



Cvičení ze zoologie bezobratlých VI

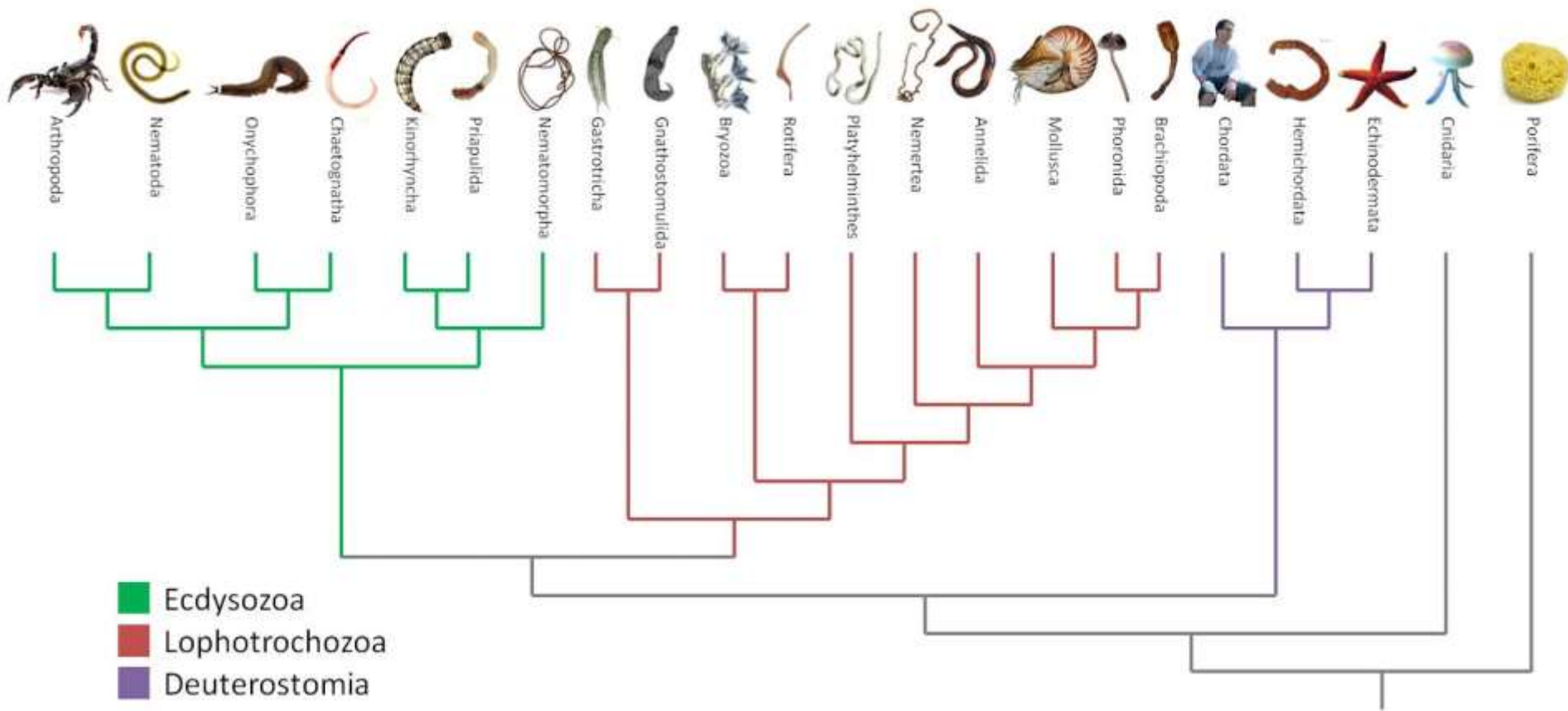
Chelicerata

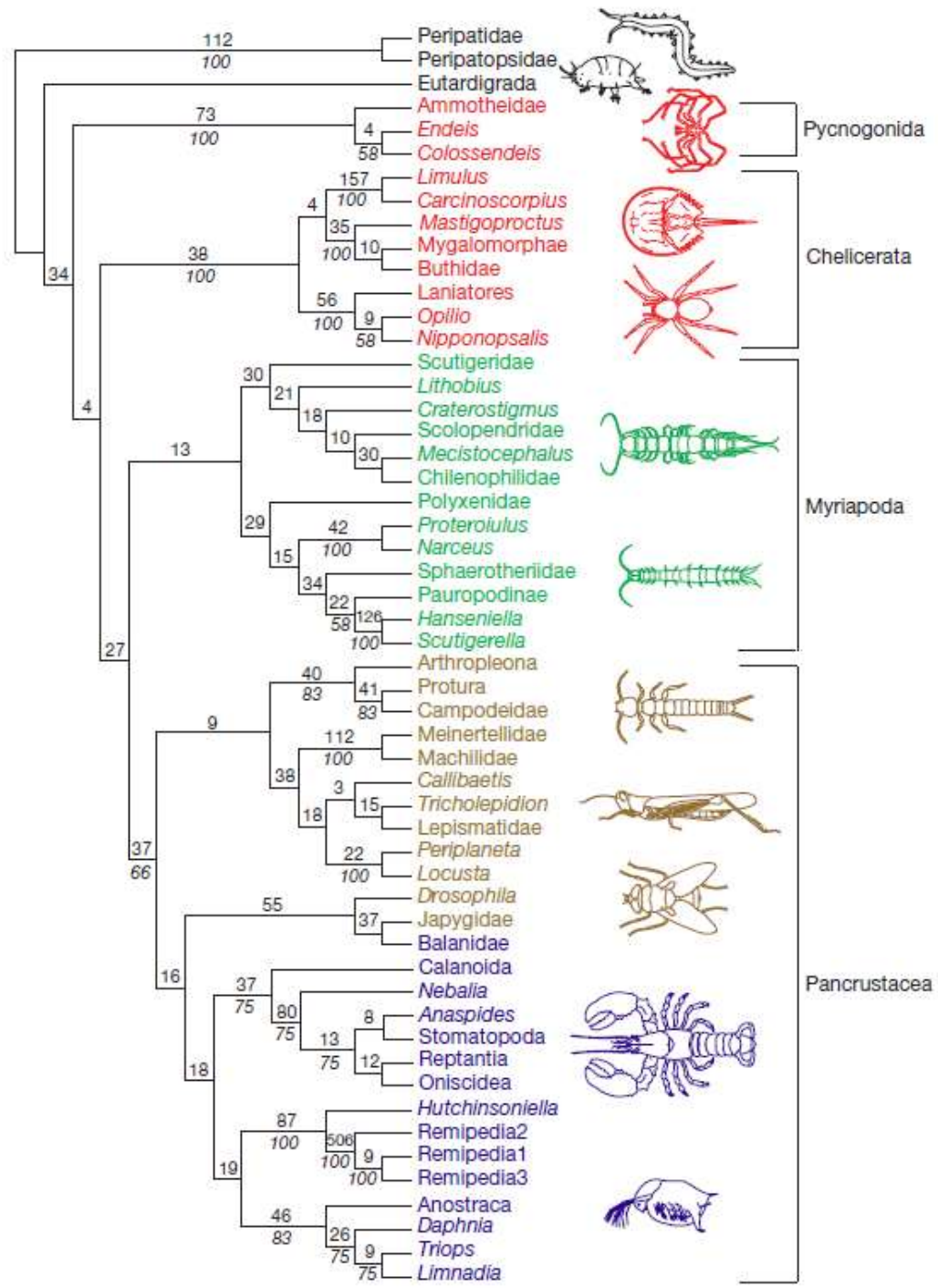


26.3.2013

Oldřich Nedvěd, PŘF UK

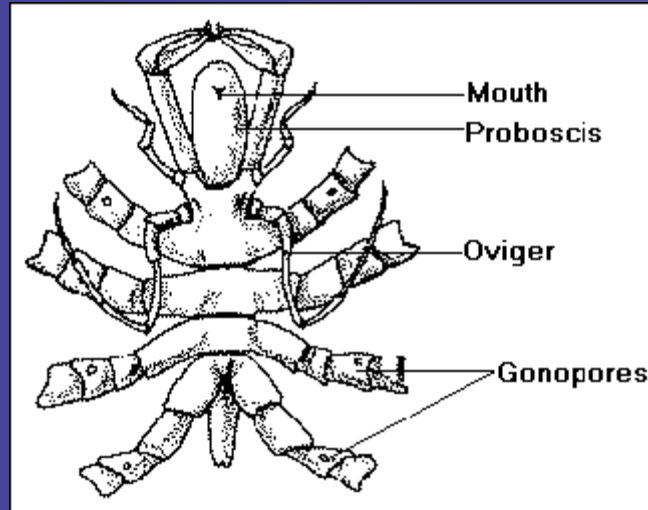
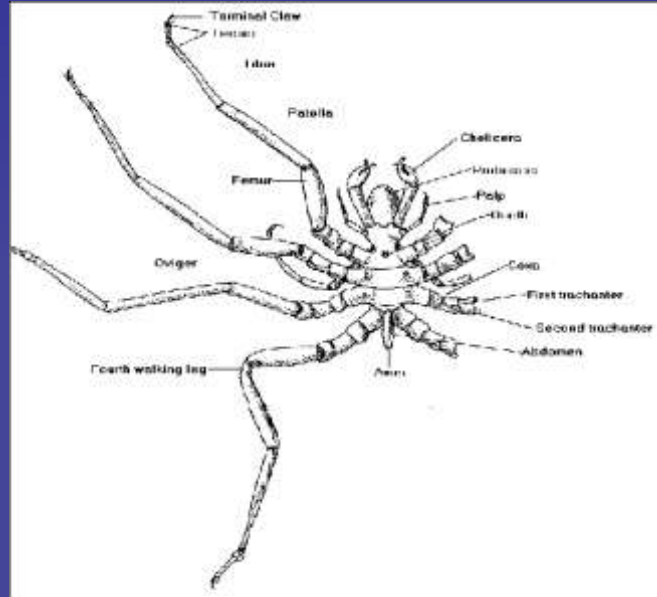






Pycnogona

- = Pantopoda = nohatky
