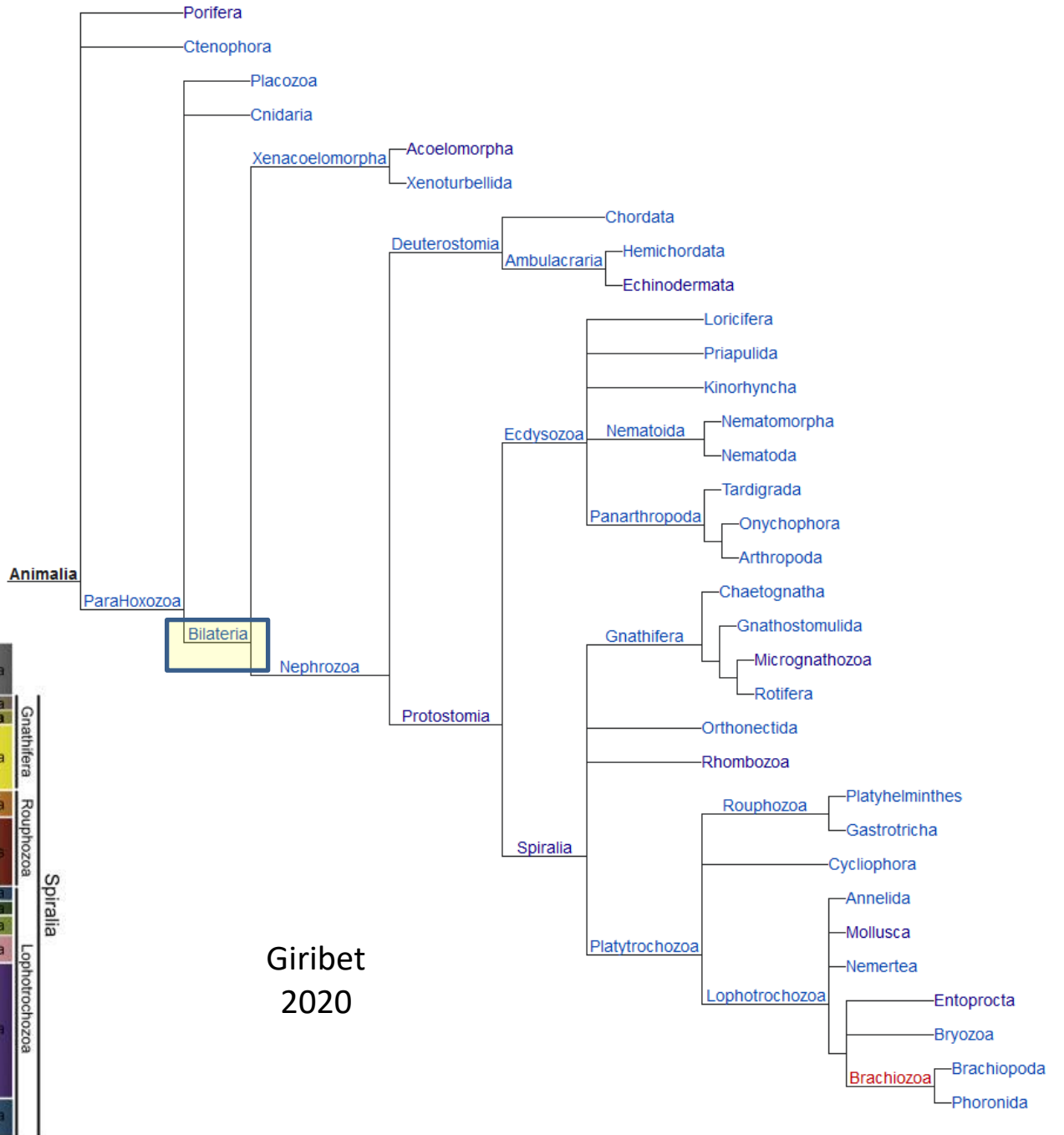
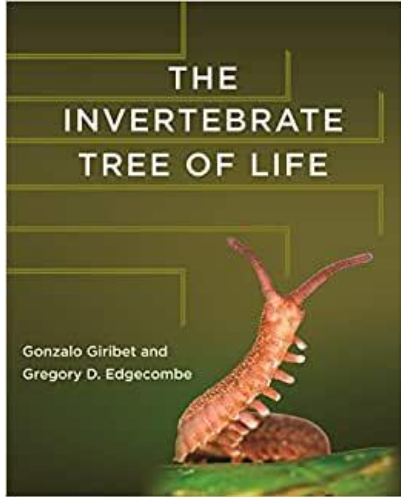




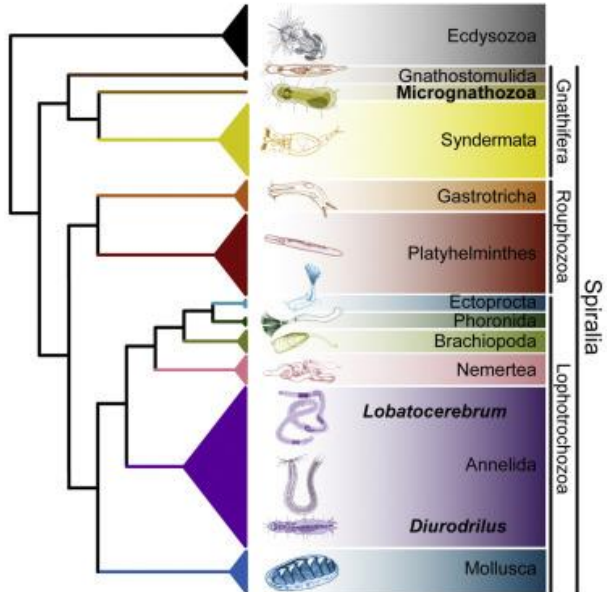
**CURSO  
BIOLOGÍA ANIMAL**

**LICENCIATURA EN  
GESTIÓN AMBIENTAL/  
CICLOS INICIALES OPTATIVOS**

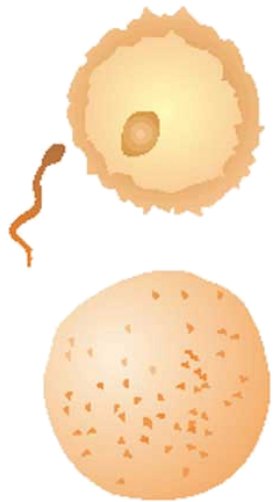
**2023**



Giribet  
2020

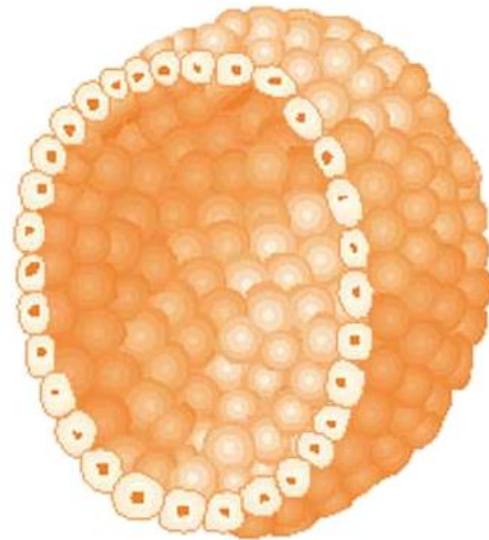


# Triblásticos o Triploblásticos



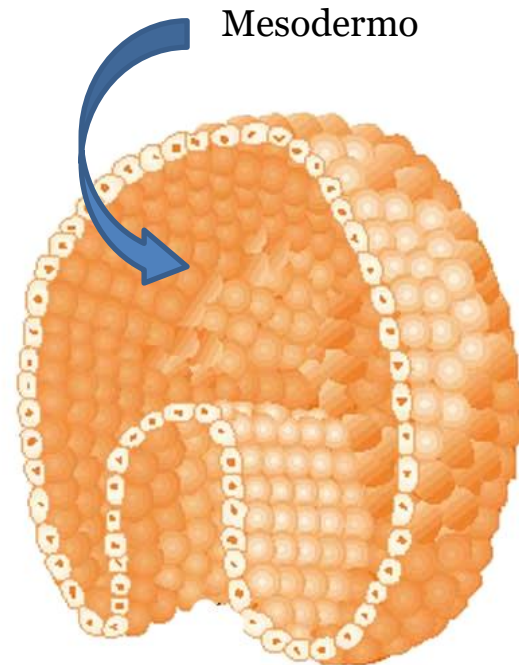
Fecundación

>

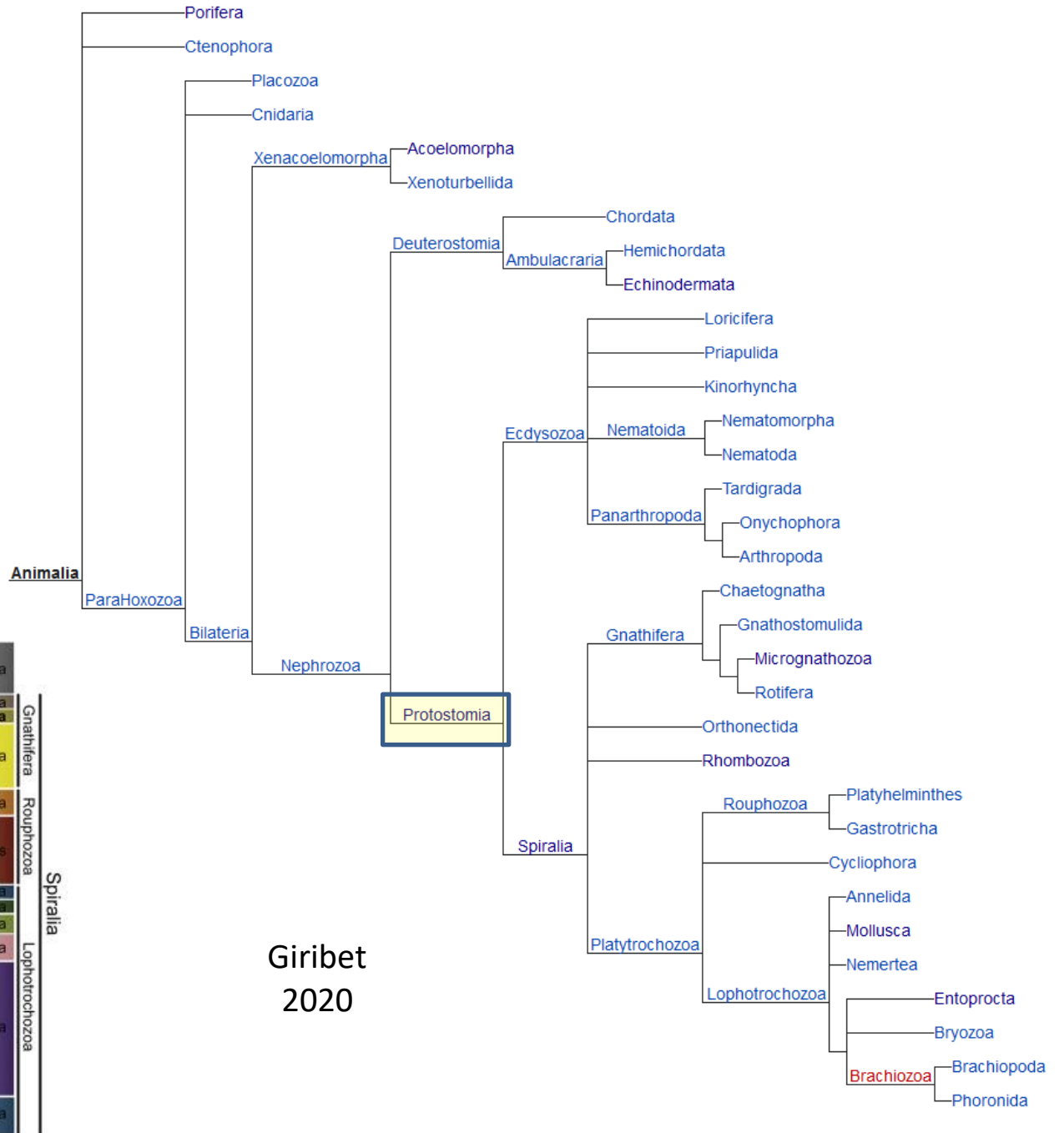
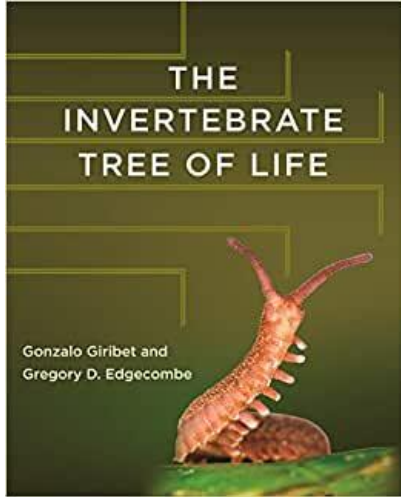


Blástula

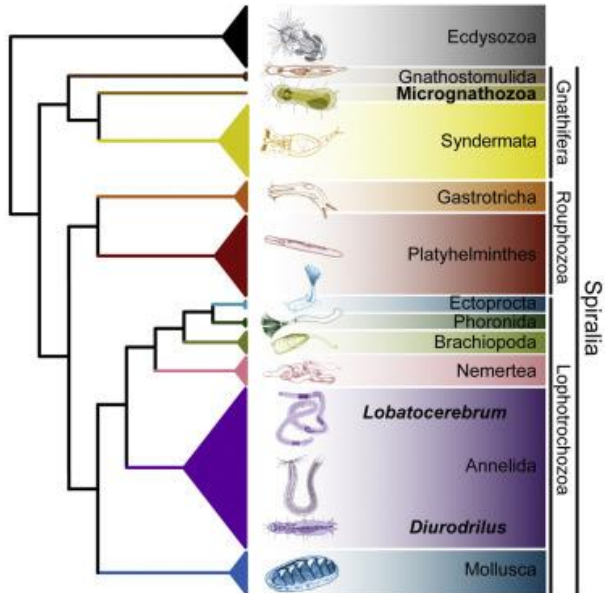
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Gástrula



