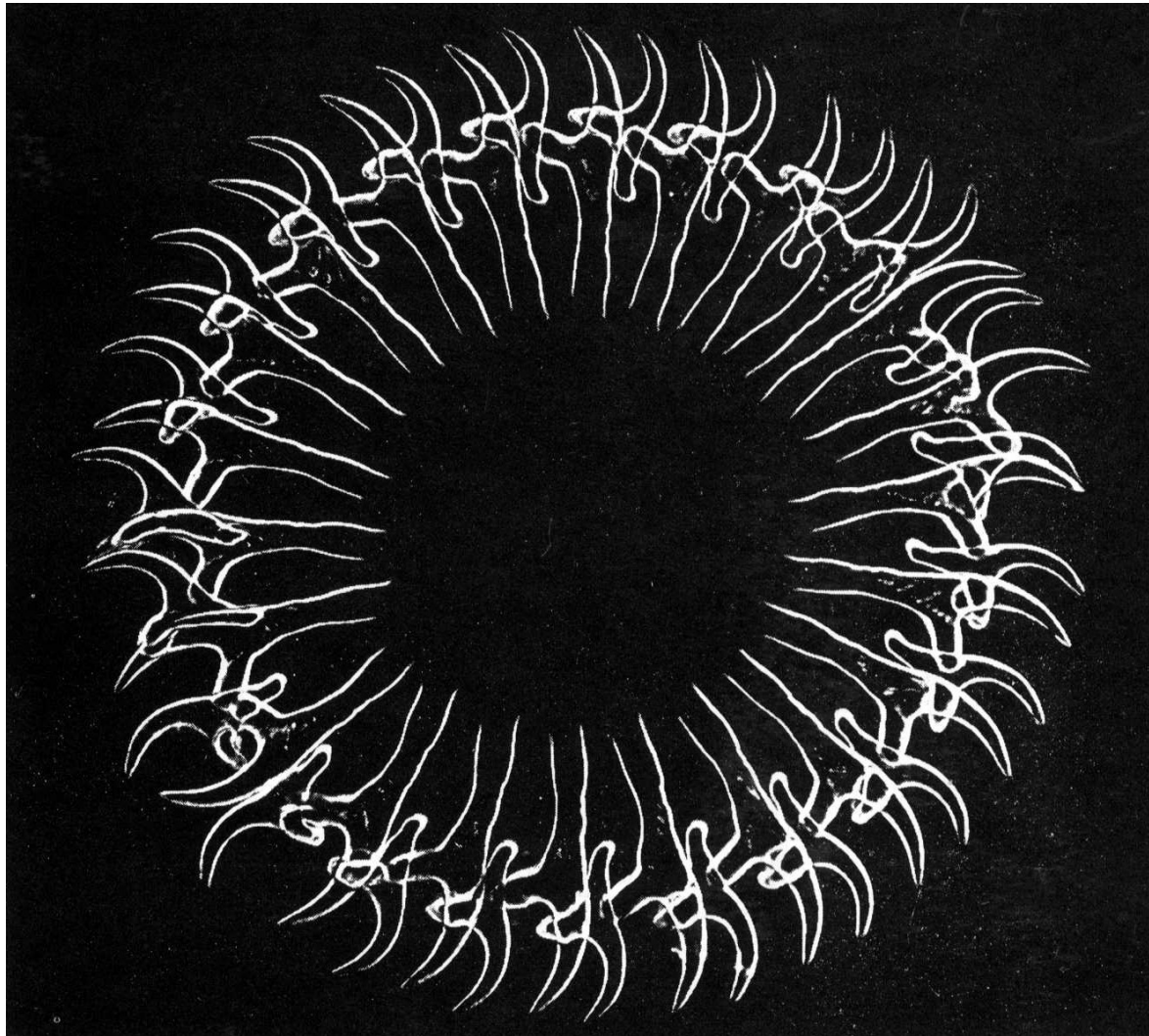


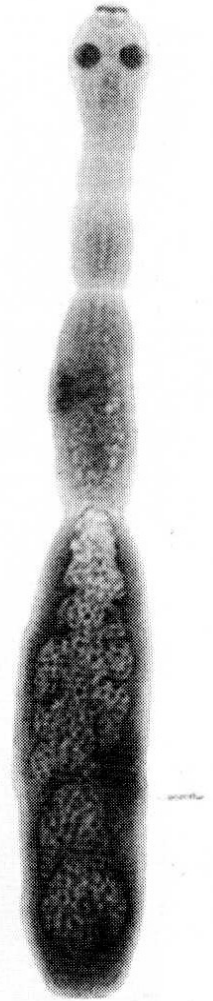
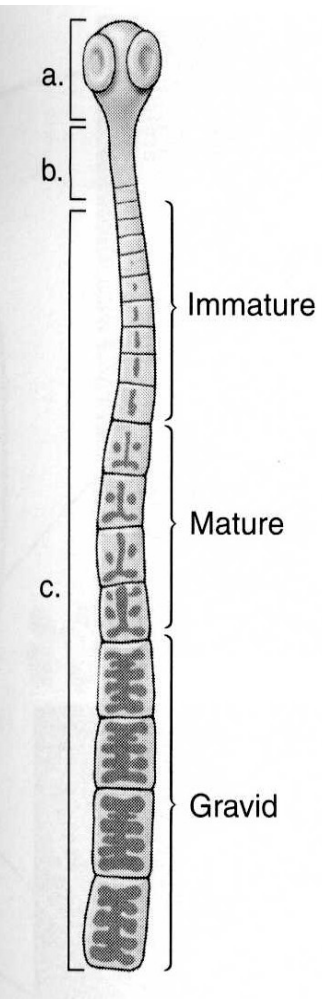
# Tasemnice I



# Tasemnice - charakteristika

- Výhradně parazitická skupina
- Absence střeva
- Larvy s embryonálními háčky
  - 10 lycofóra - Cestodaria
  - 6 hexacanth – Eucestoda
- Medicínsky a veterinárně významné
- Popsáno přes 4000 druhů – nejvíce řádů u ryb
- Nejpočetnější řád – Cyclophyllidea – ptáci a savci

# Scolex, krček, strobila



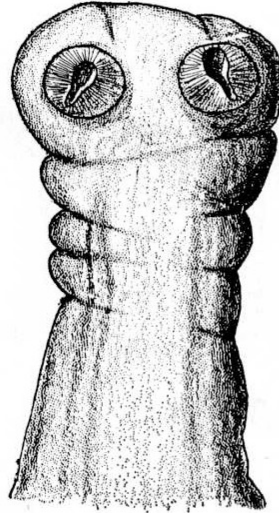
# Tasemnice - morfologie

- Hlavička – scolex – přichycovací orgán
- Strobila – proglotidy (segmenty)
- Přichycovací orgány – 5 základních typů:
  - Mělké zářezy a rýhy – Caryophyllidea
  - Štěrbiny – bothrie – Pseudophyllidea
  - Svalnaté bothridie – Tetraphyllidea
  - Chapadélka – tentakule – Trypanorhyncha
  - Svalnaté přísavky - Cyclophyllidea

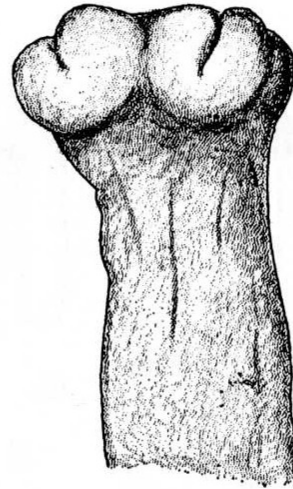
# Typy scolexů tasemnic



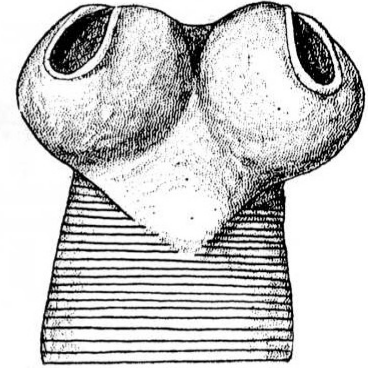
A



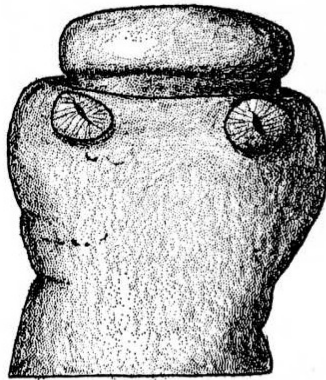
B



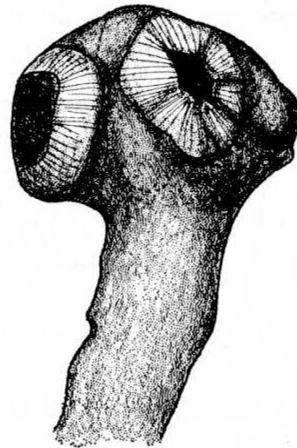
C



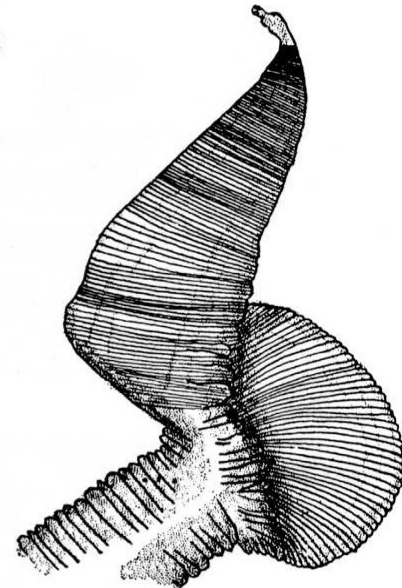
D



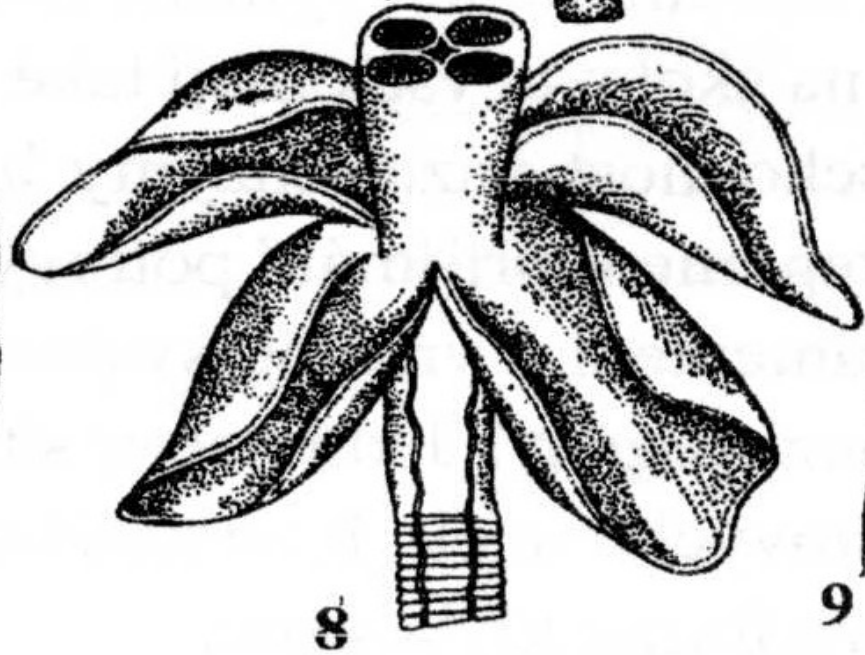
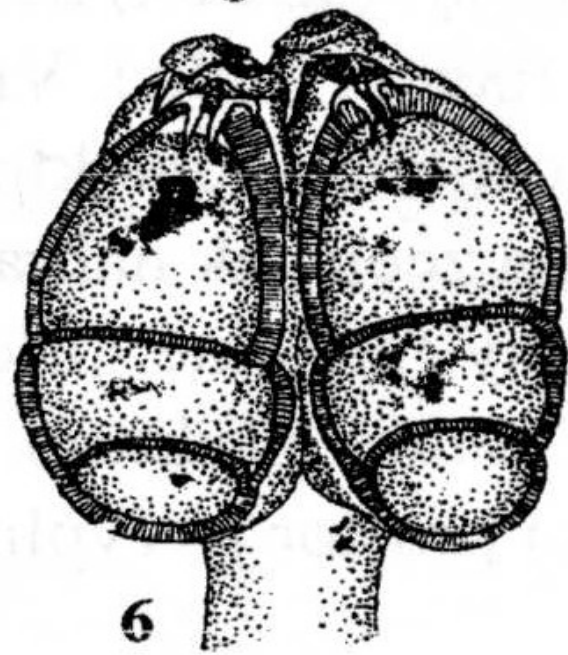
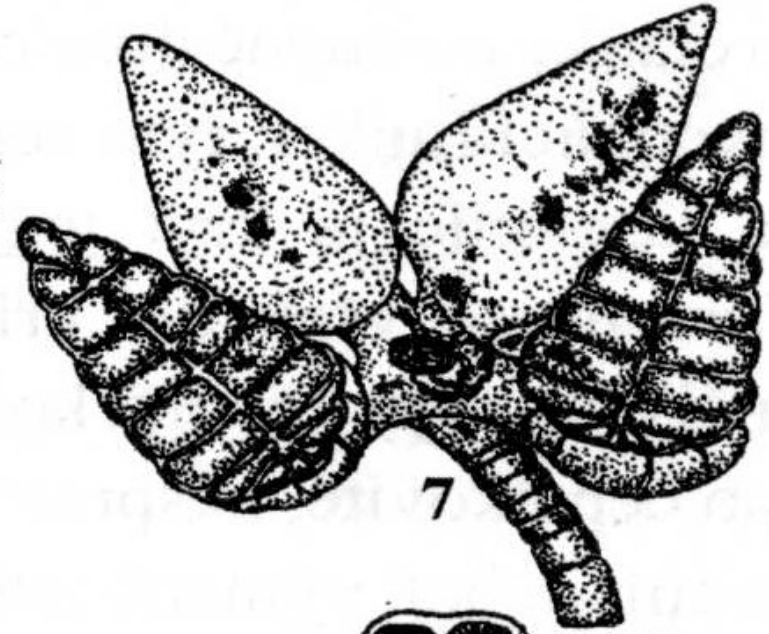
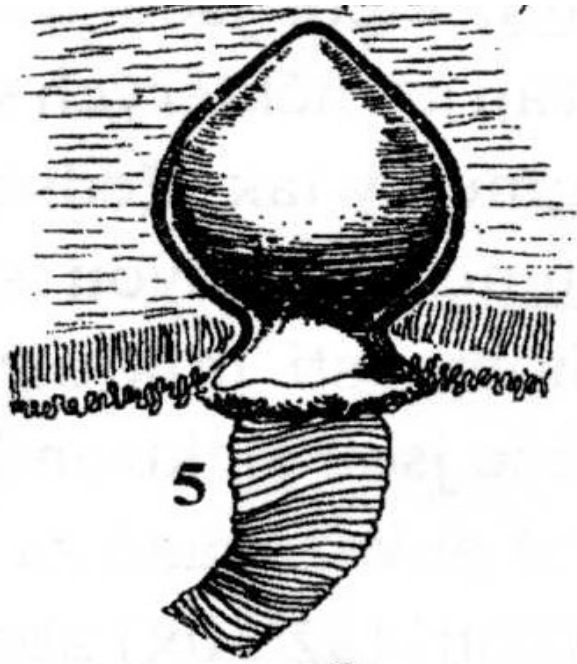
E



