

Animals 3

- send answer to iClicker Question 18A now.
- Planarian II
- Nematode
- Squid
- Moth I
- iClicker Question 18B

Daniela Bague
- see me

Nothing due in lab **next** week: LAB PRACTICAL EXAM

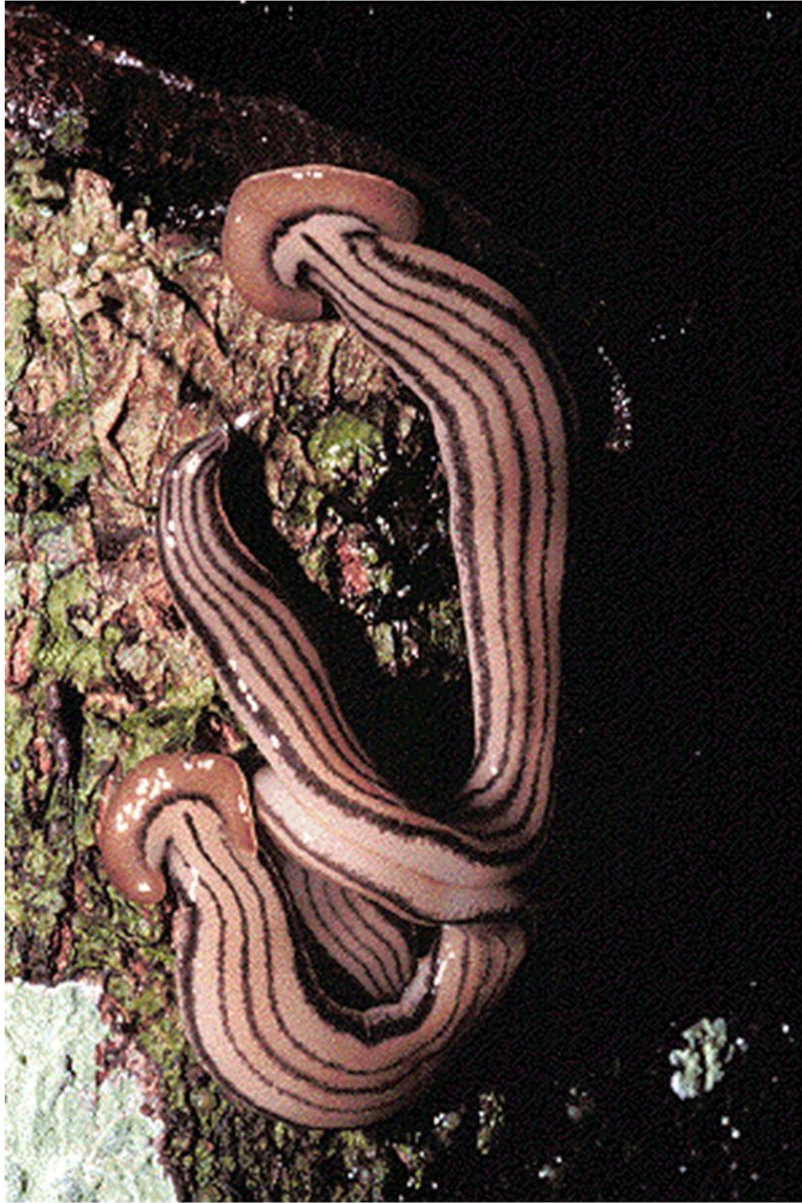
Don't forget to register your iClicker at the Bio 112 website

Don't forget the Phylogenetic Collection Lab

Exam 2: Monday 4/5 (info in Animals 3 handout)

- Last names A - G in McCormack Cafe
- Last names H - Z here (1 bonus point for going to correct place!)