- Pouze mořské
- Proboscis
- Chelifory
- Pedipalpy
- Ovigery (samci)
- Kráčivé nohy
- Malé tělo
 - Dýchání povrchem těla
 - Orgánové soustavy v nohách
 - Trávicí
 - Rozmnožovací
- Všežravci



Zinn
Pantopoda sp.

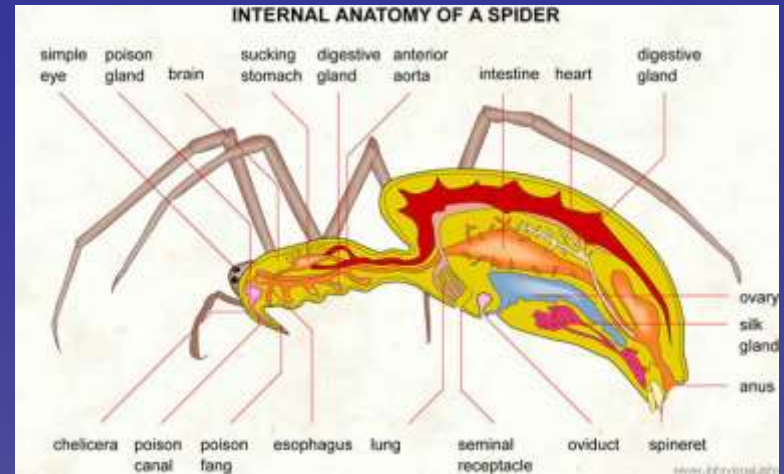
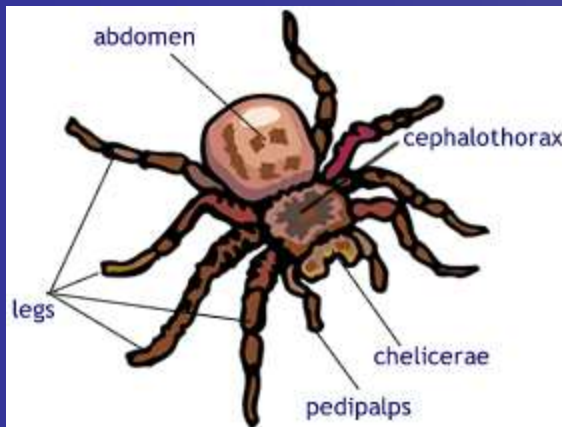