F

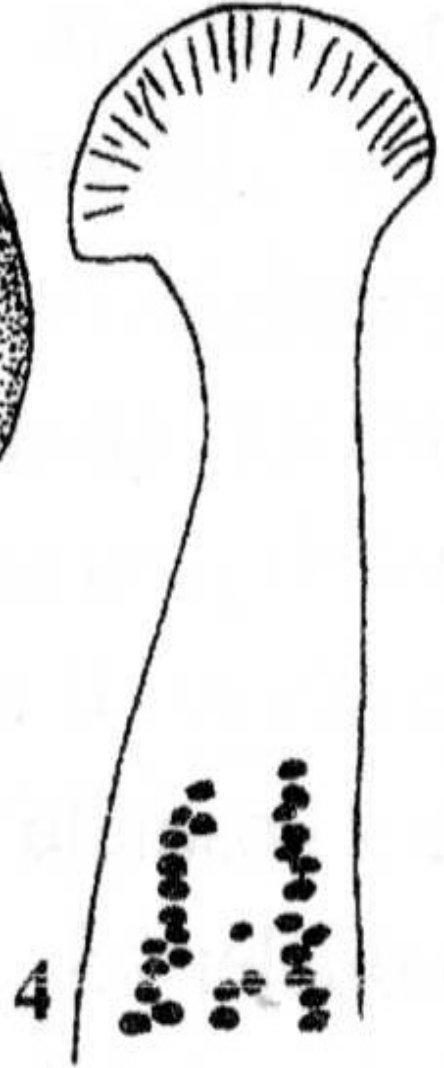
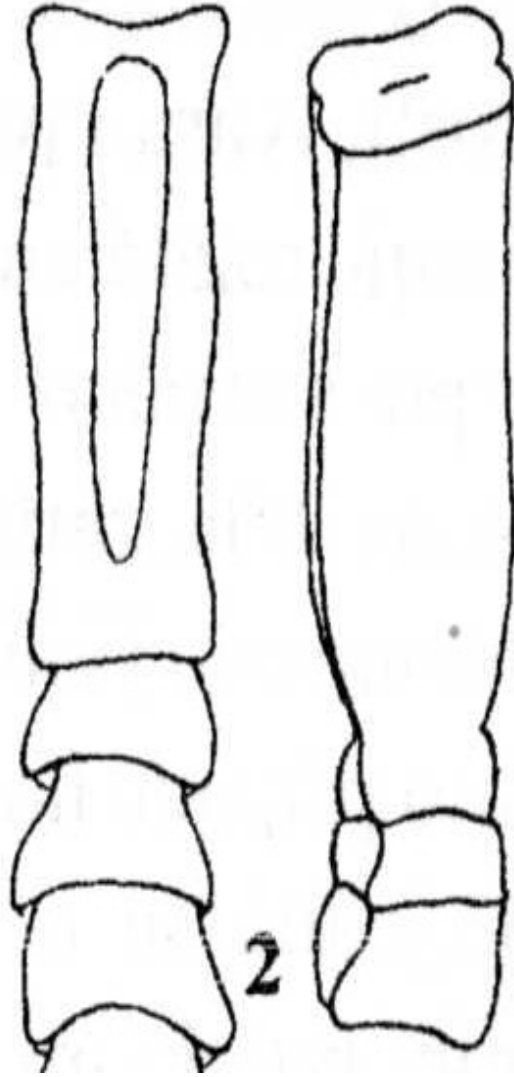
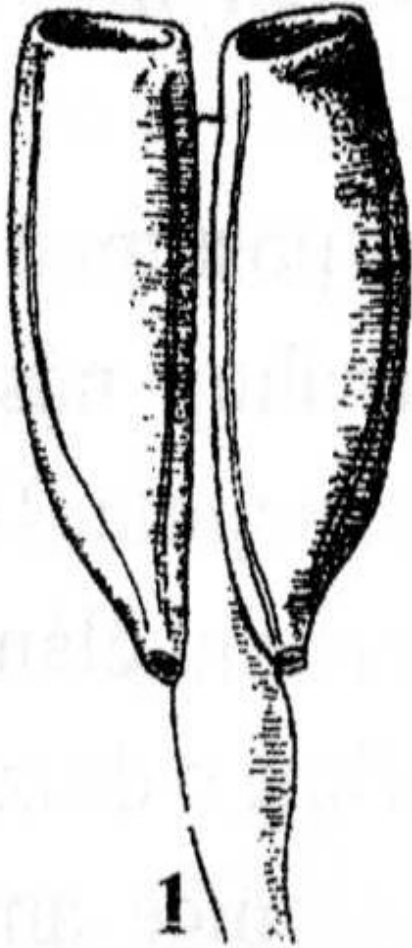


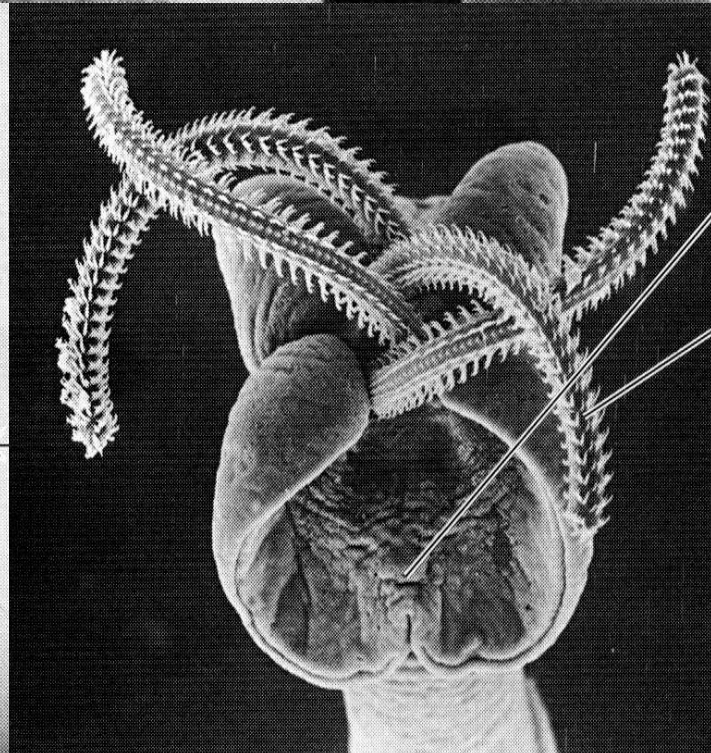
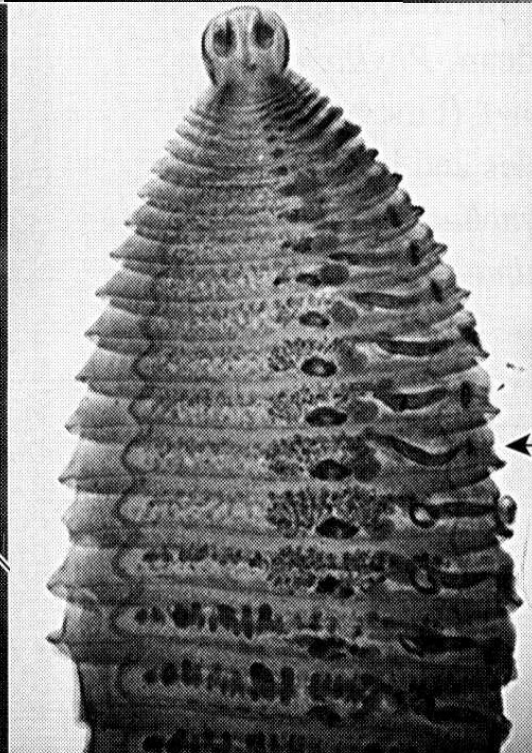
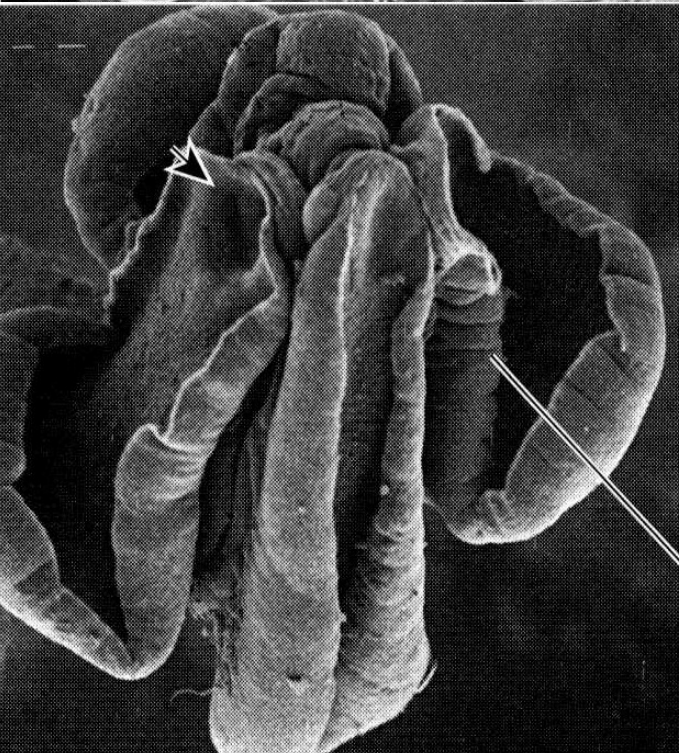
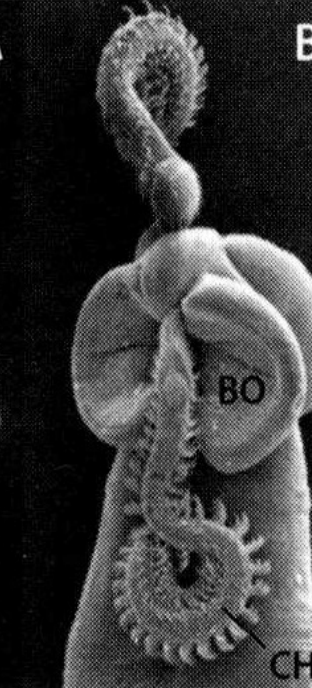
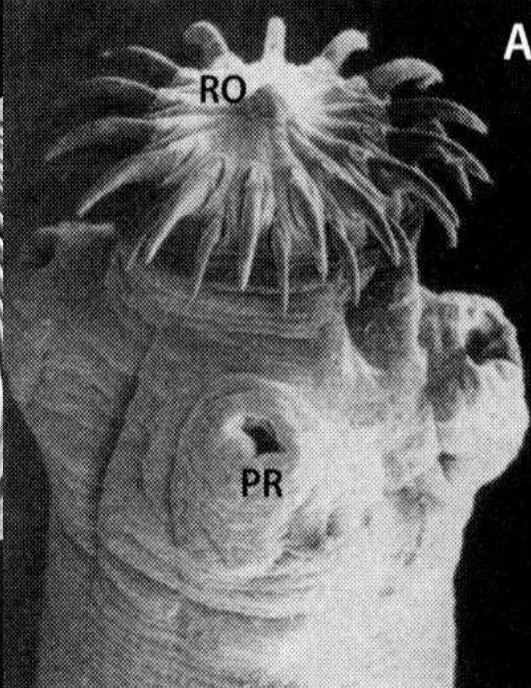
G



8

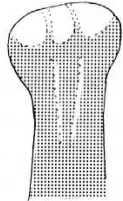
9



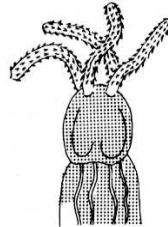




# Scolexy různých řádů tasemnic



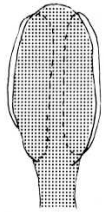
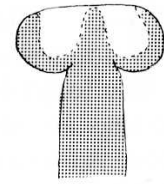
CARYOPHYLLIDEA



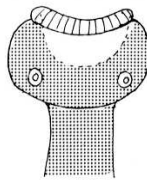
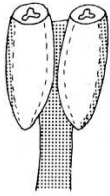
TRYPANORHYNCHA



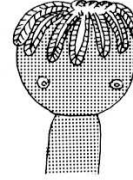
SPATHEBOTHRIIDEA



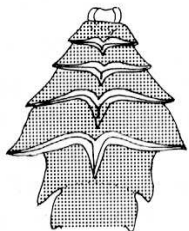
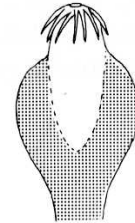
PSEUDOPHYLLIDEA



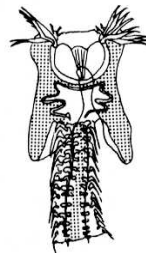
LECANICEPHALIDEA



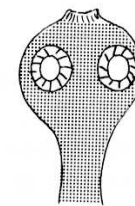
APORIDEA



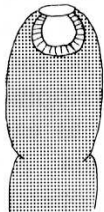
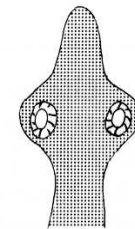
LITOBOTHRIDEA



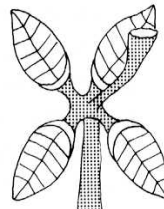
DIPHYLLIDEA



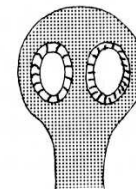
PROTEOCEPHALATA



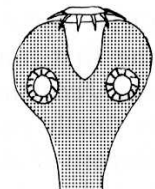
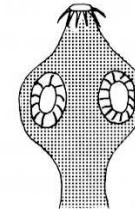
NIPPOTAENIDEA



