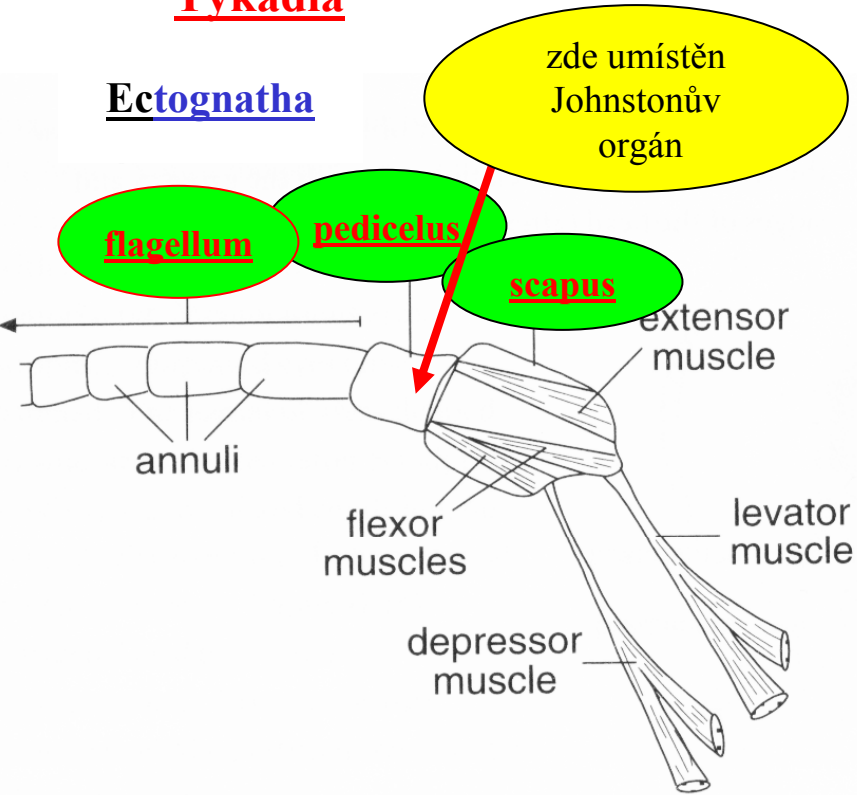
Oči a tykadla



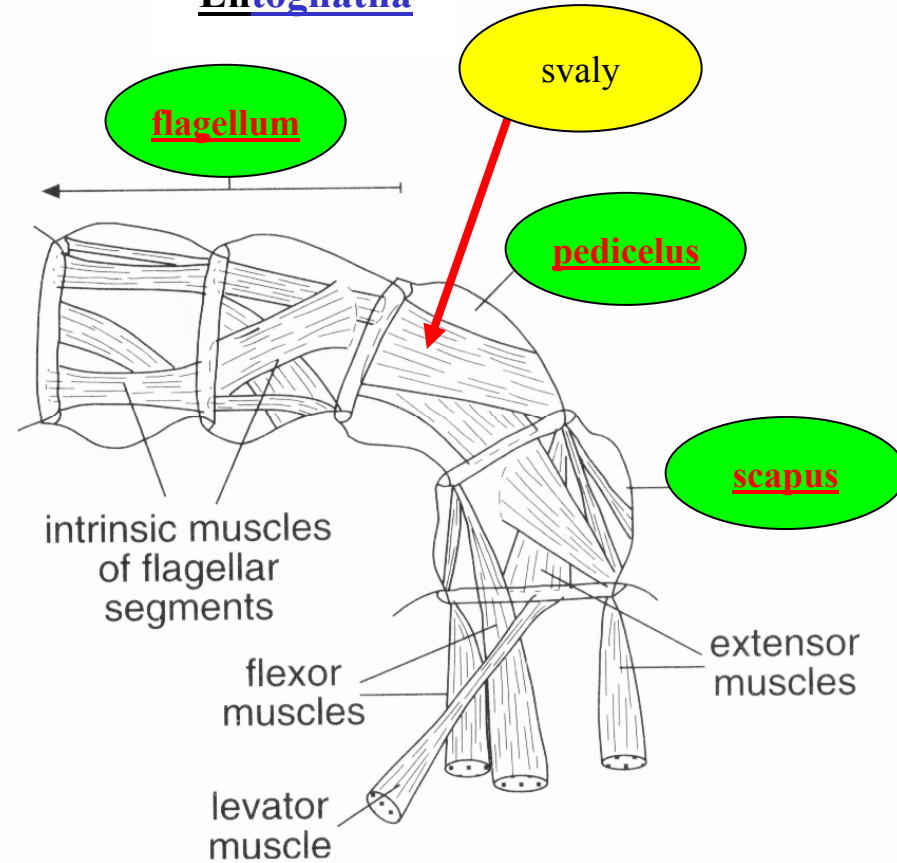
Generalizované cranium

Tykadla

