

## Phylum Acoelomorpha

group formerly placed in with flatworms

small flattened worms, <2 mm

all are aquatic; in marine or brackish waters

most are **benthic** and live in sediments as **interstitial fauna**; a few are pelagic

most are free living; some are symbiotic or parasitic

Like flatworms:

- 3 three tissue layers
- double layer of muscles around body
- ciliated epidermis
- gut sac-like or absent

no well defined digestive system

- amoeboid cells function as endoderm to take in food

very diffuse nervous system  
not ladderlike like in flatworms

- resembles nerve net of cnidaria

- sense organs: ocelli & statocysts

asexual reproduction by **fragmentation**

sexual reproduction: most are monoecious with  
internal fertilization