

Sub-Kingdom Parazoa (Phylum Porifera)

Sunday, July 23, 2023 3:57 PM

INTRODUCTION

- Most-Primitive animals
- Simple-multicellular Eukaryotes
- PORIFERA ^{Latin} → Porus → Pore
Ferra → To bear
- Commonly → sponges

MODE OF LIFE

- Larvae → Freely move
- Adult → Stationary

BODY STRUCTURE

- No Symmetry
- No tissue organization
- No organs

BODY WALL

- 1 Outer-Layer → Pinacoderm
- 2 Inner Layer → Choanoderm
- MESENCHYMA → Gelatinous
 - spicules
 - Spongin fibers

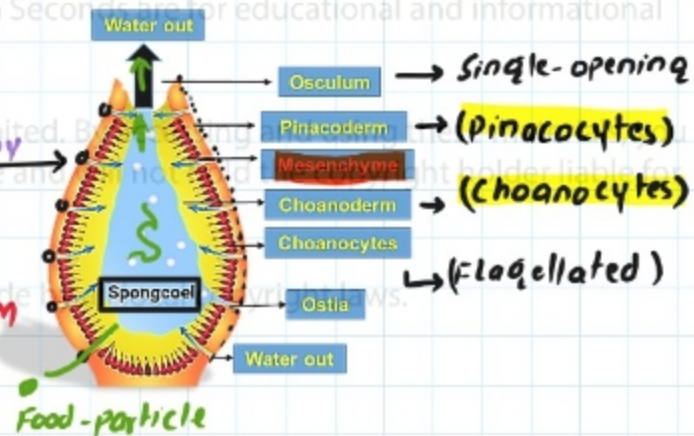
Body Cavity → Spongocoel

Body Pores

→ Ostia → Many
→ osculum

WATER-VASCULAR SYSTEM

→ Ostia → Intake
→ osculum → Remove



BODY SYSTEMS

- No-Respiratory System
- No circulatory system
- No definite Nervous system
- Neurosensory & Neuron cells present

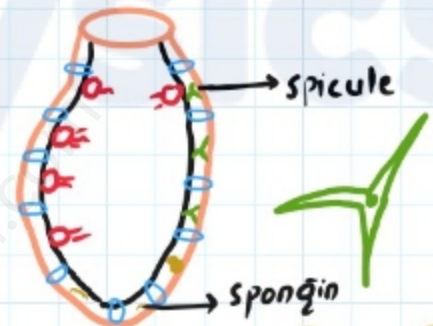
- No definite **Nervous system**
- Neurosensory & Neuron cells present
- No Excretory organ

FEEDING

- Water- Current → **ostia** → Flagellated cells → Move
- Zooplanktons → microscopic animals } → **20%**
- phytoplanktons → microscopic plants }
- Dehital organic particles → **80%**

SKELETON

- Spicules → CaCO_3
Silica
- Spongin → Protein fibers



REPRODUCTION

- 1 Asexual Reproduction → Budding → Buds
→ Internal
- 2 Sexual- Reproduction
→ External
(Gemmules)

- Hermaphrodite
→ **Proandrous** → male-sex organ first develop
- Separate Sexes

- Male → **sperm** → **spongo cell**
- Female → **eggs** → **spongo cell**
- Fertilization → **Mesenchyma**
- Embryo develop → **Blastula & larval stages**

EXAMPLES

- Sycon → marine sponge
- Leucosolenia → Erect Branches, marine
- Euplectella → Venus-Flower Basket
- Spongilla → Fresh water

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- Spongilla → Fresh water

IMPORTANCE

- Washing & bathing
- Surgical operation
- Sound absorption of building



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