TETRAPHYLLIDEA



CYCLOPHYLLIDEA

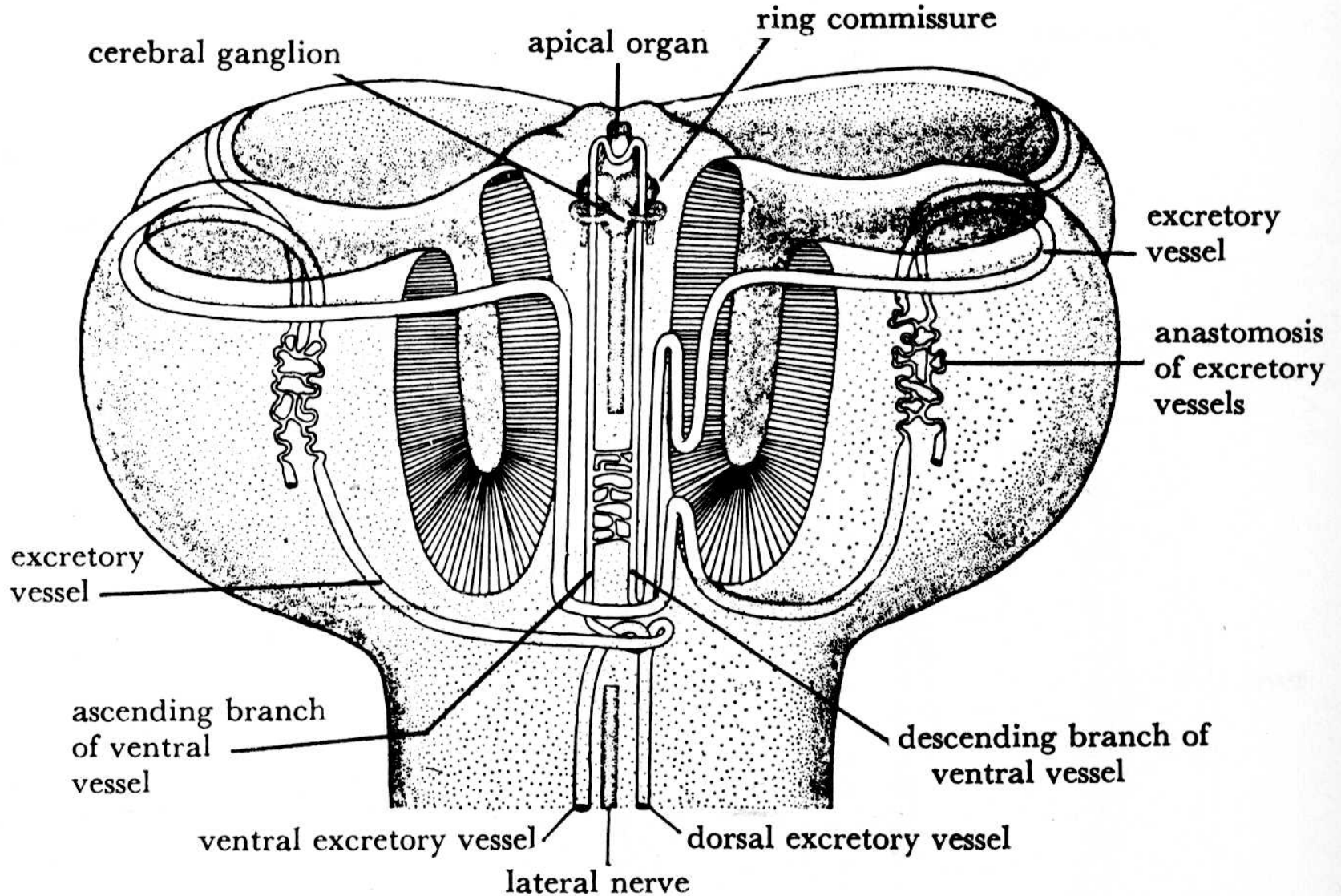


**Fig. 1.48.** Diagrammatic representation of scolices in different orders of tapeworm

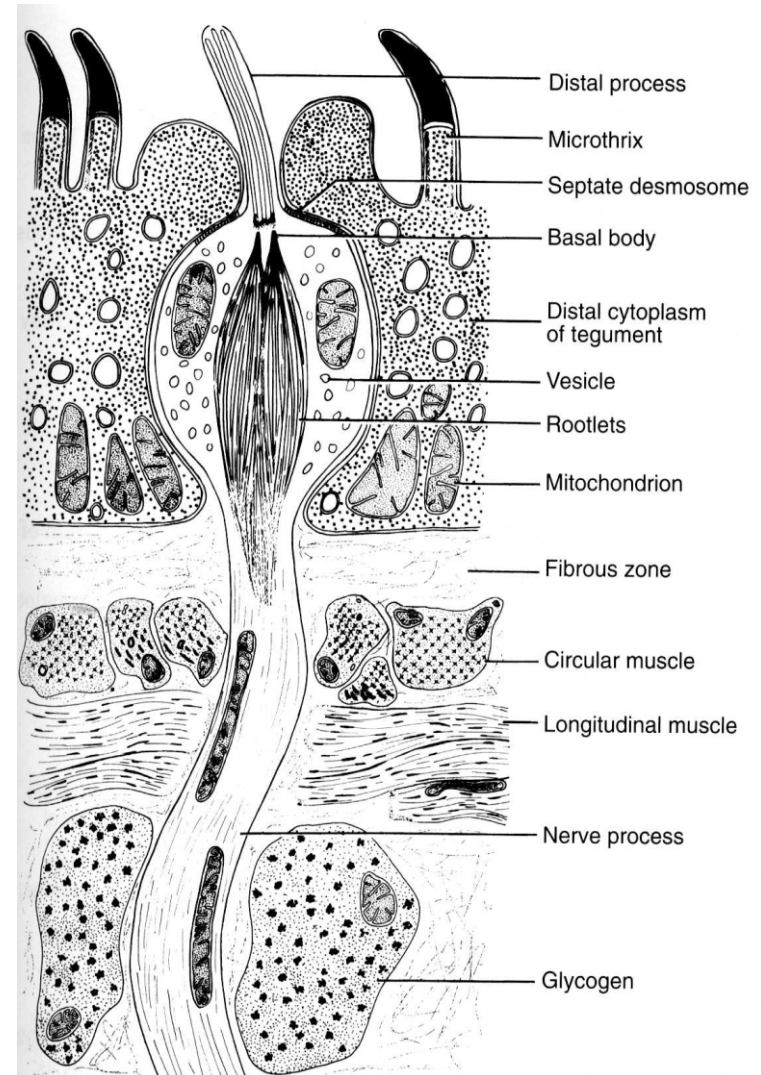
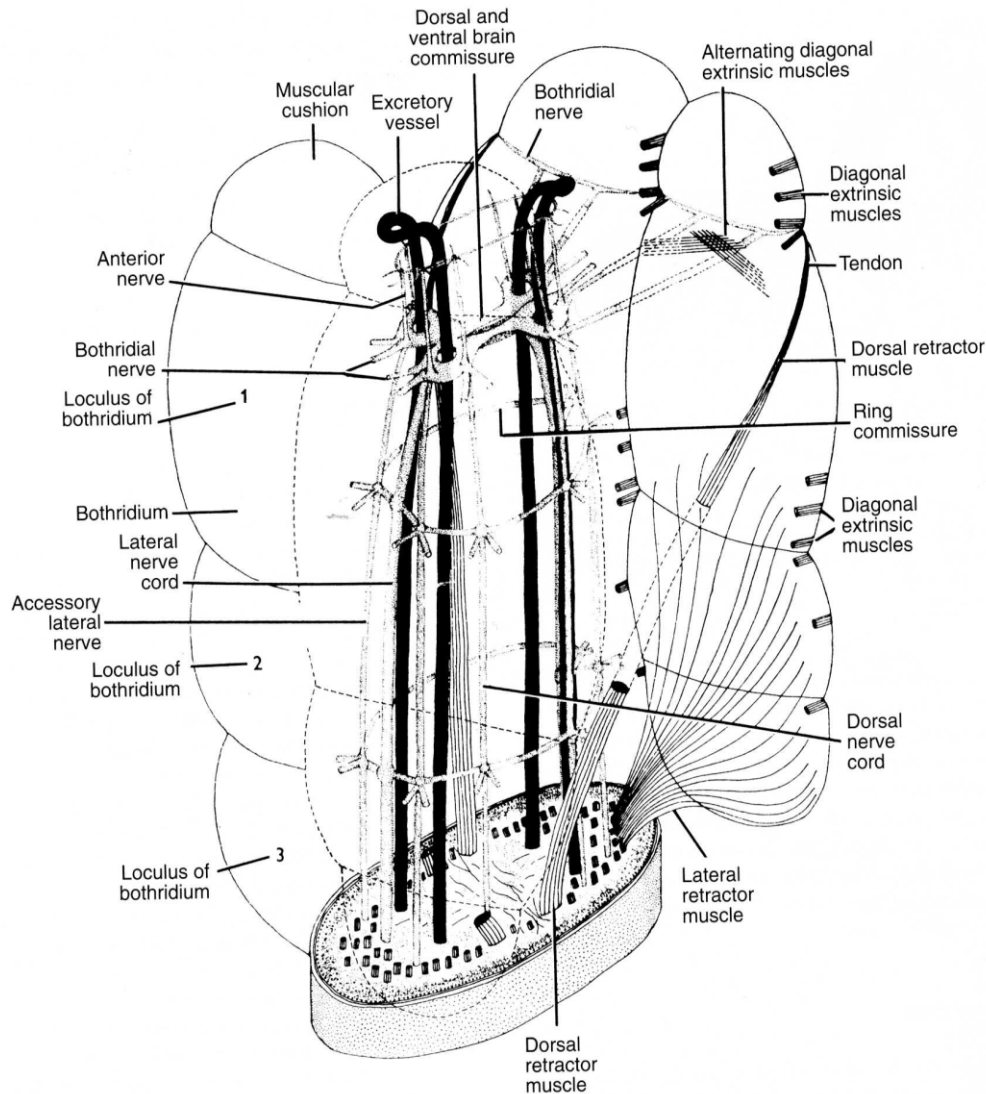
# Tasemnice - anatomie

- Scolex – krček - germinativní zóna
- Strobila – proglotidy – články:
  - **Apolytické články** – odškrcovány články s vajíčky
  - **Anapolytické články** – vajíčka jsou oddělována s neodělených článků
- Tegument – povrch těla
- Parenchym - pojivová tkáň
- Svalovina (tři vrstvy)
- Nervová soustava
- Exkreční soustava – protonefridie
- Pohlavní soustava – hermafroditi
- Příjem potravy – povrchem těla

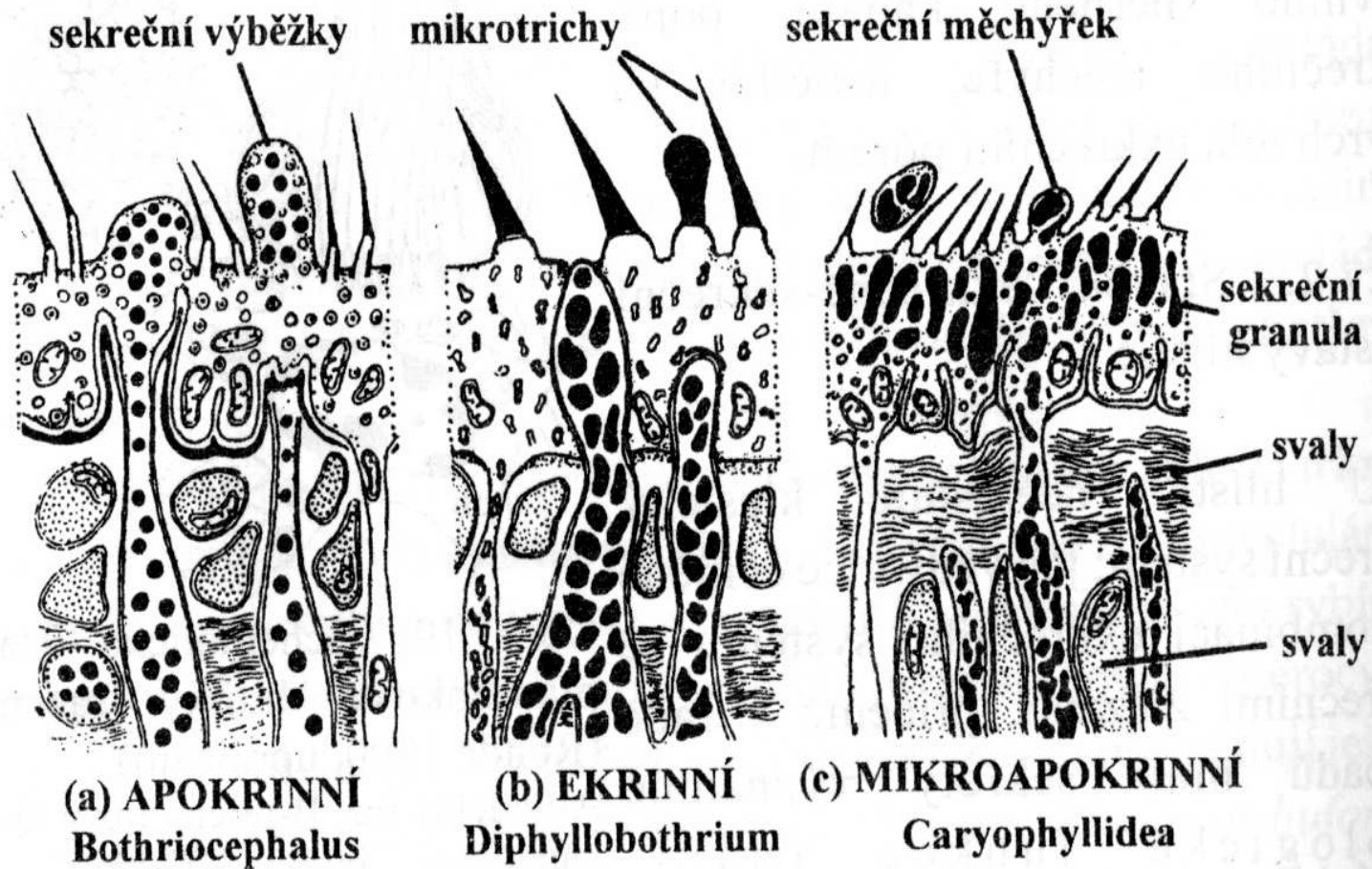
# Schéma scolexu tasemnice



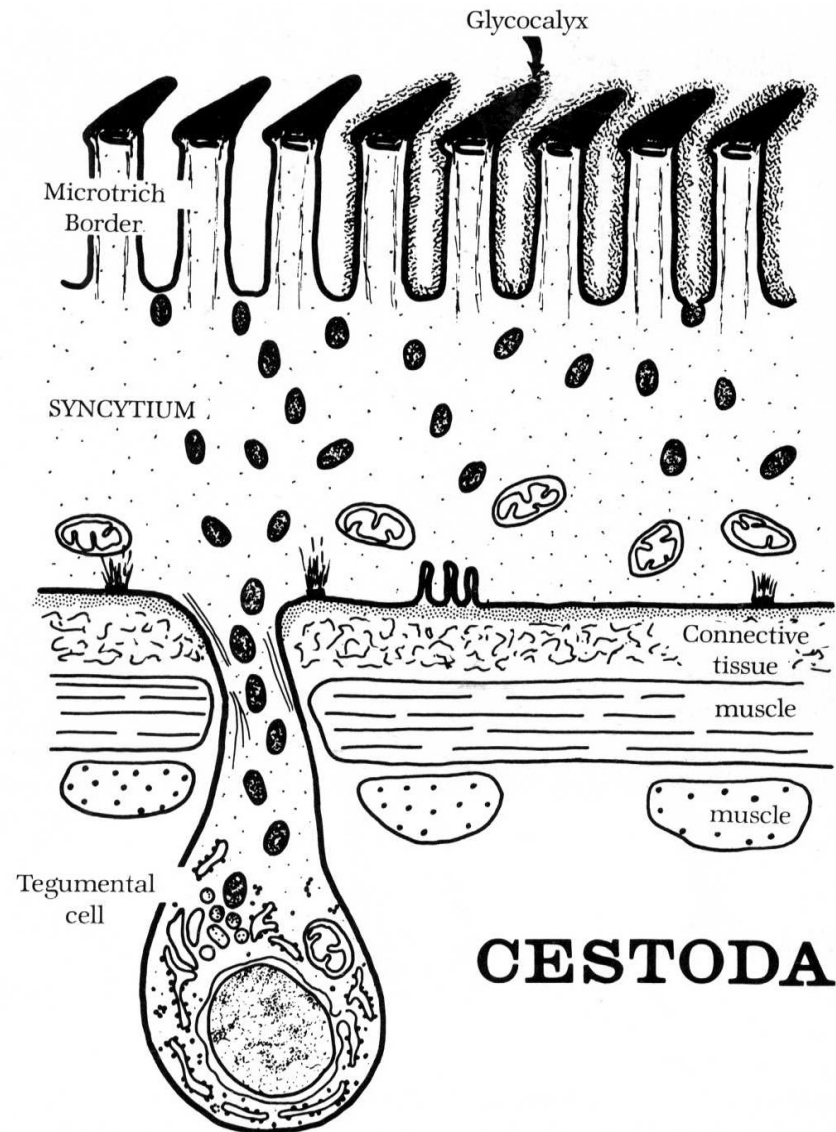
# Smyslové orgány na scolexu



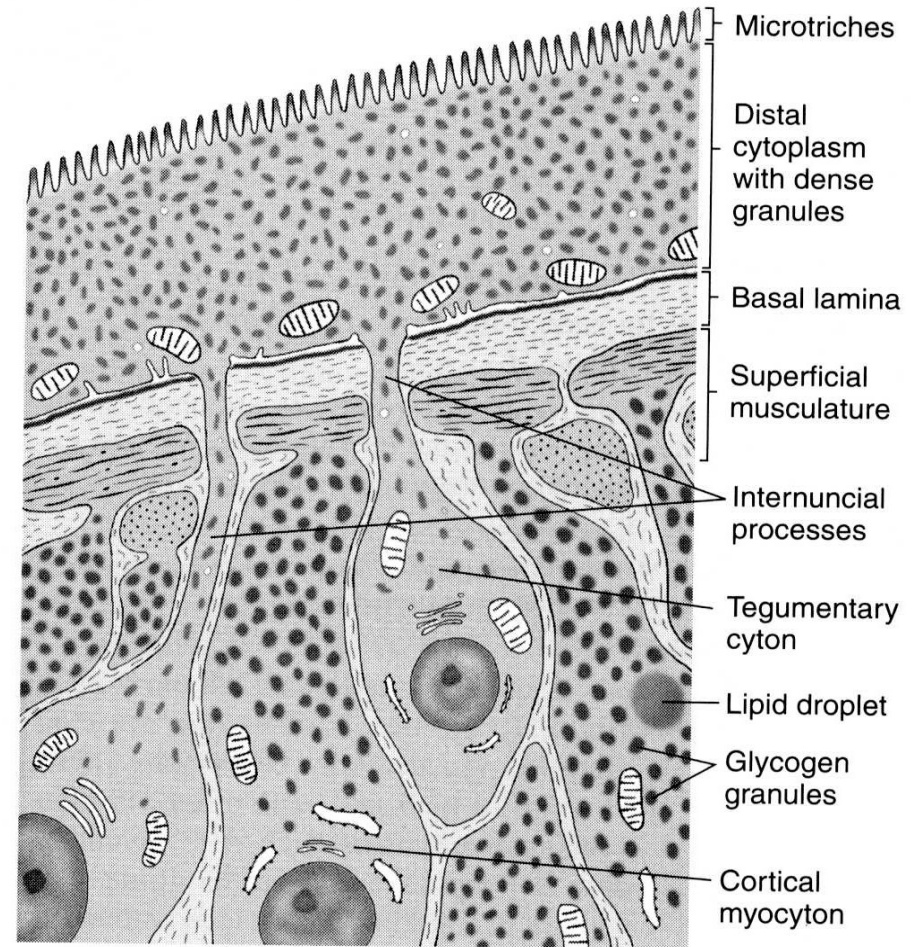
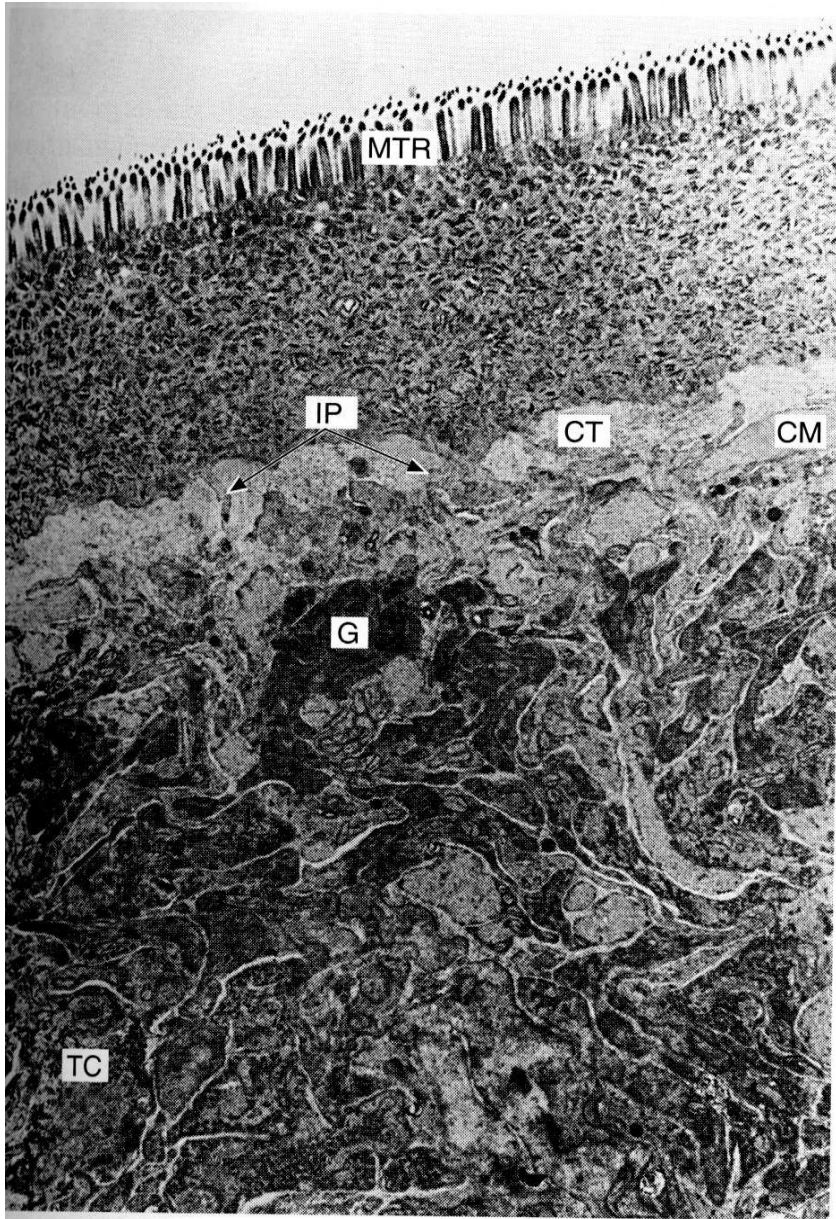
# Tři typy sekrece žlaz na scolexu