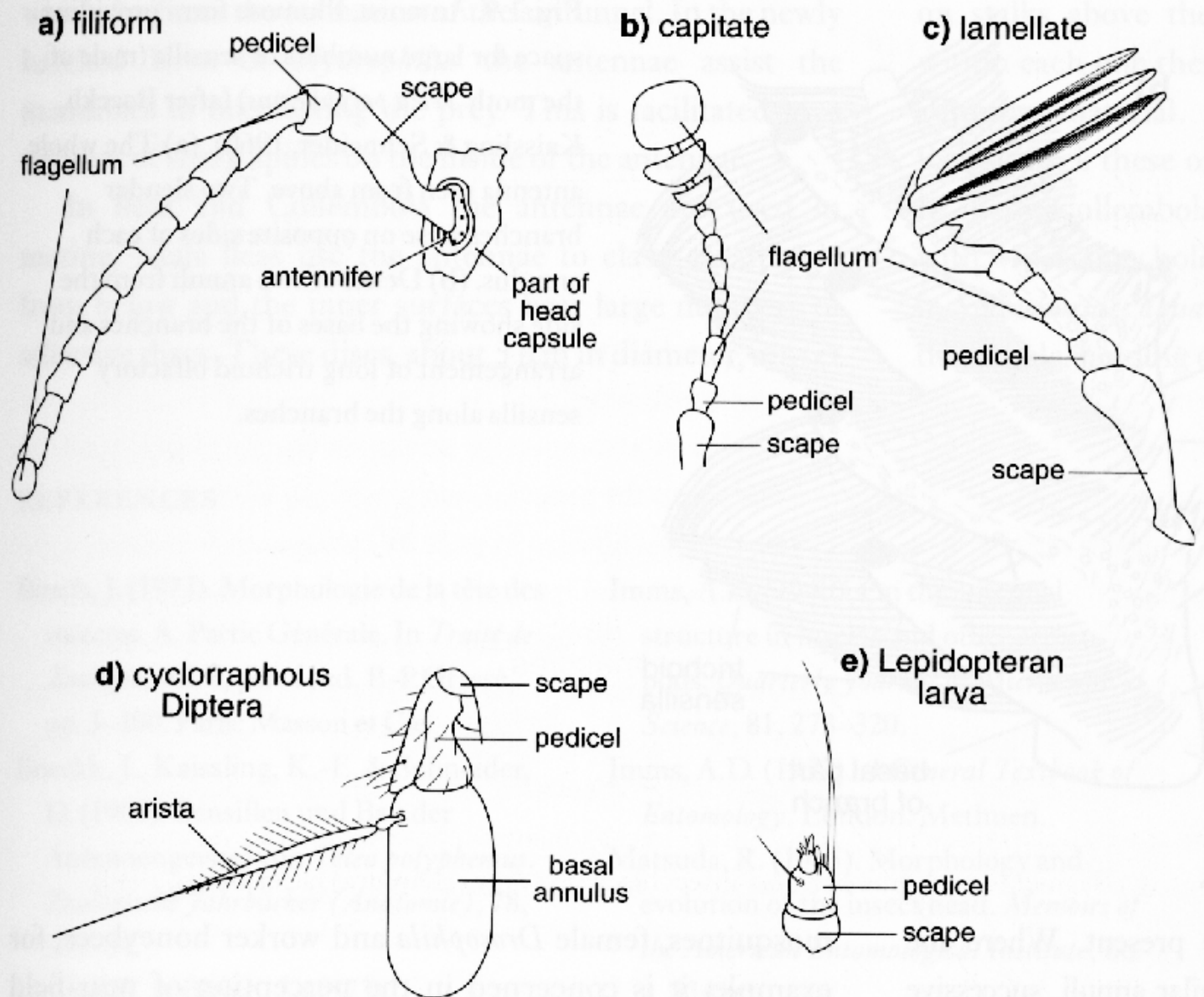
Ectognatha



Entognatha



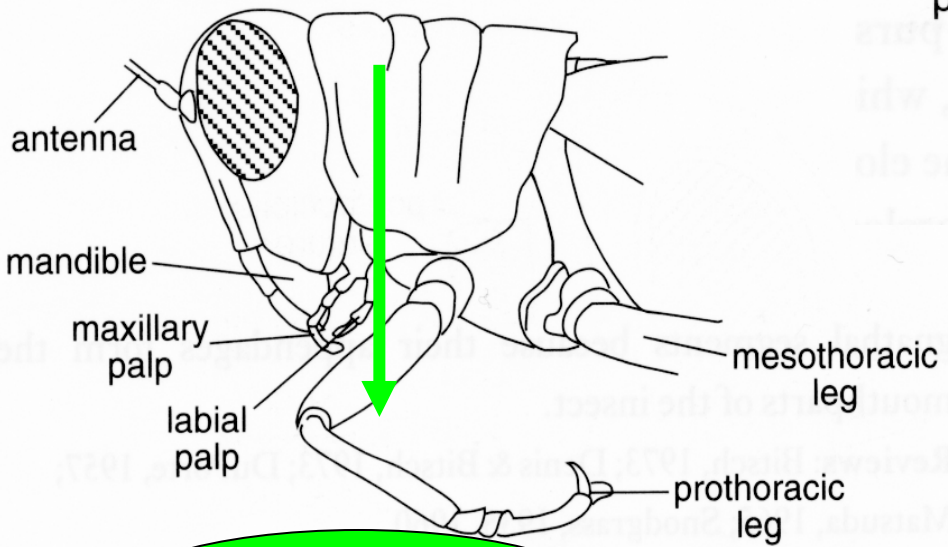
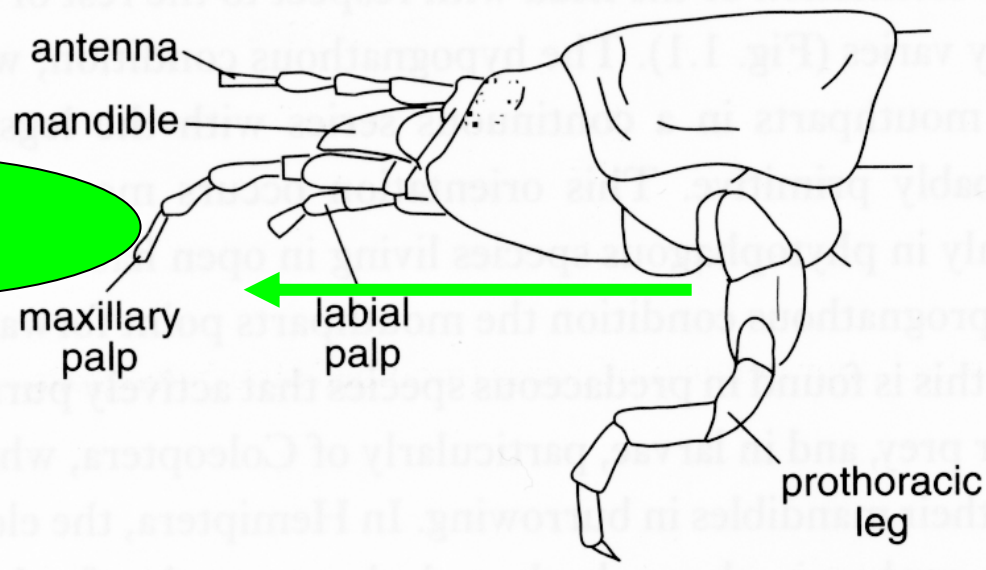
Modifikace tykadel



