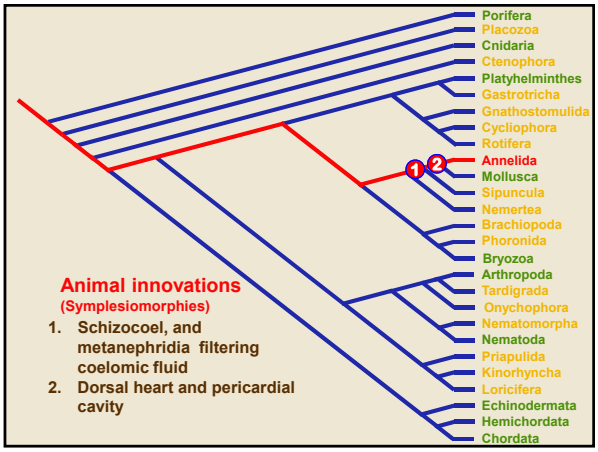
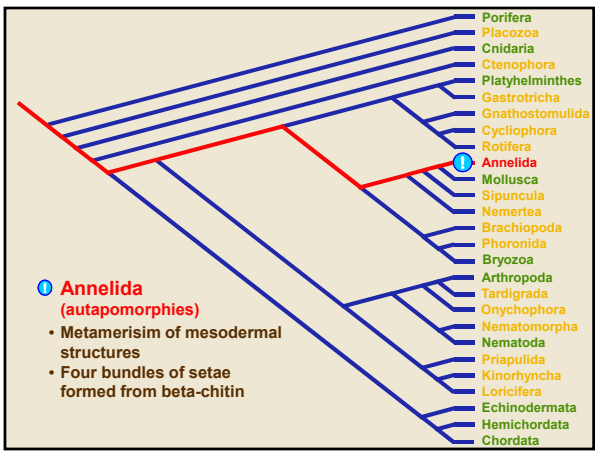
Annelida

sister group to mollusc

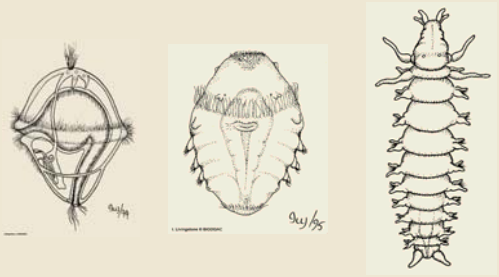


schizoceoly
-dorsal heart



develop segmentation
-one celomic space with a tube that runs throught it - mouth and anus
-circulation that will
-repeated the stucture that are repeated down the length of the animal - mesodermal
-to be a bigger organsims- need repeared sections
-4 bundels of setal hair- important for grip and movment along substrate

Annelid development



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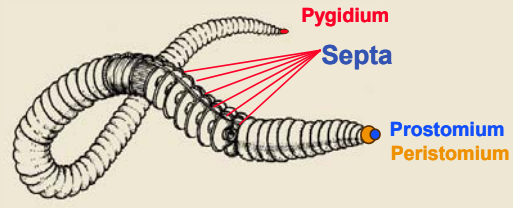
trocophore larva
- tuft at the top and one at the bottom
-there are 3 parts
-annelides add extra segements between the top and the bottom
important structure- prostomian (front of the mouther)
perisotimian
and pggritttium
-common parts fo the annelids

Metamerism



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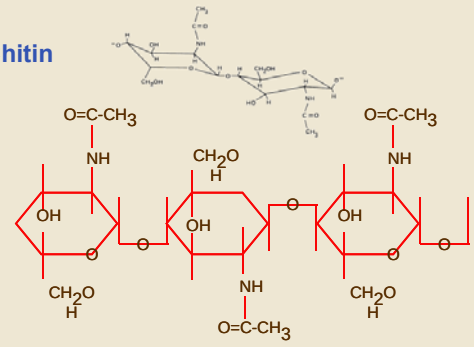
see rings down the length of the earth worm

Chitin



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in the setal hairs
-structureal carbohydtare
-in plants= cellulose
n-acetyl glucosamean
-mollecule that can be stitched together from glucose molecules
-there is a polarity they have different end
-there both form different chargers