# Tegument – povrch těla

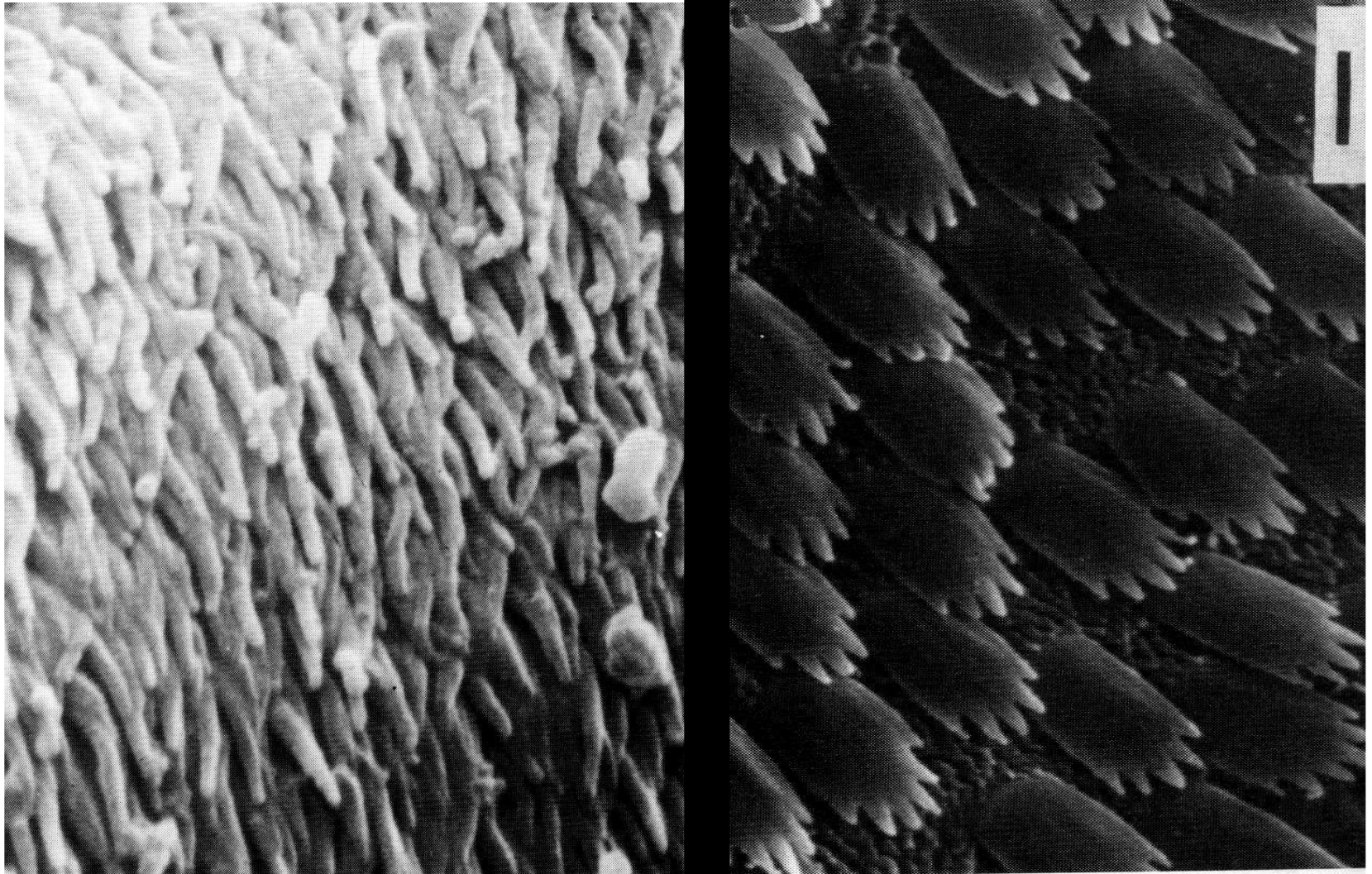


# Tegument – povrch těla



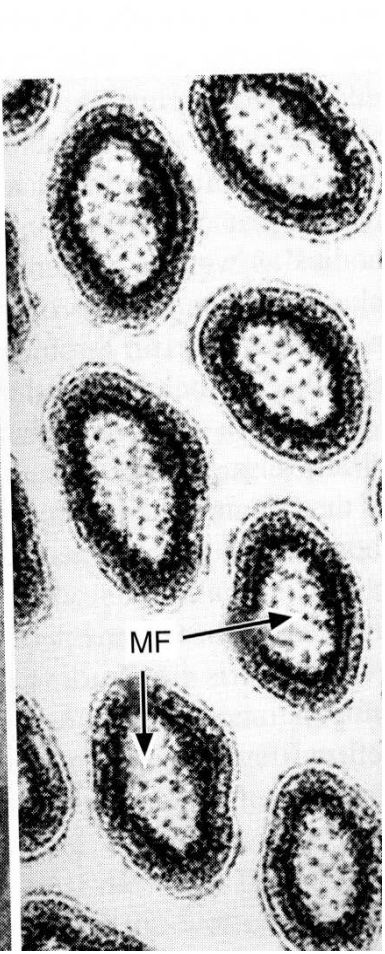
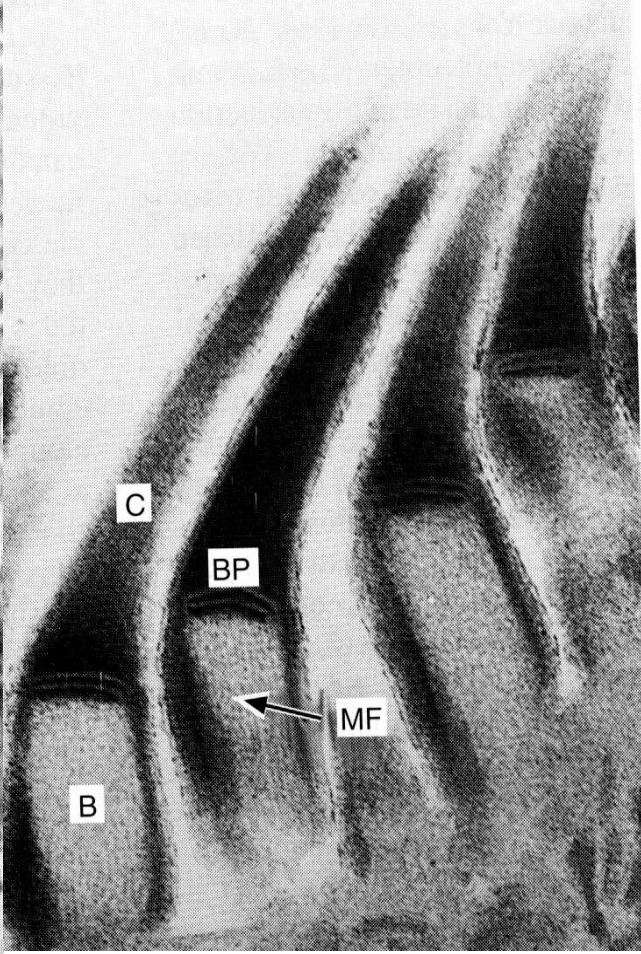
(b)

# Mikrotrichy na povrchu těla

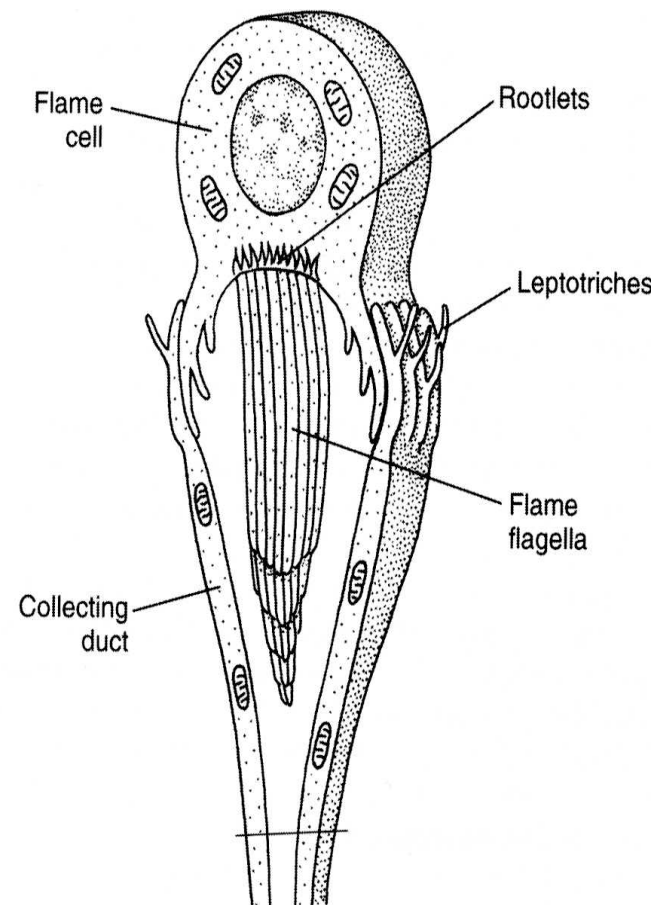
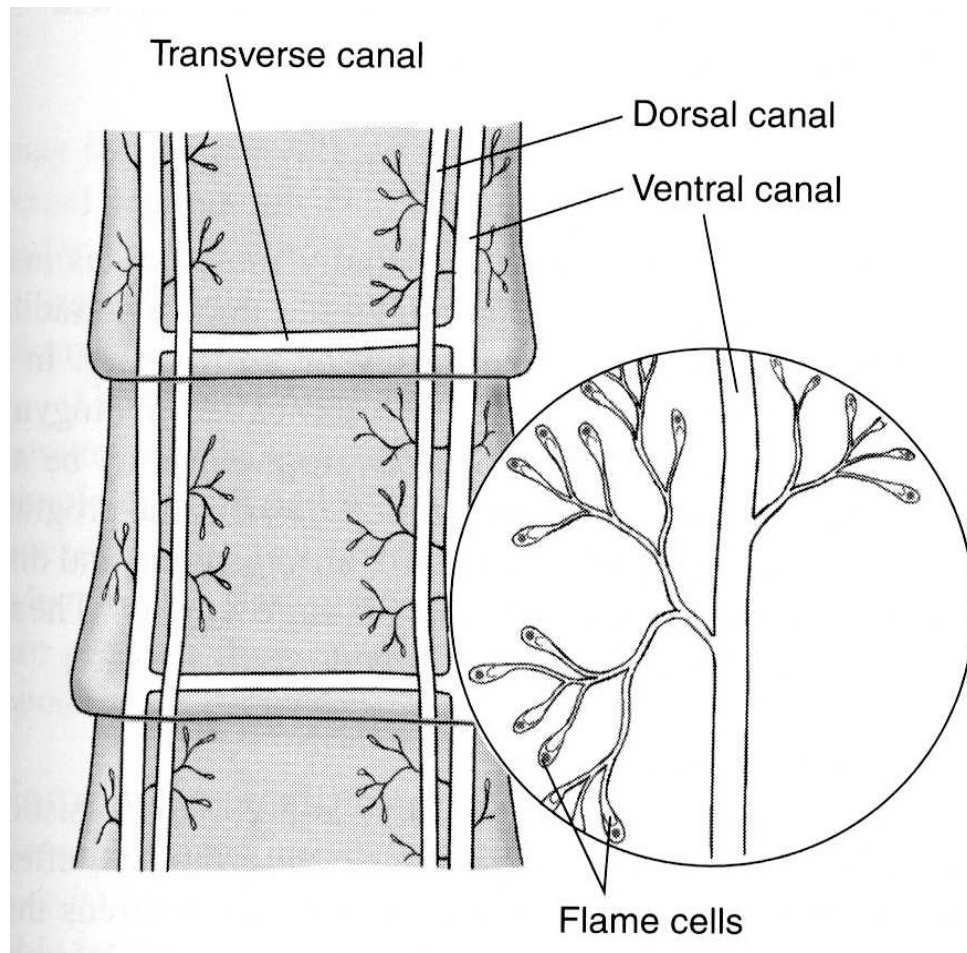




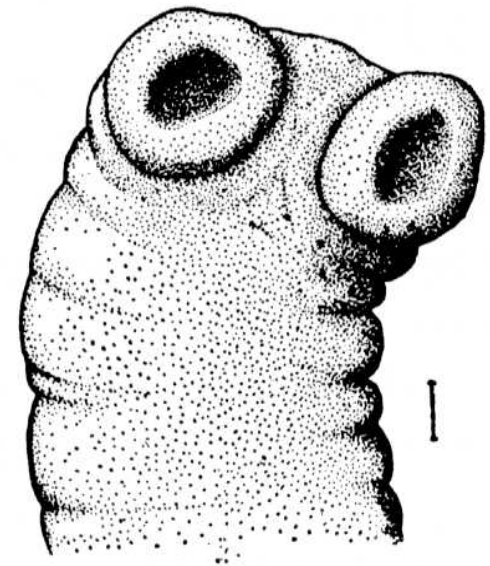
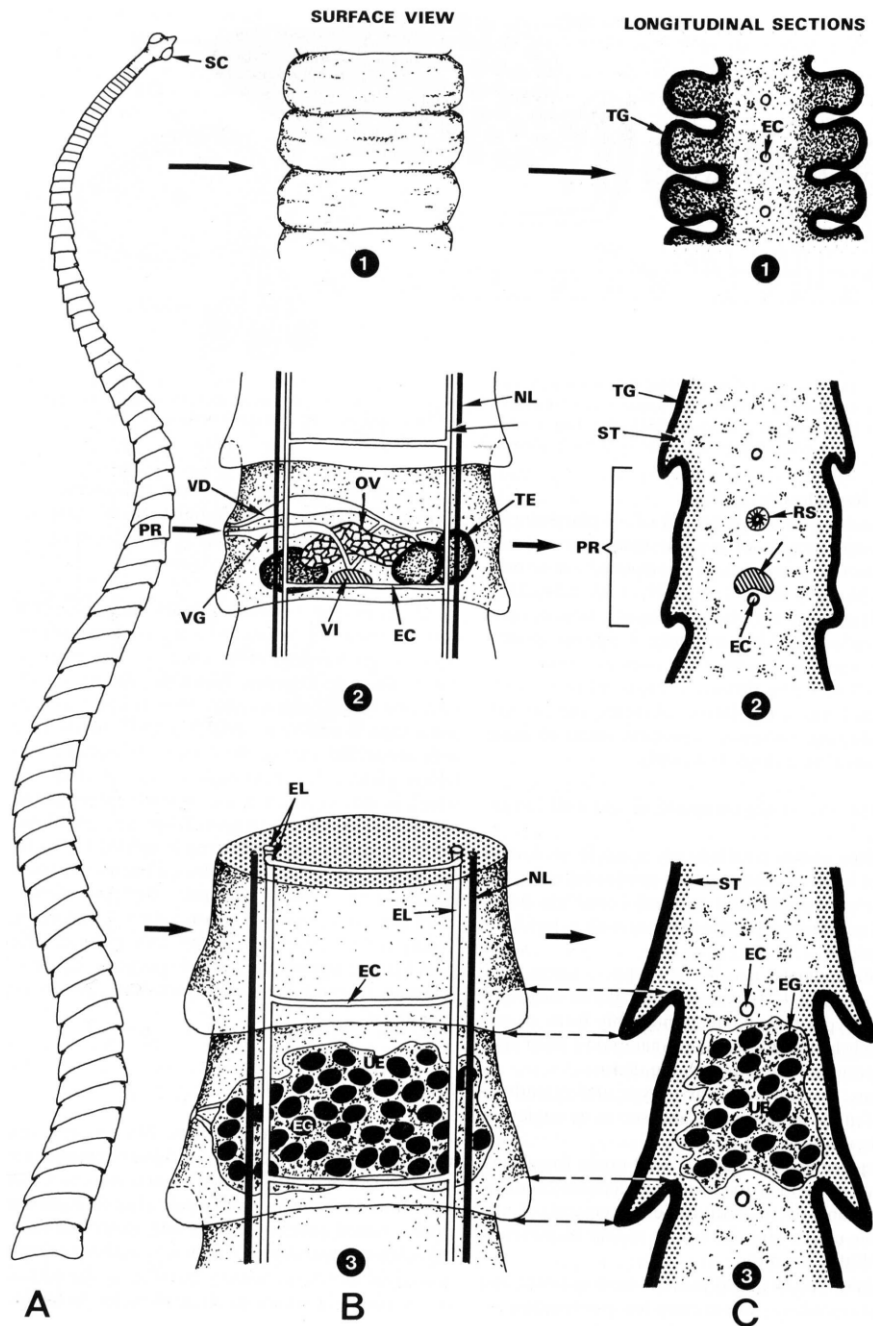
# Mikrotrichy