Generalizované cranium

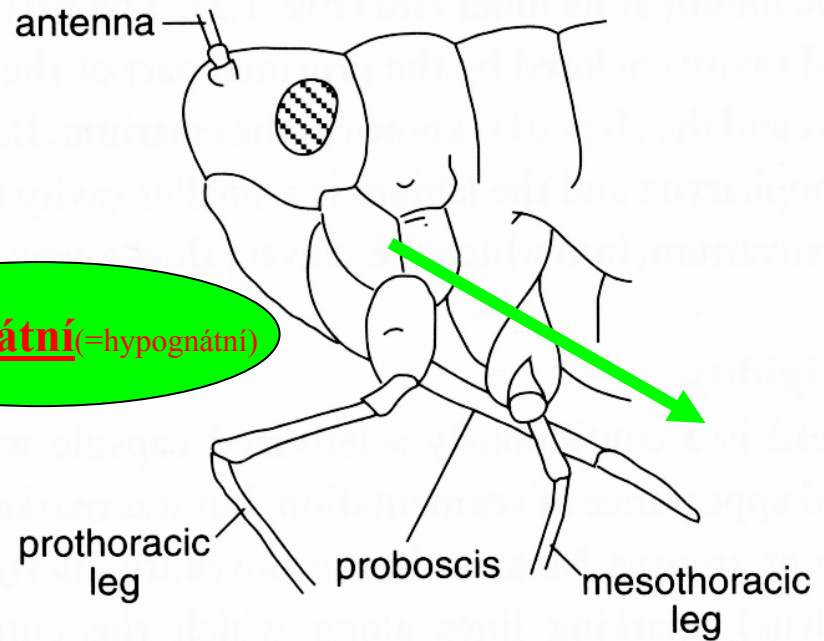
Orientace hlavy a ústní ústrojí:

prognátní



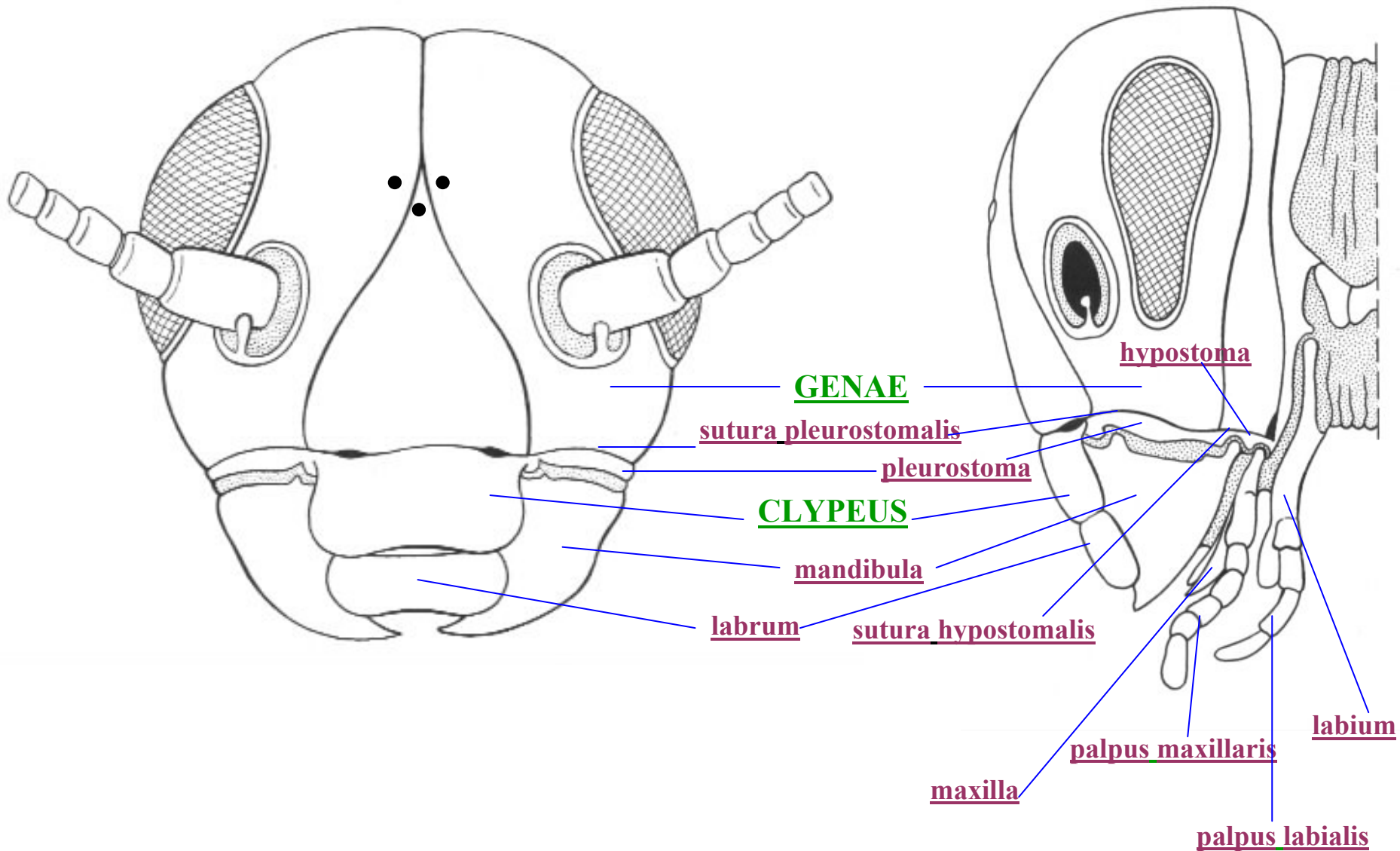
hypognátní (=ortognátní)

opistognátní (=hypognátní)