α-Chitin sheets

β-chitin sheets

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they interact with each toehr
-they interact in the same way or they act in opposites
-depending on how they bind- show hydrogen bonding
-all negative attaches with positive
-hydrogen bonding is stronger in the a-chitin
-used exclusively in ecdysozoan a-chitin

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still retains ancetral thing of burroowing

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most profounds in ocean
-they are living in tubes (tube worm)
-live in low oxygen environments

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-filter feeders
-added tentacles- small little branches for filter feeing
-use cilia

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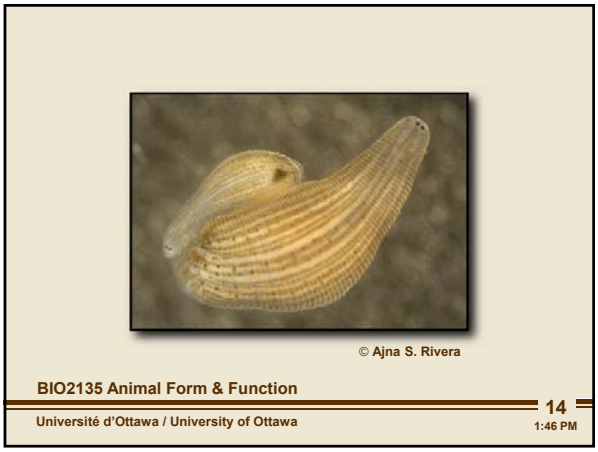
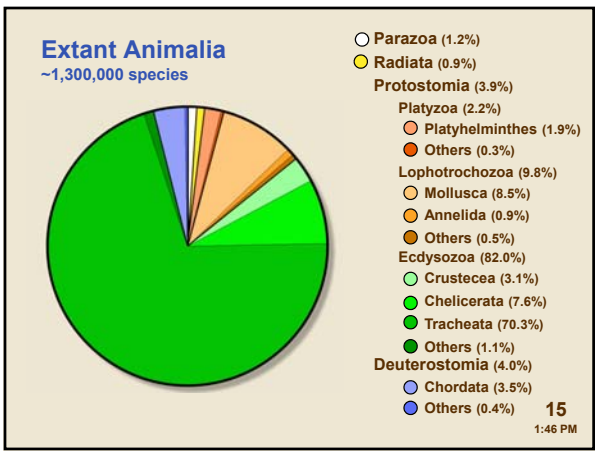
very elaborate
~~feather worm~~
like lophophore