# Exkreční soustava tasemnice



# Anatomie strobily tasemnice



**A**  
Fig. 3.98

**B**

**C**

# Tasemnice – pohlavní soustava

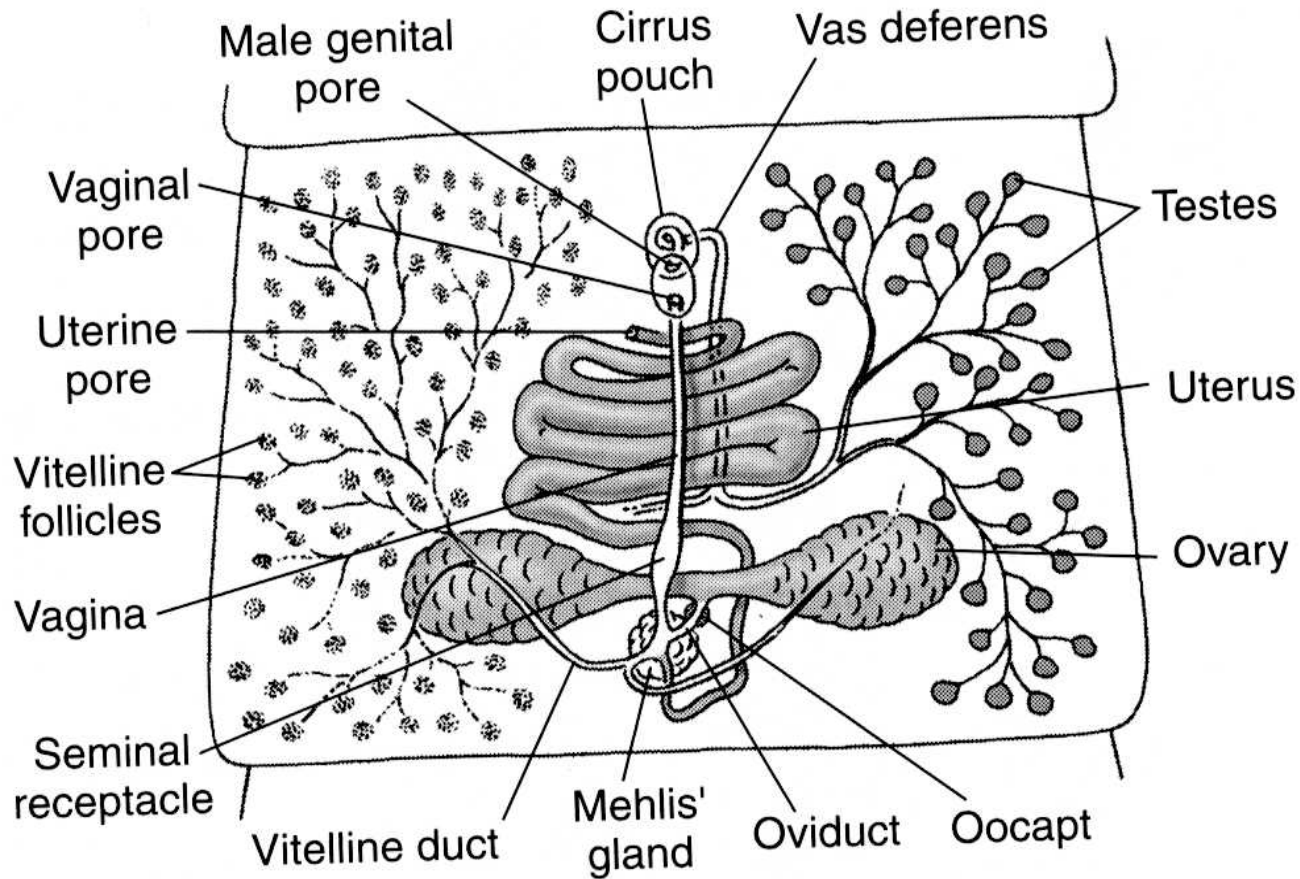
## Samčí:

- Varlata – testes
- Vasa efferentia
- Vas deferens
- Vesicula seminalis
- Ductus ejaculatorius
- Cirrus a cirrový váček

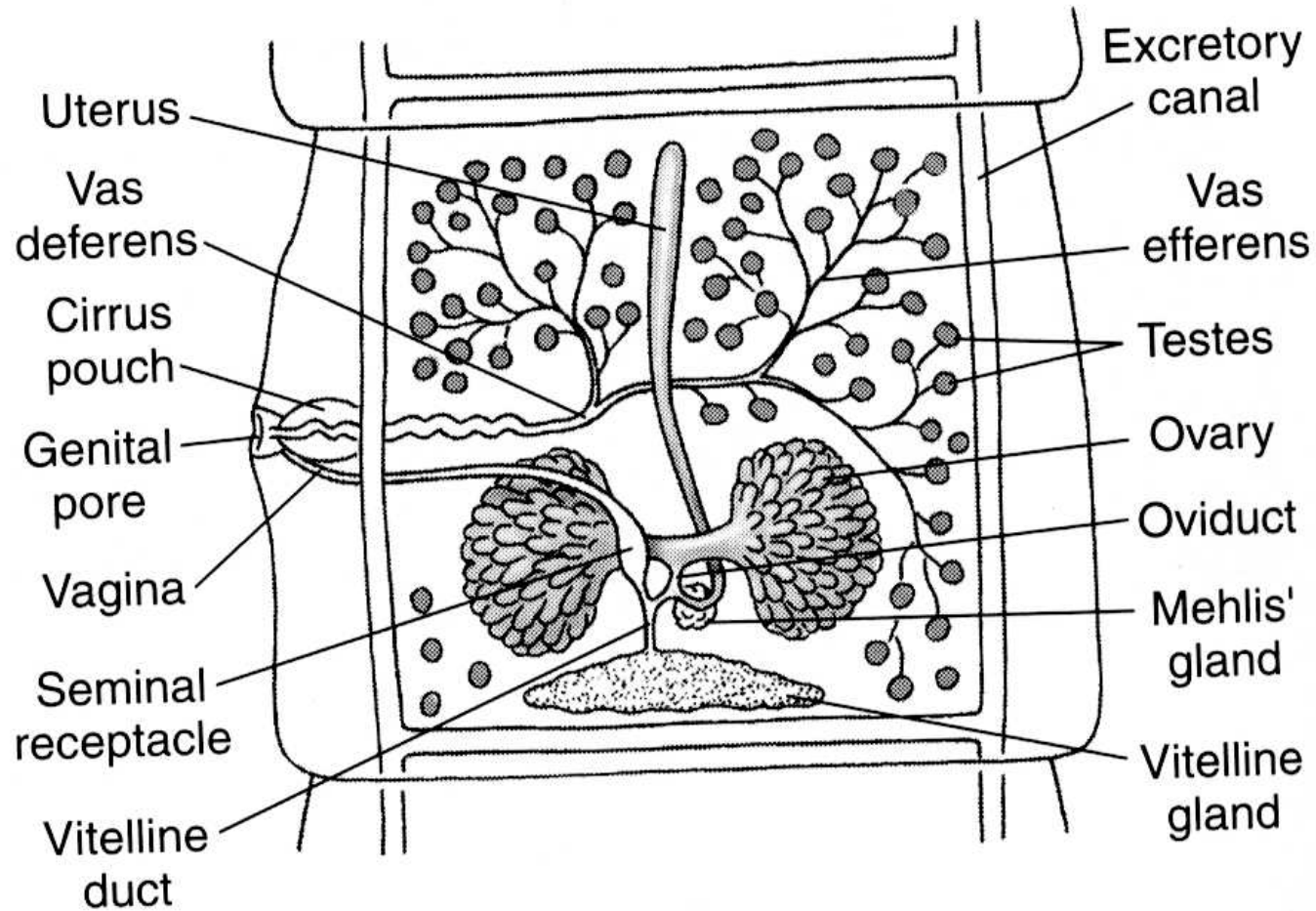
## Samičí:

- Vaječník – ovarium
- Vejcovod – ovidukt
- Receptaculum seminis
- Žloutkové trsy – vitelaria
- Ootyp
- Mehlisovy žlázy
- Děloha – uterus
- Vagina

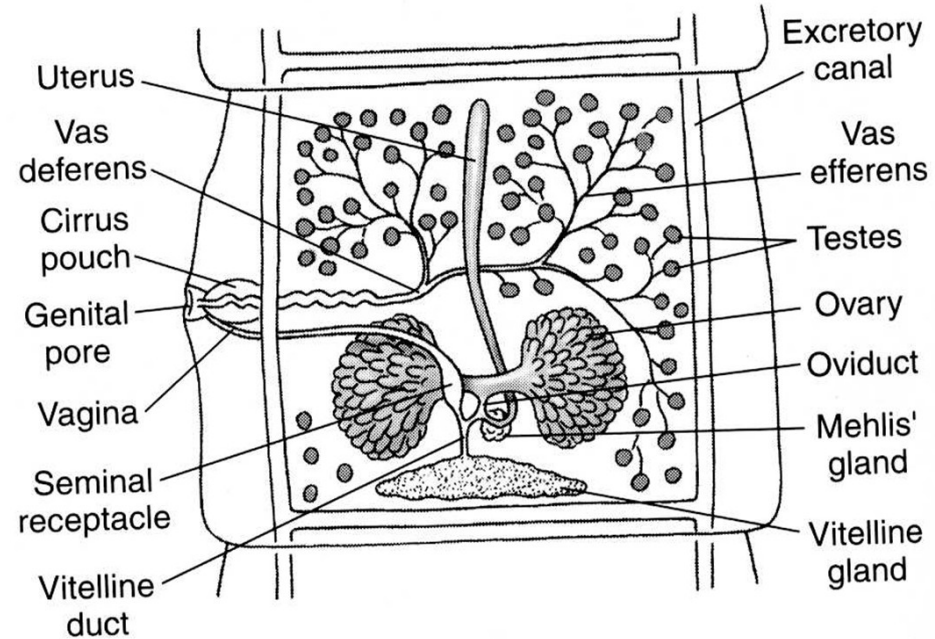
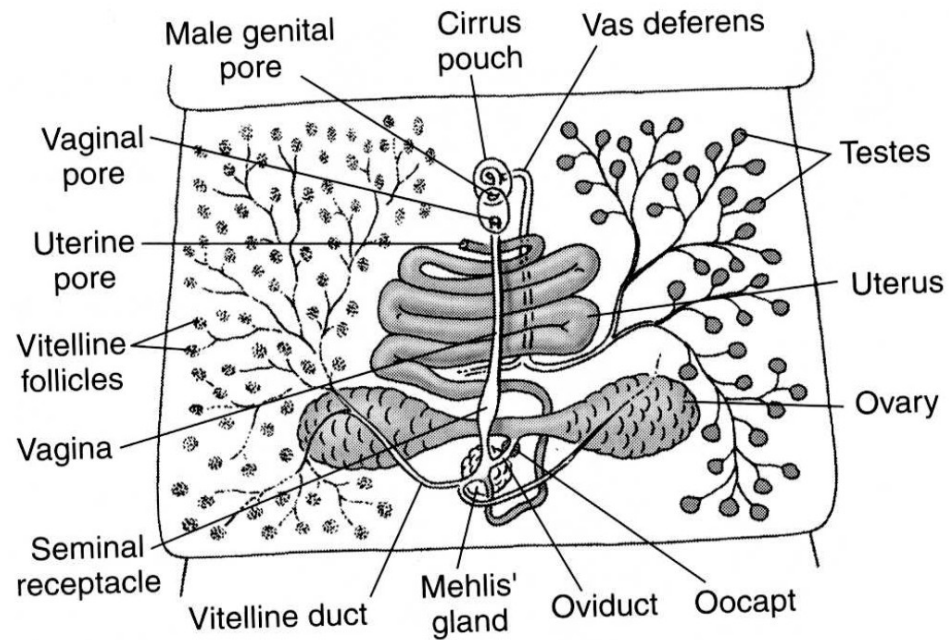
# Pohlavní soustava akvatické tasemnice



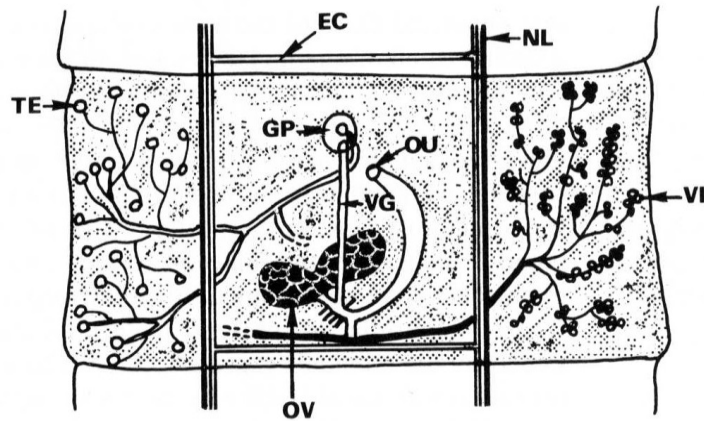
# Pohlavní soustava terestrické tasemnice



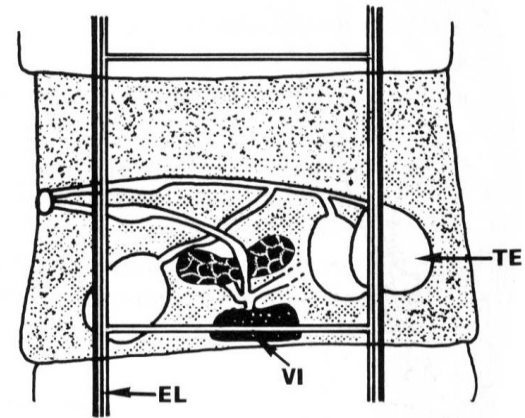
# V čem spočívá rozdíl ?