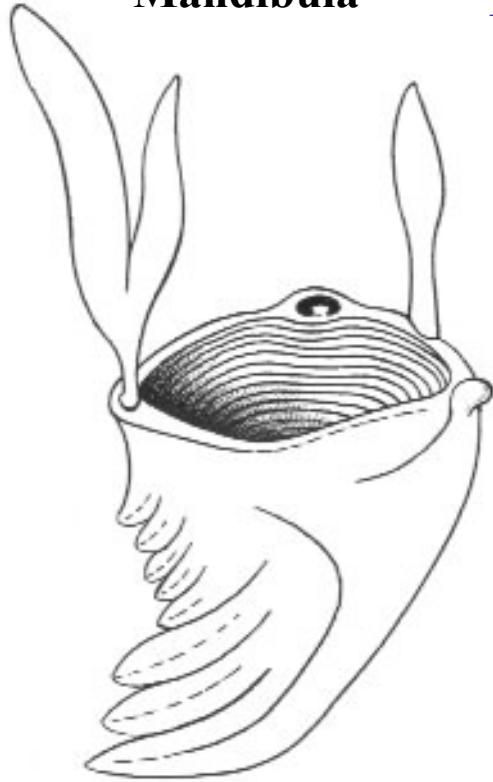


Generalizované cranium

Trophi

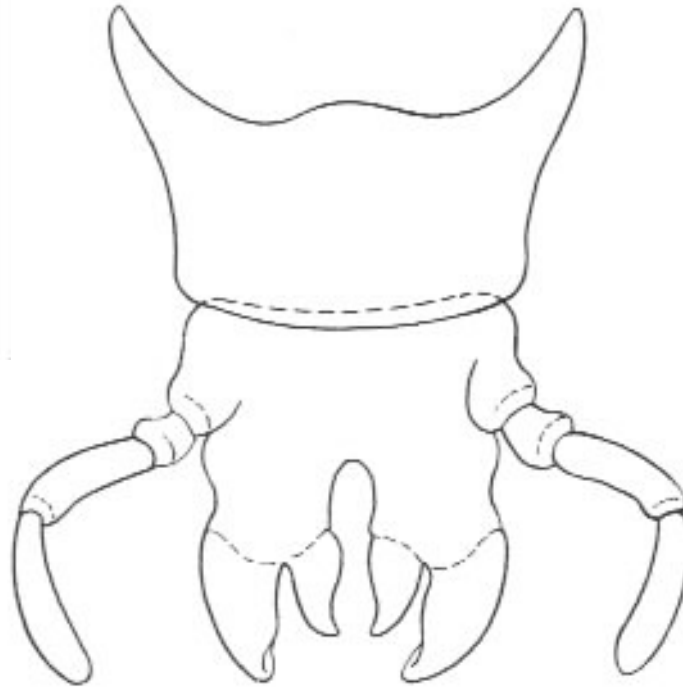


Mandibula

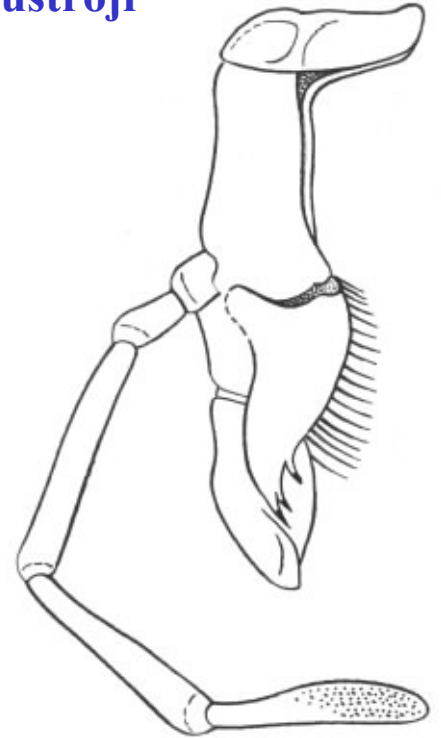