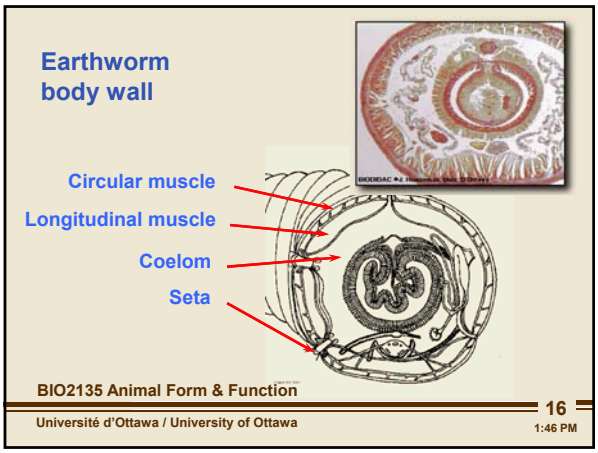
retratct to protect themselves



leeches- blood feeders

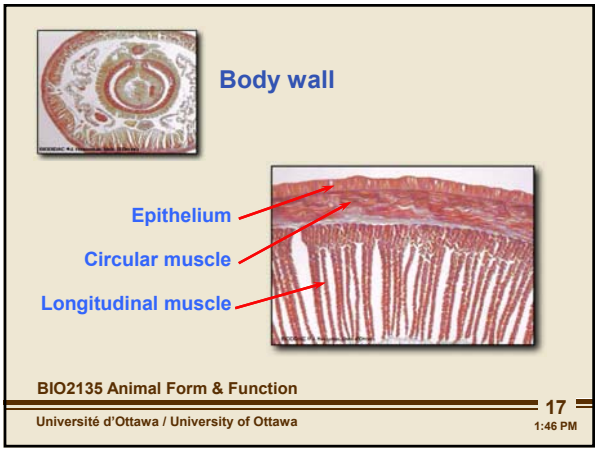


rep 1% of organism



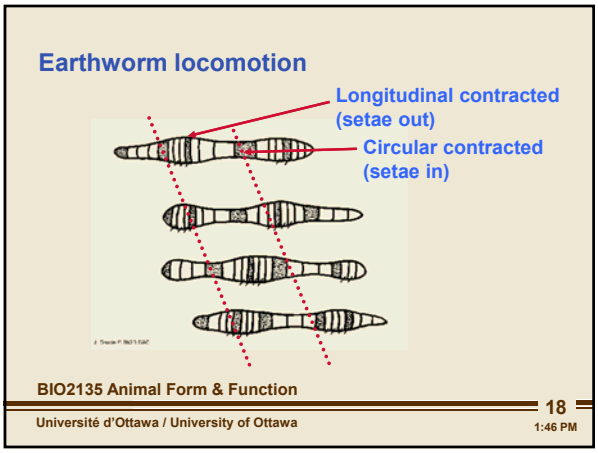
part of cambrian explosion - burrowing and escape predator and develop shells
-annelids without shell and burrow
outer musci
-coelom- hydrostatic skeleton- strechting contracting muscel
-increase diameter

seata- stick out - grip the surface acta as and anchor

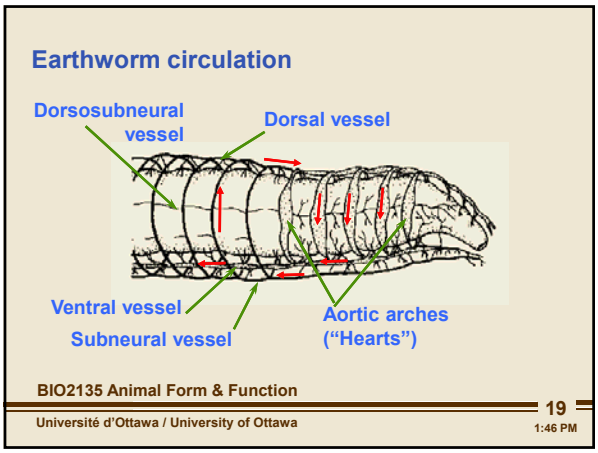


has

has both circular and longitudina lmuscles

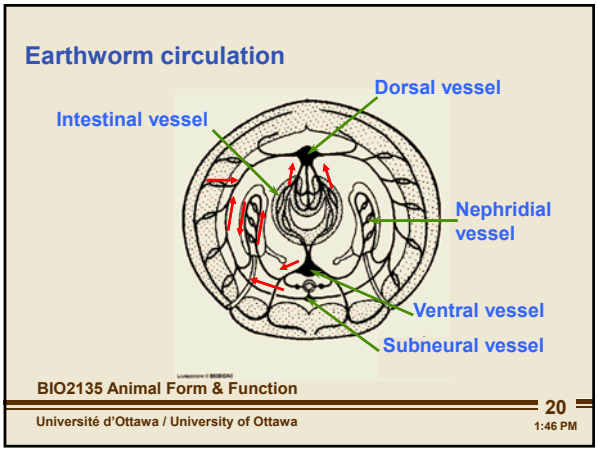


each segment acts independatly form each other
ability to change the structure
-push forward because they are anchored in the back
-move mouth of anterior end forward- lengthen-
-achordian like movement
-dont push soil away- eat it and filter and organic materaials that are usful

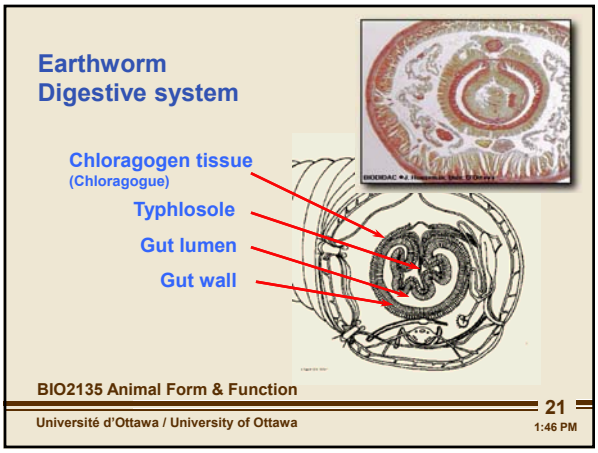


there is not exchange of coelomic fluid
end up with a close circulartory system- move the blood around picking up oxygen and nutrients and get rid of metabolic waste
- create a blood from- toward anterior at the top and towards posterior at the bottom
-each has a later blood vessel- so they get their blood supple as they move forward

