

Class Monogenoidea

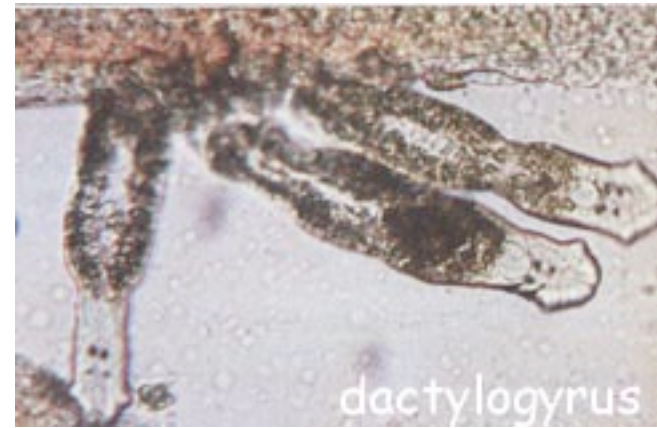
Monogenoidea

- Ectoparasitic on body surface and gills of fish.
- Many species exhibit marked specificity to host and microhabitat.
- Opisthaptor present, often armed with hooks (hamuli).
- Life cycles direct: oncomiracidium larva

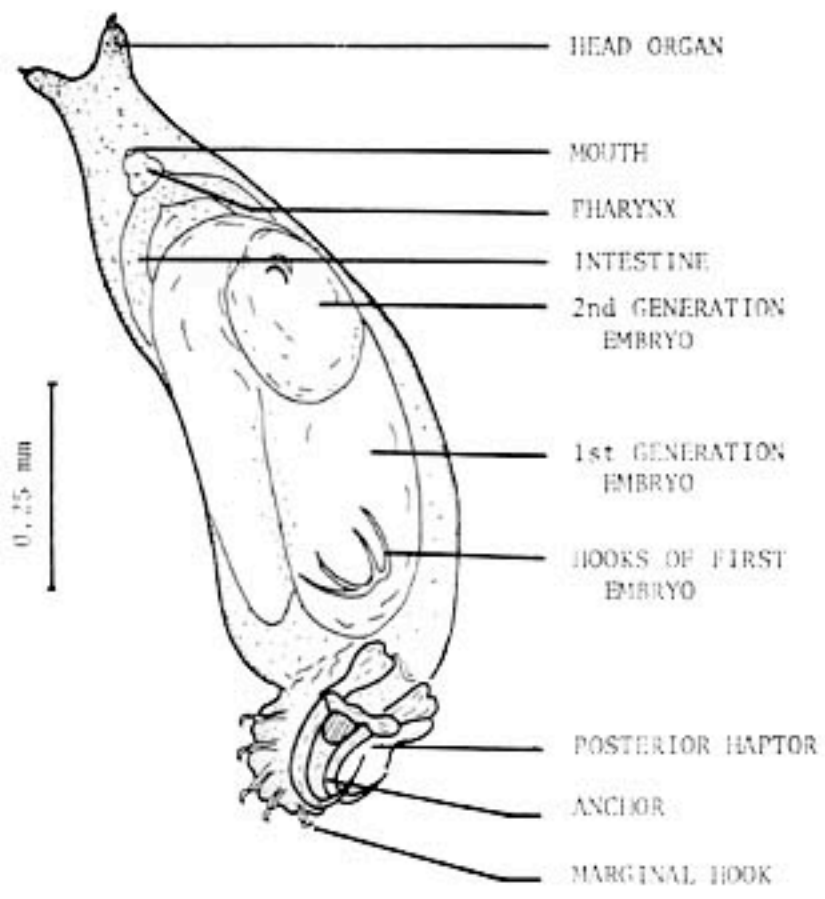
- *Gyrodactylus* spp., *Dactylogyrus* spp.
 - Problem in farmed fish.
- *Polystoma interrigimum*: example of hormonal coordination of parasite reproduction

Gyrodactylus

- Common parasite of farmed and aquarium fish.
- *G. salaris* a problem with *Salmo salar* in Europe.
- Reproduce rapidly on surface of host.

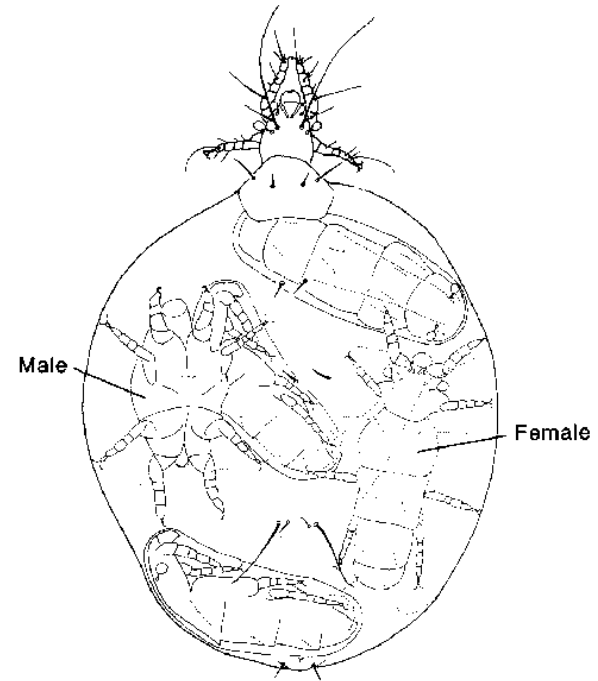


Gyrodactylus on skin
of Koi



Paedomorphosis

- Retention in adult of juvenile characteristics.
- Gould (1977) recognizes 2 mechanisms: neoteny, progenesis





Dactylogyrus vastator

- Parasites of carp in Europe.
- Gives rise to “spring rise” in temperate systems.
- Eggs released late in season daiapause, hatching in synchrony as temperatures rise in spring.

Polystoma spp.



- Parasites of urinary bladder of frogs
- Worms quiescent in winter, produce eggs in response to frogs breeding.
- 2 forms: gill form infects tadpoles; transforms and moves to bladder as frog metamorphoses.

More reading...

- Verneau, O., Bentz, S., Sinnappah, N. D., du Preez, L., Whittington, I. and C Combes 2001. A view of early vertebrate evolution inferred from the phylogeny of polystome parasites (Monogenea: Polystomatidae). *Proc. Roy. S B (Biol Sci)* **269**: 535 - 543.
- Cable, J., Harris, P.D., and R. C. Tinsley 1998. Life history specializations of monogenean flatworms: A review of experimental and microscopical studies. *Microscopy Research and Technique* **42**, 186-199