

Phylum Echiura (Spoon Worms)

140 species

sausage shaped worms

1 cm to 50 cm

all marine

most live in shallow waters; a few deep water forms

→many burrow in sand or mud

→other live in rock and coral crevices

→a few live inside dead sand dollars, mollusc shells, or annelid tubes

they enter shells when young and get too large to leave

generally are deposit feeders

Body Form

cylindrical and somewhat sausage shaped

resemble sipunculans in size and general habits

body in two parts:

anterior flattened **proboscis** (=prostomium)

can be extended and retracted

posterior cylindrical **trunk**

Proboscis

has ciliated groove giving it a spoon-like appearance

proboscis is very mobile

sweeps on mud to find organic debris

can extend up to 10 times its retracted length

eg. *Bonellia* is 7 cm (~3.5") long and can extend its proboscis 1.5 meters (4.5')

no tentacles

Trunk

trunk is gray, reddish brown, or rose

body has several sets of **setae**

→hooked, anterior setae used for digging burrows

→setae at posterior end for anchorage

→ circles of setae around posterior end for anchorage and burrow maintenance

Feeding and Digestion

most are deposit feeders

collect small particles of detritus

digestive system is extremely long and coiled

mouth is at base of prostomium

anus is at posterior end of trunk

Circulation

simple closed circulatory system

Excretion

excretion by nephridia

Nervous System

simple nervous system

circumenteric nerve ring

ventral nerve cord

Reproduction & Development

dioecious

show sexual dimorphism;

males often much smaller

gametes shed into water

external fertilization

produces **trochophore** larva

metamorphosis to wormlike adult

Human Impacts

in arctic spoon worms were once eaten by eskimos