Planarian



planarian, continued

eating- scavenging : food taken into pharynx (mouth/anus)

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eating - scavenging : food taken into pharynx (mouth/anus)
* not at "head"

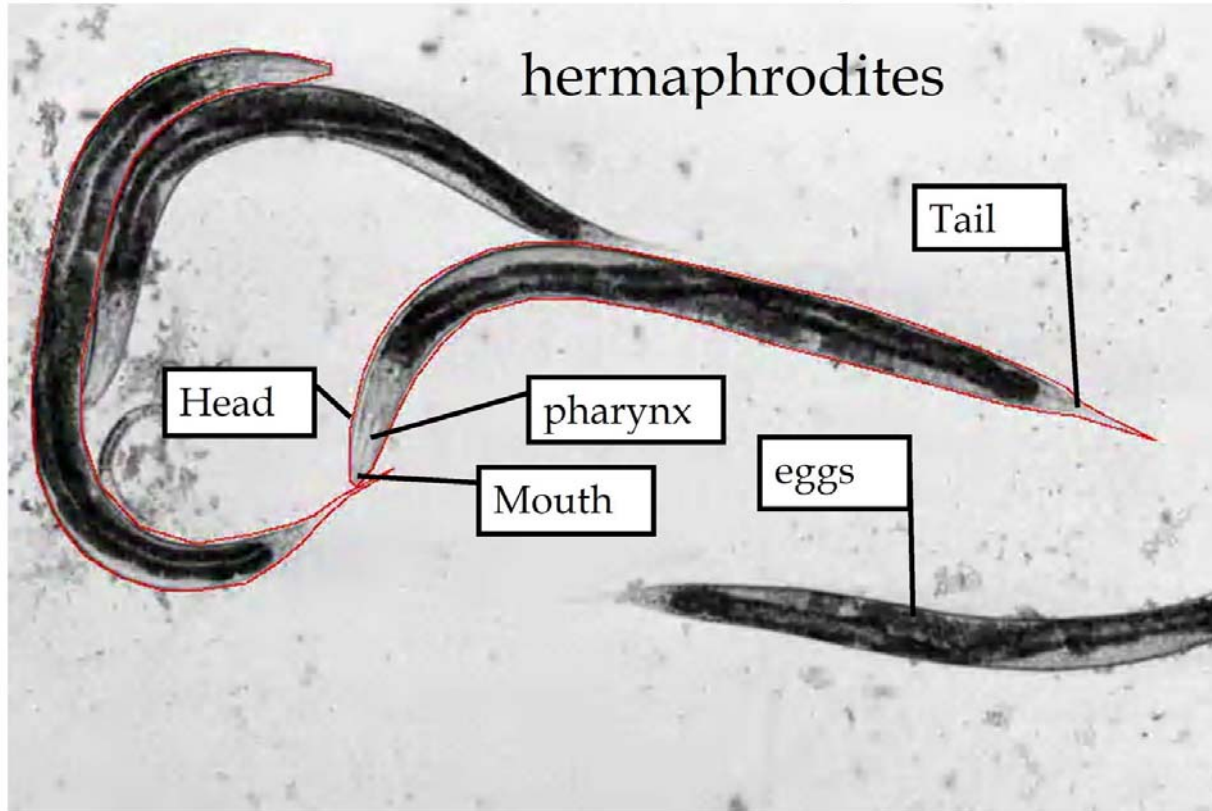
motion - some crawl by cilia, some by muscle contraction

excretory - unique specialized "flame cells" collect liquid waste
& excrete through pores in epidermis

reproduction : sexual ♀♂ mostly ; fertilization by mating

asexual : extensive regeneration & budding

Nematode *Caenorhabditis elegans*



Caenorhabditis elegans phylum nematoda (round worms) ecdysozoa

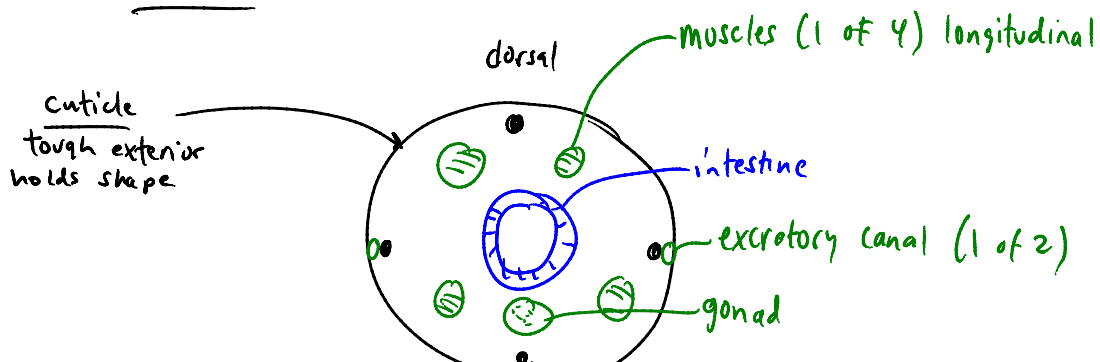
other members of note : *Trichinella spiralis* causes trichinosis

