

## PHYLUM ANNELIDA (FIRST TRUE COELOMATES)

Tuesday, August 1, 2023 6:14 PM

**PHYLUM ANNELIDA** → Greek → Annelus → Little Ring

### HABITAT

### GENERAL CHARACTERS

- Marine → Neries
- Fresh water → Stylaria
- Damp Soil → Earth worm
- Free Living → Earth worm
- Parasite → Leech

### MODE OF LIFE

### BODY STRUCTURE

- Segmented body → Metameric
- Bilateral symmetry
- Triploblastic → Coelomate

### COELOM

- True Coelom
- Mesoderm → splits → 2-layers

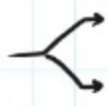
1. **Parital-layer** → Line The Body wall

2. **Visceral layer** → Cover Alimentary canal

- **Coelomic-Fluid** → Fills The Coelom  
→ Hydrostatic skeleton

### BODY SYSTEMS

#### DIGESTIVE SYSTEM

- Alimentary canal  Mouth → Anterior end  
Anus → posterior end
- Mouth → over-hang → Prostomium

#### NERVOUS-SYSTEM

- Parasitic annelids → poor-digestive-system
- Nervous-System → well-developed
- Simple Brain

### EXCRETORY-SYSTEM

### CIRCULATORY-SYSTEM

### RESPIRATORY-SYSTEM

### MUSCULAR-SYSTEM

### LOCOMOTION

### REPRODUCTION

- Nervous-system → well-developed
  - Simple Brain
  - A solid double, longitudinal, Ventral **Nerve-cord**
  - Each segment → **Nerves** arise
  - Nephridia → **ciliated organ** → Body cavity
  - closed Circulatory system
  - Circulatory fluid → circulate → **Network of vessels**
  - Absent
  - Gas Exchange → **diffusion** →
    - ↳ Skin → Moist → Mucus
    - ↳ Blood capillaries
  - Body wall → **Muscles** → Locomotion
- Muscles**
1. **Circular Muscle** → Arranged → Radius of body
  2. **Longitudinal muscles** → Arranged → length of body
- Locomotion → **Muscle + Hydrostatic skeleton**
    - **Contraction of circular muscle**
      - produce pressure → coelomic fluid → **Body elongate**
    - **Contraction of longitudinal muscle**
      - produce pressure → coelomic fluid → **Body widen**
  - **Locomotory-organ**
    - **chitinous chaetae**
    - **setae**
    - **Parapoda**
  - **unisexual** → **Nereis**
  - **Hermaphrodite** → **Earth worm, leech**

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- Hermaphrodite → Earth worm, leech
- Fertilization → External
- Larva → Trochophore

#### IMPORTANCE

- Earth worm → Natural plough

#### EXAMPLES

- Nereis
- Earth worm
  - *Lumbricus terrestris*
  - *Pheretima posthuma*
- Leech → Medical Leech
  - *Hirudo medicinalis*



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