USNM 1123313



Klepítkatci (Chelicerata)

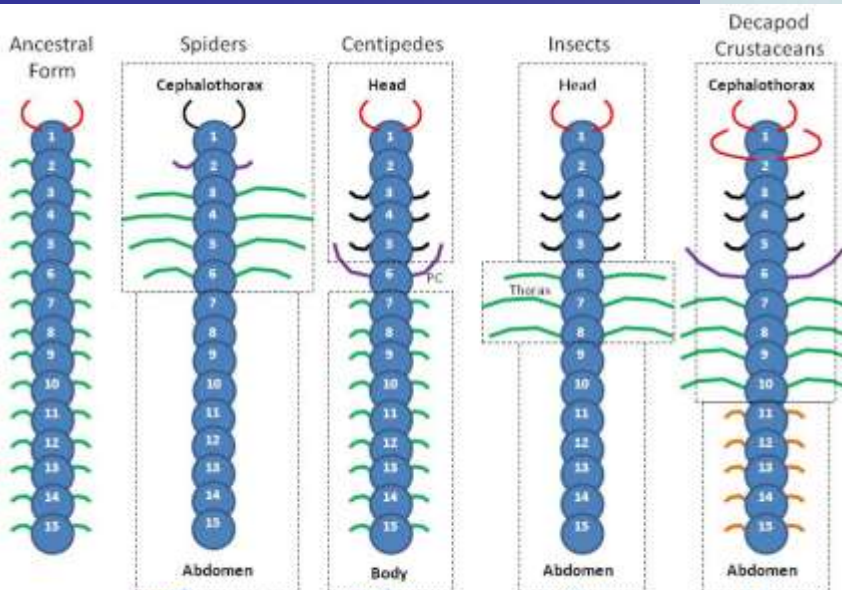
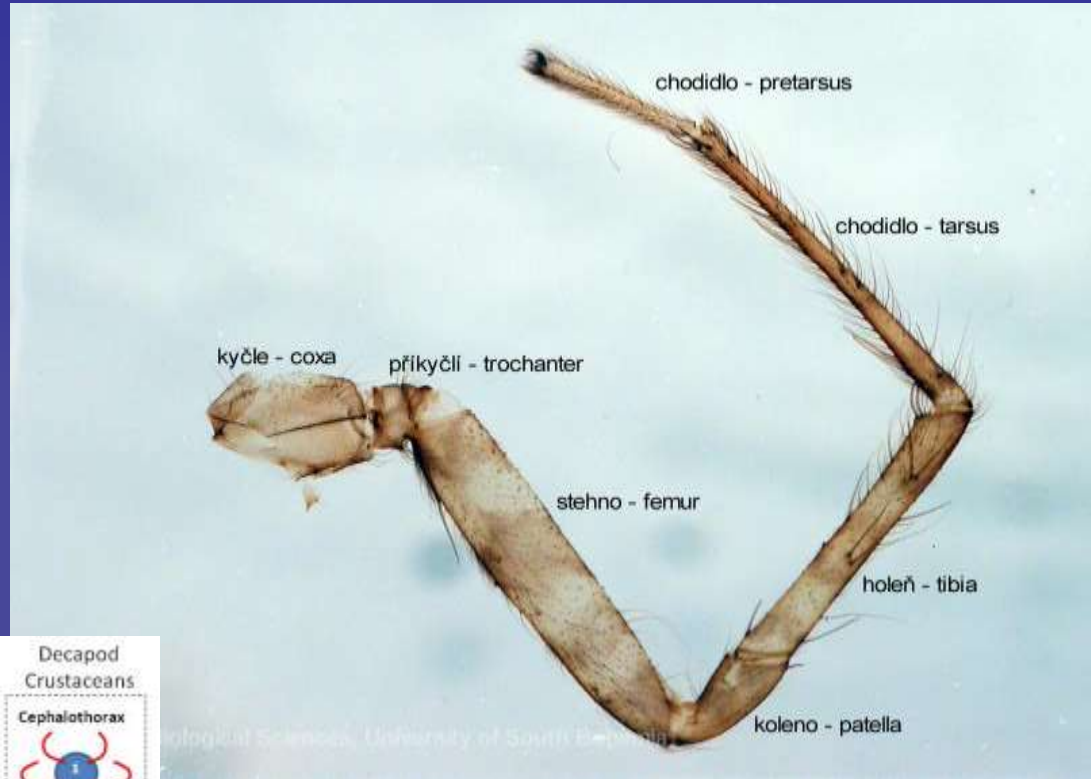
- Prosoma (hlavohrud'), opisthosoma (zadeček)
- Nohy většinou jednovětevné
- Klepítka (Chelicery)



Chelicerata

- Kráčivé končetiny

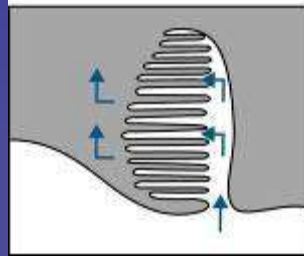
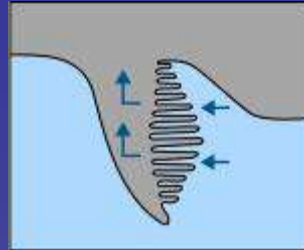
- coxa
- trochanter
- femur
- patella
- tibia
- (meta)tarsus
- pretarsus
- drápky



