

# Phylum Annelida

The first segmented animals

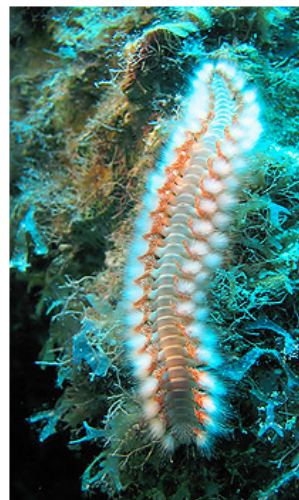
Size range of 1mm to 3m

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## Examples: earthworm and fireworm



<http://www.kidcyber.com.au/IMAGES/earthworms.jpg>



*Hermodice carunculata*, Bearded Fireworm at MarineBio.org

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Each segment contains digestive, excretory, circulatory, and locomotor organs

Some segments are modified for specific functions

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Cerebral ganglion- primitive brain

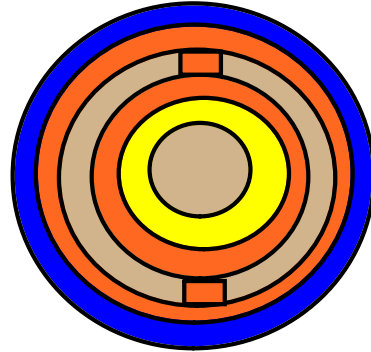
The brain is connected to a nerve cord that runs the entire length of the body

Septa- internal body wall that separate the segments

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## Characteristics of Annelids

1. Coelom- fluid-filled coelom located entirely in the mesoderm



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2. Organ systems- closed circulatory system and a highly modified gut

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3. Bristles- external bristles (setae)

a. They are paired on each segments and increase traction

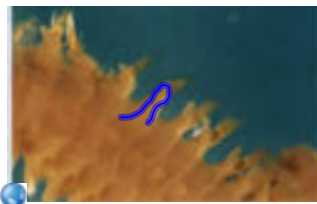
b. Parapodia- some annelids also have fleshy appendages



Hermodice carunculata, Bearded Fireworm at MarineBio.org

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Parapodia and the number of setae on each segment are used to classify the organism



<http://dbsdb.nus.edu.sg/epic/biramous2.jpg>

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## Class Polychaeta

Marine Worms

The largest group of annelids

Unusual forms and iridescent color

They have parapodia that are fleshy and paddle-like



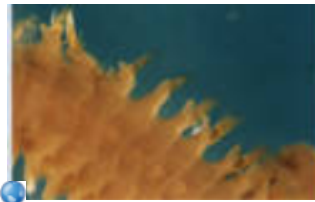
Hermodice carunculata, Bearded Fireworm at MarineBio.org

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They are used to swim, borrow, or crawl

They greatly increase the animals

surface area for gas exchange



<http://dbsdb.nus.edu.sg/epic/biramous2.jpg>

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## Tubeworms

Live in protective tubes formed by hard secretions of glands

Sometimes only their head is stuck out of the tube

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## Examples: nereis and feather dusters



<http://miljolare.no/virtue/img/nydisk2004/images/008%20Nereis%2006.jpg>



<http://saltaquarium.about.com/blclipartfduster2.htm>

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## Class Oligochaeta

Earthworms and some fresh water worms

Lack a distinctive head region and have no eyes

Have light sensitive organs located on each end of their body

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## Earthworm's Digestion

Eat their way through soil

They consume their own body weight in soil each day

Food moves from the esophagus, crop (storage chamber), gizzard (grinds the food), intestine (food absorbed)

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## Respiration

oxygen and carbon dioxide diffuse  
through the skin

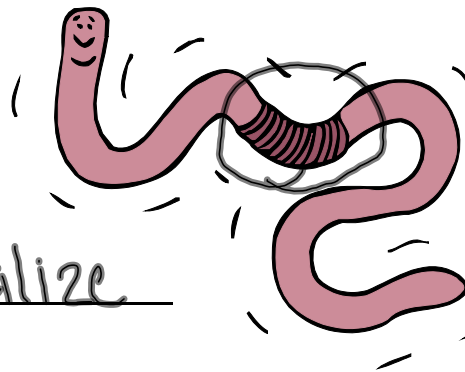
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## Reproduction

Hermaphrodites

They do not self-fertilize

Clitellum release a  
cocoon that surrounds that eggs



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## Brain

Coordinates the muscular activity

Process the information from the light sensitive organs

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## Class Hirudinea

Leeches

Had blood suckers at both ends of its body

Most are predators or scavengers

Some are parasites on vertebrates or crustaceans

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Lack both setae and parapodia

Has a flattened body

The segments are not separated

internally