Nemertea: Hoplonemertea: Monostilifera: Neesidae

SYNONOMY: Paranemertes californica Coe 1940 [not Coe 1904]

## LITERATURE:

Coe, W.R. 1905. Nemerteans of the west and northwest coasts of America. Bulletin of the Museum of Comparative Zoology, 47: 1–319

Coe, W.R. 1940. Revision of the Nemertea fauna of the Pacific coasts of North, Central and northern South America. Allan Hancock Pac. Exped. 2(13): 247–323.

## DIAGNOSTIC CHARACTERS

- Body elongate, moderately slender
- Eyes two to three pairs of small ocelli along frontal margin, plus small cluster of two to three ocelli anterior to each lobe of the brain
- Proboscis sheath approximately  $\frac{1}{2}$   $\frac{2}{3}$  the length of the body
- Stylet apparatus with slender basis twice as long as central stylet, basis with slight constriction just above flattened base
- CSO elongated anteroventral to brain lobes

#### Similarities:

• Differs from *Paranemertes californica* Coe 1905 in having smaller and more frontal eyes, and in having a set of ocelli anterior to brain lobes, and in the more elongate basis of the stylet apparatus.

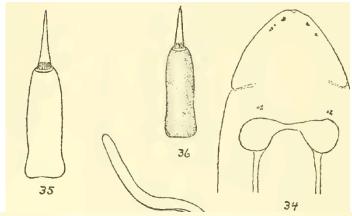


Fig. 34. Paranemertes californica. Head, showing arrangement of ocelli.

Figs. 35, 36. P. californica. Central stylet and basis from larger and smaller individual, indicating striated head of stylet.

Paranemertes sp B SCAMIT, from Coe 1940

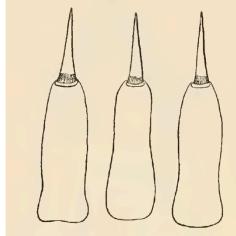
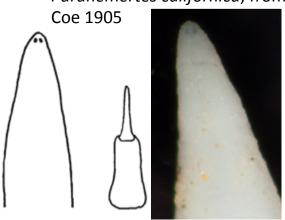


FIG. 42.— Paranemerles californica. Central stylets and bases from three individuals, showing variation in size and shape.

Paranemertes californica, from



# Text Coe 1940

# 53. Paranemertes californica Coe, 1904

(Plate 28, figs. 34-36)

P. californica Coe, 1905, 1905a.

Body. Moderately slender, usually 10-20 cm in length when sexually mature, occasionally up to 45 cm; width, 2-6 mm.

Color. Rosy or pinkish anteriorly, often tinged with yellow or orange; intestinal region gray or pale salmon, usually much obscured by dark green intestinal tract; rhynchocoel fluid red. In some individuals the entire body, including glandular wreath surrounding stylet apparatus, is tinged with green; this color is often intensified after preservation in formalin.

Ocelli. Usually 2 or 3 small ocelli lie on each side of proboscis opening and a small cluster of about the same number anterior to each brain lobe (Fig. 34).

Proboscis. Proboscis sheath ½ to ½ the length of body. Basis slender, about twice as long as central stylet (Figs. 35, 36). There are 2, 4, or 6 pouches of accessory stylets and 10 or 11, occasionally 12 or 13, proboscidial nerves.

Other characteristics. Cephalic glands very voluminous, composing a large part of the tissues of the head as far back as the brain region. Cerebral sense organs elongated and rather large, situated on anteroventral borders of brain and connected with the exterior by large ducts which extend forward to ventrolateral surfaces of terminal portion of head. Longitudinal musculature of the head separated into inner and outer layers by a thick layer of parenchyma. Intestinal caecum very short, since the pylorus opens near the anterior end of a slender part of the mid-gut which extends forward from the main portion of the intestine. Only the latter bears typical paired lateral diverticula of large size. Blood vessels of head and anterior portion of esophageal region provided with many branches extending through the thick layer of parenchyma; more posteriorly they are gathered into the usual 3 longitudinal vessels, which also have lateral branches.

The nephridia consist of branching tubules which follow the blood vessels through the parenchyma in the posterior portion of the pyloric region and a short distance posterior thereto. The thin-walled collecting tubules may become greatly distended or contracted so as to almost close the lumens. One or two pairs of efferent ducts open on the dorsolateral aspects of the body near the posterior end of the pyloric region.

*Habitat*. In bays and harbors, burrowing in sand and sandy mud between tidemarks.

Distribution. At present reported only from Monterey Bay, California, and southward to Ensenada, Mexico.