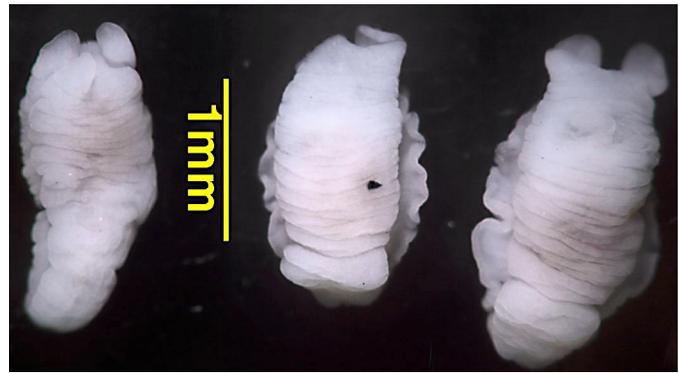


One recent sample from this type of substrate collected off San Diego yielded something quite small, and also unreported from our area. In this sample, from 63ft depth, nine small snails were found which did not match any known member of the local fauna. They were given to Don Cadien (CSDLAC) for examination. After an initial dissection of one of the animals their identity became clear; they were the first known representatives of the cephalaspid superfamily Philinoglossacea taken in the Eastern Pacific. This doesn't preclude the possibility that other specimens have been taken in the past and left at unidentified Cephalaspidea because of their small size and lack of external characters. Hopefully this is the case, and the current brief description of these animals will elicit additional material from readers.



Philinoglossa sp A - Station I-34 (2), 7-16-97, 63 ft.
(Image by K. Barwick CSDMWW 13Aug98)

The animals have few external characters of a positive nature (presences) but they have many negatives (absence of structures). They are ovate-elongate "slug" shaped, lack a head shield, lack parapodia, lack external gills, lack a shell externally, lack rhinophores, lack oral tentacles, lack attenuated corners to the foot, lack posterior mantle lobes (although a similar structure is present), and lack surface eyes (although eyes are discernible deep in the tissue).

They are small, the nine specimens ranging from 1-2mm in length, and 0.5-1mm in greatest width. They appear to be partially contracted with the dorsum conspicuously wrinkled transversely, and are probably more elongate and narrower bodied when fully extended. Because of this partial contraction the sides of the foot project laterally beyond the sides of the dorsum. This might suggest parapodia, but is only an artifact of preservation. The foot is also slightly shorter than the dorsum, which overhangs it at the rear. Ground color of the preserved animals is a translucent tan, with darker reddish brown visceral mass showing through towards the middle of the animal.

Internally the animals lack a vestigial shell posteriorly, they lack jaws anteriorly, and they lack gizzard plates. The small radula, about 15 tooth rows in the dissected animal, has the formula of 2.1.0.1.2. This formula is shared with other described members of the group (although Thompson 1976 lists this as 3.0.3, apparently following Odhner 1952), as is the morphology of the individual teeth. The marginal teeth are somewhat laterally flattened and appressed, so that they almost appear to be one bifid tooth. They are attached to the lateral tooth adjacent to a strong low shoulder near the tooth base. The cusps of the marginals are simple, curved, and acute. They lack any denticles. The lateral tooth is more complex, larger and more robust than the marginals, and not flattened laterally. The tooth has a broad base, with a strong low shoulder laterally. The central cusp is strong, curved so that its tip is slightly ahead of the base of the cusp, and dorsoventrally flattened towards the tip. Near the middle of the cusp it broadens into a medial flange which bears a series of small marginal denticles. From this flange distad the cusp is slightly scooped out, with the edges extending beyond the central line of the cusp. The appearance is very much like the lateral tooth of *Pluscula cuica* (Marcus & Marcus 1954, figure 8). There is no central tooth.

The group is one of those small interstitial groups about which little is known. There are two families in the superfamily, the Philinoglossidae and the Plusculidae. The later contains but a single species of a single genus, *Pluscula cuica* Marcus 1953. Two genera are assigned to the Philinoglossidae; *Philinoglossa* (with 5 or so species world-wide) and the monotypic *Sapha* (*S. amicorum* Marcus 1959). One other species, *Abavopsis latosoleata* Salvini-Plawen 1973, is either in a valid genus in the family Philinoglossidae, or in a subgenus within *Philinoglossa*. They are primarily distributed in the north Atlantic and Mediterranean, but *Sapha amicorum* comes from the Red Sea, and *Philinoglossa marcusii* Challis 1969 is from the Solomon Islands in the western Pacific. All these taxa seem to be separable from the new southern California species on the structure of the posterior end of the body. *Pluscula* has a vestigial shell retained internally near the posterior end of the animal, and has a foot much shorter than the dorsum. *Philinoglossa* is transversely truncate posteriorly without the lateral lappets or lobes present in our species. *Sapha* comes to a median point posteriorly. *Abavopsis* seems to retain a cephalic shield, and, like *Philinoglossa*, to lack the posterior lateral lappets of our species.

There may be notable differences in the structure of the internal organs between the local species and other described species in the group, but sectioning has not yet been performed. Details of described *Philinoglossa* species are provided by Hertling (1932), Marcus & Marcus (1954 & 1958), and Challis (1969); those of *Pluscula* by Marcus 1953, *Sapha* by Marcus 1959, and those of *Abavopsis latosoleata* by Salvini-Plawen (1973). In nearly all cases these are the original descriptions. Only *Philinoglossa helgolandica* has been treated by several different authors.

Anyone who thinks they might have additional specimens of this species please send the specimens to Don Cadien at CSDLAC, or bring them to a SCAMIT meeting. A voucher sheet on the species - called *Philinoglossa* sp A for now - is in preparation. (Reprinted from SCAMIT, 17(3))