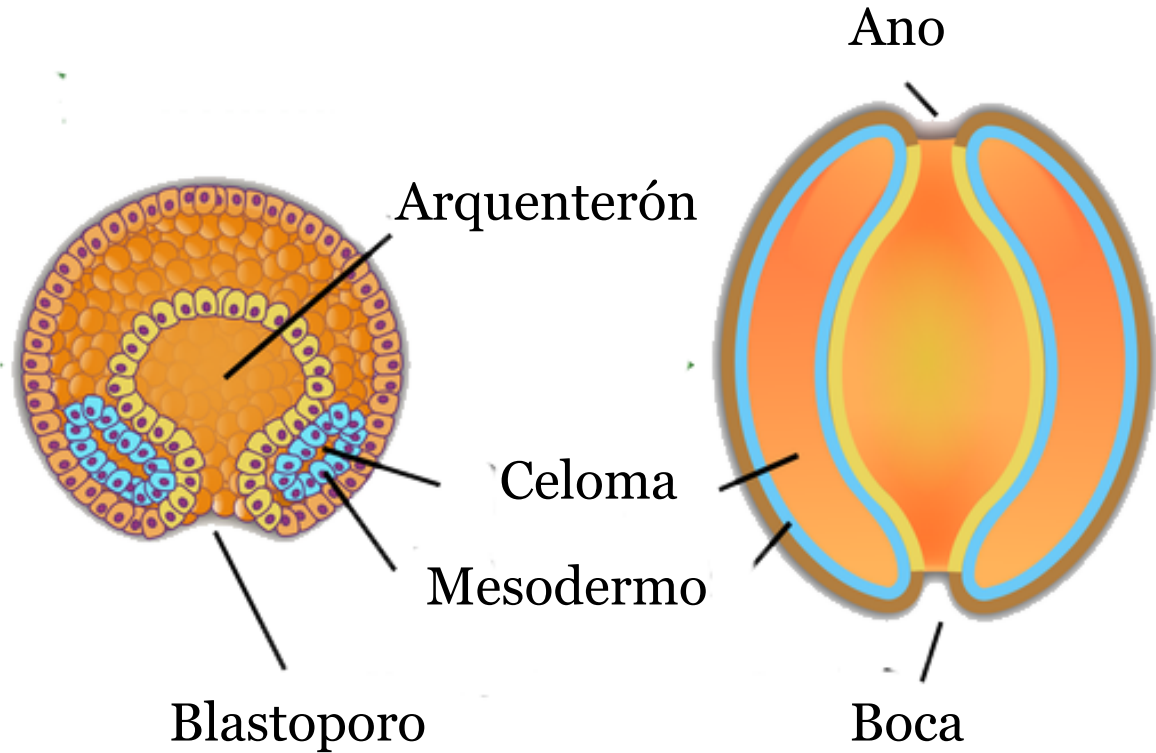
Giribet  
2020

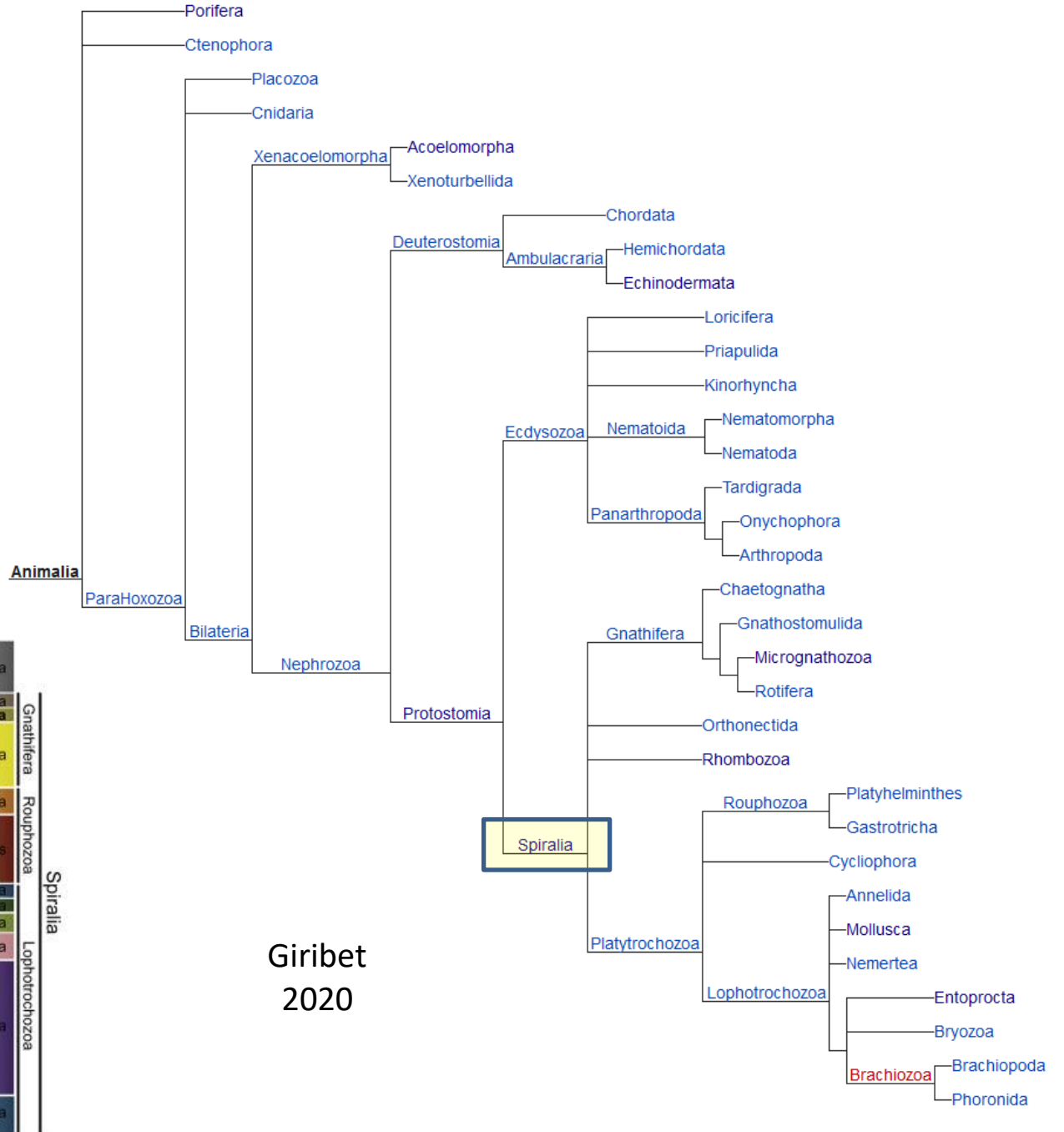
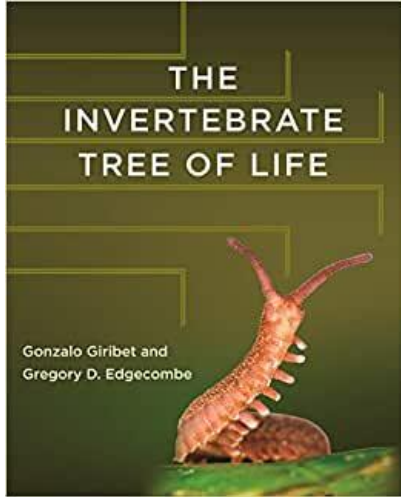


# Protostomados

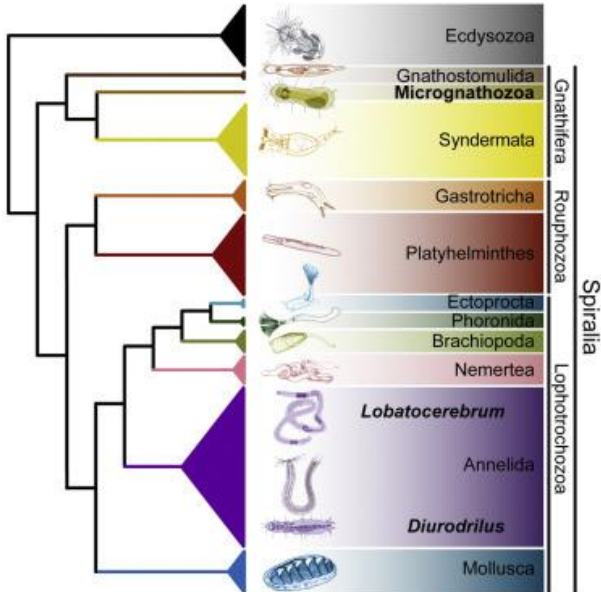


Segmentación **Espiral**



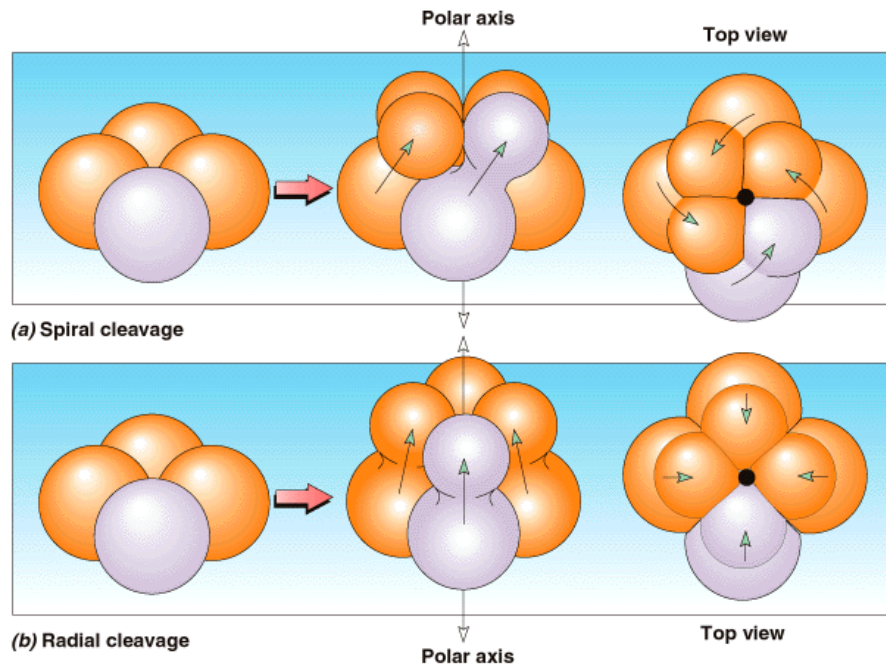


Giribet  
2020



# Spiralia

- Superfilo de animales morfológicamente diverso que presenta segmentación espiral



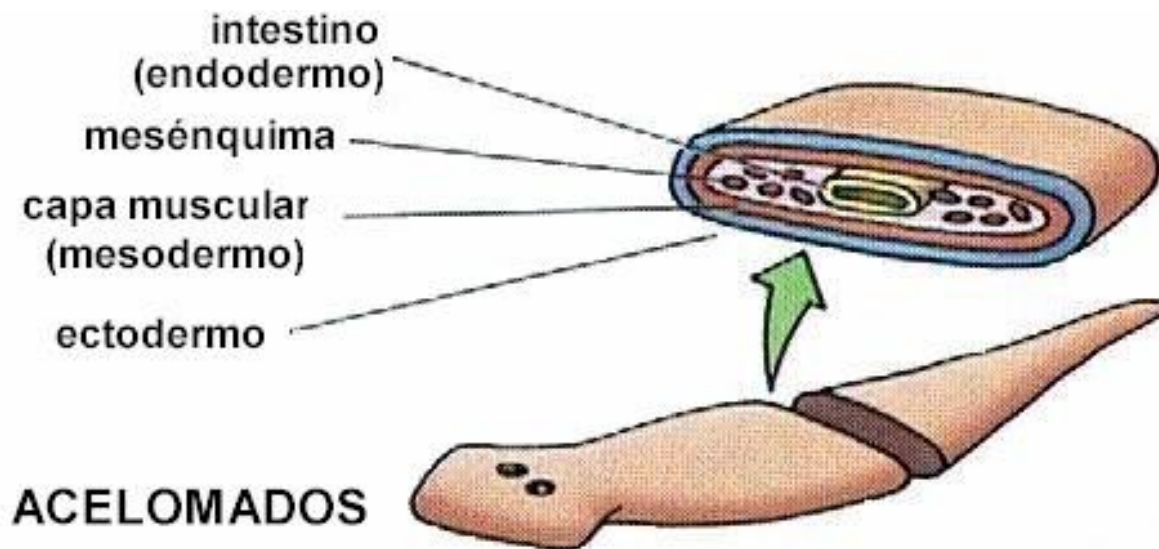
Saunders College Publishing

# Generalidades de Platyhelminthes

- Metazoos **triblásticos** (ecto, meso y endodermo), **protostomados**
- **Acelomados** (sin cavidad general del cuerpo, parénquima fibroso)
- **Simetría bilateral** (aplanados dorsoventralmente)
- Cefalización
- Sistema nervioso formando plexos (ganglio anterior, cordones longitudinales)
- Sistema digestivo **incompleto** (sin ano)
- Sistema excretor: **protonefridios** (células flamígeras)
- **Sin** sistema circulatorio y respiratorio
- **Hermafroditas** (con sistema reproductor complejo)
- De vida libre o **parásitos**