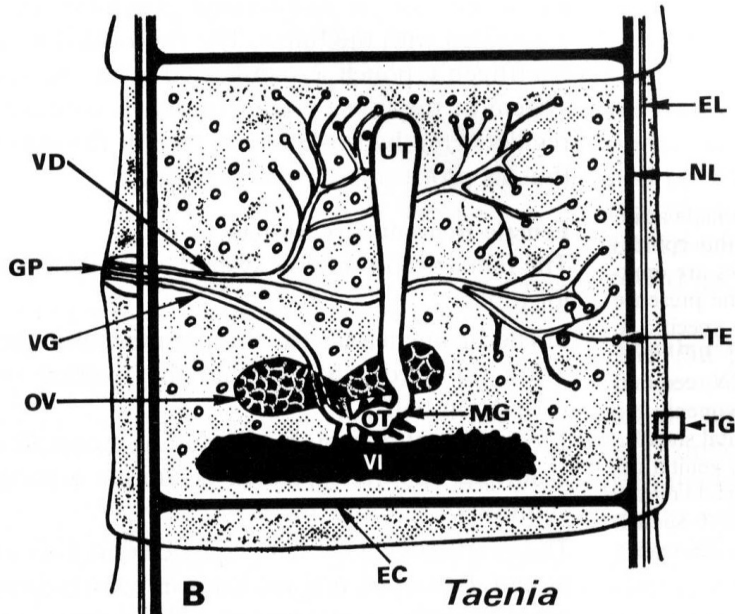
# Srovnání stavby článků



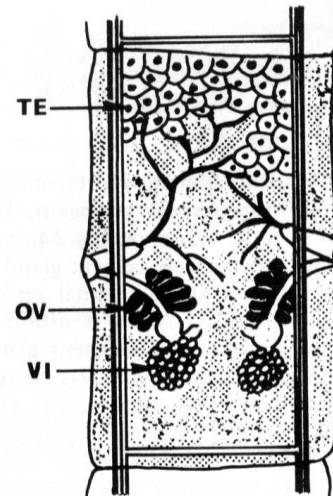
**A** *Diphylobothrium*



**C** *Hymenolepis*



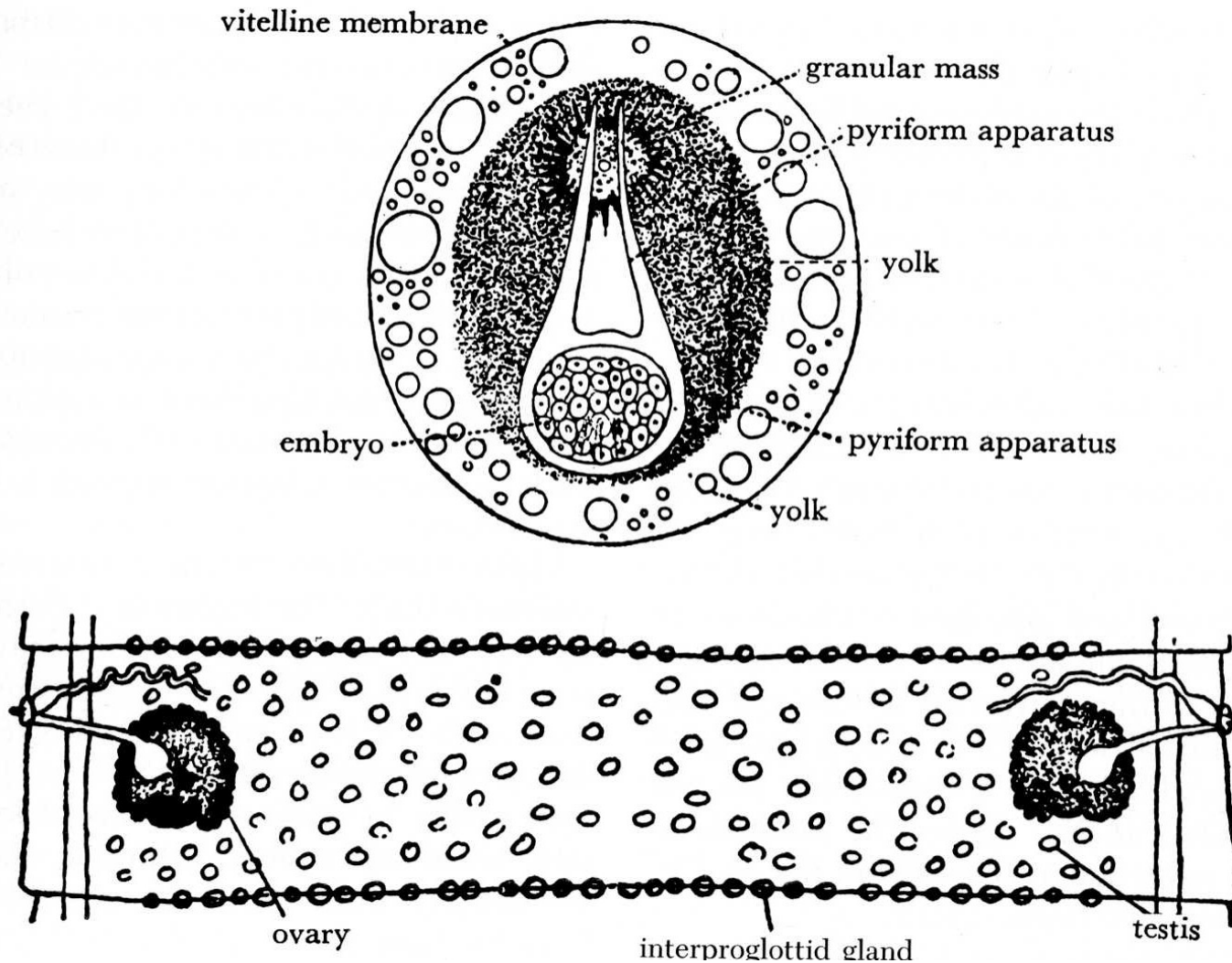
**B** *Taenia*



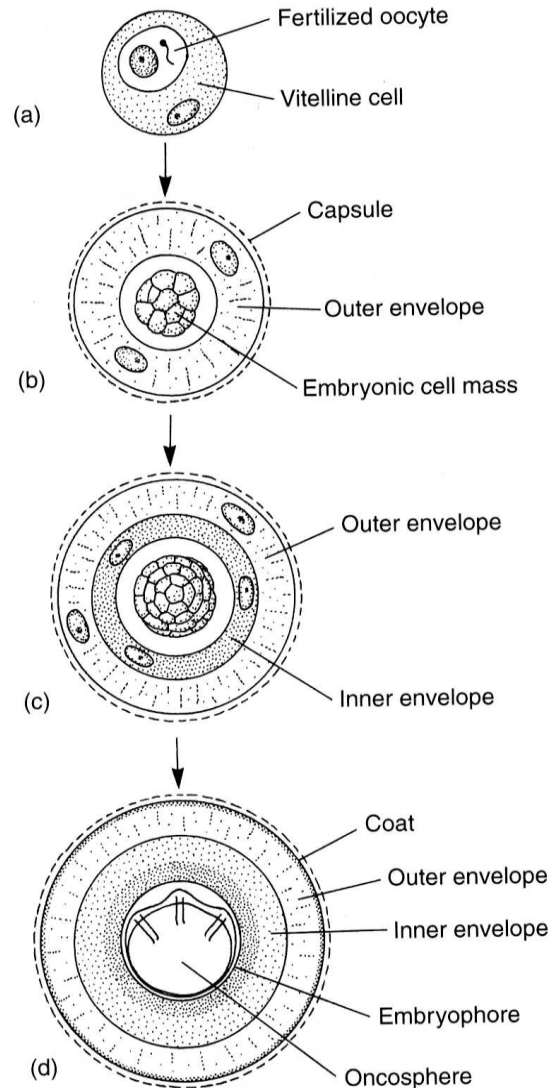
**D** *Dipylidium*



# Vajíčko a článek tasemnice



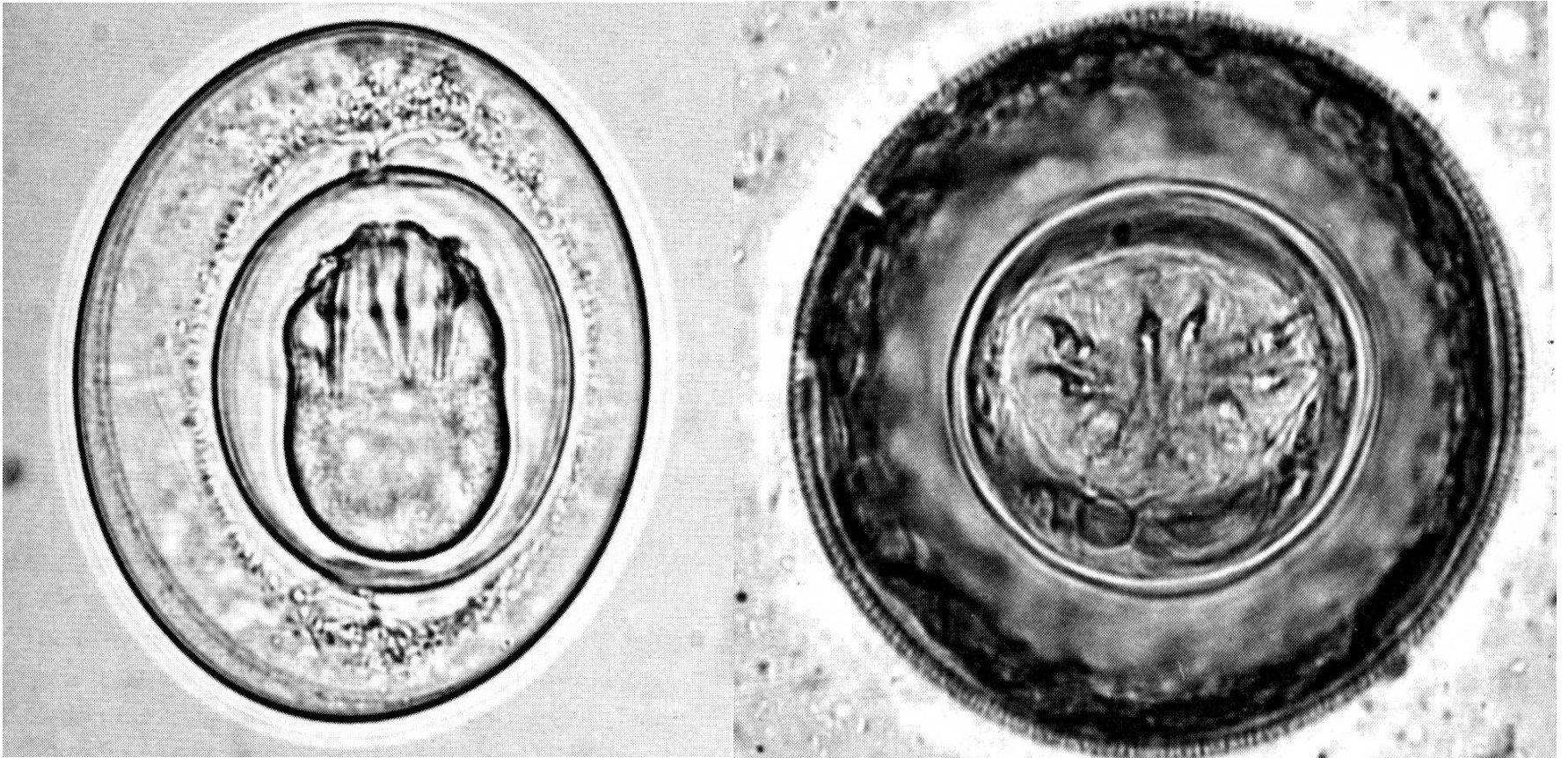
# Formování embrya ve vajíčku



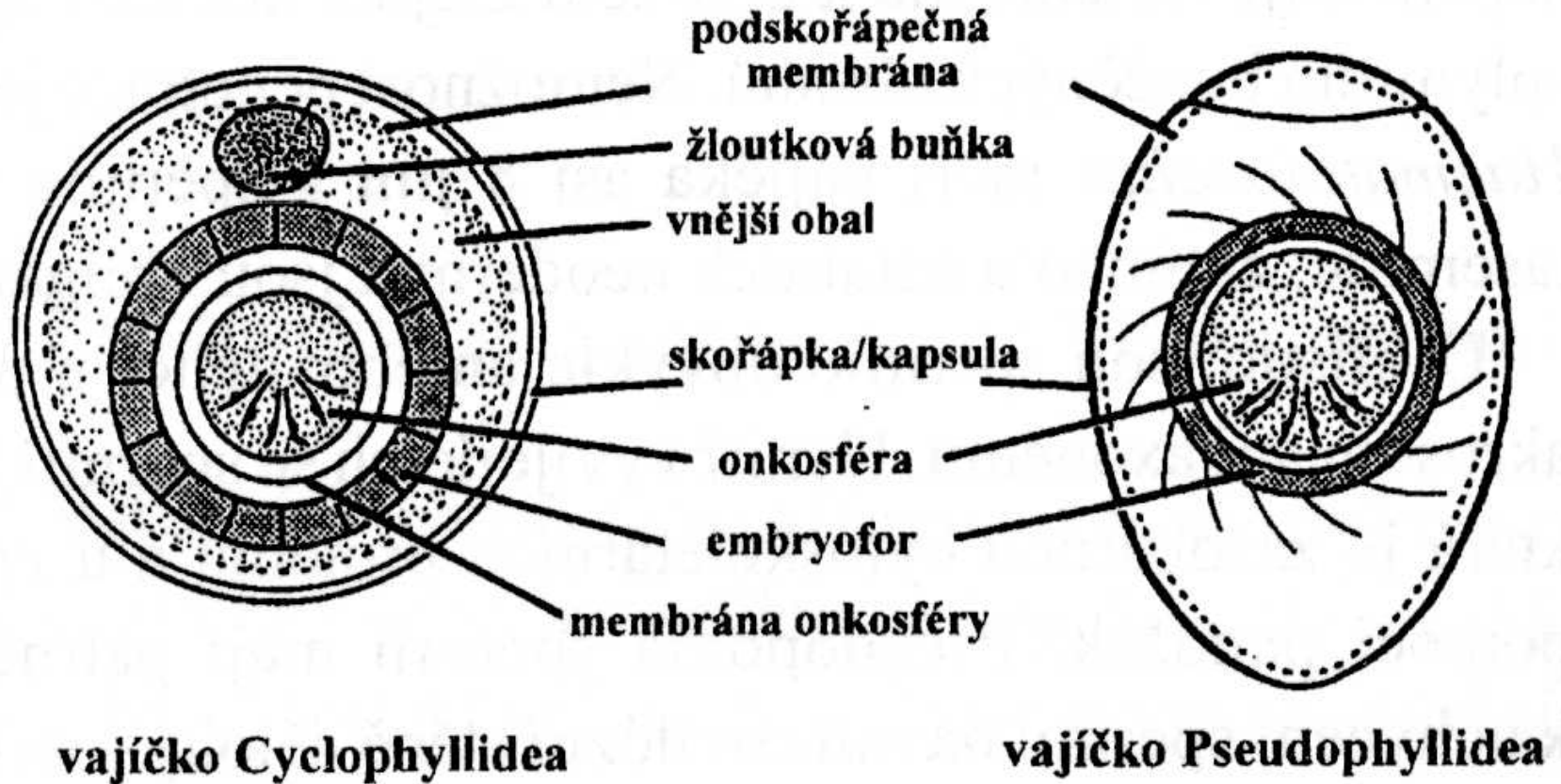
# Vývojová stádia a vývoj

- Vajíčko
- Larvální stádia
- Koracidium – obrvené a plave ve vodě
- Onkosféra – v meziphostiteli
- Metacestod - larvální stádia – viz níže:
- Procerkoid, Plerocerkoid - Pseudophyllidea
- Plerocercus - Trypanorhyncha
- Cysticerkoid, Strobilocercus, Tetrathyridium –  
Cyclophyllidea
- Cysticercus, Coenurus, Echionococcus,  
Hydatida, Alveokok - Taeniidae