Chelicerata

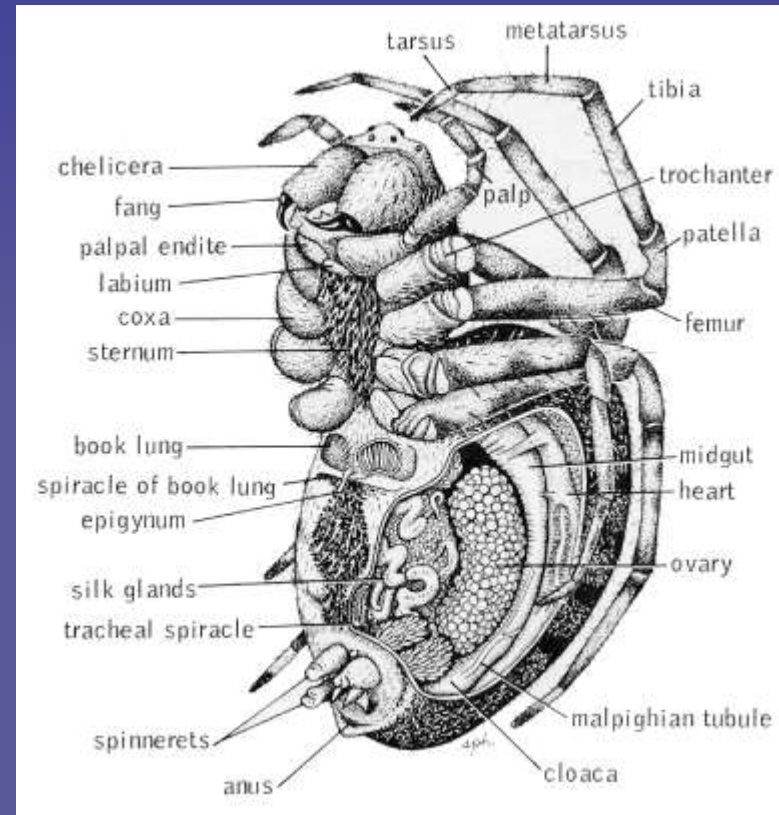
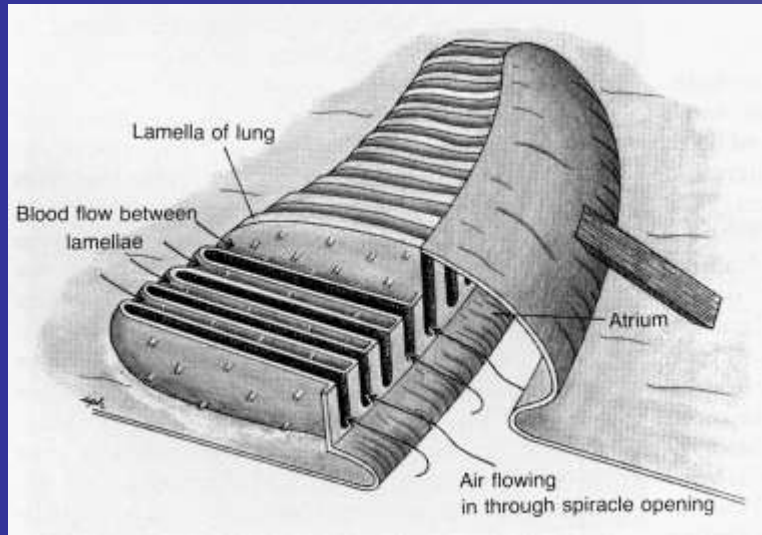
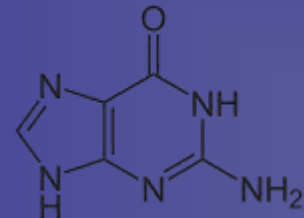
- Dýchání

- Plicní vaky ze žaber
- pseudotracheje
- Hemocyanin



- Exkrece: Malpighické trubice

- guanin



Chelicerata

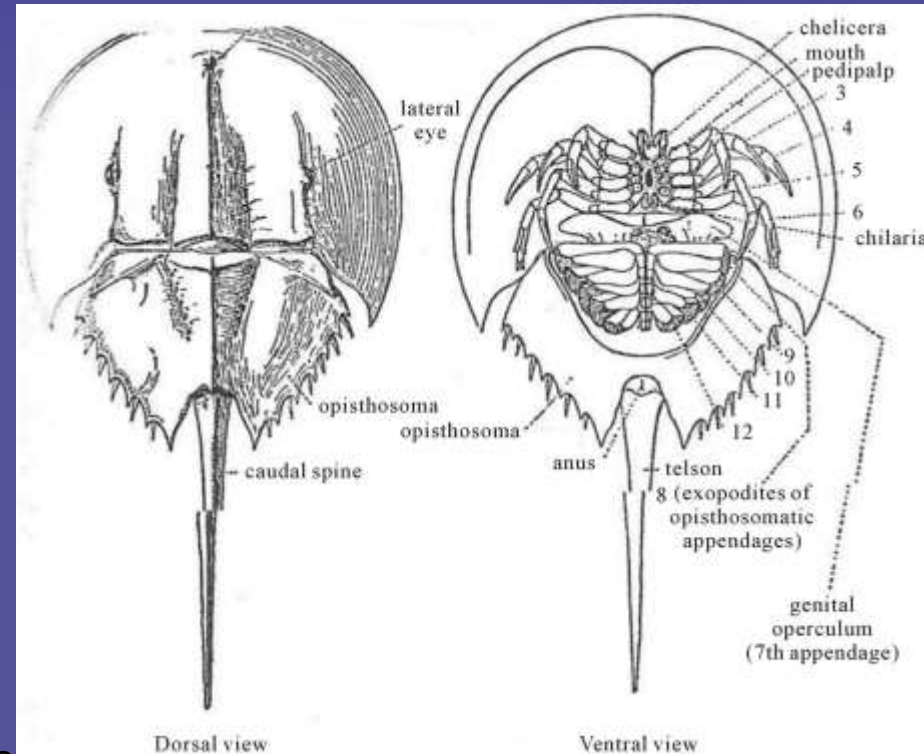
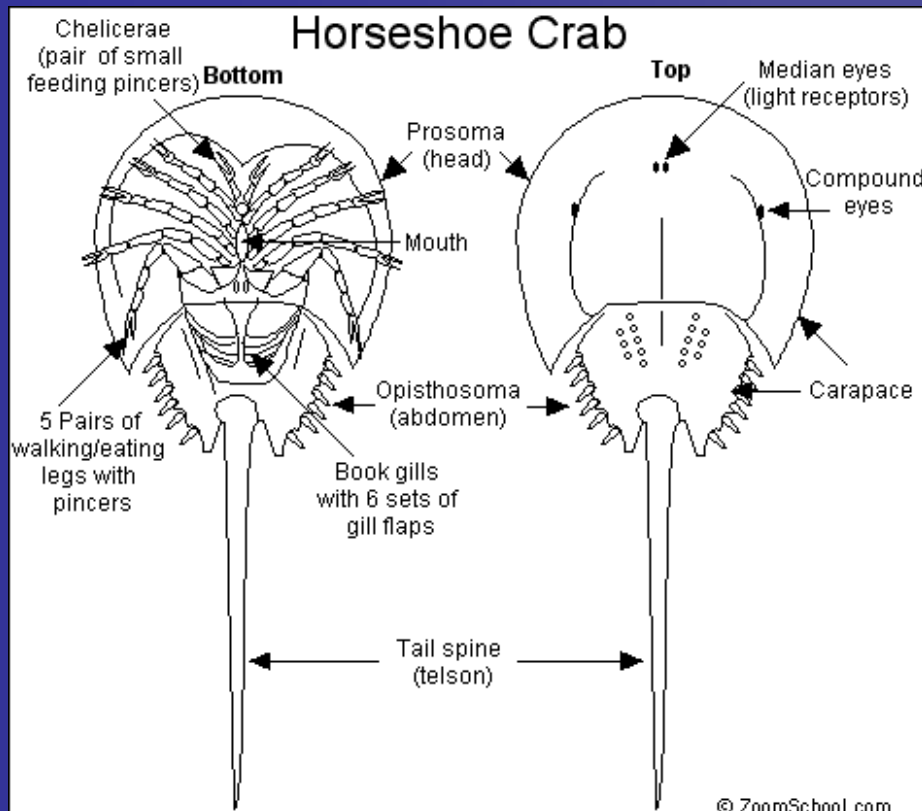
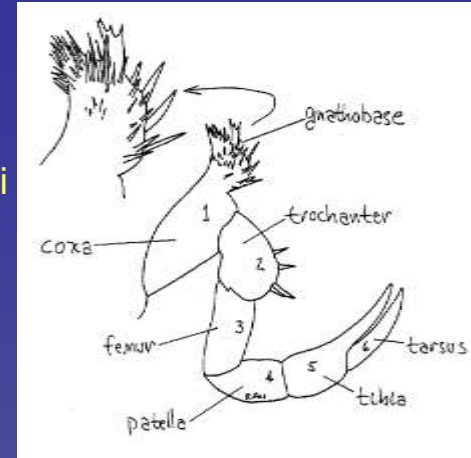
- Xiphosura - horseshoe crabs