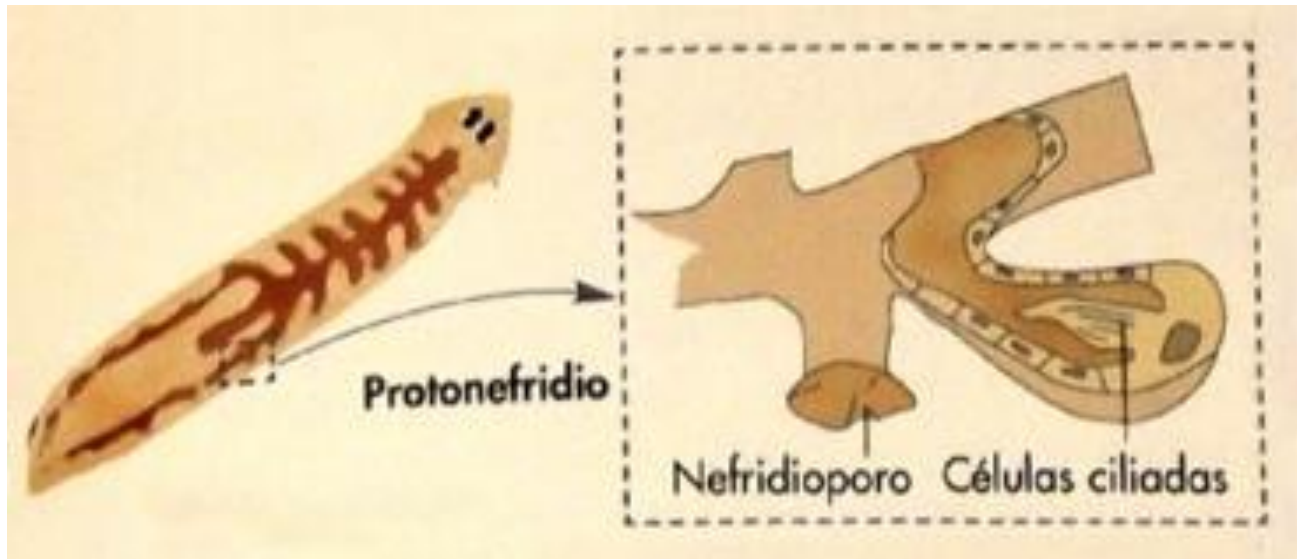
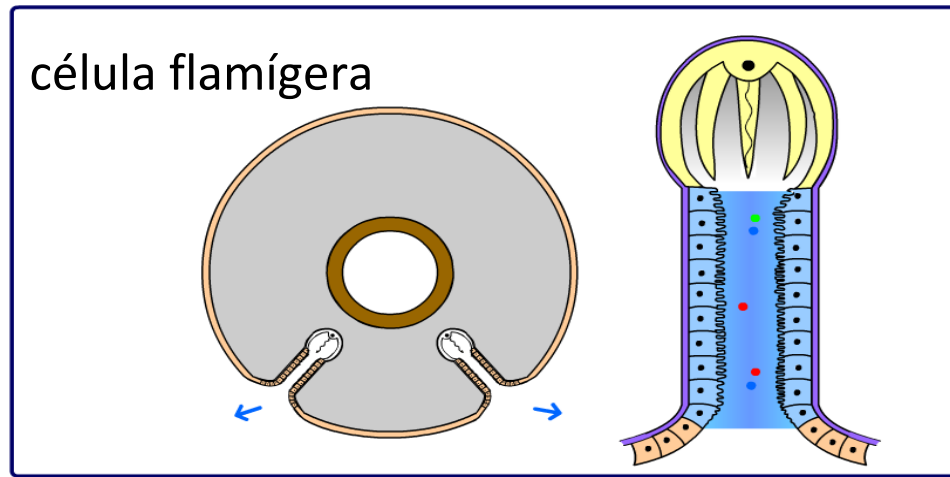






Platyhelminthes y Nemertea

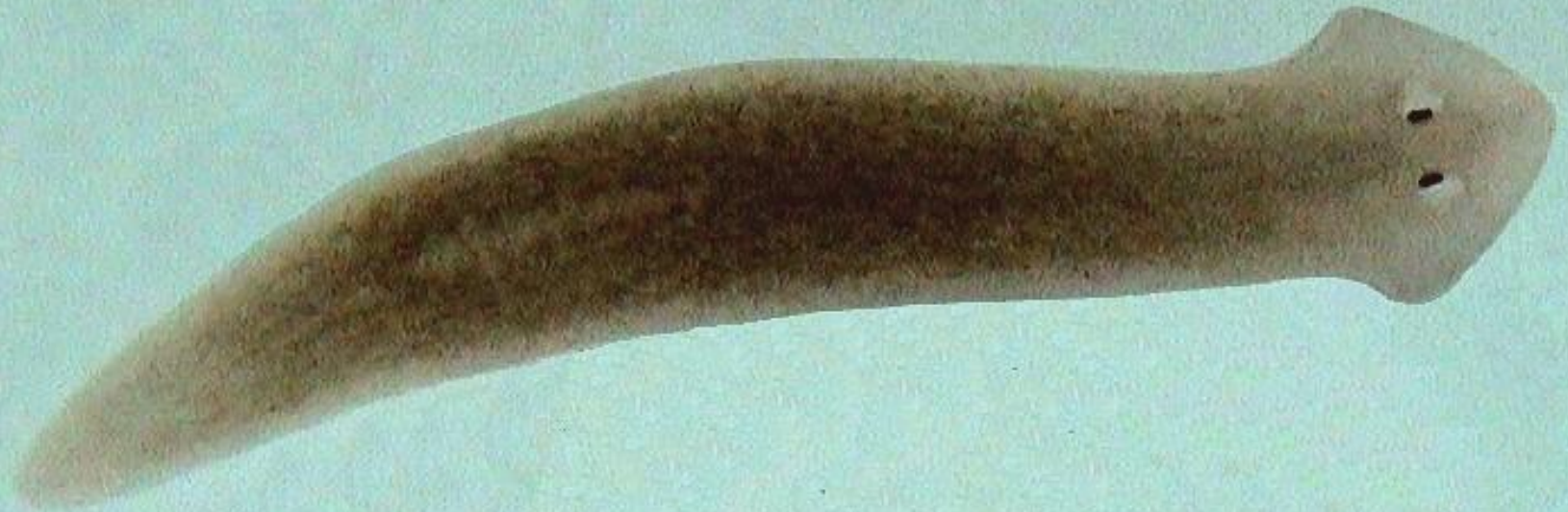
# Protonefridio



# Forma y Función



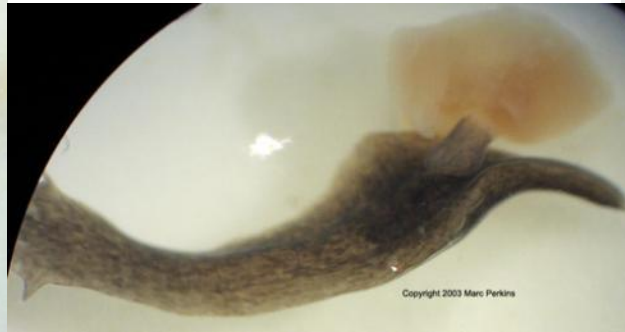
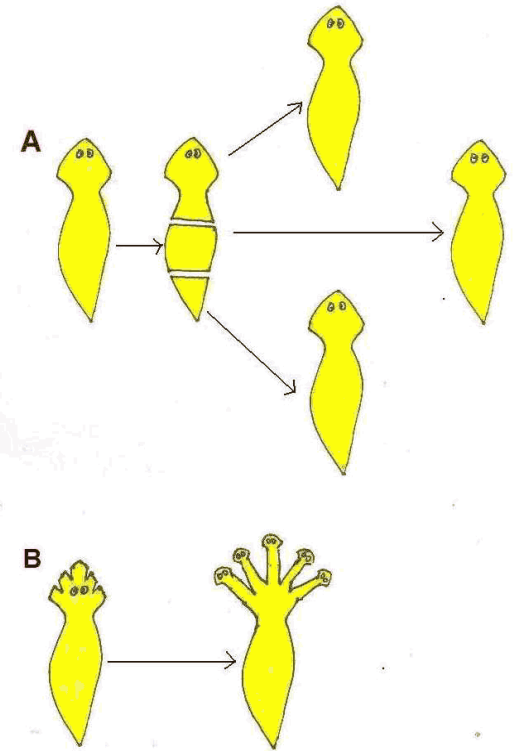
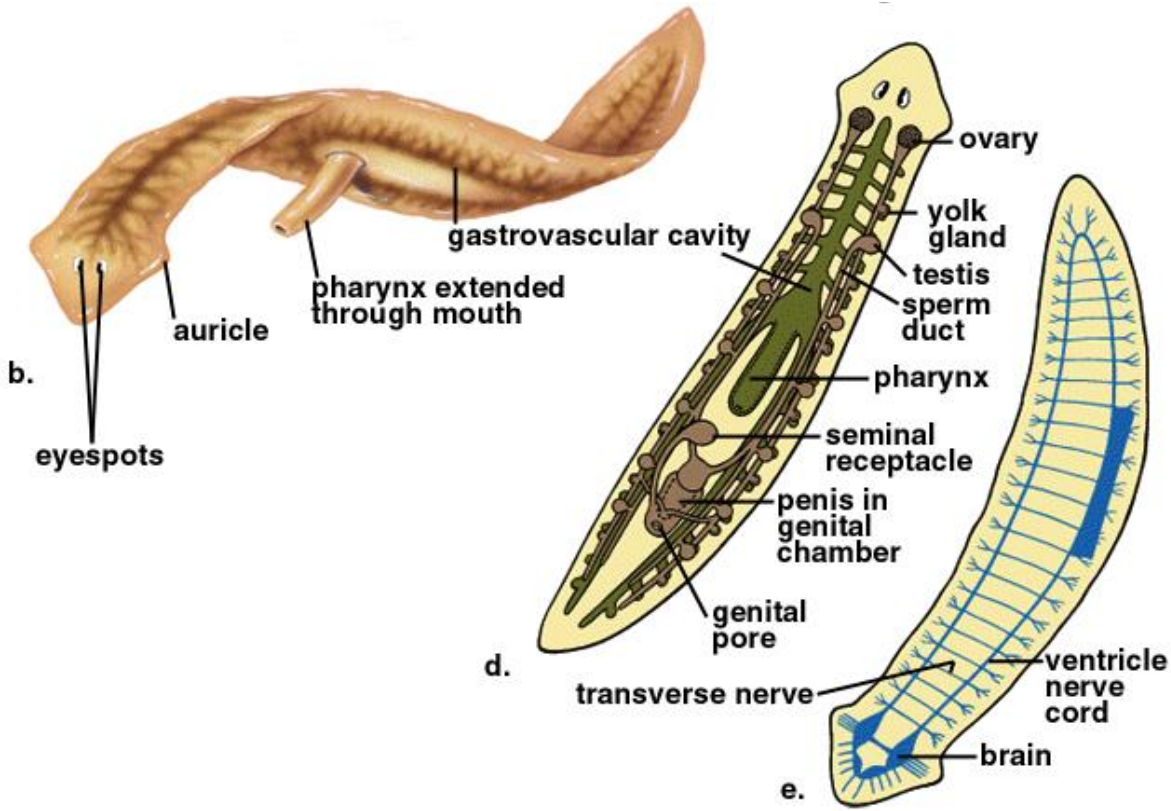
**Turbelarios: agua dulce**



***Girardia sp.***

# Phylum Platyhelminthes: TRICLADIDA (planarias)

<http://www.youtube.com/watch?v=MFpotuZ-j2M>



**Turbellarios: Terrestres**



*Spondylus sp.*

**Turbelarios: Marinos**



*Prostheceraeus roseus*

# Turbelarios: Marinos



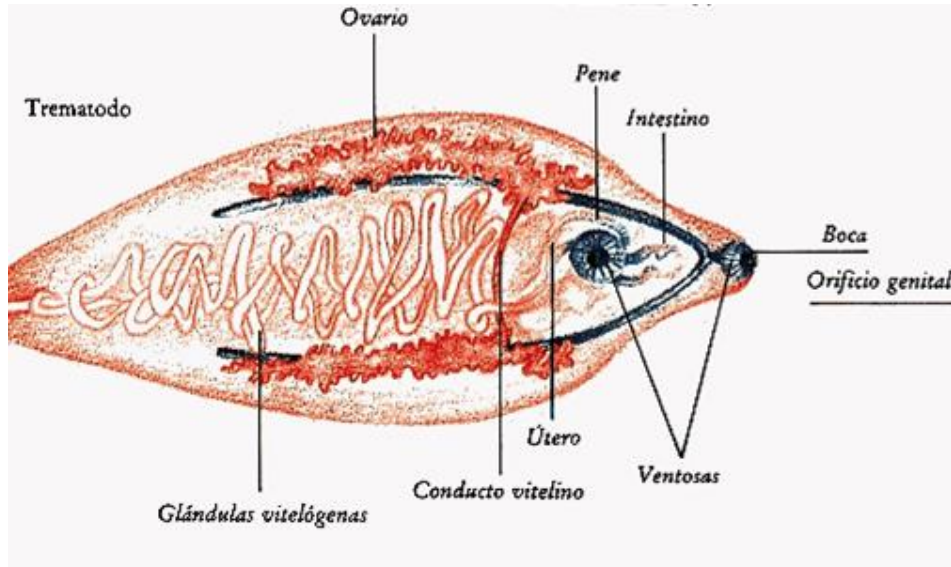


# Phylum Platyhelminthes

## **DIGENEA** (*saguaypé* o fasciola hepática)

### Características

- ✓ Tamaño generalmente pequeño, cuerpo no segmentado
- ✓ Órgano de fijación: ventosa oral y ventral (acetábulo)
- ✓ Ciclo biológico **indirecto**, con hospedador intermediario y por lo menos dos estados infectivos (**dos generaciones**)
- ✓ Algunos provocan grandes pérdidas económicas para la ganadería