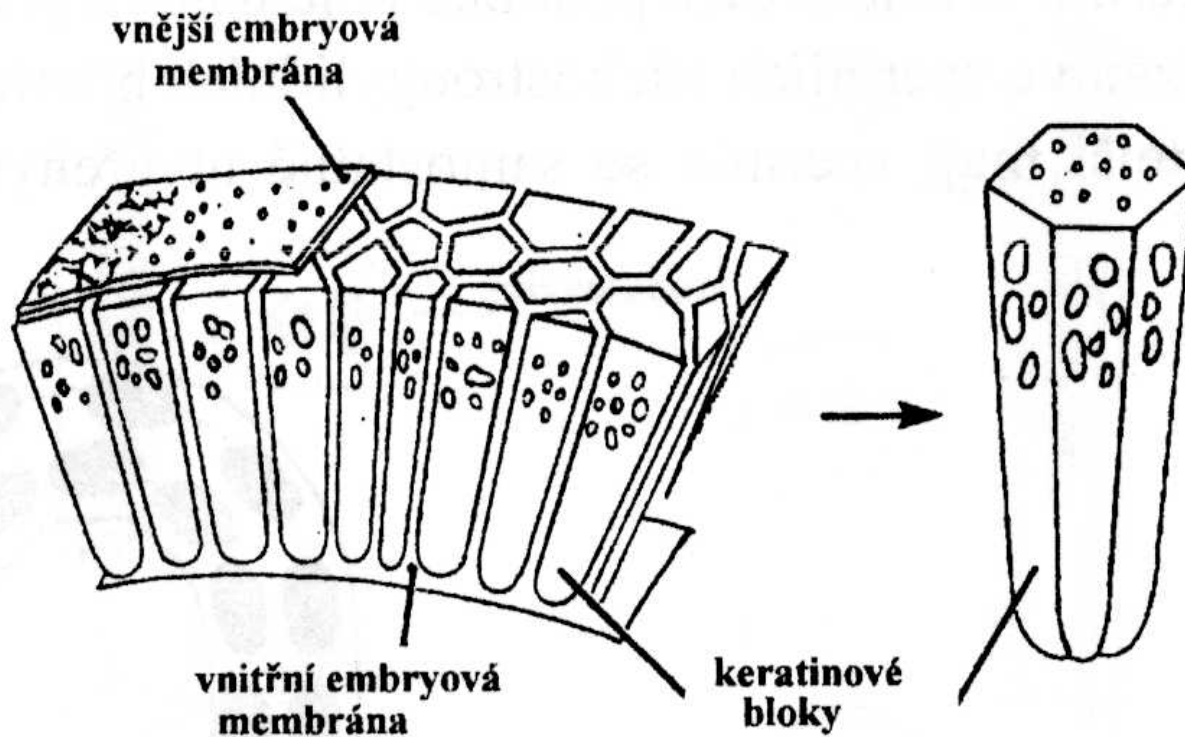
# Vajíčka tasemnic



# Vajíčka tasemnic

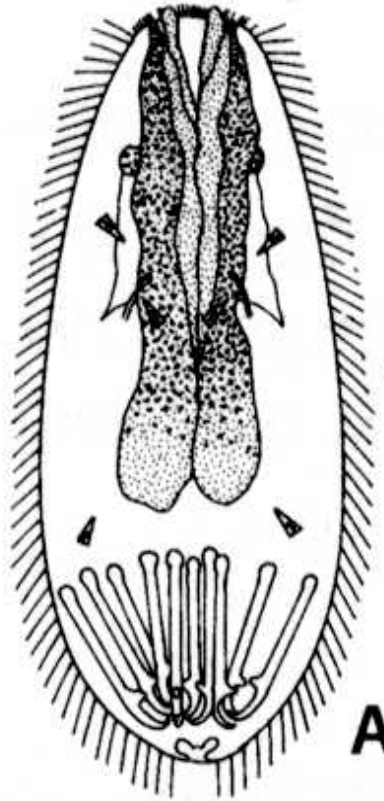


# Stěna vajíčka - embryofor



embryofor *Taenia solium*

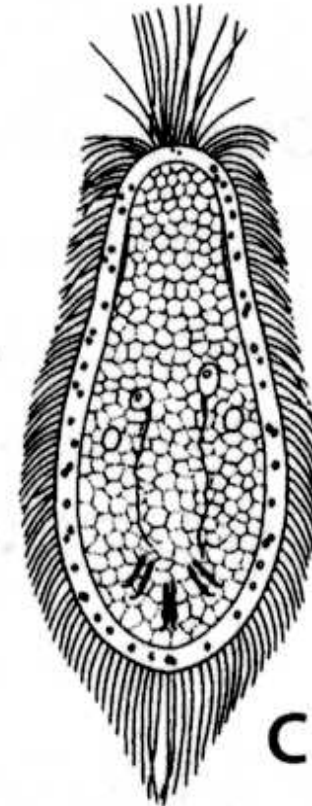
# Larvální stádia tasemnic



**lycophora (A)**

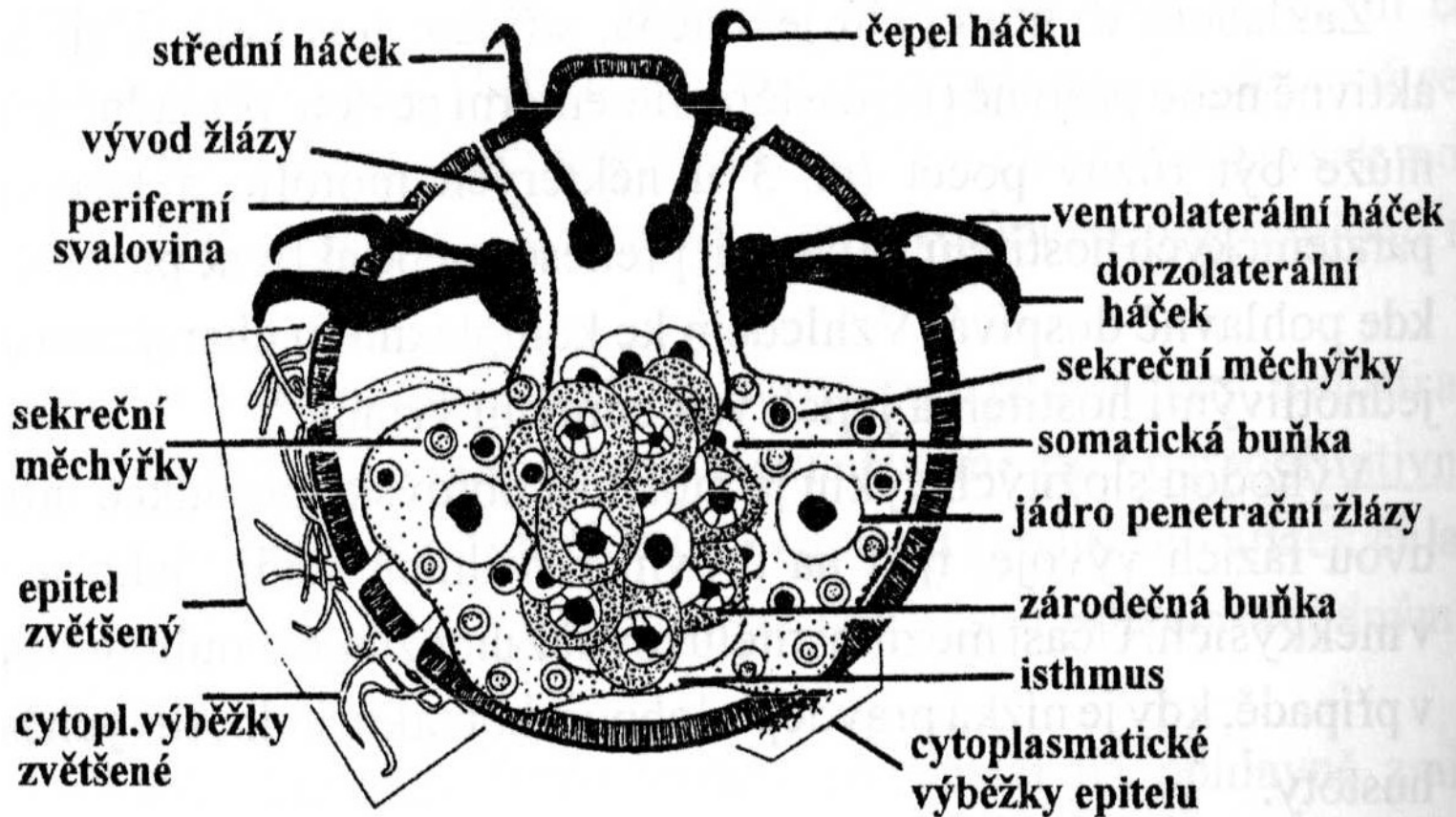


**oncosphaera (B)**



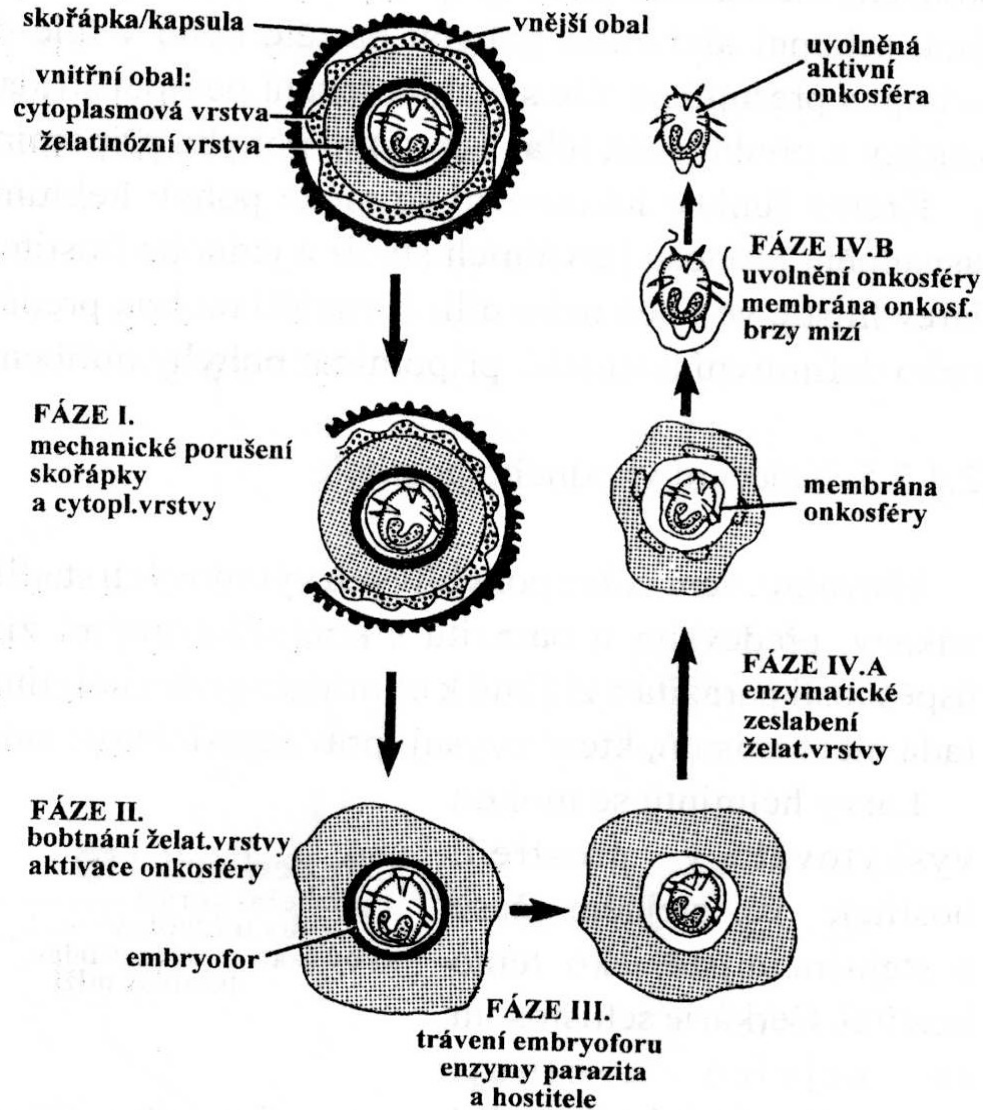
**coracidium (C)**

# Anatomie onkosféry

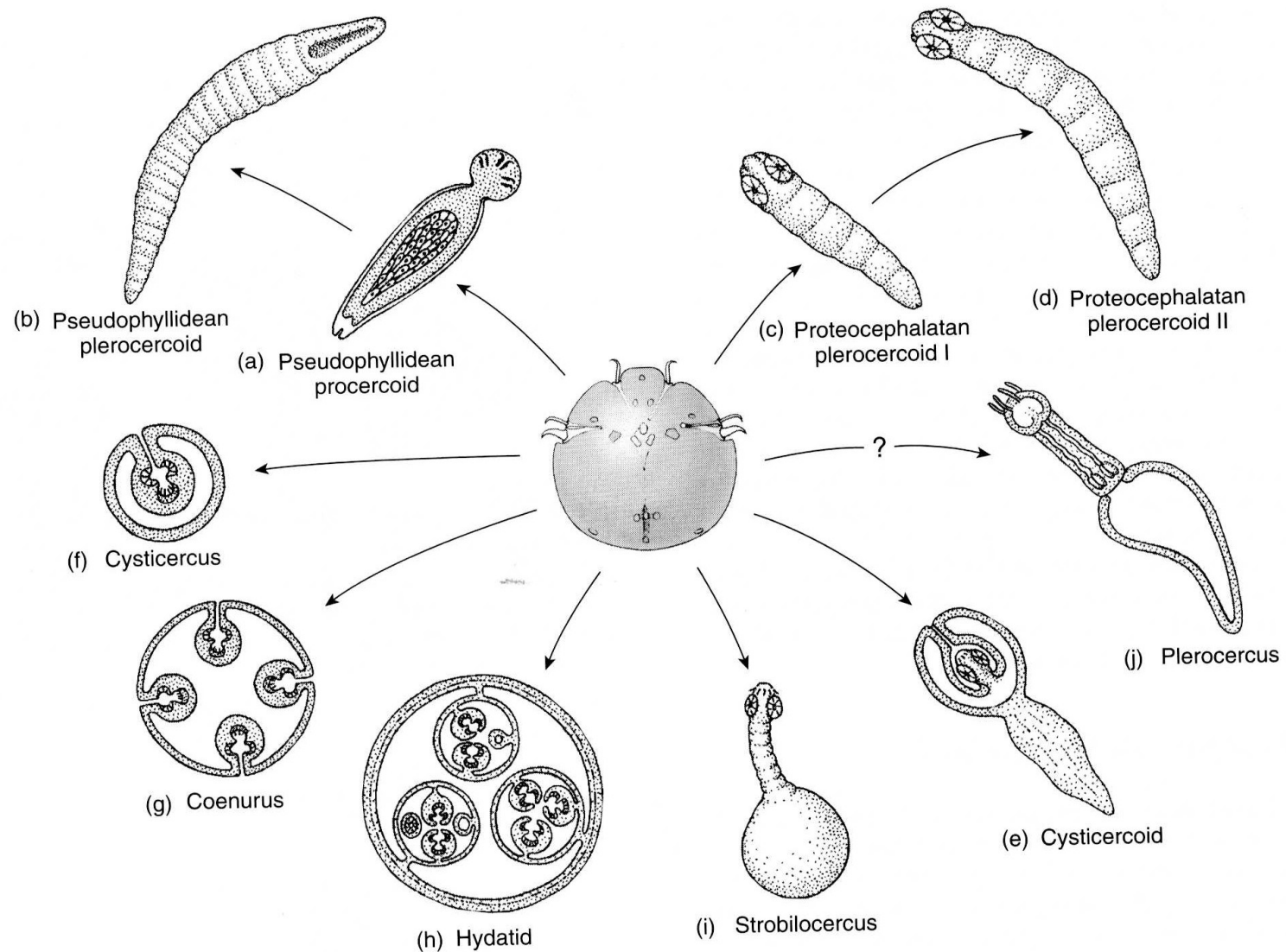




# Stádia líhnutí onkosféry



# Základní typy metacestodů

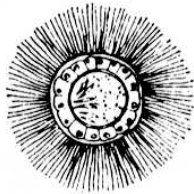


# Larvální stádia – akvatický cyklus

## PSEUDOPHYLLIDEA



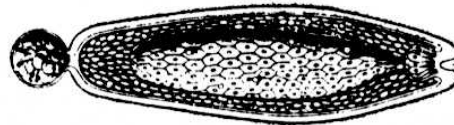
EGG



CORACIDIUM



ONCOSPHERE

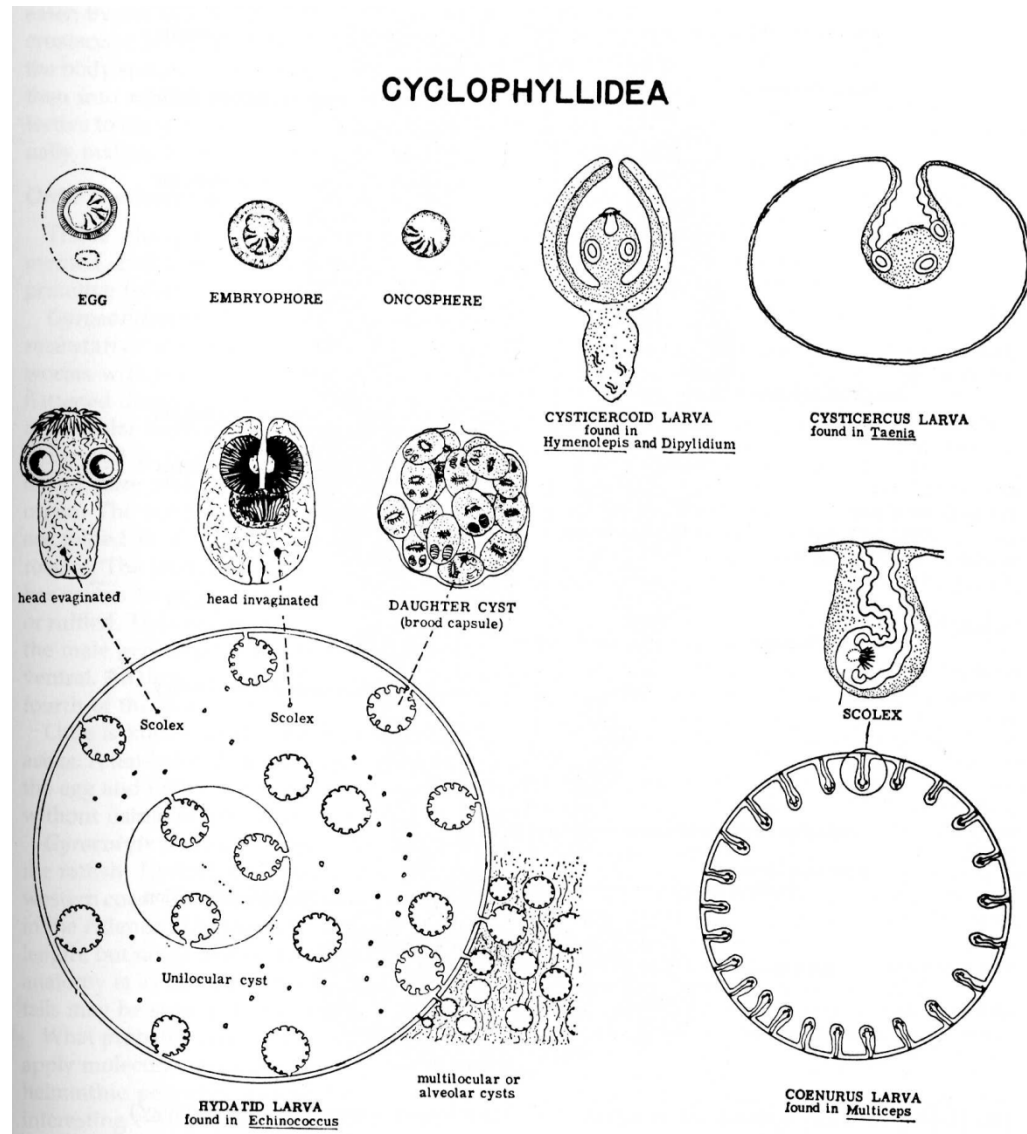
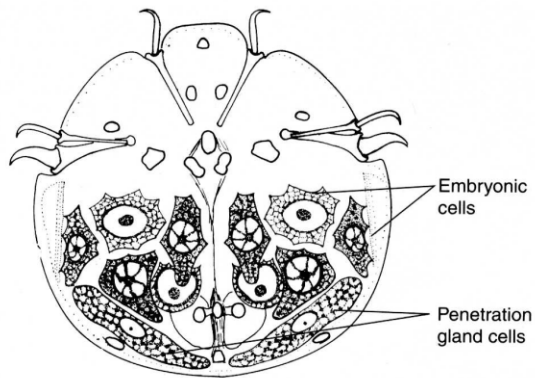


PROCERCOID LARVA

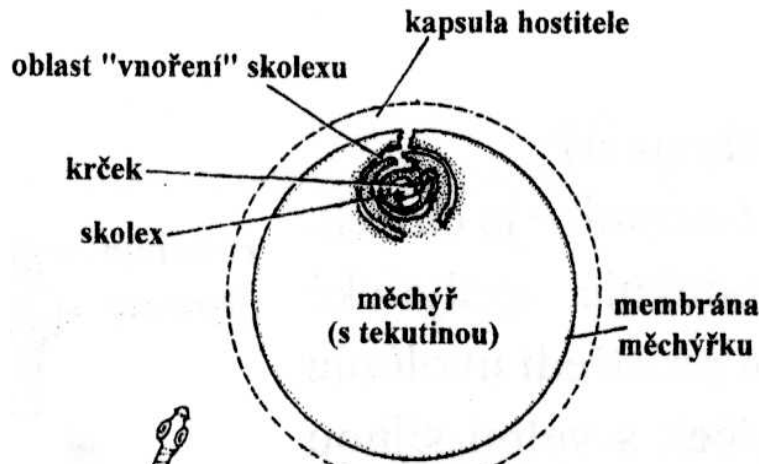


PLEROCERCOID OR  
SPARGANUM LARVA

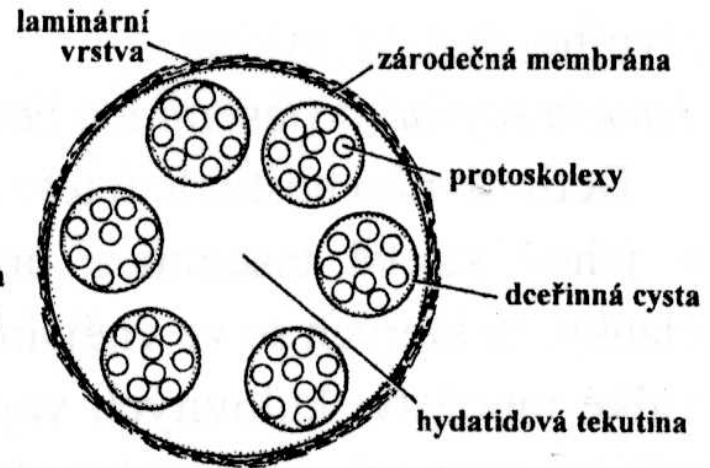
# Larvální stadia – terestrický cyklus



# Cystická larvální stádia



**CYSTICERKUS**(*T.solium*)



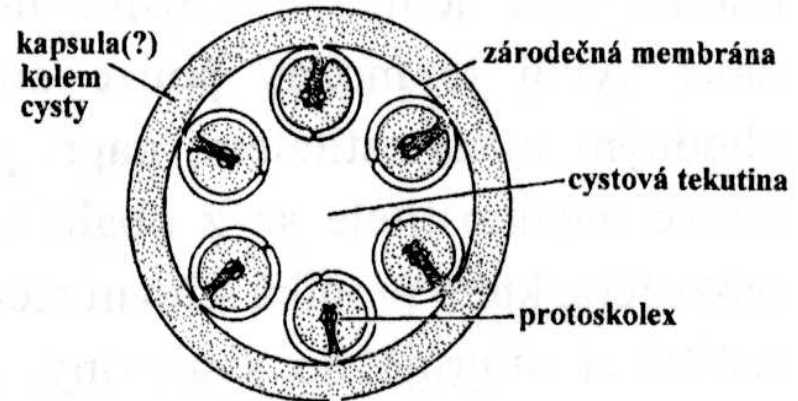
**HYDATIDA**(*E.granulosus*)