- Prosoma -

- Chelicery, pedipalpy (samci modifikované), kráčivé končetiny s klíšťkami
- Gnathobáze

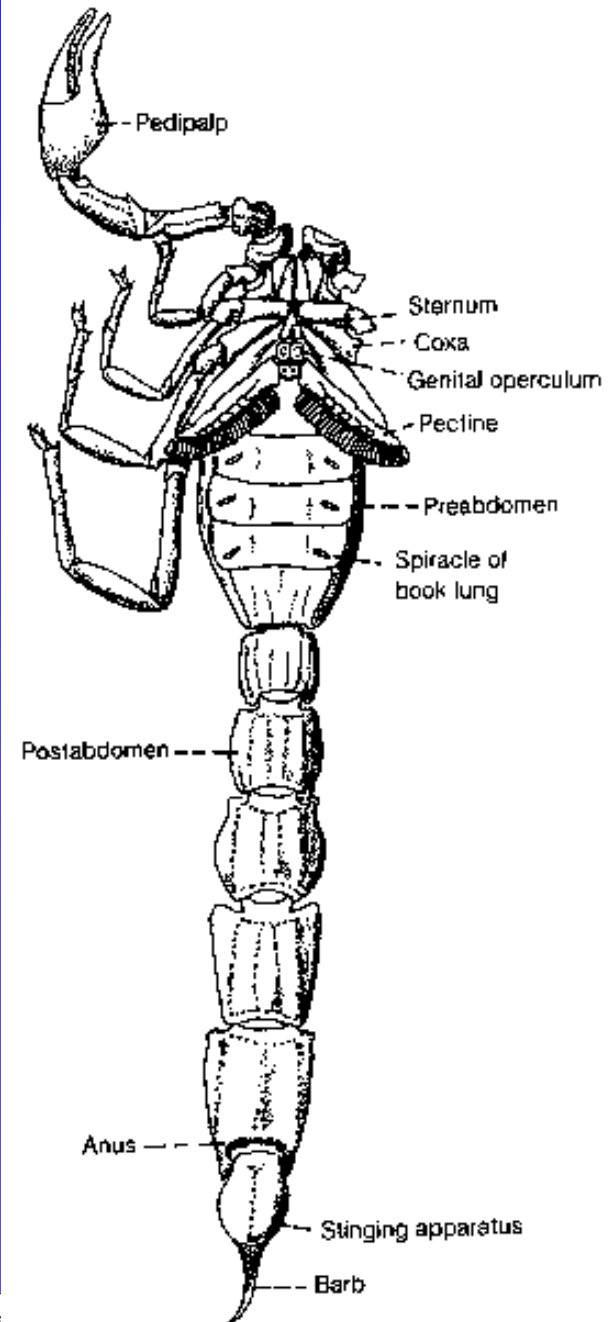
- Opistosoma – 6 párů

- 1. kryjí pohlavní otvor, Chilárium nese gnathobáze
- 2.-6. lupínkovité žábry



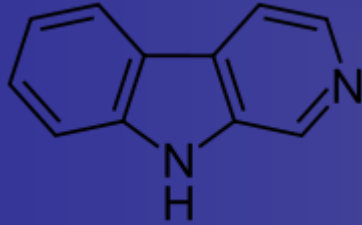
Chelicerata - klepítkatci

- Scorpiones – štíři
 - Prosoma
 - Chelicery = klepítka
 - Pedipalpy = klepeta
 - Mesosoma
 - Smyslový hřebínek
 - Plicní vaky
 - Metasoma
 - Jedová žláza



