

?Phylum Nemertea ?Morphology ?Baseodiscus is a genus of nemerteans whose members typically measure several meters in length. ?oMost commonly found in freshwater environments there are also marine, terrestrial and parasitic species.----- ?Phylum Gnathostomulida ?(jaw worms) ?Delicate worm like animals ?o0.5–1 mm in length ?oLive in interspaces of very fine sandy coastal sediments and silts ?oCan tolerate very low O₂ concentration ?oHave jaws very similar to a rotifer ?oEpidermis with a single cilium on each cell ?oDigestive tract with no anus ?Gnathostomula jenneri (phylum Gnathostomulida) is a tiny member of the ?interstitial fauna between grains of sand or mud. ?oThe presence of proboscis enclosed in a rhynchocoel is a unique characteristic of Nemertea ?o The proboscis serves to capture food ?oThe rhynchocoel is a fluid-filled cavity that extends from the head to nearly two-thirds of the length of the --- ?IN SUMMARY: PHYLUM NEMERTEA ?oThe nemertini are the simplest eucoelomates. ?4. Mostly small in size, some microscopic, some a meter or longer ?5. Body wall with a cellular epidermis with thickened cuticle, sometimes molded ?6. Digestive system complete with mouth, enteron and anus, pharynx muscular and well-developed ?7. Digestive tract often only an epithelial tube with no definitive muscle layer 8. Species in this family ?are among the most commonly encountered jaw worms, found in shallow ?water and down to depths of several hundred meters ----- ?The Pseudocoelomate Animals ?1. Symmetry bilateral, unsegmented ?2. 3 germ layers ?3. Body cavity a pseudocoel.----- ?The Pseudocoelomate Animals ?Phylum Rotifera ?Phylum Gastrotricha ?Phylum Kinorhyncha ?Phylum Nematoda ?Phylum Nematomorpha ?Phylum Acantocephala ?Phylum Entoprocta ?Phylum Loricifera ?Phylum Priapulida ----- ?Phylum Rotifera ?oDerive their name from ciliated crown or corona, found at the anterior end of the animal which, when beating, gives the impression of rotating wheels. The head bears the corona, the trunk has a thickened cuticle with ridged plates and spines for defense and the foot often bears 1–4 projections called toes, which are used for attachment. ?oThe development of a closed circulatory system derived from the coelom is a significant difference seen in this species compared to other pseudocoelomate phyla. Excretory system: protonephridia in some, cloaca receives excretory, reproductive and digestive products may be present ?10. ?oRotifers are dioecious organisms (having either male or female genitalia) and exhibit sexual dimorphism (males and females have different forms). ?o There are marine and freshwater species and they are common in lakes, ponds and seashore sands. ?oThese ribbon-shaped animals bear a specialized proboscis enclosed within a rhynchocoel.----- ?Phylum Kinorhyncha ?osmall, free-living, wormlike found in marine habitats. The dorsal plates bear movable median and lateral spines. ?oAlimentary, nervous, and excretory systems are more developed in the nemertini than in less advanced phyla. Circulatory and respiratory organs lacking ?9. Nervous system: cerebral ganglia or of a nerve ring connected to anterior and posterior nerves ?11. often smaller than ?, eggs microscopic with shell often containing chitin. Many species are parthenogenic ----- ?Phylum Gastrotricha ?oMicroscopic animals, ~ 65–500 µm long. ?onamed for their mode of locomotion – they pull themselves along by rings of recurved spines on their heads. ?oAdults have spiny heads, spineless necks, and 11 trunk segments. Reproductive system: gonads and ducts that may be single or double; ? ?oThe cuticle between the plates is very flexible; in the retracted position, the neck plates close over the head. ?oThis B. mexicanus from the Galapagos Islands was over 10 m long. Their bodies are roughly triangular in cross section. The head can retract into the

trunk, which is covered with cuticle plates. sexes often separate, ??oThe body is usually divided into a head, trunk and foot. ?oMost area millimeter long. ?12. Development direct or within a complicated life history.