Trophi – jako příklad kousací ústní ústrojí

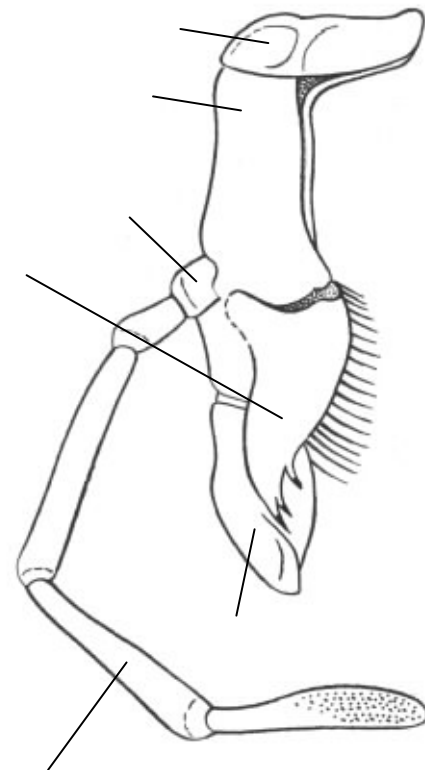
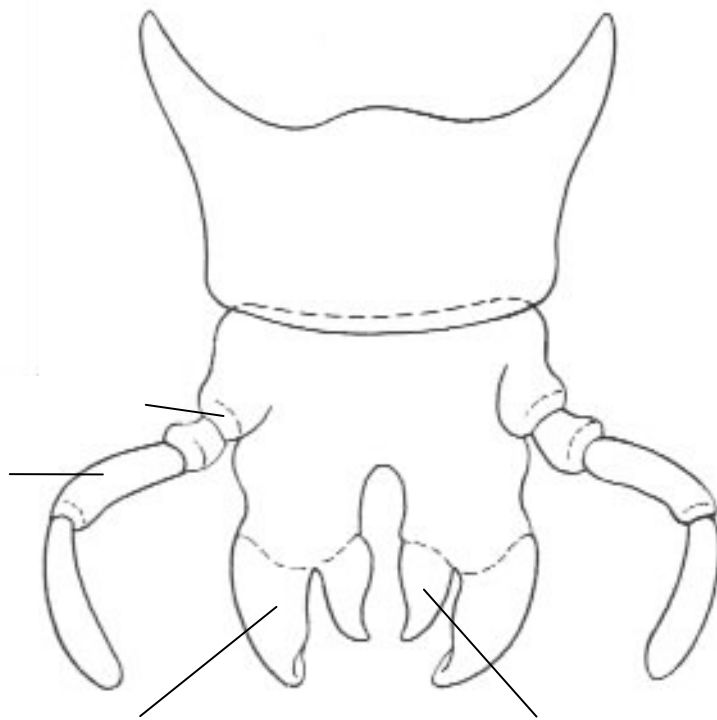
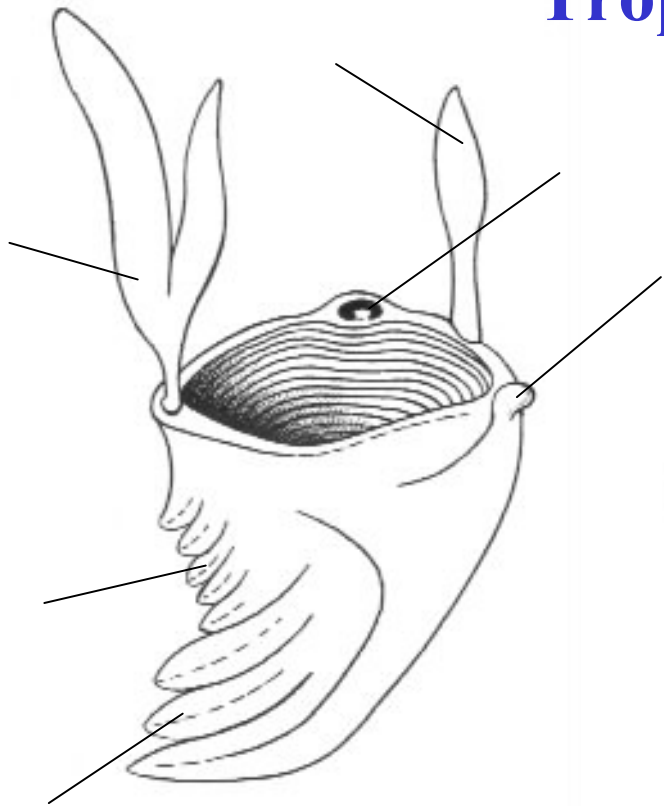
Labium