**Trematoda: Digenea**



# Trematoda: Digenea



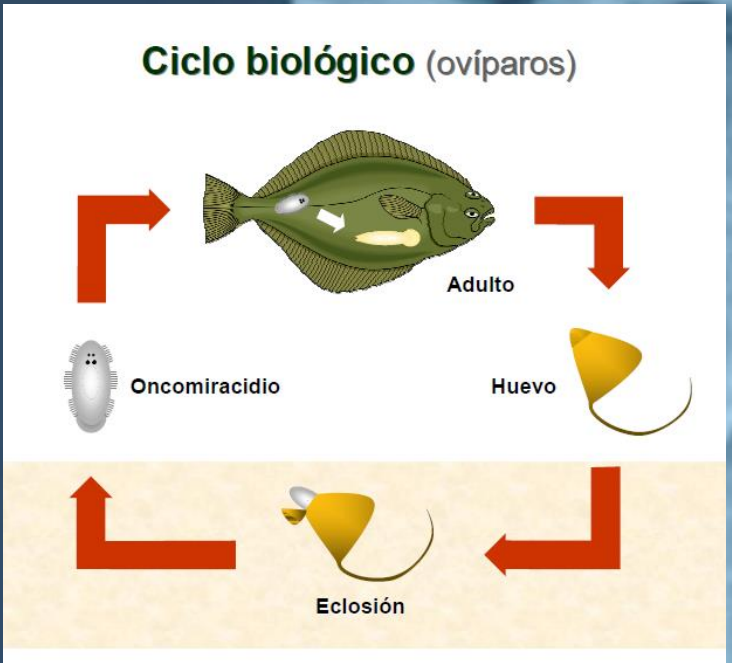
*Fasciola hepatica*

# Phylum Platyhelminthes

## MONOGENEA (ectoparásitos de vertebrados acuáticos)

### Características

- ✓ Órgano de fijación posterior: “**opisthaptor**” (con ganchos y ventosas)
- ✓ Ciclo biológico **directo**, **sin** hospedador intermediario, huevo produce larva ciliada (**oncomiracidio**) que da lugar al adulto (**una generación**)
- ✓ Provocan grandes pérdidas económicas para la acuicultura de peces



- Hamuli o anclas (1-2)
- Ganchos marginales (14-16)
- Otras estructuras esclerotizadas
  - Barras transversales
  - Superficies antideslizantes
  - Espinas

**Trematoda: Monogenea**



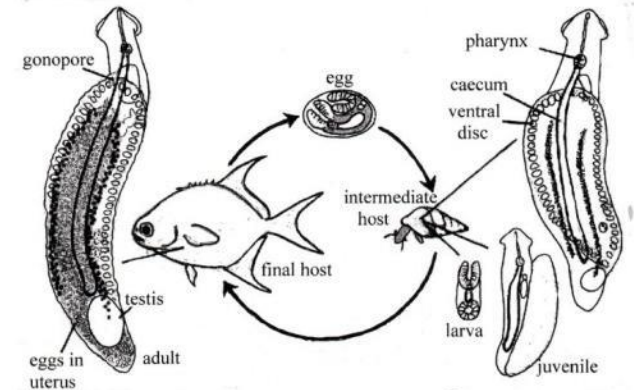
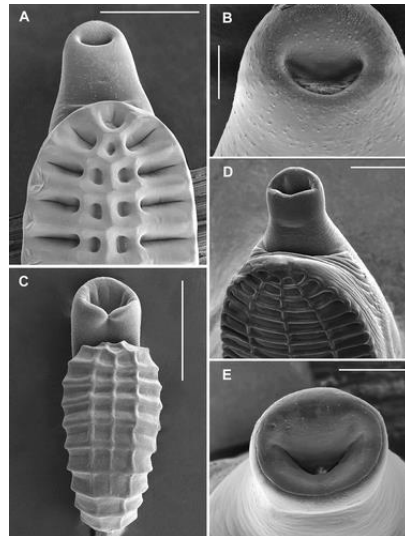
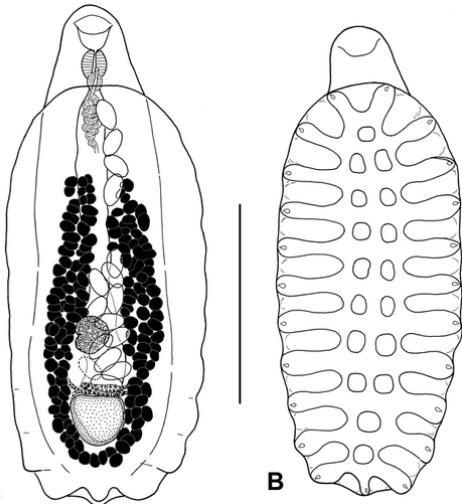
*Acanthoparyphium* sp.

# Phylum Platyhelminthes

## **ASPIDOGASTREA** (endoparásitos de reptiles, peces y moluscos)

### Características

- ✓ Estrechamente emparentados con los Digenea
- ✓ **Órgano adhesivo ventral**: ventosa sencilla septada o fila longitudinal de ventosas
- ✓ Tubo digestivo con ciego intestinal sencillo y aparato reproductor con **un solo testículo**
- ✓ Ciclo biológico **indirecto o directo**, dependiendo de la especie
- ✓ **No hay especies parásitas de seres humanos** y no genera pérdidas económicas, pero de gran interés para la zoología por sus características “primitivas”.



# STODA (tenia)

## Características

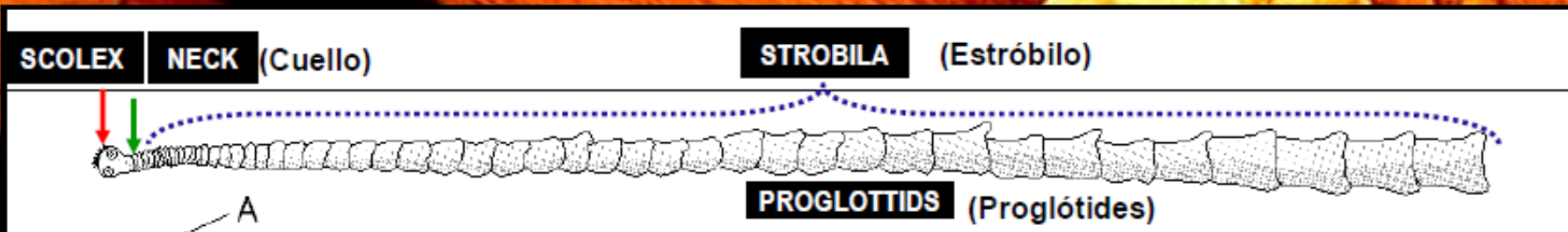
- ✓ Alimentación a través del tegumento
- ✓ Cuerpo formado por: **escolex** (cabeza) y **estrobila** (cuerpo) con proglótidos
- ✓ Sistema reproductivo en región intermedia, puede ser auto fecundación, pero lo más común es que sea cruzada
- ✓ Huevos eclosionan del proglótido liberado al medio ambiente dando lugar a **larva**

## Ósfera

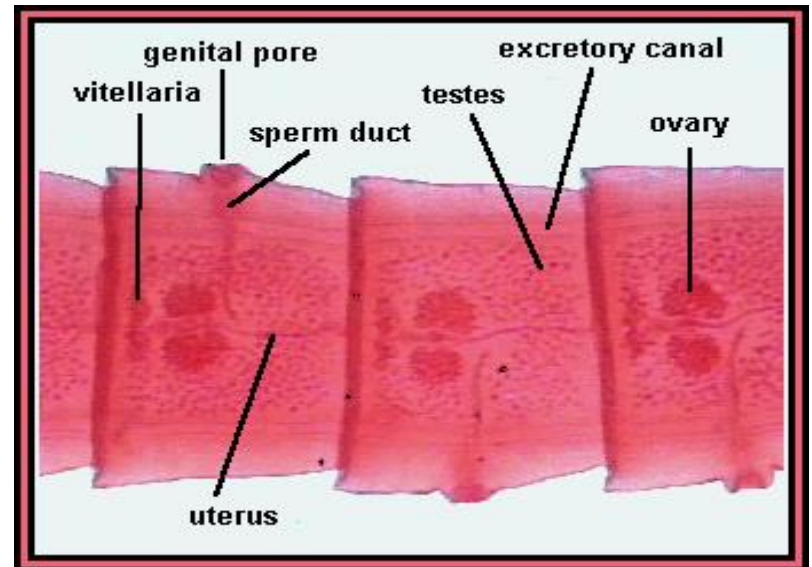
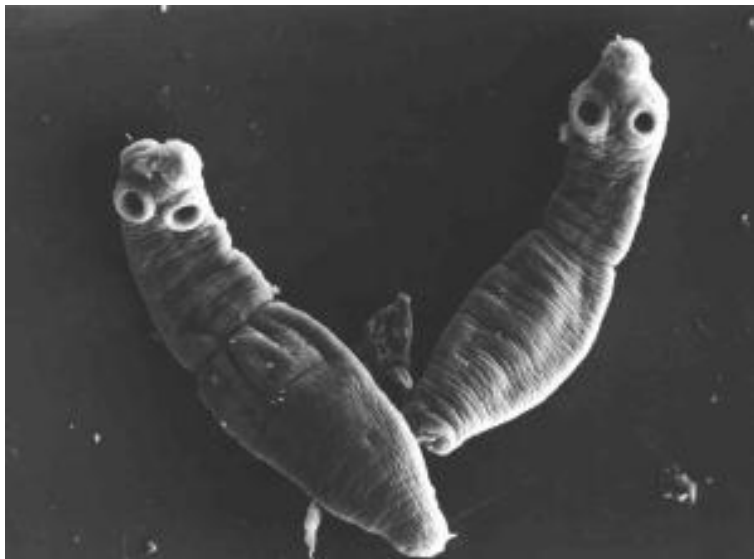
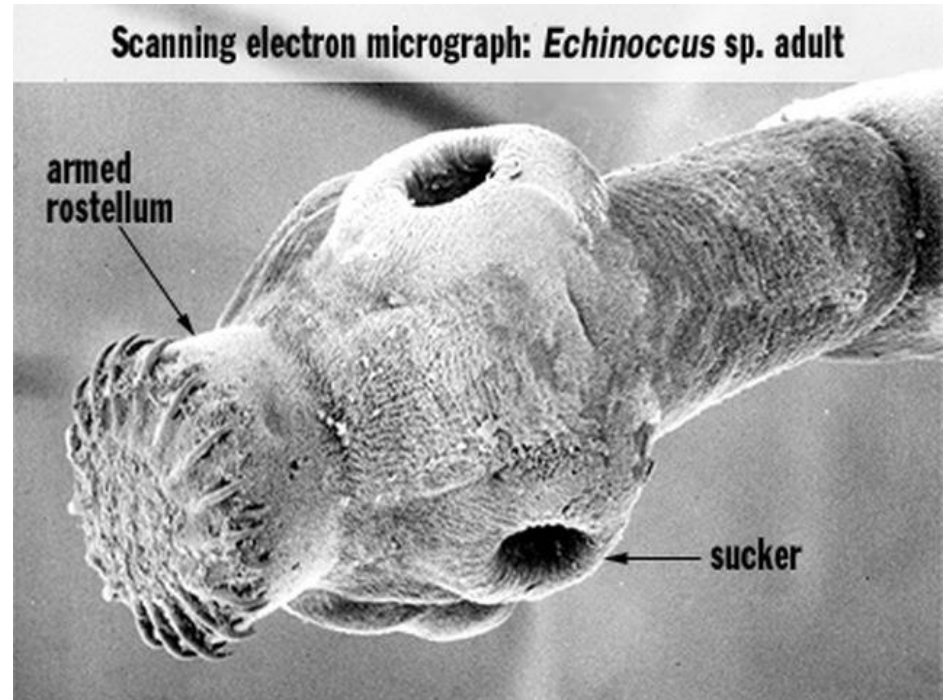
Se mueve dentro del intestino

de importancia sanitaria para el hombre: *Taenia saginata* ("solitaria")

y *Taenia granulosus* ("tenia equinococcus", quiste hidático)