**STROBILOCERKUS**  
(*T.taeniaeformis*)

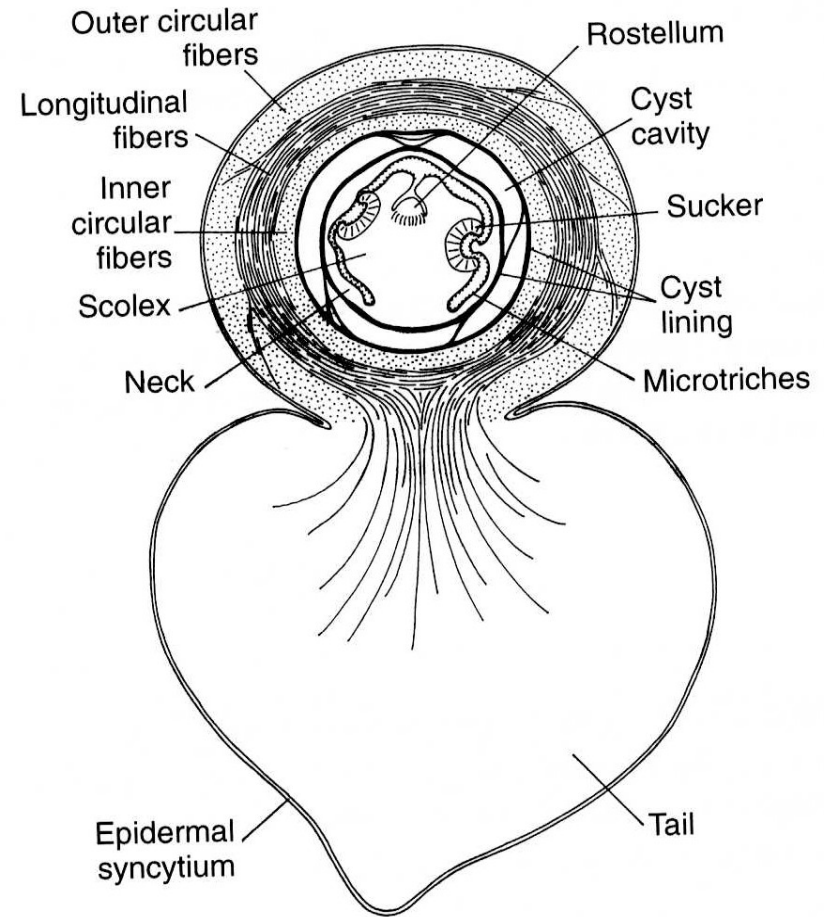
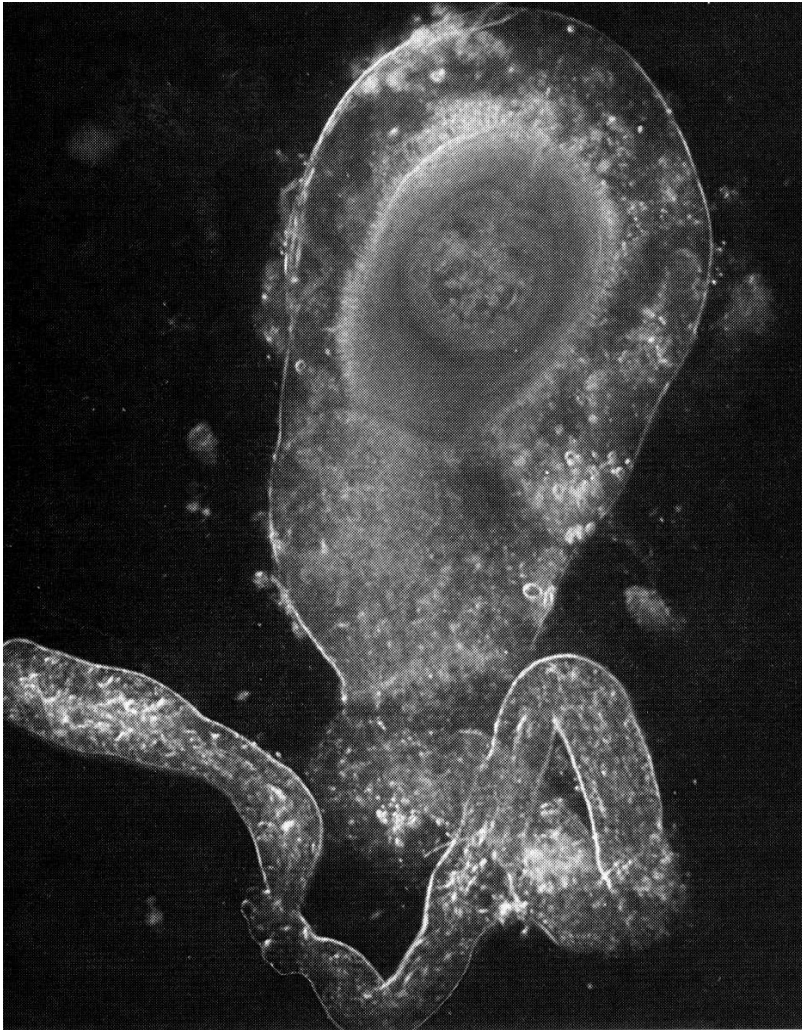


**CYSTICERKOID**(*H.nana*)



**COENURUS**(*T.serialis*)

# Typy metacestodů – cysticerkoid

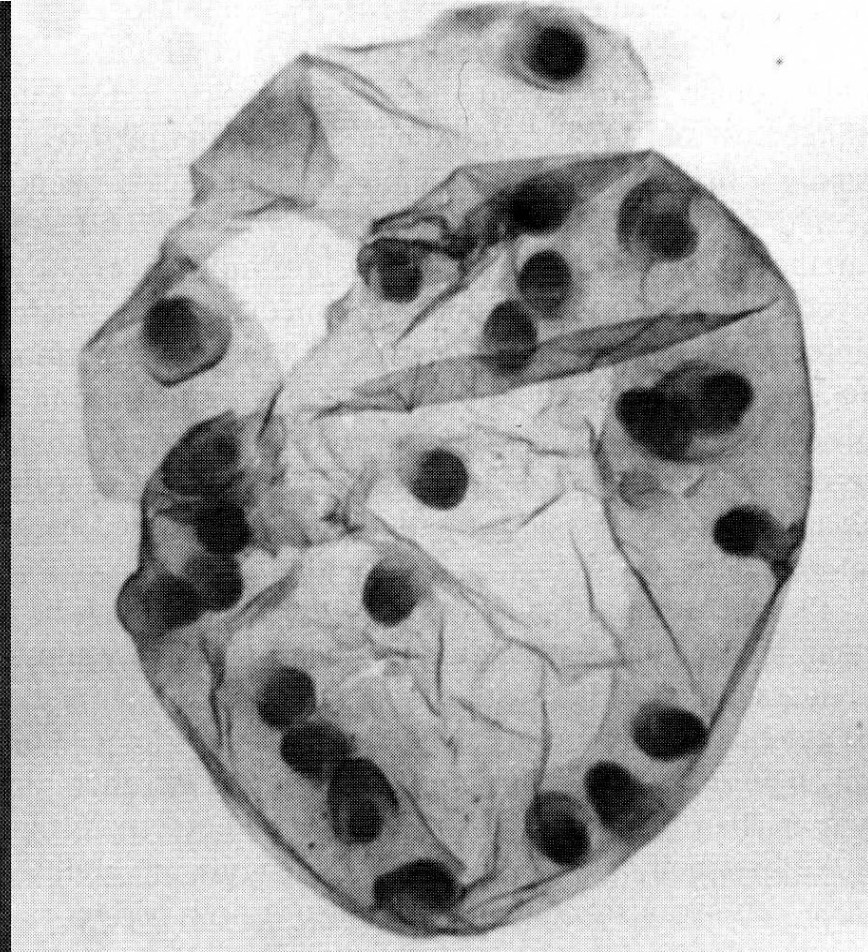


# Typy metacestodů

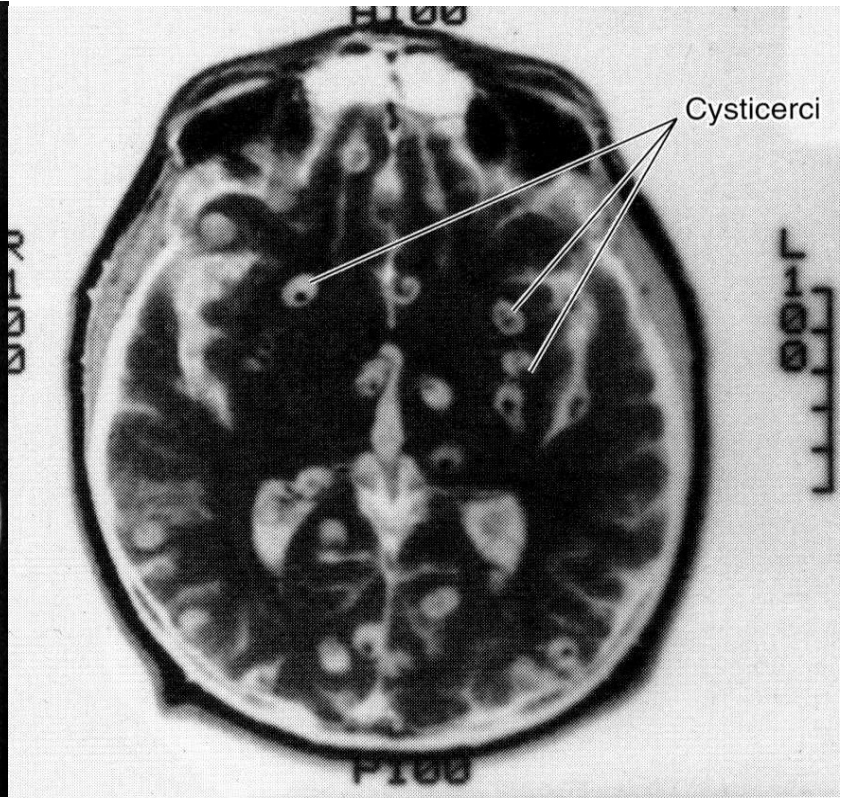
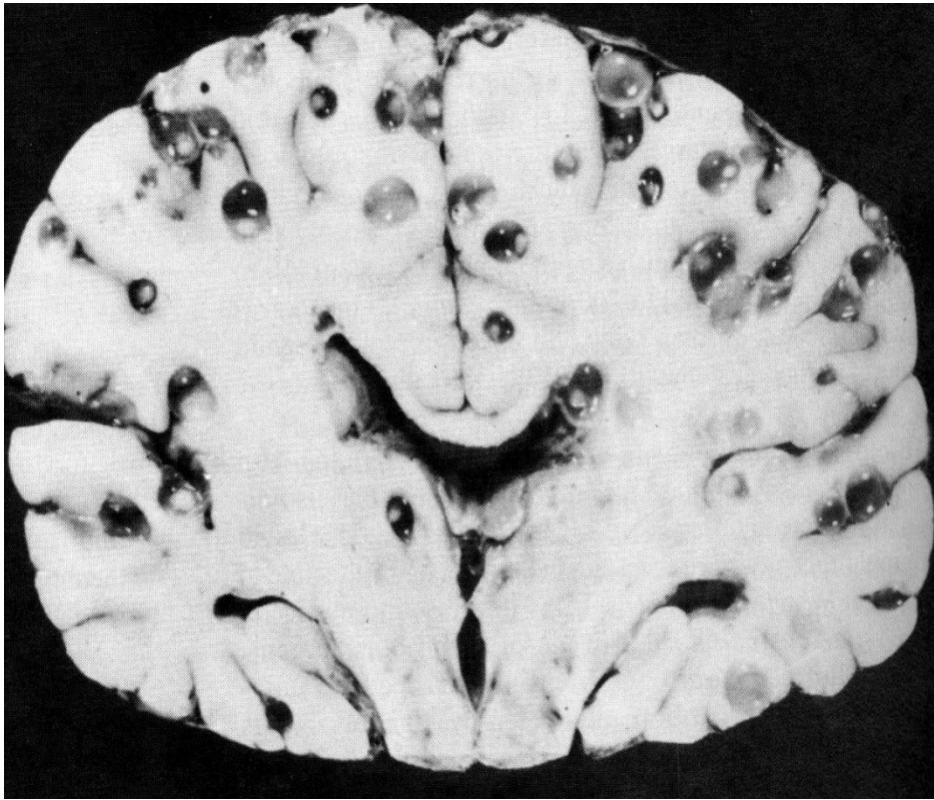
**Strobilocercus**



**Coenurus**



# Typy metacestodů – cysticercus

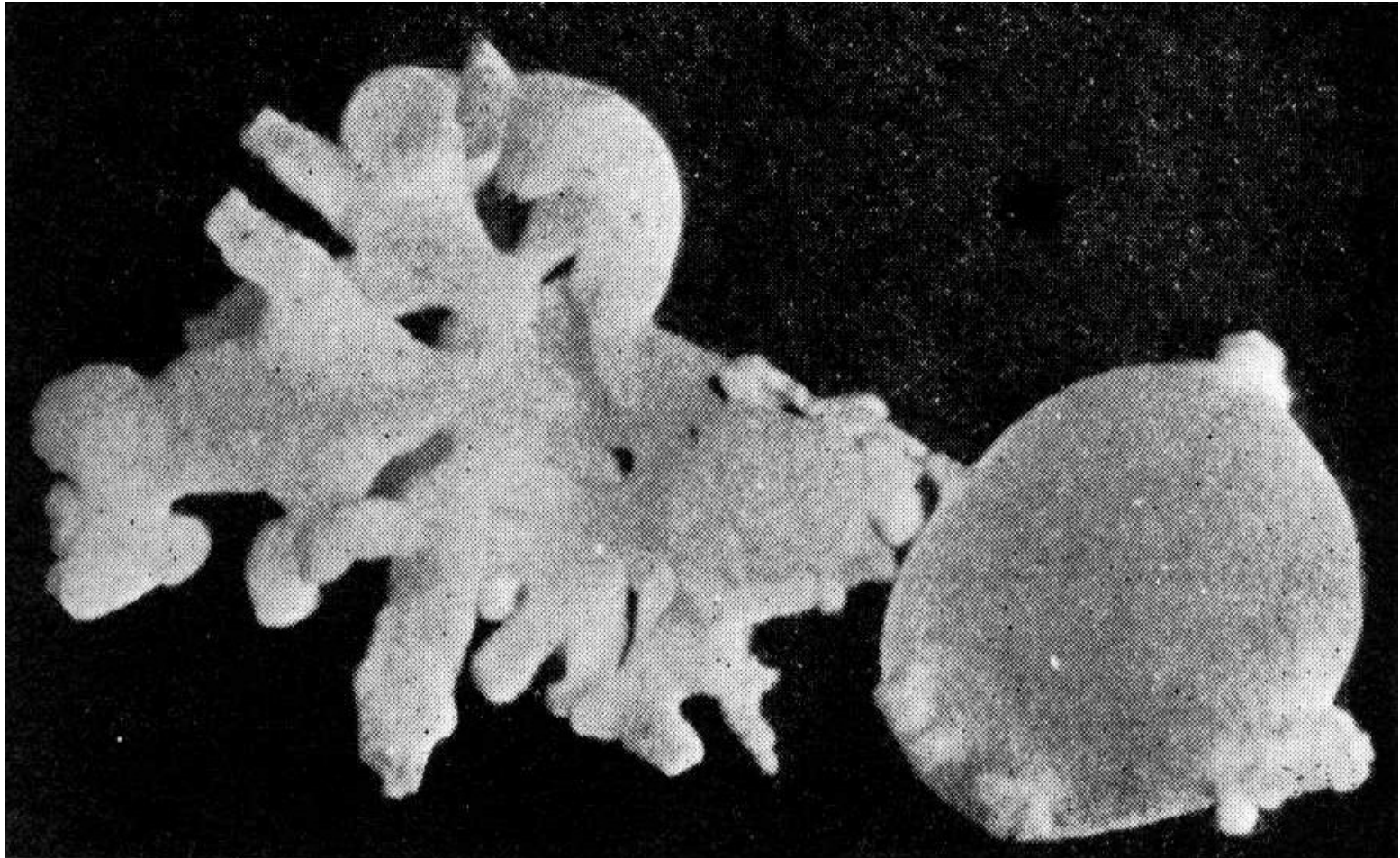




# Typy metacestodů - cysticercus



# Alveolární cystické stadium



# Coenurus – cystické stadium



# Typy vývojových cyklů

- **Jednohostitelský** – monoxenní – *Archigetes sieboldi*
- **Dvojhostitelské** - dixenní – *Taenia saginata*
- **Trojhostitelské** – trixenní – *Hymenolepis nana*
- **Čtyřhostitelské** – tetraxenní – *Diphyllobothrium latum*

Děkuji za pozornost