Chelicerata - klepítkatci

- Scorpiones – štíři
 - UV fluoreskující
 - beta-carboline



Péče o potomstvo



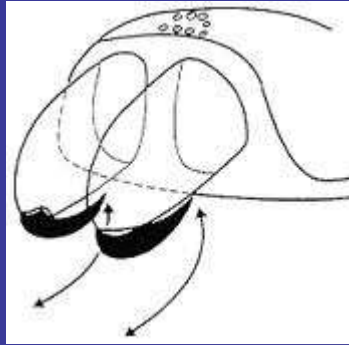
Chelicerata

- Aranea - spiders - pavouci

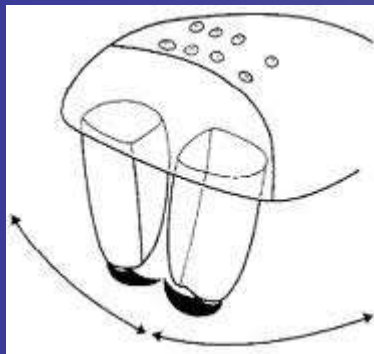


Aranea

- Orthognáthní



- Labidognáthní



Chelicerata

- Aranea - spiders - pavouci

- Chelicery

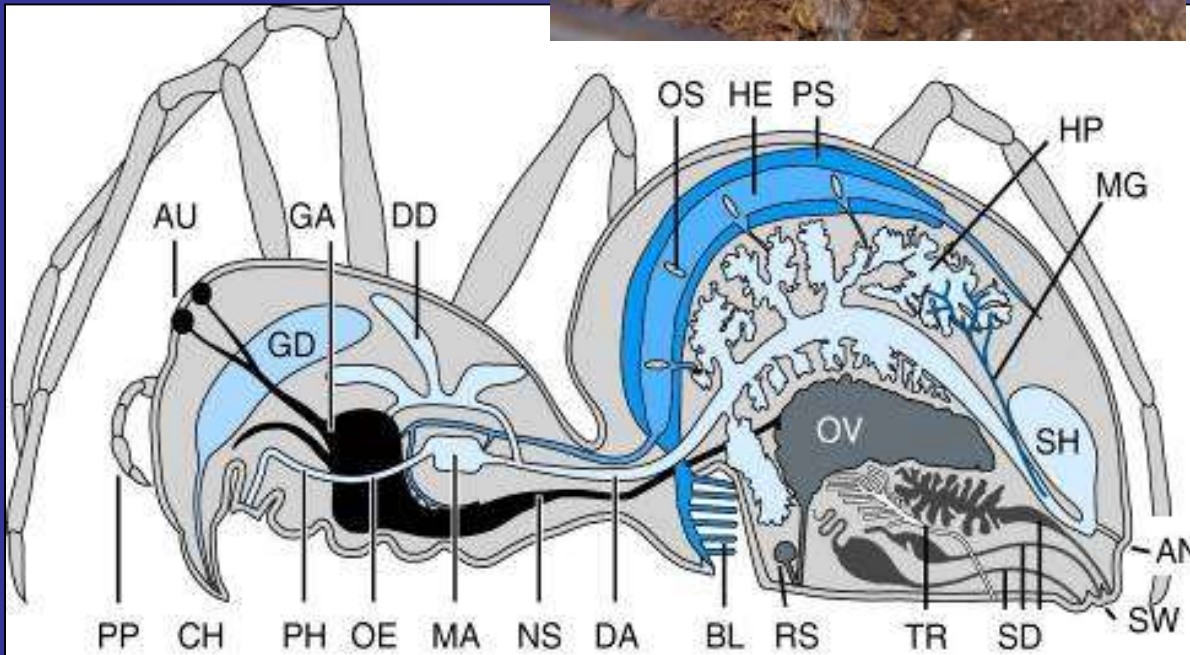
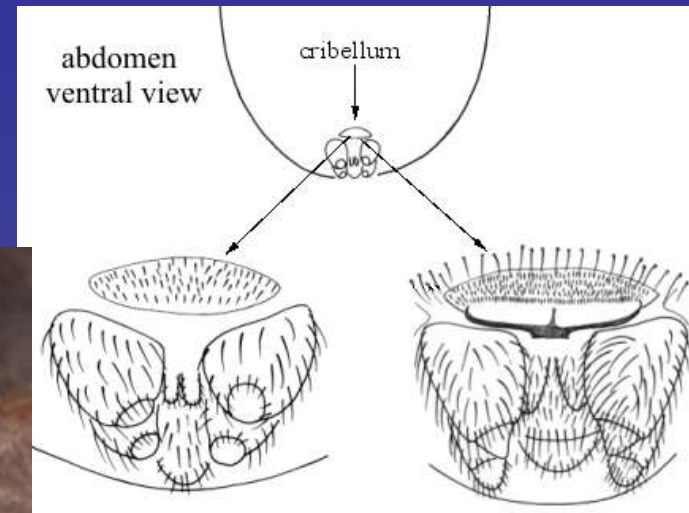
- Jedová žláza
- Mímotělní trávení

- Makadla

- Páření, komunikace

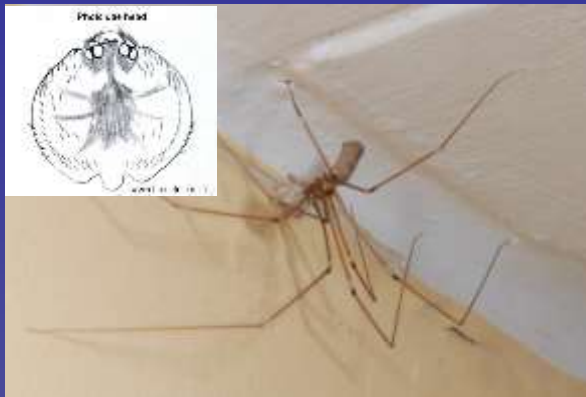
- Snovací bradavky

- Hedvábí
- Cribelum



Chelicerata

- Aranea - spiders - pavouci
 - Třesavkovití – Pholcidae
 - Běžníkovití – Thomisidae
 - Snovačkovití – Theridiidae
 - Čelistnatkovití – Tetragnathidae
 - Skákavkovití – Salticidae
 - Křížákovití – Araneidae
 - Cedivkovití - Amaurobiidae