Maxilla

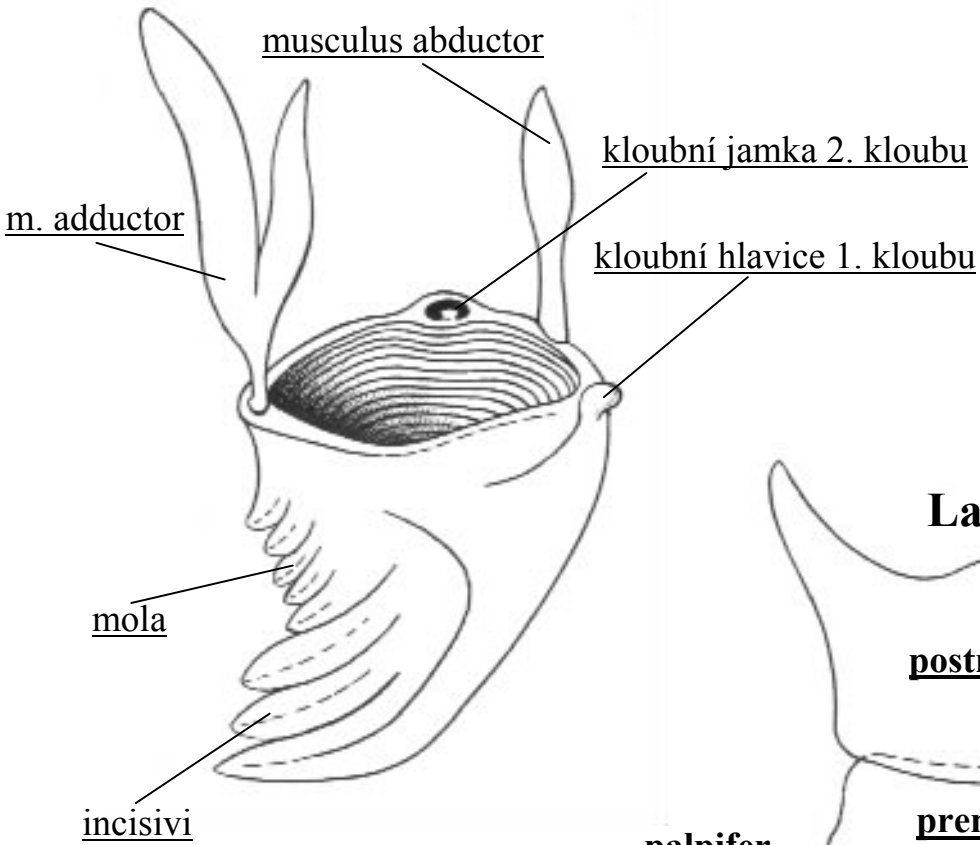


Trophi - kousací ústní ústrojí

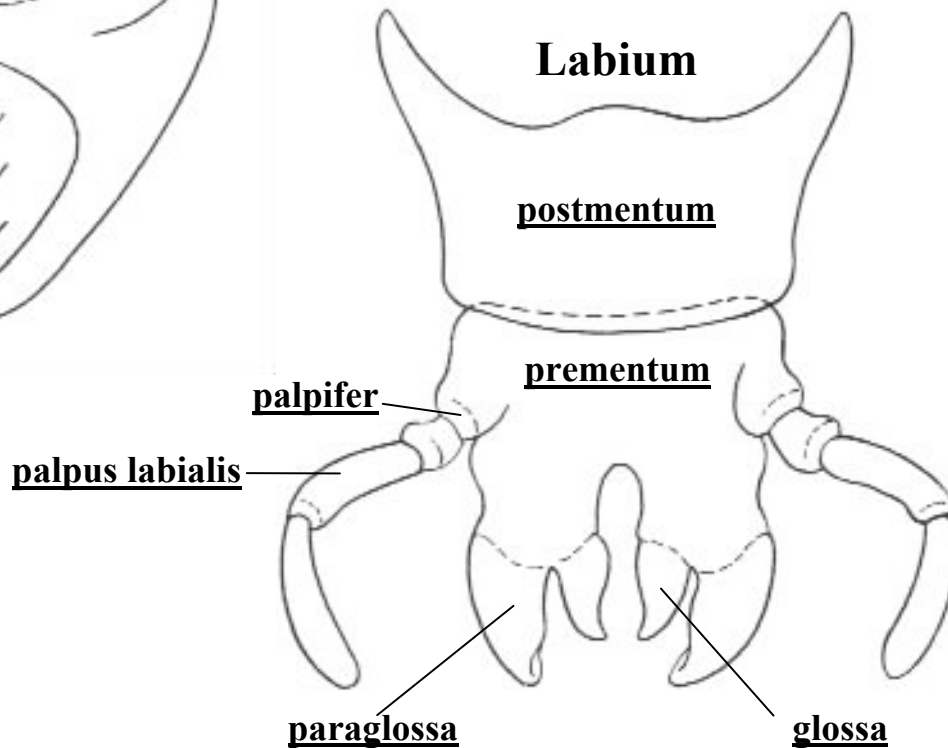


Trophi - kousací ústní ústrojí

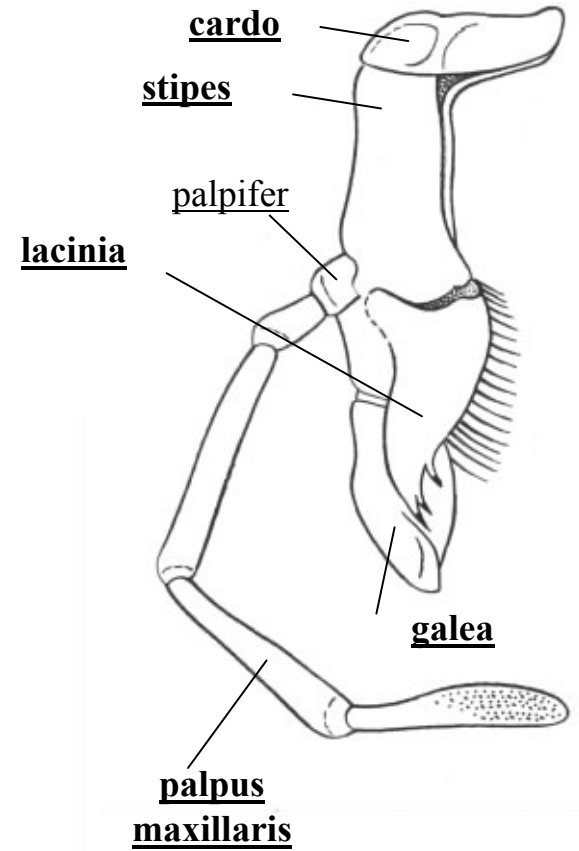
Mandibula



Labium



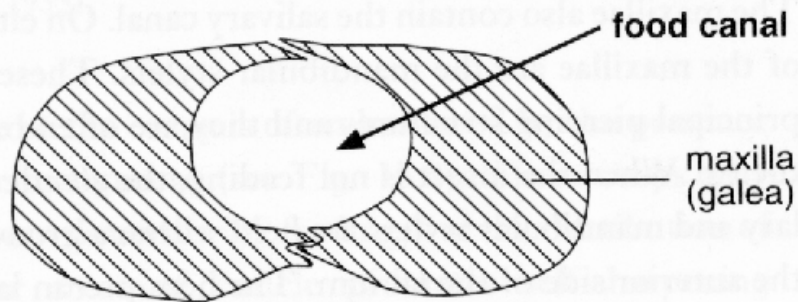
Maxilla



Modifikace ústního ústrojí

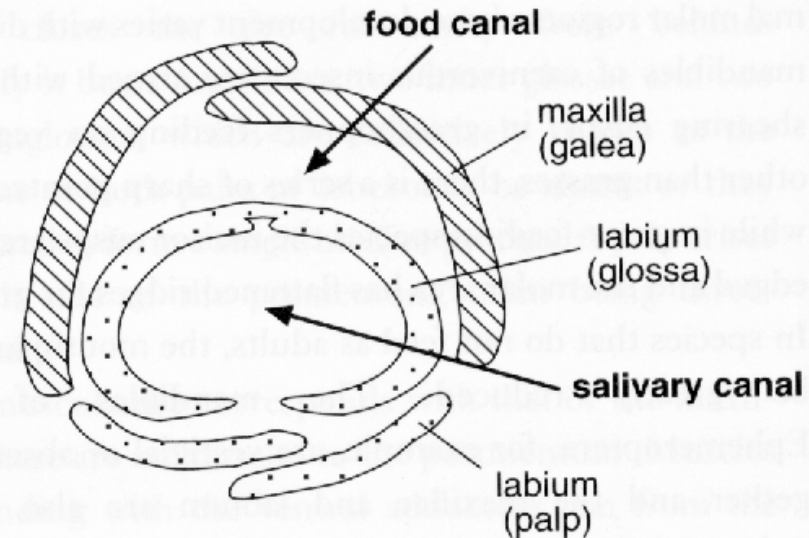
Lízavě-savé ústní ústrojí

c) Lepidoptera



