Phylum Kinorhyncha
(mud dragons)

"moveable snout"

(once also called echinodera)

179 species

tiny, free living marine worms

usually <1mm long

only a little larger than most rotifers

found in oceans throughout the world → pole to pole

benthic: important part of **interstitial fauna** burrow in silt & mud

some have been found in algal mats

a few are **commensal** inside sponges or other marine invertebrates

Body Form

short worm-like, somewhat flattened body divided in 13 spiny segments

has **head**, **neck** and **trunk**

no limbs

the **head** is completely retractable

head also with retractile **proboscis** for burrowing

around head is up to 7 circlet of spines (**stylets**)

Body Wall

body wall covered by a **cuticle**, secreted by syncitial **epidermis**

covered with spines

epidermis with numerous mucous glands

no cilia on body

beneath the epidermis are several bands of longitudinal, circular and diagonal muscles

body cavity a **pseudocoelom**

Feeding & Digestion

feed on diatoms (algae) and organic matter found in mud

mouth on protrusible mouth cone with powerful pumping **pharynx**

complete digestive tract

two pairs of salivary glands and pancreatic glands secrete digestive enzymes into throat area

a midgut acts as a stomach and an intestine

anus at posterior end of animal

No circulatory system

Excretory system of 2 protonephridia

Nervous System

circumpharyngeal **ganglia** and **ventral nerve cord**

one ganglion in each segment

senses:

simple **eyespots**

spines and bristles with **chemoreceptors** and **mechanoreceptors**

Excretory system

paired protonephridia

Reproductive System

dioecious but no dimorphism

paired genital organs

internal fertilization with specialized penial spines

development includes minute free-living **larva**

progressive larval **molts**