Aranea svlékání



Photo by R. Millott - 2005

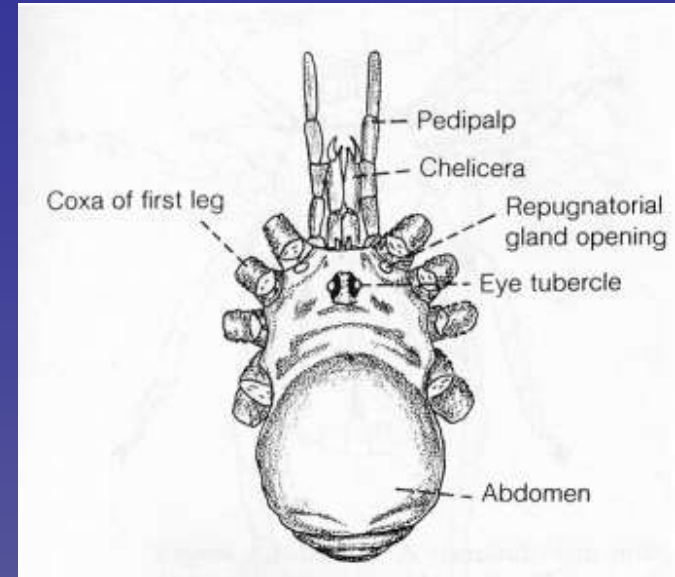


Photo by R. Millott - 2005



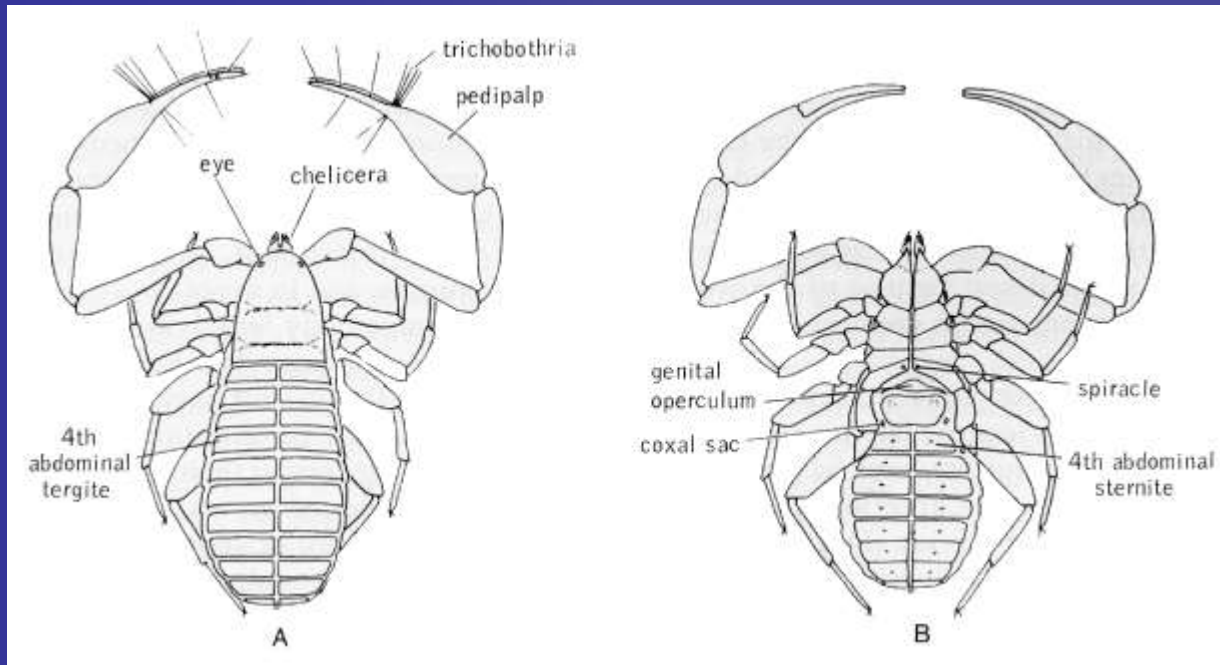
Chelicerata

- Opiliones - harvestmen (Daddy Longlegs) - sekáči
 - Článkované kompaktní tělo
 - Oči na vrch hlavy, pouze jeden pár
 - Chelicery
 - Pedipalpy
 - Dlouhé nohy
 - Repugnatorické žlázy



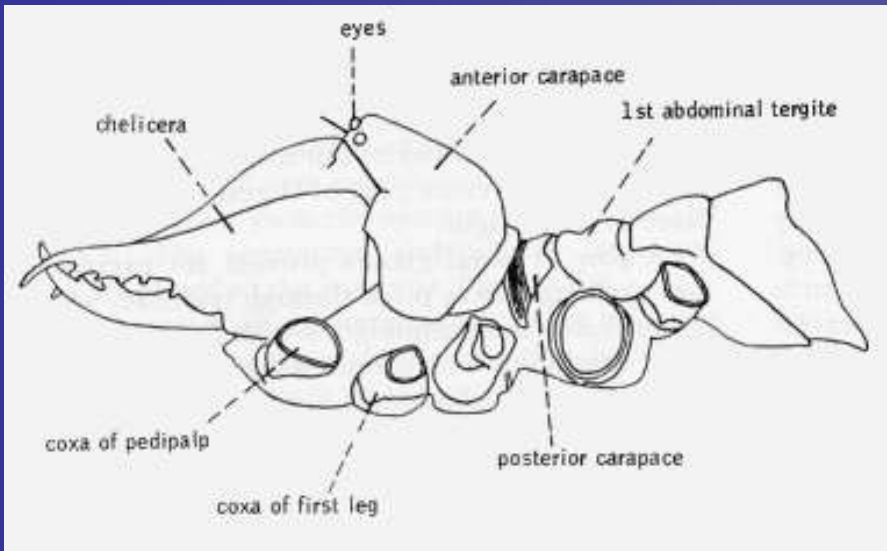
Chelicerata

- Pseudoscorpiones - false scorpions – štírci
 - Prosoma a opistosoma široce srostlé
 - Opistosoma článkované
 - Chelicery
 - Klepetovité padipalpy s jedovými žlázami