Kousavě-lízavé ústní ústrojí

d) Hymenoptera - Apidae



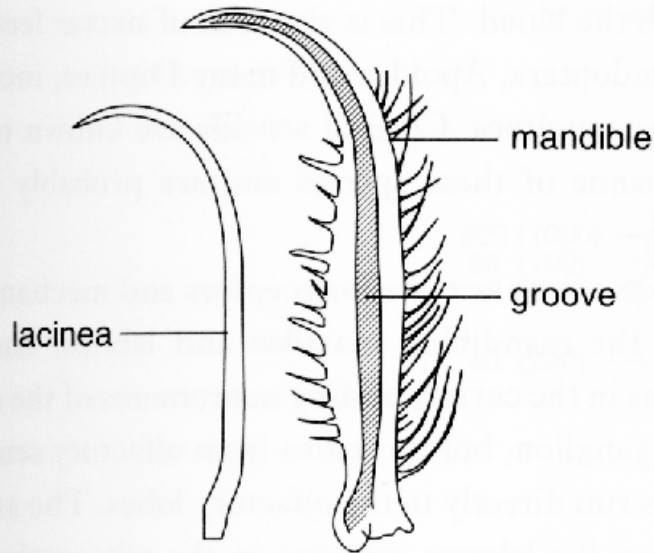
Diptera - haustellum



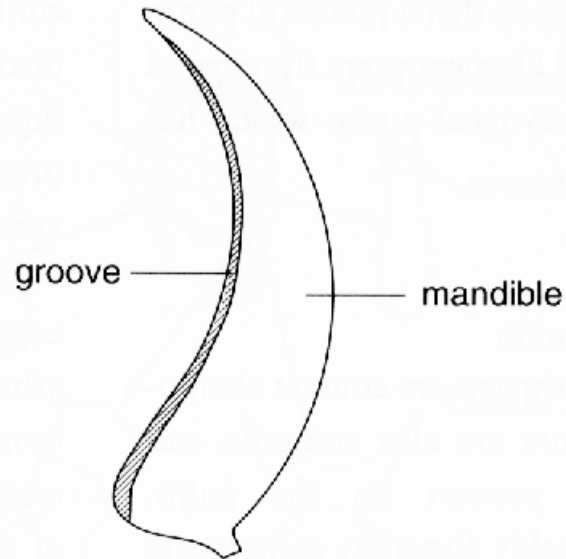
Modifikace ústního ústrojí

Bodavě savé ústní ústrojí

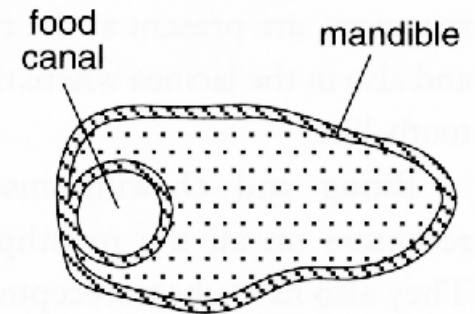
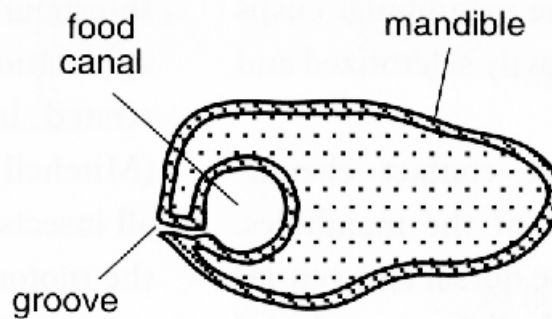
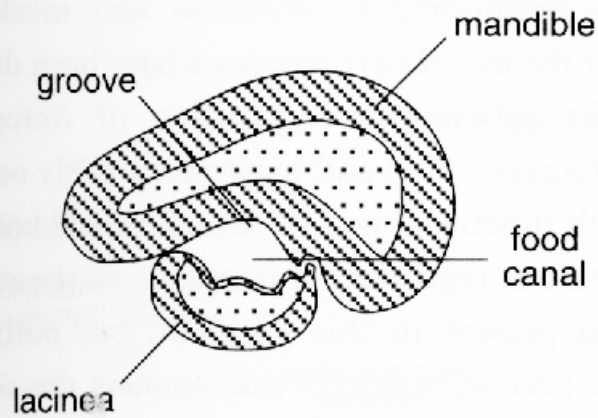
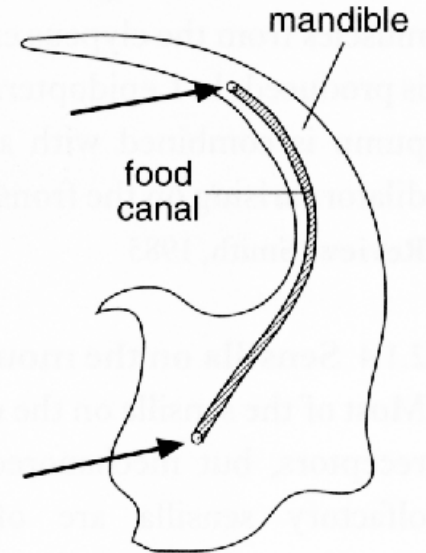
a) Neuroptera



