

## Phylum Entoprocta

150 sp

tiny (<5mm), sessile stalked animals; solitary or colonial

colonial forms superficially resembles hydroid colonies

all but one genus are brackish or marine

range from poles to tropics

mainly in coastal, more brackish waters

a few are commensal on sandworms

1 freshwater genus = *Urnatella*

uncertain relationships to other animal phyla

superficially resemble cnidarian hydroid colonies  
but tentacles are ciliated

also superficially resemble bryozoa (ectoprocts)

some consider them acoelomates since body cavity is filled with gelatinous material

### **Body Form**

almost all species are **sessile**

a few species can move on sommer-sault fashion like fw hydra

most form "hydroid-like" colonies with individual **zooids**

each zooid has a muscular attachment **disc** with adhesive **glands**

a **stalk** arises from attachment **disc**

ends in cup shaped **calyx** with crown of 8-30 ciliated **tentacles**

tentacles are muscular and tend to roll inward

### **Body Wall**

outer layer of epidermis contains **sensory pits** and **cilia**

epidermis secretes **cuticle**

longitudinal muscle layer in body wall

body cavity a **pseudocoelom**

largely filled with gelatinous **parenchyma**

body cavity extends into tentacles and stalk

### **Feeding & Digestion**

filter feeders: cilia on tentacles create water currents to draw in food

have a complete U-shaped digestive tract lined with cilia

mouth and anus are within a ring of tentacles

### **Nervous System**

single large **ganglion** between stomach and oral surface

nerves extend from ganglion to calyx, tentacles, stalk and sensory structures

sensory bristles and pits on body surface

### **Respiration**

no distinct respiratory or circulatory system

respiration primarily through epidermis, especially in tentacles

### **Excretion**

**protonephridia** with flame bulbs embedded in parenchyma

drain into ducts opening to surface

### **Reproduction**

**asexual** by **budding**

**sexual**

some are monoecious, some dioecious

some protandric

produce testes 1<sup>st</sup> to make sperm

then ovaries to make eggs

fertilized eggs develop in brood pouch

develops into ciliated larvae somewhat like trochophore larvae of molluscs and annelids

larva eventually settles and attaches to become sessile adult

### **Symbioses**

sometimes found living on sponges or in tubes of sand worms

→ increases filtration for food