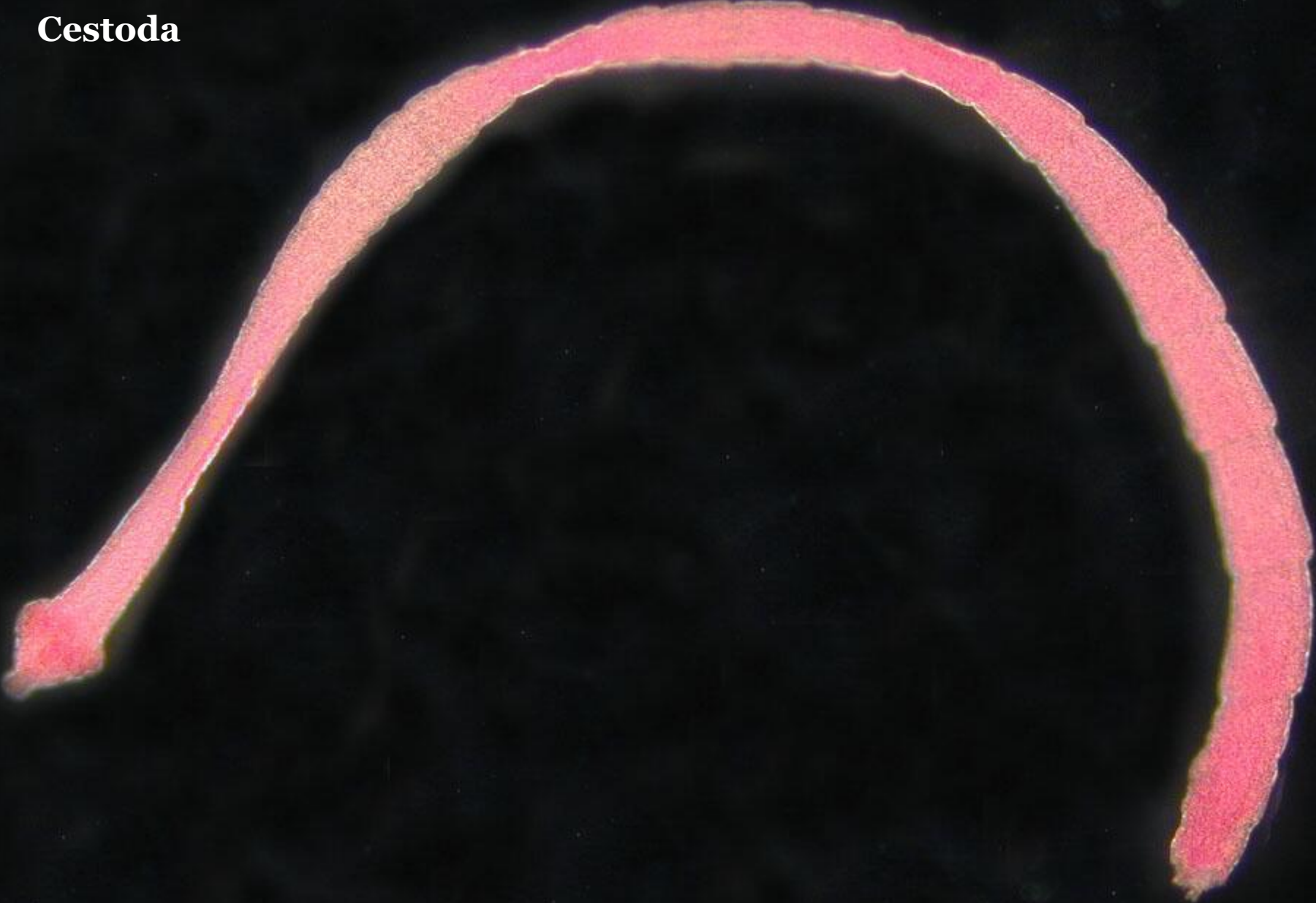


# Phylum Platyhelminthes **CESTODA** – Tenias

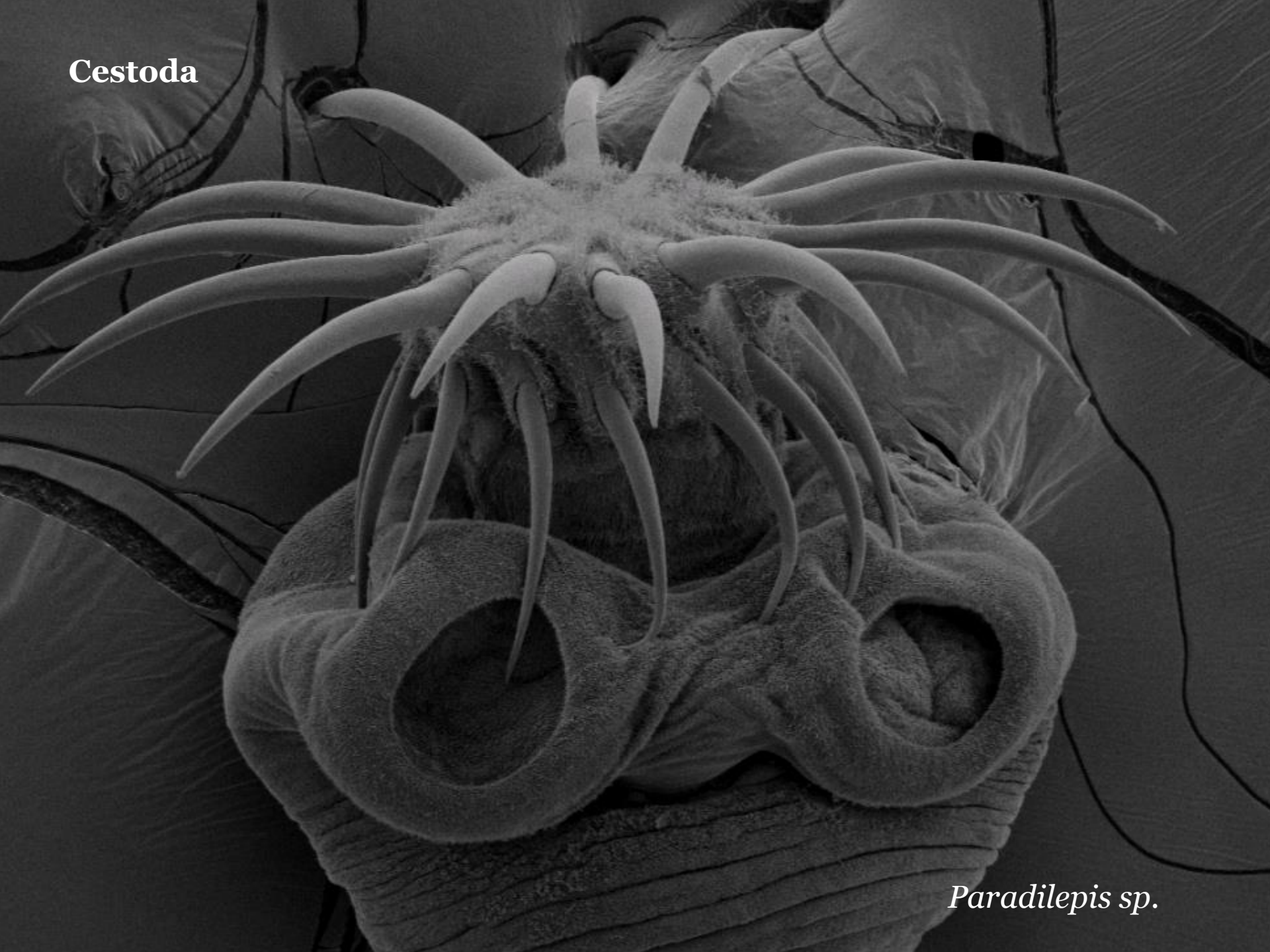




**Cestoda**

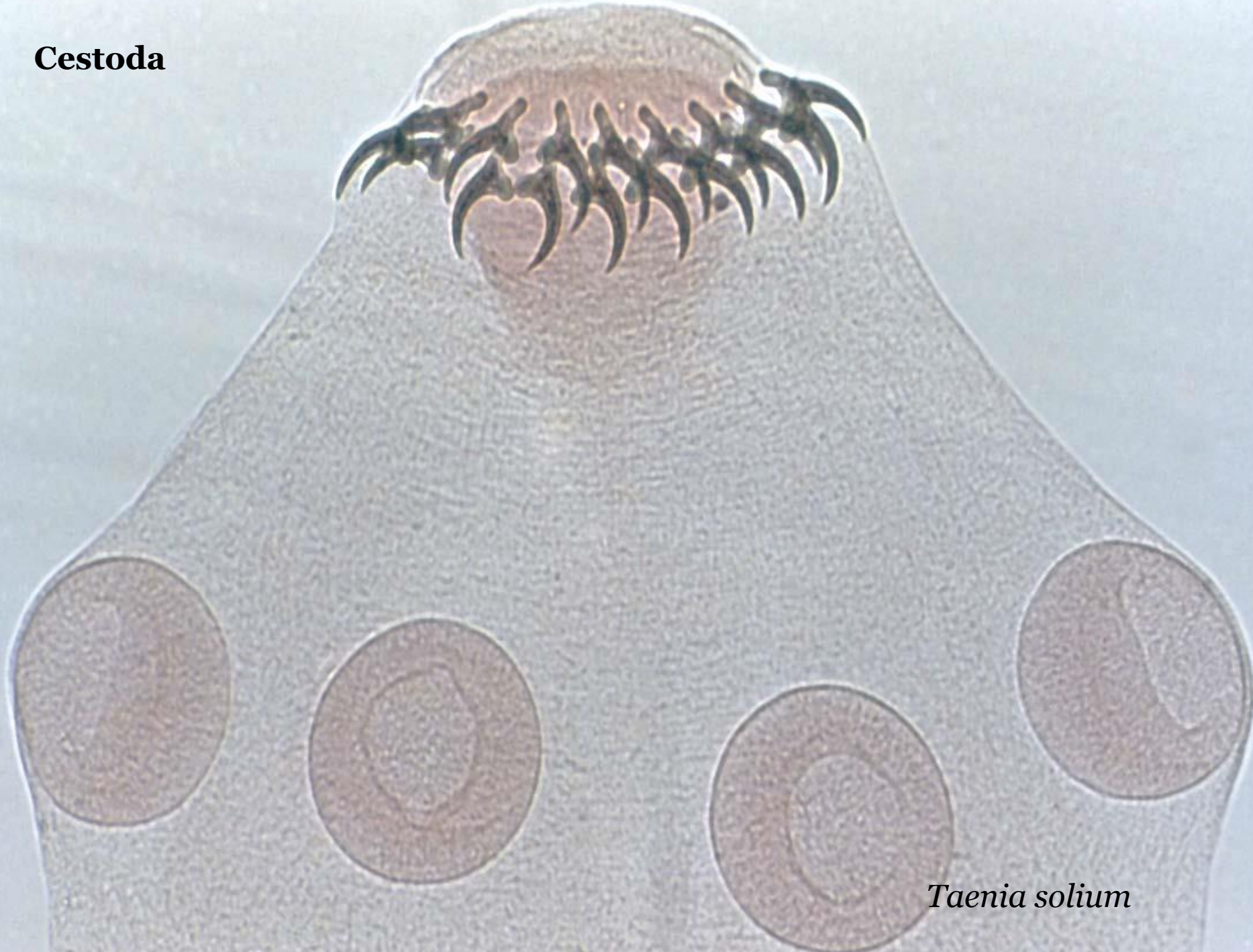


Cestoda



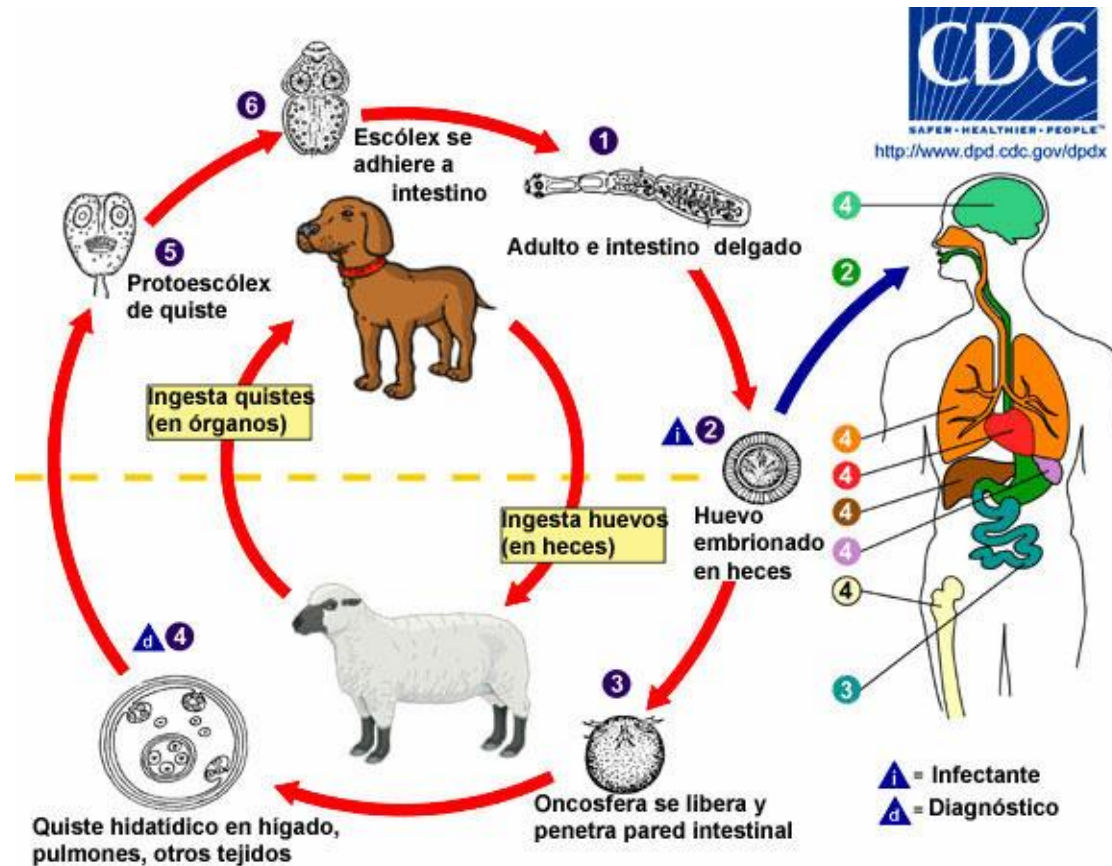
*Paradilepis* sp.