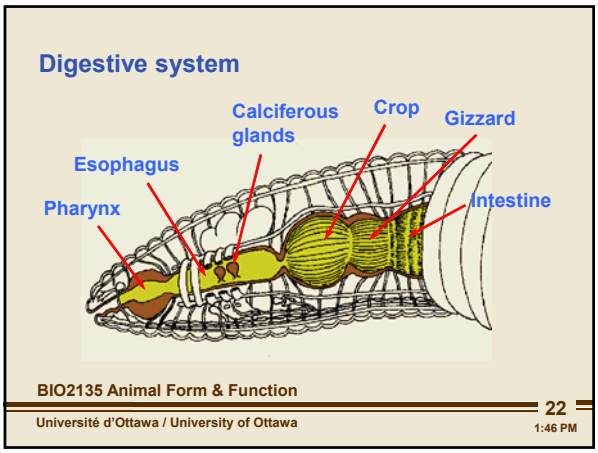
if no circulartory sysmem- something about something



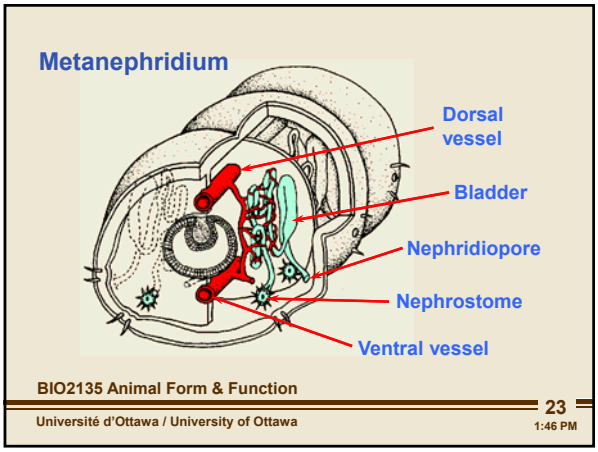
-goes into the gut to get nutrients
-branch and go to metaneprinia
-go to body wall where they are gas exchange
-dorsal vesal
-blood is clease of nitrogenous watrs from metanephridia
-nutrient rich, highly oxygeneated blood, nitrogenous waste free
-important at the front cause that is were sensory system is located
-end up with annomoly in eartherworn
-5 lateral vessels (aortic arches - hearst)
- where they is nutrients for ovary and other nutrient needed things
-blood is red - first group to carry



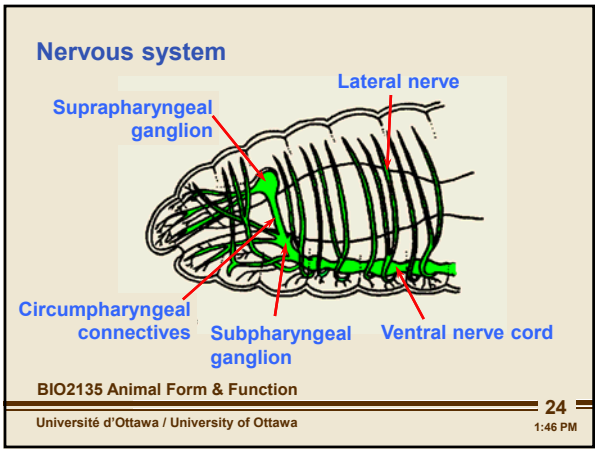
massive infolding of the gut
-typhlosole - increase surface area
chloragogen- tissue where deamination occures- similar to liver



crop- storage place for food
gizzard where food is grinding
calciferous gland- animal has a probelme- come
-innodated with calciumm imblanate- thats calcium out of systmes



each segment has metanephridia
- has capiliary bed so that it can recover
-it breaths accross the skin
and it needs to be moiste-
it covers the skin so that there will be constatn gas exchagn
come out of soild when snow melts because they become axfixiaated
-
-apical brain -
-gangilon are attched so segments are workign together



Nervous system

- Giant axon
- Ventral nerve cord

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giant axon- send signal to contract and burrow
-give protection
retractes into its burrow very quicly

