

Animals 2

- send answer to iClicker Question 17A now.
- Animation symbols
- Sponge
 - details
 - animation
- Jellyfish
 - details
 - animation
- Planarian I
- iClicker Question 17B

Pre med society event
Temple Univ med student guest Q/A
This Friday 3-4pm
CC-2-2540 Free food

[Apr 7: UMW admission director visits]

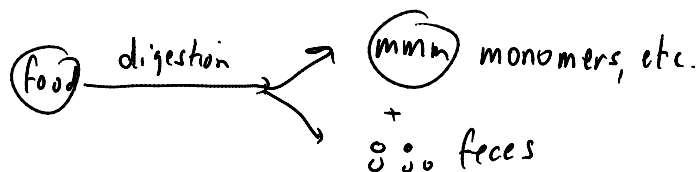
Due in lab **this** week:
⇒ bring in a flower

Symbols used in animations

① respiratory system (O_2) = oxygen - taken in

$[CO_2]$ = CO_2 given off

② digestive system



③ excretory system

(LL) = liquid waste given off

Sponges



sponge - phylum porifera group = parazoa (6 different cell types but no true tissues)

habitat: in H_2O only (usually salt H_2O)

- attached to rocks, etc (no motion \therefore no nervous system)

structural support: spicules (small particles of $CaCO_3$, SiO_2 and/or protein "skeleton")

- "natural sponge" = spicules + protein
(loofah is a plant)

eating - protozoa swept by H_2O current are captured & digested by individual cells (like how protozoa eat)

reproduction (see book for details)

- sexual? ♀, ♂? how do sperm get to eggs?
- asexual? what kinds?

- asexual? what kinds?
- life cycle? - larvae? can larvae move?

Jellyfish



Jellyfish phylum = cnidaria group = radiata (radially symmetric)

- have tissues & organs

habitat = only H_2O ; mostly salt H_2O

structural support = protein + "hydrostatic" ("full of stuff")

motion - pumping of mantle squirts out H_2O

* has gastrovascular cavity

↙
stomach

• digestion happens here

• one opening

Food enters/feces leave

↘
circulatory

• motion of animal circulates food, nutrients, etc

• branches "near all cells"

• not a true circulatory system

(no blood or vessels)

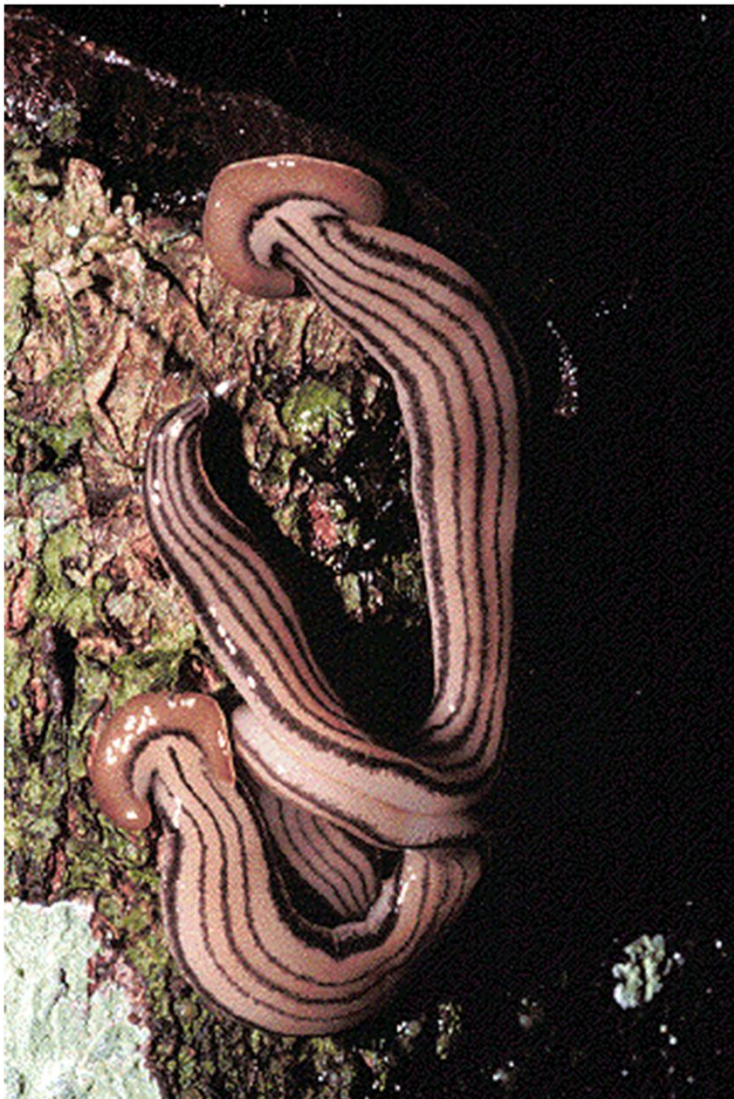
- eating - ① prey hit tentacles
② nematocysts sting prey (paralyze & grab)
③ tentacles bring prey to mouth/anus

nervous - simple nerve net, no "brain"

reproduction : 2 forms (see book)

- sexual : ♀, ♂ medusa spawn (release eggs & sperm into H_2O where they mix & fertilize)
- asexual polyp can reproduce by budding
medusa cannot do asexual reproduction

Planarian



Planarian = phylum platyhelminthes (flat worms)

group = lophotrochozoa

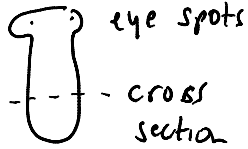
body plan = bilateral symmetry

found = moist habitats & parasites (blood flukes, tapeworms)

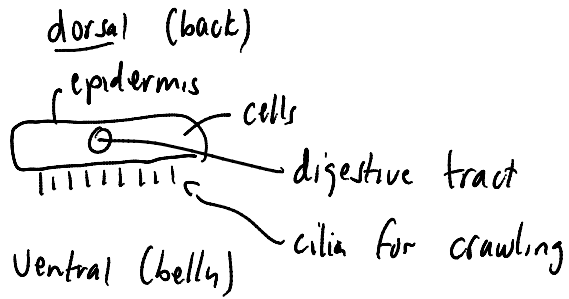
found = moist habitats & parasites (blood flukes, tapeworms)

dorsal view

head



tail



structure = hydrostatic + muscle

respiration = diffusion (thin & flat \therefore large $\frac{\text{surface}}{\text{volume}}$ ratio)