**Cestoda**

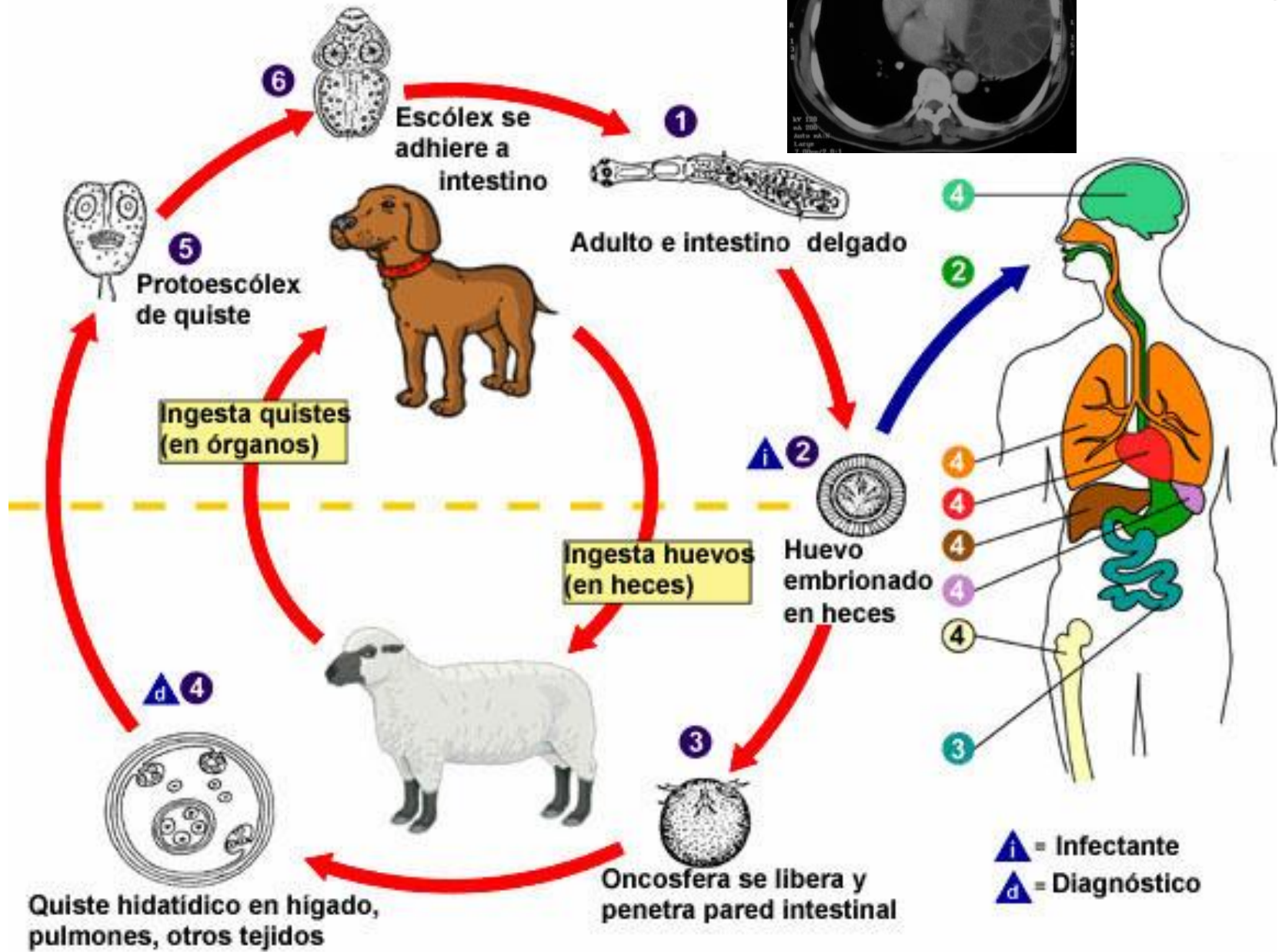
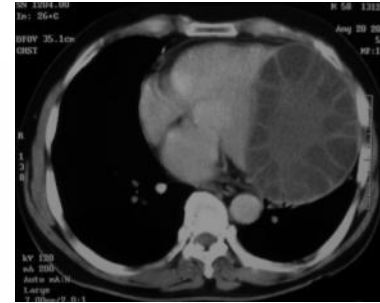


*Taenia solium*

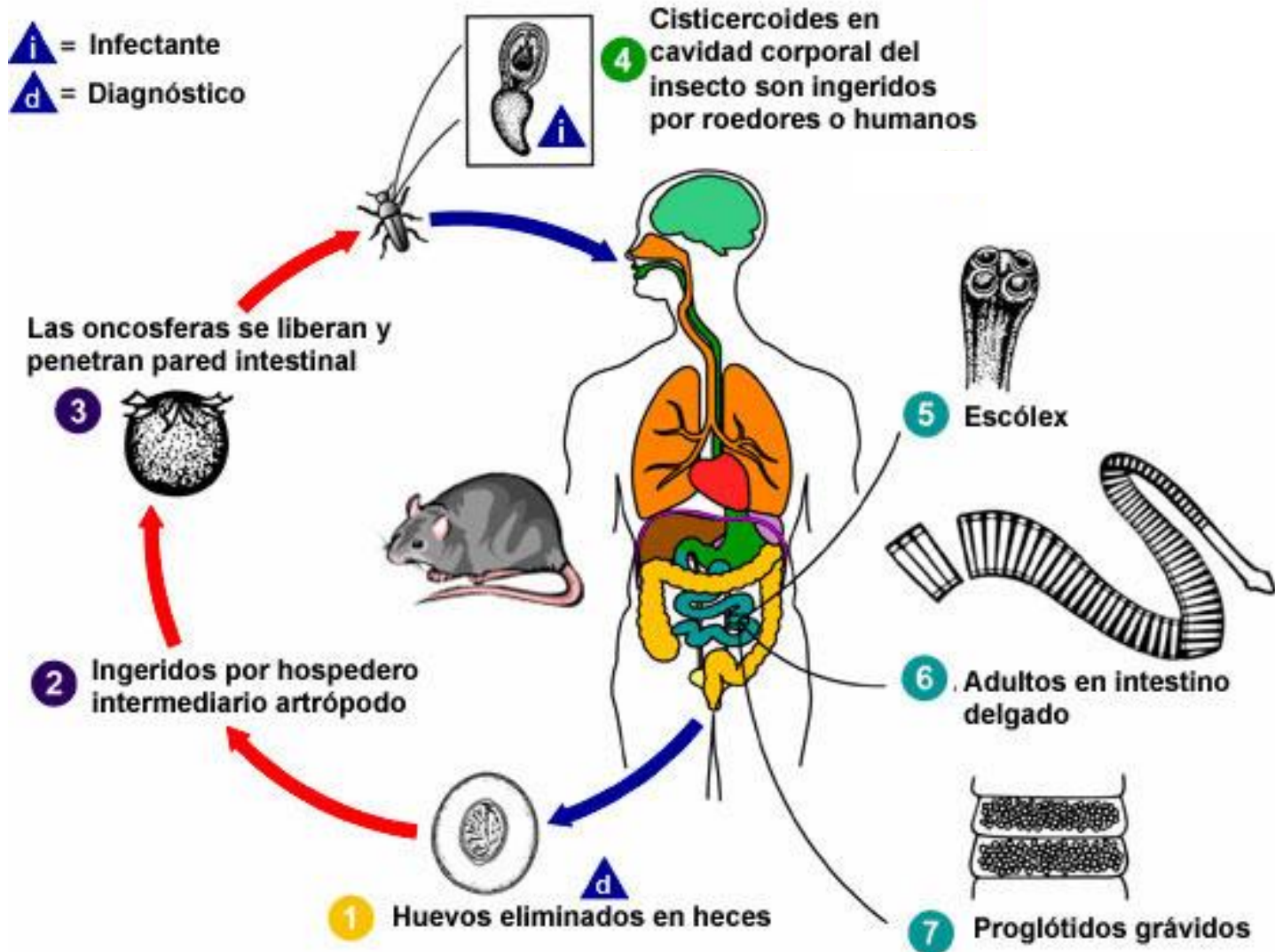
# Importancia Ecológica y Socioeconómica