b) *Dytiscus*



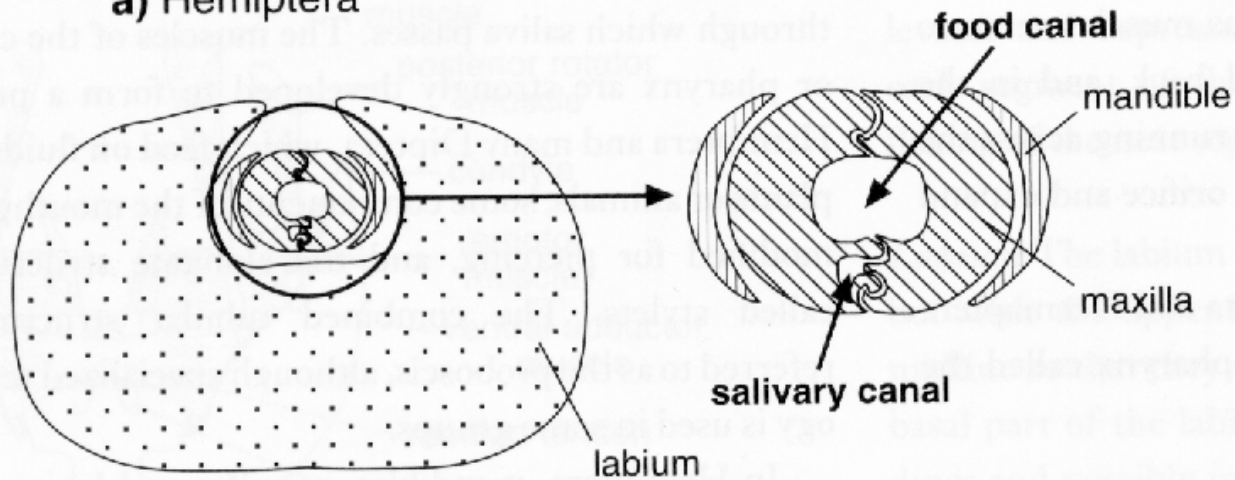
c) Lampyridae



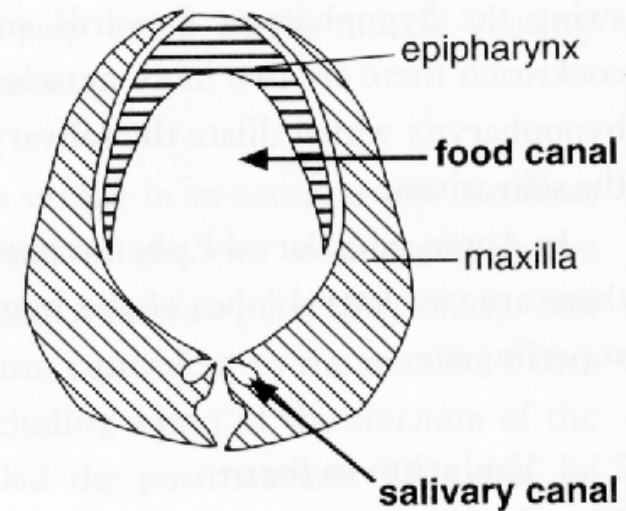
Modifikace ústního ústrojí

Bodavě savé ústní ústrojí

a) Hemiptera



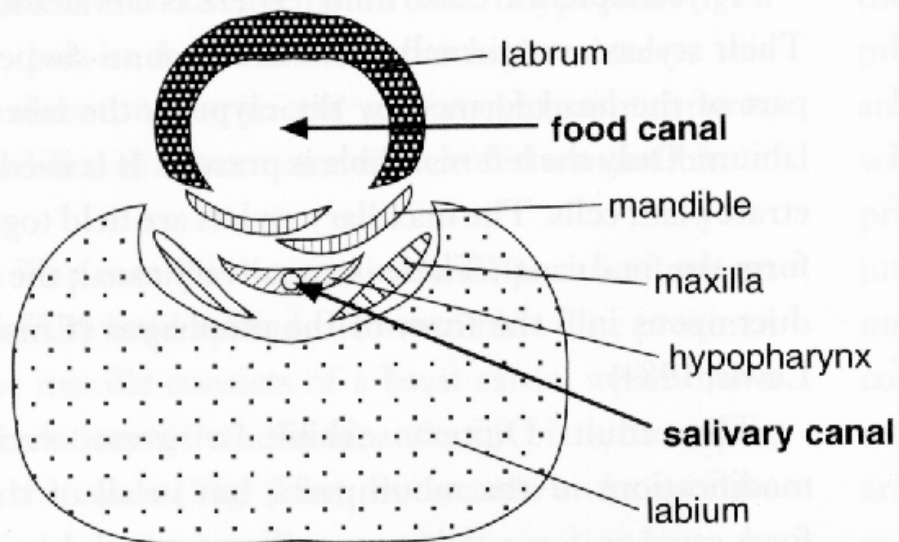
b) Siphonaptera



Modifikace ústního ústrojí

Bodavě savé ústní ústrojí

e) Diptera - Ceratopogonidae



f) Diptera - Glossinidae

