

*Phyllodocella bodegae*, new species

Figures 1 and 2

*Material examined:* Mason's Marina, Bodega Harbor, California, July 20, 1971, from a gelatinous sac attached to a colony of *Obelia* sp.; 15 cm depth on a floating boat dock; one specimen, Holotype, deposited in the collections of the Allan Hancock Foundation.

*Description:* The holotype is a complete, sexually mature female with 24 segments that is 8 mm long and 2 mm wide without setae. It is white with reddish pigment spots over the anterior end in alcohol preservation.

The pygidium is a small, rounded cushion without anal cirri; the anus is dorsal.

The prostomium (Fig. 1) is pentagonal and has two pairs of long, slender antennae near the anterior margin. A pair of small, distinct frontal lobes are present on the anteroventral margin. Two pairs of eyes are present at the middle and mid-posterior part of the prostomium; the anterior pair is lensed; the posterior pair is semi-lunular in shape. The peristomial segment is a complete ring, forming

A NOTOPHYCID POLYCHAETE FROM CALIFORNIA

While collecting at a floating boat dock in Bodega Harbor, California, one of us (Belman) found a thick gelatinous sac attached to a colony of a hydroid (*Obelia* sp.). A polychaete was moving around inside the sac; this worm could not be identified as any polychaete reported from California (Hartman, Atlas of errantiate polychaetous annelids from California, Allan Hancock Foundation, Los Angeles, 1968; Atlas of the sedentariate polychaetous annelids from California, Allan Hancock Foundation, Los Angeles, 1969) and turned out to belong to the family Notophycidae, recently described from New Zealand (Knox and Cameron, Trans. Roy. Soc. New Zealand, Biol. Sci., 12:73-85, 1970). The Californian specimen differs from the other known specimens in several respects and is described as a new species in a new genus.

The relationship between the family Notophycidae and related polychaetes was discussed in detail by Knox and Cameron (1970).

*Phyllodocella*, new genus

Notophycids with a muscular proboscis, but without jaws.

The other known genus in the family, *Notophycus* Knox and Cameron (1970) has a pair of lateral jaws in the proboscis. Such jaws are absent in the present specimen.

The generic name refers to the resemblance between this notophycid and members of the Phyllodocidae.

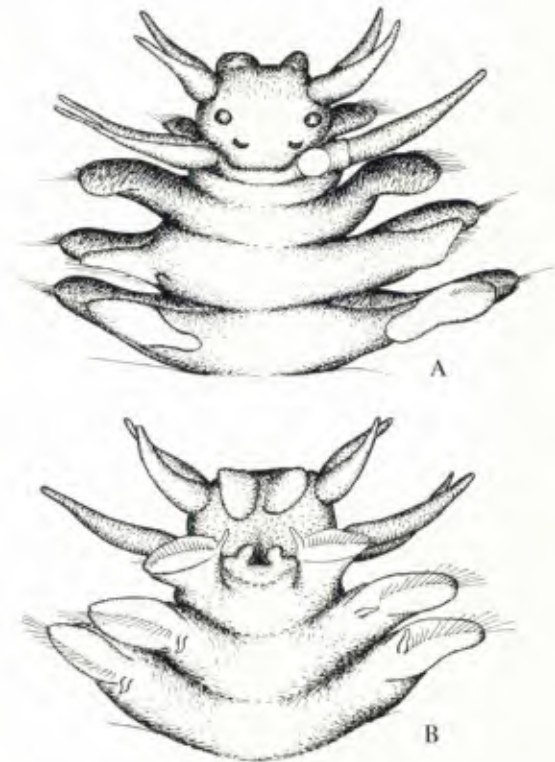


Figure 1. *Phyllodocella bodegae*, new species. A. anterior end, dorsal view, right dorsal tentacular cirrus broken,  $\times 50$ . B. anterior end, ventral view,  $\times 50$ .

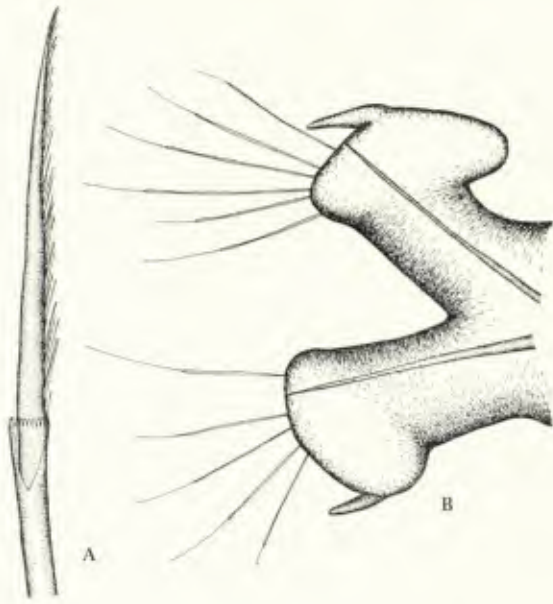


Figure 2. *Phyllodocella bodegae*, new species. A. seta from parapodium 7,  $\times 950$ . B. parapodium 7, anterior view,  $\times 52$ .

the lateral and posterior lips ventrally; it has two pairs of long, subdistally slightly inflated tentacular cirri.

The proboscis, which is strongly muscular, stretches through the four first setigers; jaws are absent.

Notopodia are absent in the first two setigers. The first neuropodia (Fig. 1B) project strongly ventrally with the setae pointing anteriorly and ventrally; the second neuropodia are slightly more lateral in position. Noto- and neuropodia project dorsolaterally and ventrolaterally in all setigers from setiger 3. Each parapodium (Fig. 2B), where fully developed, has similar, uni-acicular noto- and neuropodia. Each ramus has a cylindrical base and is distally expanded into a large, bulbous pad. The single fascicle of setae forms a straight line along the distal side of this pad. The notopodial pad is expanded to form a very large, bulbous lobe overhanging the dorsum in all setigers posterior to setiger 4; this development is absent in the two first pairs of notopodia. The dorsal cirrus is lateral to the notopodial bulbous lobe. The ventral cirrus, which is of the same size and shape as the dorsal one, is near the ventrolateral corner of the neuropodial pad.

All setae are composite spinigers. Each seta (Fig. 2D) has a long, slender shaft that is distally crenulated; it has a series of poorly defined transverse ridges subdistally. The appendage of each seta is long, evenly tapering and has series of fine teeth along the margin.

*Discussion:* *Phyllodocella bodegae* resembles *Noto-*

*phyucus minuta* Knox and Cameron (1970) from Snares Island, New Zealand, in that it has two pairs of antennae and a single peristomial segment with two pairs of tentacular cirri and in the shape and structure of the parapodia. *Notophycus minuta* has a pair of lateral jaws in the proboscis; jaws are absent in *P. bodegae*. This character is here considered of generic rather than specific value. The two species further differ in the shape and detailed equipment of the parapodial lobes and in the development of the antennae and tentacular cirri.

Both species described in the Notophycidae are quite small and are probably easily overlooked by collectors; it is however, rather remarkable that these worms have not been seen more frequently, considering the apparent wide geographical distribution of the family.

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