Paranemertes californica Coe 1904

Group: Nemertea: Enopla: Hoplonemertea: Emplectonematidae

Date Examined: 12 August 2011 Voucher By: Tony Phillips

SYNONYMY: Monostylifera sp SD1

Paranemertes sp A SCAMIT 1984

LITERATURE:

Bernhardt, P. 1979. A key to the Nemertea from the intertidal zone of the coast of California. (Unpublished). Coe, W.R. 1904. The Nemerteans. Harriman Alaska Expedition 11:1-220.

Coe, W.R. 1905. Nemerteans of the west and north-west coasts of North America. Bull. Mus. Comp. Zool. Harvard Coll. 47:1-319.

Coe, W.R. 1940. Revision of the nemertean fauna of the Pacific Coast of North, Central and northern South America. Allen Hancock Pacific Exped. 2(13):247-323.

Correa, D.D. 1964. Nemerteans fro California and Oregon. Proceedings of the California Academy of Sciences, 31:515-558.

DIAGNOSTIC CHARACTERS:

- 1. Body white to greenish-white, thick, anterior end narrower than main body, tip of head can be inverted to give squared off appearance; proboscideal sheath can have greenish color within body, proboscis having pinkish-red color with sheath (Figure 1).
- 2. Weak cephalic furrow evident.
- 3. Proboscis sheath extends approximated 50 75 % of length of body, basis approximately one-third to one-half length of stylet (s/b ratio .0.54 0.79 .34), basis cylindrical to narrow pear shape, with rounded base; two accessory pouches observed with 3-4 accessory stylets (Coe 1905 describes 4-6 accessory pouches).
- 4. Eyes can be visible uncleared; cleared specimens with single pair of black eyes on anterior tip of pointed head; when anterior of head inverted, you can look into depression and see the pair of eyes (Figure 2).

RELATED SPECIES AND CHARACTER DIFFERENCES:

This is the most abundant species found in estuaries, bays and harbors. The distinctive single pair of round, black eyes cannot be confused with any other enoplan found in the SCB. There has been confusion as to the correct identity of Paranemertes californica due to the description found in Coe 1940. This description details a difference in eye pattern from the original description found in Coe 1904. The 1940 description details a row of 2-3 tiny eyes on the anterior edge of the head, on each side of the proboscideal opening. A second small cluster of 2-3 tiny eyes is found anterior to the brain lobes and posterior to the cephalic groove (Coe, 1940, Pl. 28, Fig. 34). The confusion in name usage for Paranamertes californica was addressed by SCAMIT in assigning the original Coe 1904 description as Paranemertes californica and the Coe 1940 description as Paranemertes sp B SCAMIT 2007. Paranemertes biocellatus was described by Coe (1944) from the Gulf of Mexico that also has a single pair of eyes. However, these eyes are kidney shaped and the proboscideal sheath runs the entire length of the body.

DEPTH RANGE: Intertidal – 140 meters

DISTRIBUTION: San Diego – Monterey



Figure 1 (above). Paranemertes californica (cleared). Figure 2 (below). Elongate and recessed heads with eyes.

