TAXONOMIC NOTES ON NEMERTEA COLLECTED FROM POINT LOMA

Some nemerteans will require clearing to confirm their identification (e.g., the Prosorhochmids and Amphiporid: while others are either thin enough or have distinctive coloration or other characters that they can be readily identified. The following breakdown of the different nemertean groups should help you identify your nemertear specimens more readily, or at least know which major taxa you are dealing with.

Anopla: Mouth and proboscis pore separate (Typical *Tubulanus, Carinoma, Cerebratulus,* etc.). Mouth pore is below or posterior to cerebral ganglia. Proboscis always unarmed.	**Enopla:** Mouth and proboscis pore united (*Paranemertes,* see voucher sheets for *Amphiporus* and *Prosorhochmus*). Mouth/proboscis pore usually located anteriorly, in front of cerebral ganglia. Proboscis may be armed with stylet.
Palaeonemertea vs. Heteronemertea: Palaeonemertea (Carinomidae, Cephalotrichidae, and Tubulanidae) are distinguished from the Heteronemertea (Baseodiscidae and Lineidae) by differences in the body wall musculature. A cross section through the body is the only way to distinguish the two orders (see accompanying figures). (*If you have a specimen that does not look like any of the species listed on the accompanying species list, please give them to Dean for FID.*)	**Hoplonemertea:** Possess an armed proboscis. Other than the Enopla, we will probably only encounter members of this large group. **Monostylifera** are distinguished from the **Polystylifera** by having a proboscis armed with a single, central stylet carried on a large basis (see accompanying figure). The Polystylifera have multiple stylets carried on a sickle-shaped pad.
Carinomidae: This family has only one representative on the Pacific coast, *C. mutabilis.* It can be distinguished from a Tubulanid by the absence of a lateral sense organ (that typically round, frequently white ring on each side of *Tubulanus*).	**Monostylifera:** Identification of members of the Monostylifera is frequently based on internal characters (e.g., number and arrangement of ocelli, length of proboscis and proboscis sheath, proboscis armature) and generally requires clearing. *Nemerteans that do not agree with those included in your voucher sheets should be refereed to Dean.*
Cephalotrichidae: This family is easily recognized by the placement of the mouth relative to the brain. The mouth is 5-15 body widths posterior to the brain, as opposed to the Tubulanidae and Carinomidae in which the mouth is located immediately posterior to the brain (See *Procephalothrix major* voucher sheet.)	
Tubulanidae: Almost all members of the genus *Tubulanus* have lateral sense organs in the area of the foregut, and a distinct cephalic lobe (usually distinguished from the body by being either more narrow or more broad than the body). Members of the genus usually have strong coloration also.	
Lineidae: All Lineids (except *Zyguepolia*) have longitudinal cephalic grooves. *Lineus* are missing a caudal cirrus, while *Micrura* and *Cerebratulus* each have a caudal cirrus. In *Micrura* the body is usually soft and fleshy (like *Lineus*) and the lateral margins are not flattened. In *Cerebratulus* the body is usually thick and solid, and the lateral margins are more ribbon-like.	

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NEMERTEAN LITERATURE

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*4. Coe, Wesley R. Revision of the Nemertean Fauna of the Pacific Coasts of North, Central, and Northern South America. Allan Hancock Pacific Expeditions. ; 1940; 2(13): 247-322.

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*8. Hyman, Libbie Henrietta. The Invertebrates: Platyhelminthes and Rhynchocoela, The acoelomate Bilateria. New York, New York: McGraw-Hill Book Company, Inc.; 1951; II.

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*10. MacEwen, Patricia. A Key to the Common Nemertea of Southern California. Unpublished literature. ; 1980.

11. Riser, Nathan W. The morphology and generic relationships of some fissiparous heteronemertines. Proceedings of the Biological Society of Washington. ; 1994; 107(3): 548-556.

* useful Taxonomic references (illustrations, keys, group descriptions)