Reproductive system

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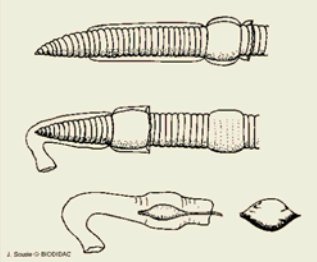
Cocoon formation



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Nereis
Errent polychaete

(Photo by: Dave Cowles, July 2005)

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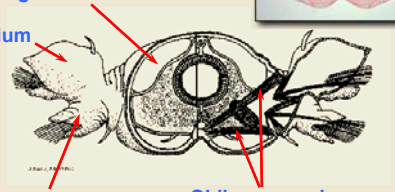
Nereid body wall



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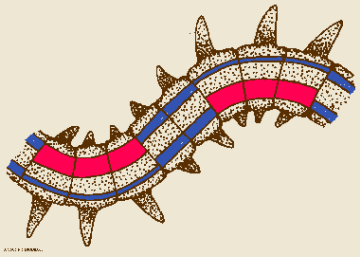
Nereid movement



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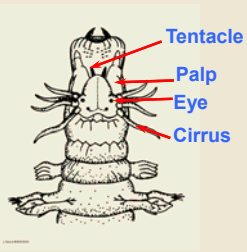
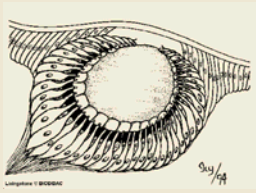
Nereid head





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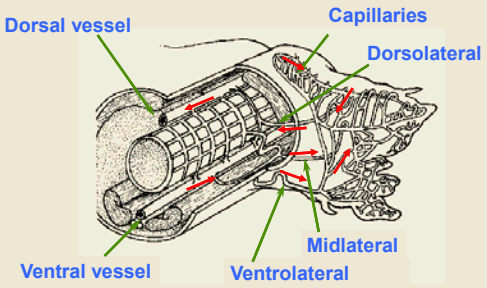
Polychaete circulation



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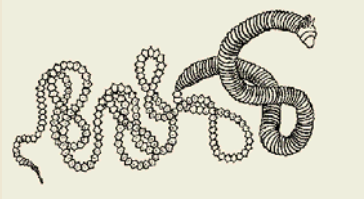
Polychaete reproduction



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Leeches

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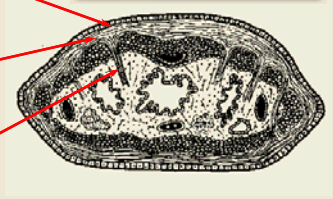
Leech body wall

Circular muscle

Longitudinal muscle

Dorsoventral muscle



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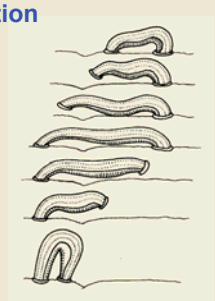
Leech locomotion



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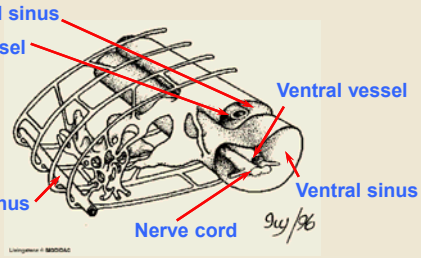
Leech body wall



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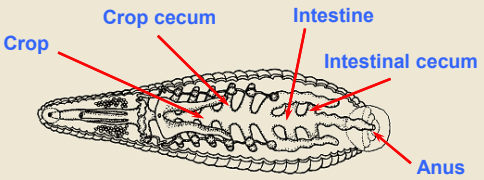
Hirudinida feeding and digestion



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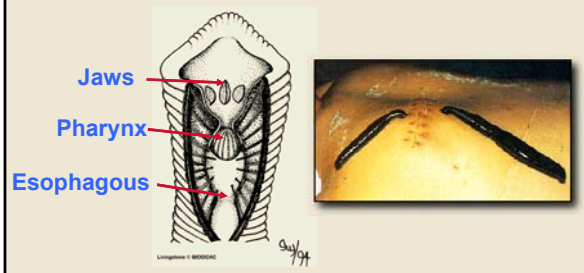
Hirudinida feeding and digestion



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