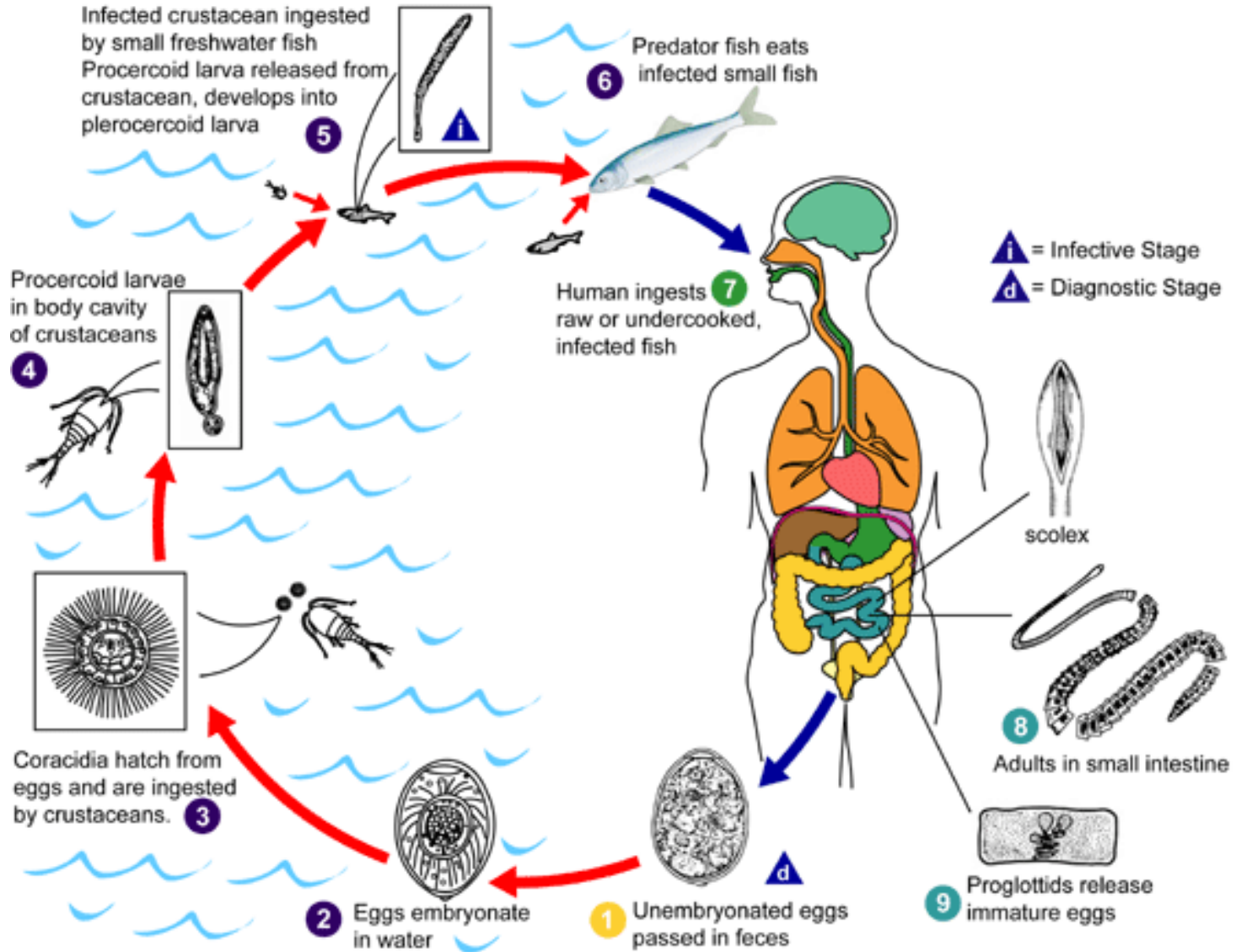
# Hidatidosis ó quiste hidatico



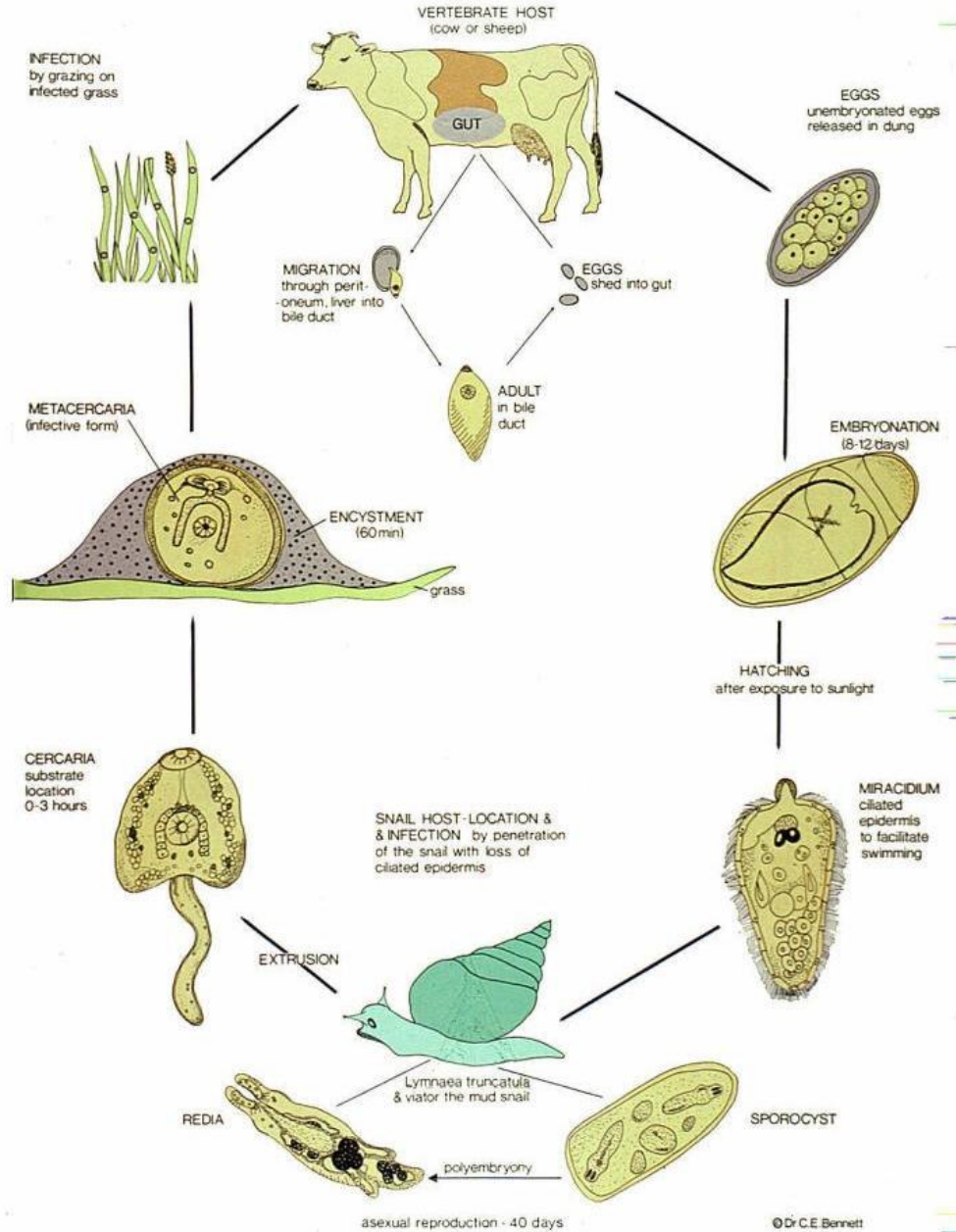
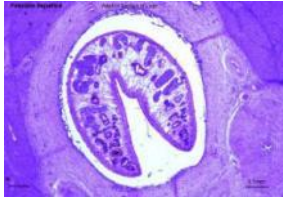
# Hymenolepiasis o Hymenolepiosis



# Diphyllobothrium pacificum



# Phylum Platyhelminthes: DIGenea (*saguaypé*)





# Phylum Platyelminthes: turbelarios en Uruguay

Tricladida:  
Planarias  
"Dugesia"

En Sudamérica:  
*Girardia*



# Phylum Platyelminthes: turbelarios en Uruguay

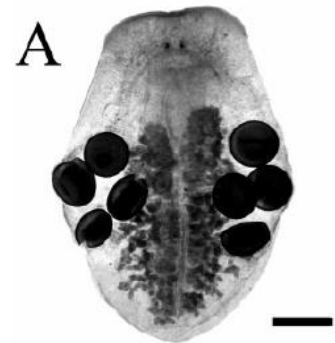
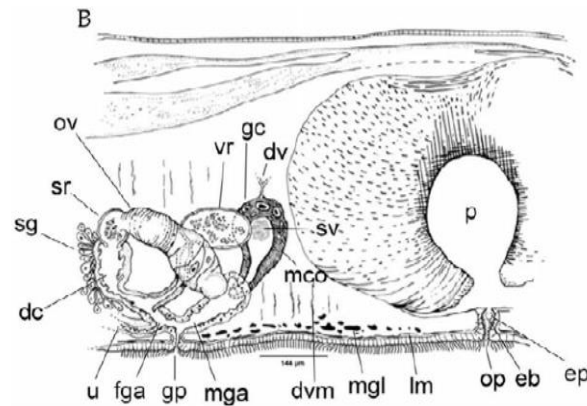
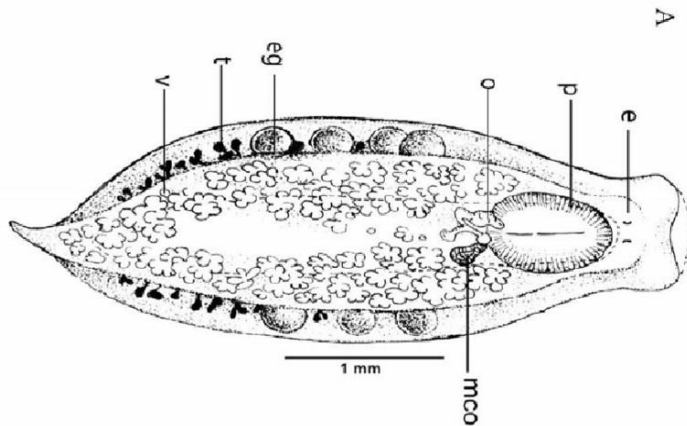
CSIRO PUBLISHING

www.publish.csiro.au/journals/is

*Invertebrate Systematics*, 2005, 19, 577–584

## *Mesophaenocora polyova*, gen. nov., sp. nov. from Uruguay and establishment of the new subfamily Mesophaenocorinae (Platyhelminthes: Rhabdocoela: Typhloplanidae)

Carolina Noreña<sup>A</sup>, Francisco Brusa<sup>B,D</sup>, Rodrigo Ponce de León<sup>C</sup> and Cristina Damborenea<sup>B</sup>



## Phylum Platyelminthes: turbelarios en Uruguay



Otros turbelarios macro: *Mesostoma*, *Bothromesostoma*

# Phylum Platyelminthes: turbelarios en Uruguay

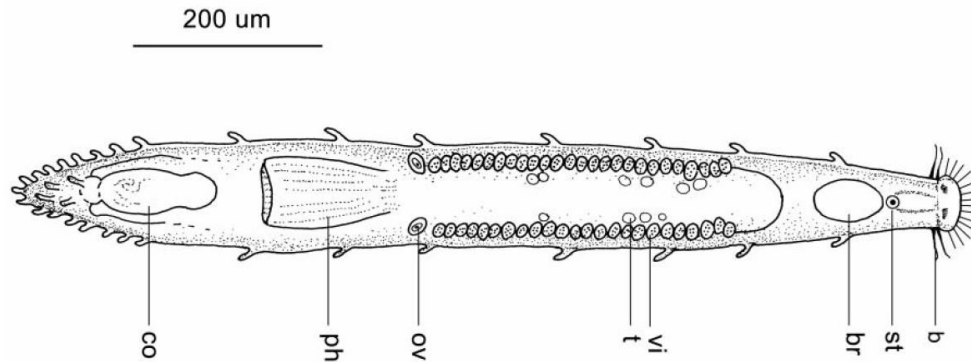
## Turbelarios meiobentónicos: lóticos del río Uruguay

*Journal of Natural History*, 2005; 39(18): 1457–1468



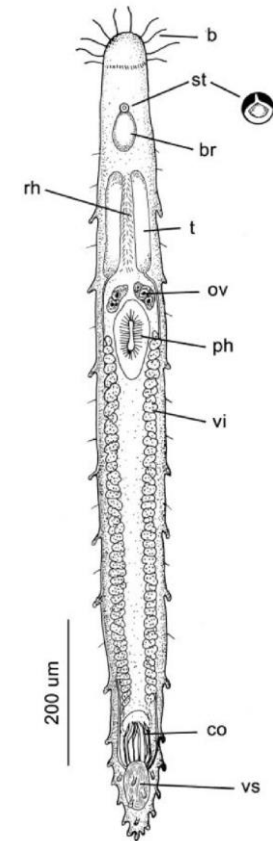
### New freshwater interstitial Otoplanidae (Platyhelminthes: Proseriata) from the Paraná and Uruguay rivers, South America

CAROLINA NOREÑA<sup>1</sup>, CRISTINA DAMBORENEA<sup>2</sup>, & FRANCISCO BRUSA<sup>2</sup>



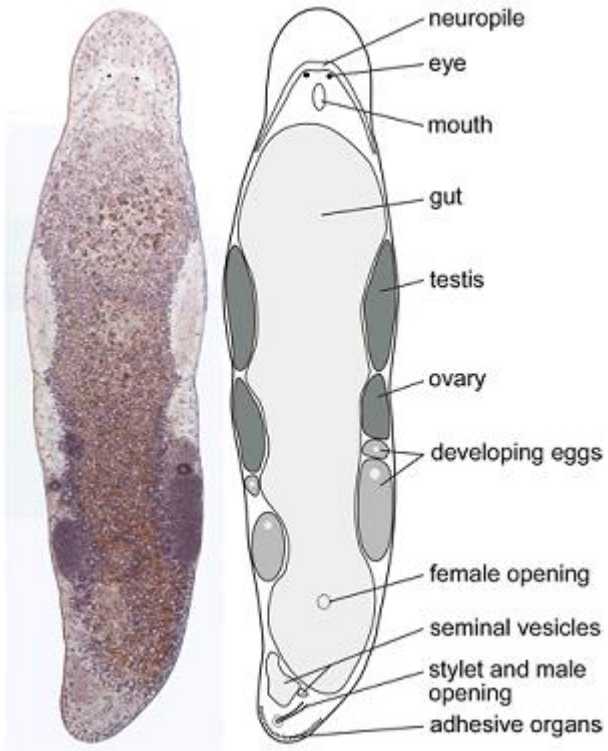
*Kata* sp.

## *Philosyrtis rauli*



# Phylum Platyelminthes: turbelarios en Uruguay

Turbelarios micro: lénticos RS



*Macrostomum*



*Stenostomum*

# Phylum Platyelminthes: turbelarios en Uruguay

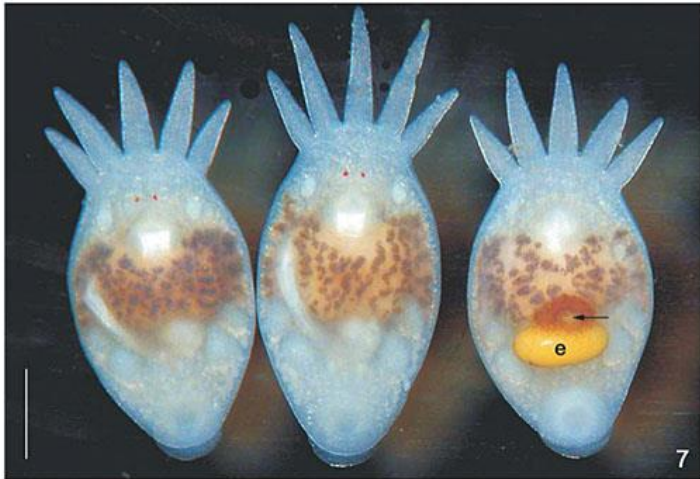
ZOOLOGICAL SCIENCE 27: 965–970 (2010)

© 2010 Zoological Society of Japan

## Two New Species of *Temnocephala* (Platyhelminthes, Temnocephalida) from the South American Snake-necked Turtle *Hydromedusa tectifera* (Testudines, Chelidae)

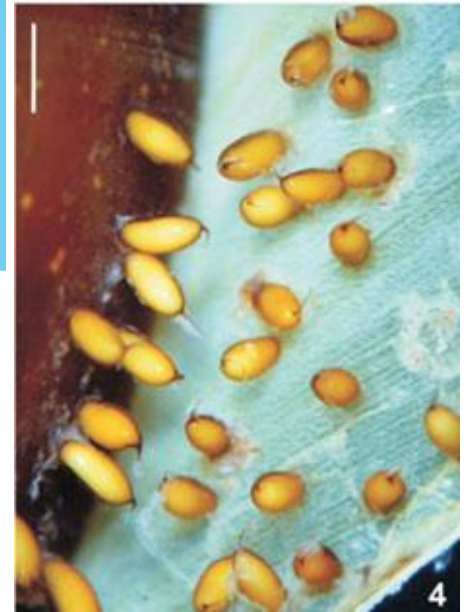
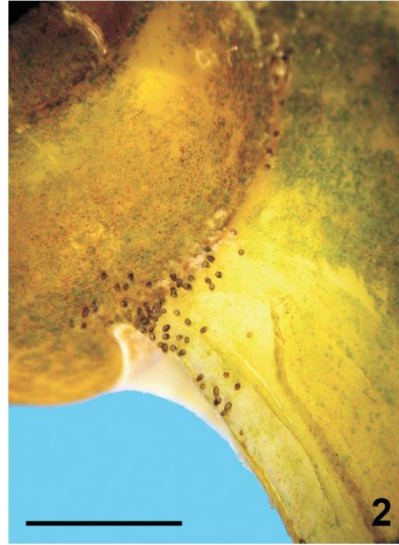
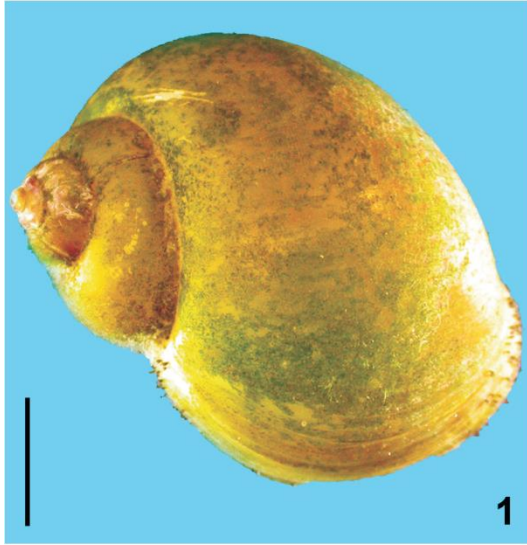
Odile Volonterio\*

*Sección Zoología de Invertebrados, Facultad de Ciencias,  
Iguá 4225, piso 8 Sur, Montevideo 11400, Uruguay*

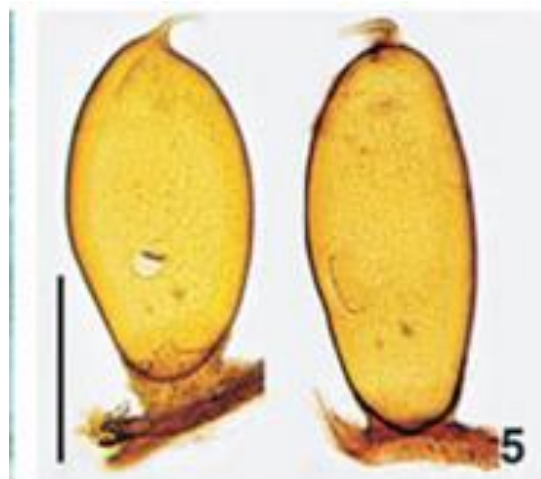


Figures 1-3. *Pomacea canaliculata*, showing areas of egg deposition; (4-7) *Temnocephala rochensis*: (4) eggs on the host shell; (5) eggs cleared and mounted in Canada balsam; (6) specimen fixed in formalin showing the red eye pigmentation; (7) adult specimen, pressed between slide and cover slip, stained in Delafield's hematoxylin. Scale bars: 1 = 10 mm, 2-3 = 5 mm, 4-7 = 500  $\mu$ m.