Chelicerata

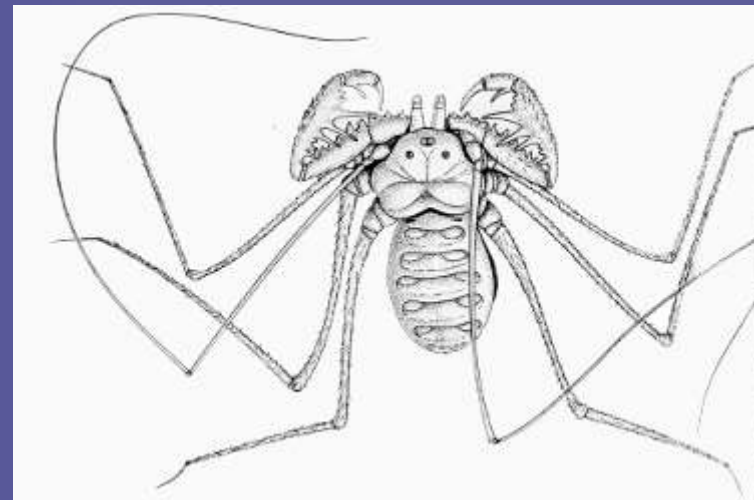
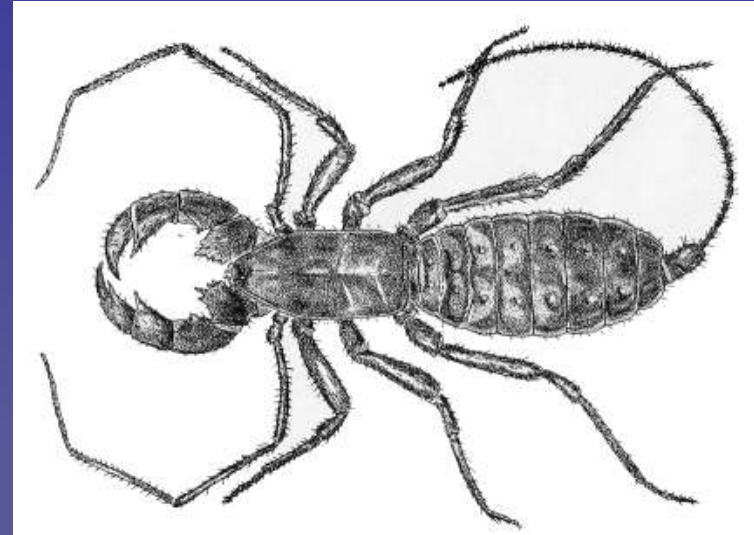
- Solifugae = Solpugida – camel spider
 - Veliké nůžkovité chelicery
 - Pedipalpy dlouhé s adhezivní funkcí
 - 1. pár nohou dlouhý se smyslovou funkcí
 - Většinou nejedovaté
 - Článkované opistosoma





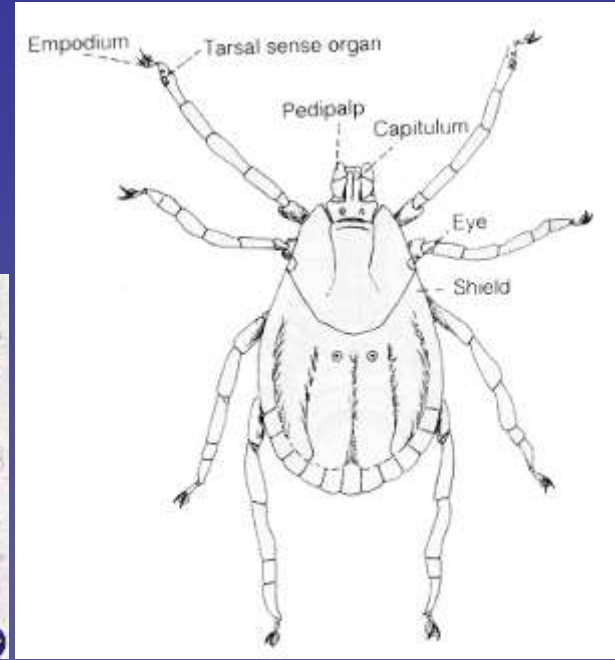
Chelicerata

- Uropygi - whip scorpions – bičovci, bič, válcovití
- Amblypygi – krabovci, bez biče, placatí
 - Krátké chelicery
 - Veliké pedipalpy
 - 1. pár nohou hmatací
 - Nejedovatí



Chelicerata

- Acari - ticks, mites – roztoči
 - Nečlánkované tělo
 - Prosoma a opistosoma široce napojené
 - Capitulum
 - Chelicery
 - Pedipalpy

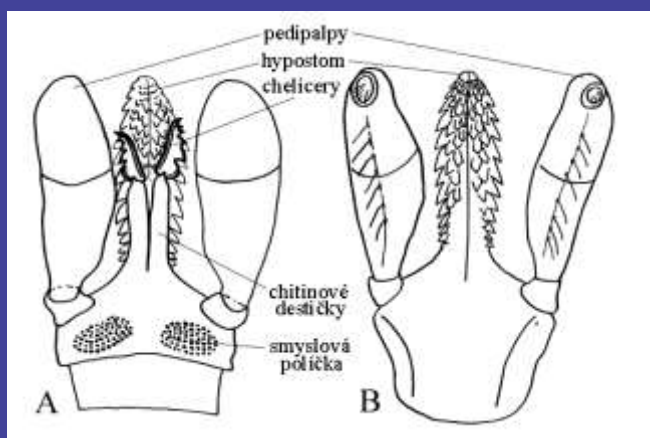


Chelicerata

- klíšťata: *Ixodes*, *Dermacentor*, *Argas*

- Borrelia
- Encefalitis

- Hypostom
- Chelicery
- Pedipalpy



Chelicerata

- Palpigradi
 - štírenky
- Schizomida
 - krátkochvosti
- Ricinulei
 - roztočovci