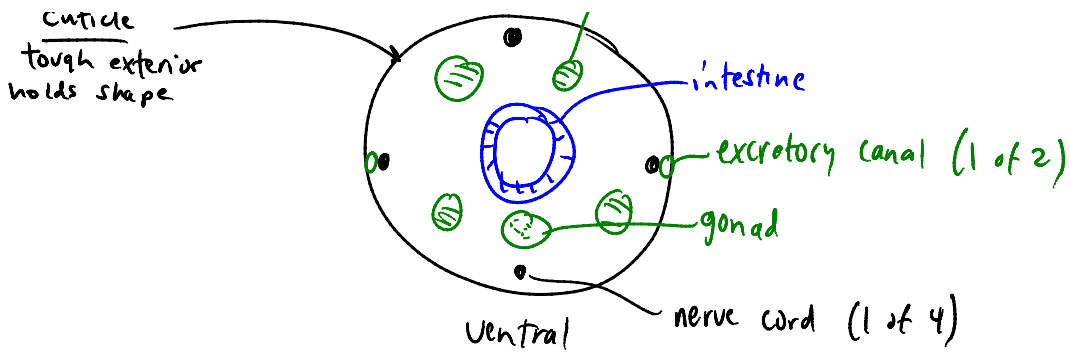
size : ~ 1mm long habitat: soil eats bacteria

respiration & circulation - diffusion (small & thin so ok)

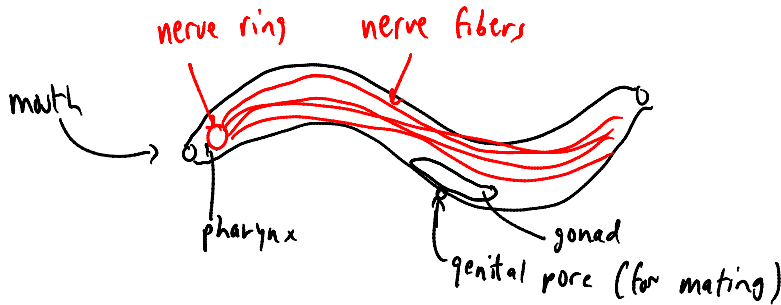
excretion - unique system of canals


cross section - near middle





Nervous - ring around pharynx : 4 longitudinal fibers



movement - alternate contraction of longitudinal muscles
on each side \Rightarrow undulation 
(some mutants go in circles)

Reproduction : sexual, ♀, ♂ mating (self-fertile ♀ also)
♂ transfers sperm to ♀ or ♀ genital pore : eggs are laid
* no asexual ↑ fertilized

Squid



squid : *Loligo pealii*

phylum mollusca (other members: bivalves, gastropods)

lophotrochozoa

habitat: salt water eat small fish, etc.

reproduction : sexual ♀, ♂ mating / no asexual

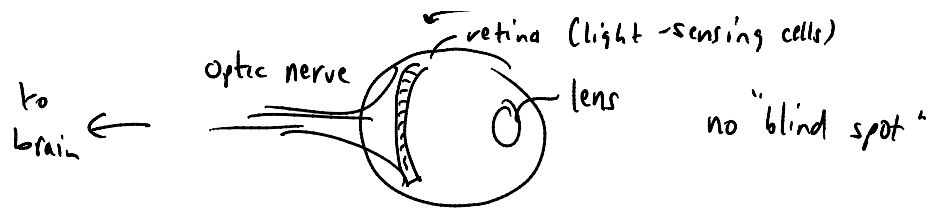
respiration - muscular mantle pumps H_2O over gills & out siphon
- also propels squid

circulatory system - closed (blood always in vessel)

3 hearts = 1 main + 2 gill hearts (1 per gill)

- no red blood cells; O_2 -carrying molecules dissolved in blood

nervous system - complex with brain & eyes



structure, etc - see lab

Tobacco hornworm moth



Manduca sexta tobacco hornworm moth

campbell's phylum arthropoda

other relatives

- chelicerates : spiders, mites, horseshoe crabs

- Crustaceans: crabs, lobsters, barnacles