# Phylum Platyelminthes: turbelarios en Uruguay

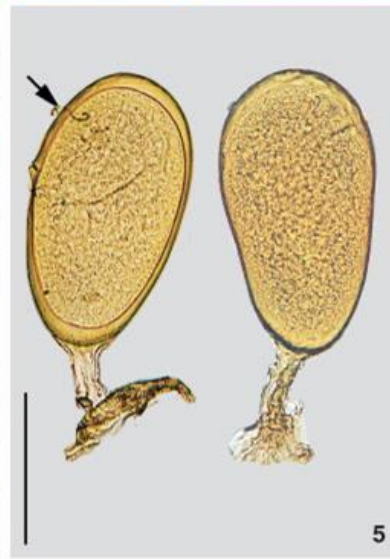


*Temnocephala*



# Phylum Platyelminthes: turbelarios en Uruguay

*Temnocephala*





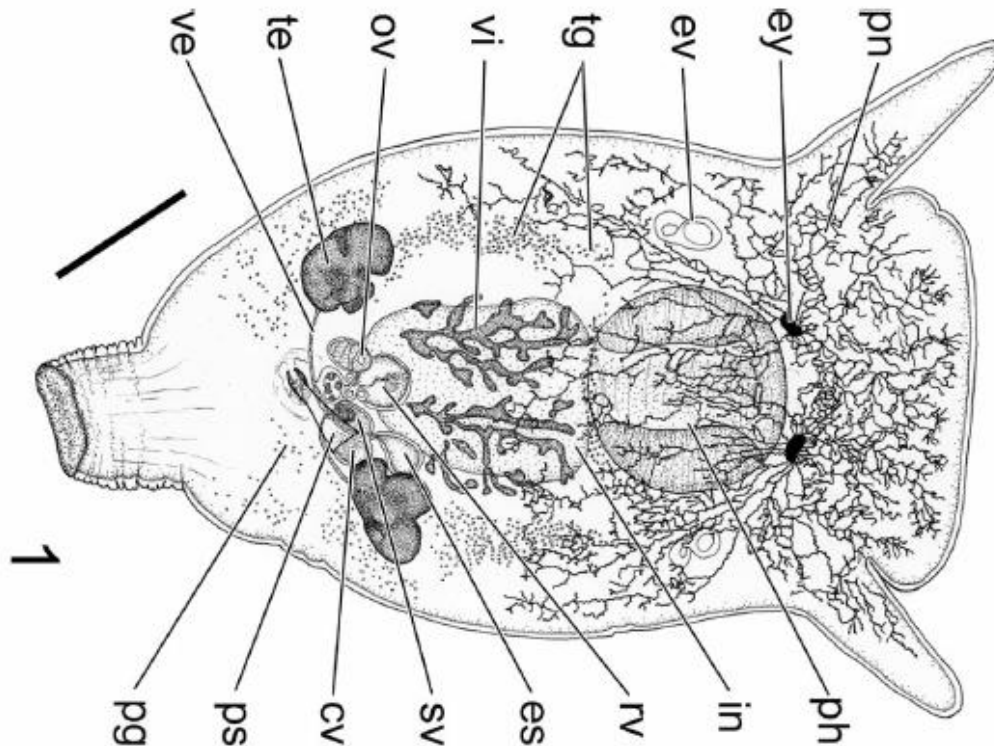
# Phylum Platyelminthes: turbelarios en Uruguay

*J. Parasitol.*, 95(1), 2009, pp. 120–123  
© American Society of Parasitologists 2009

## FIRST REPORT OF THE INTRODUCTION OF AN AUSTRALIAN TEMNOCEPHALIDAN INTO THE NEW WORLD

**Odile Volonterio**

Sección Zoología de Invertebrados, Facultad de Ciencias (Piso 8 Sur), Iguá 4225, Montevideo 11400, Uruguay. *e-mail: odile@fcien.edu.uy*



*Diceratocephala*

# Phylum Platyelminthes: turbelarios en Uruguay

## *Didymorchis*

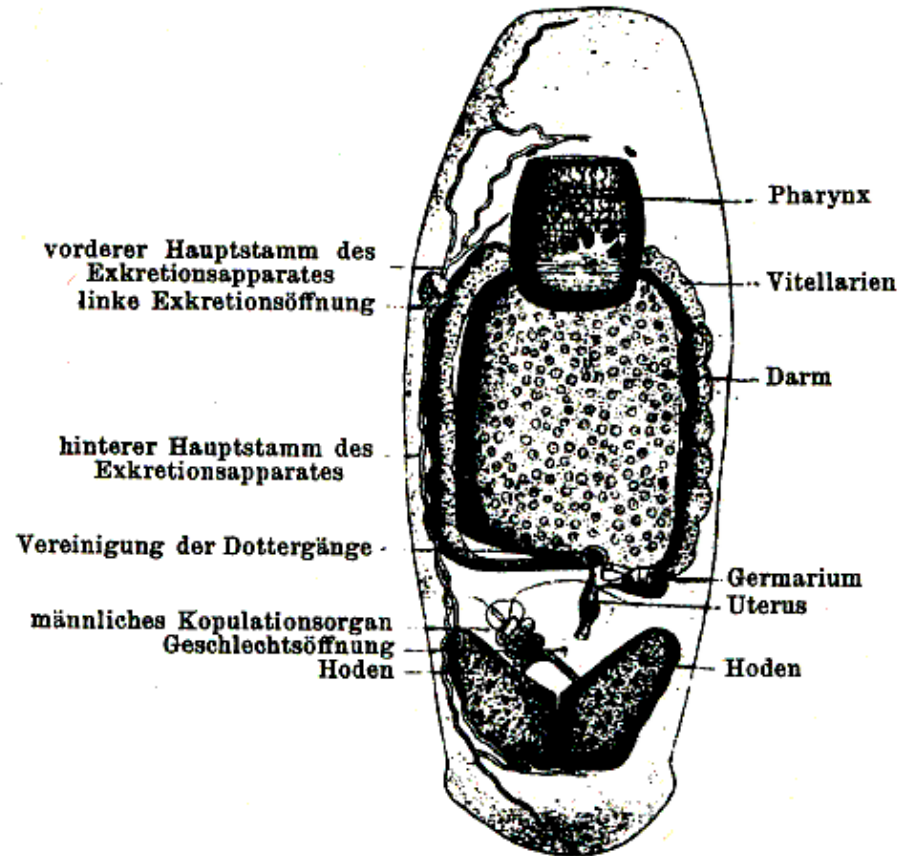
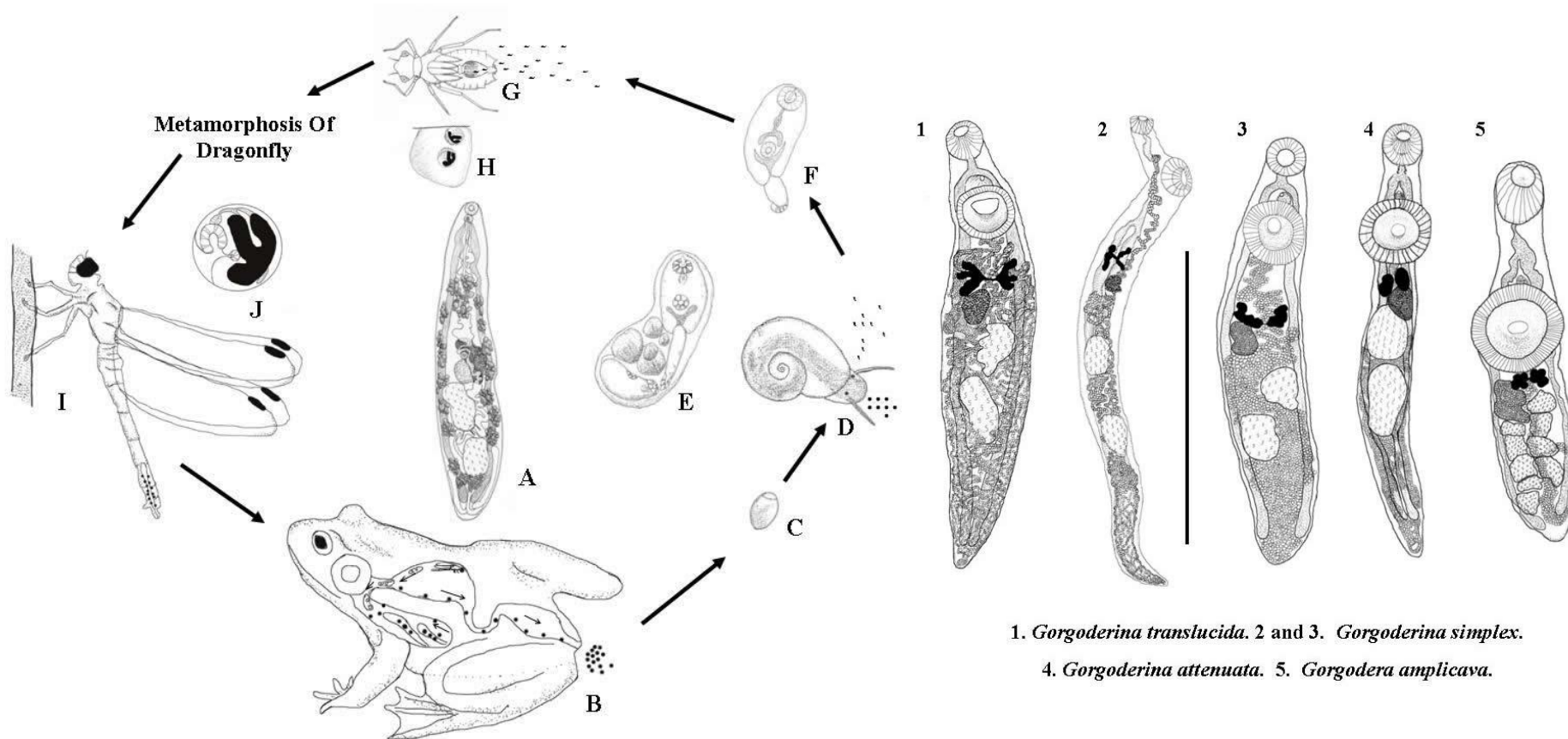


Fig. 131.

*D. paranephris* Hasw. Quetschpräparat von oben betrachtet. (Nach Haswell).

# Phylum Platyelminthes: DIGENEA en Uruguay

Digenea: peces, anfibios, culebras, aves, mamíferos



# Galba –ex Lymnaea-:

## hospedador intermediario del sahuaypé (*Fasciola hepatica*)

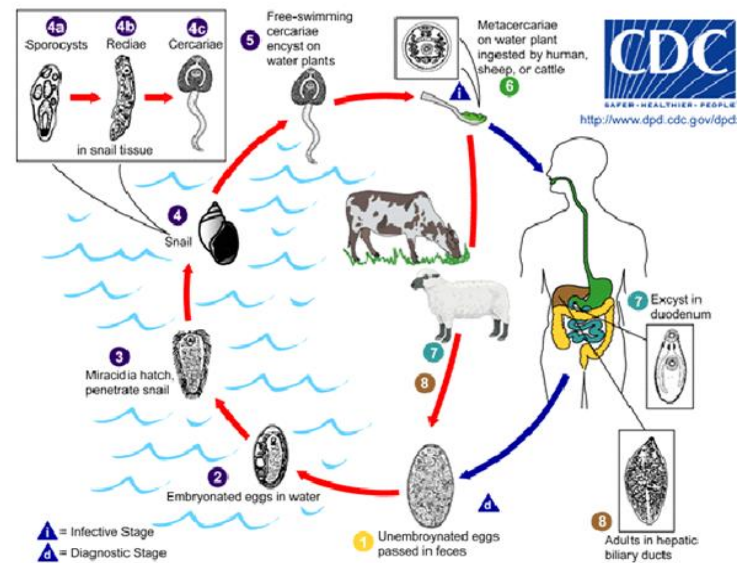


Figura 6. Ciclo de vida de *Fasciola hepatica*

***Biomphalaria* (abundante en Uruguay):  
hospedador intermediario de *Schistosoma mansoni* (no presente aun en Uruguay)**

