External Description of a Living *Aranucus bifidus* (Odhner, 1936)

(Opisthobranchia : Dendronotacea)

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(2 Text figures)

THE DENDRONOTACEAN FAMILY Aranucidae was established by ODHNER (1936) to accommodate a single species collected in the Gilbert Islands by S. Bock in 1917. *Aranucus bifidus* does not appear to have been collected since the original specimen was reported and consequently there has been no description of the external parts of the living animal.

Aranucus bifidus is a commonly occurring species found throughout the year on both the windward and leeward reef flats of Guam. Specimens have also been found at Anatahan and Pagan Islands in the northern Marianas.

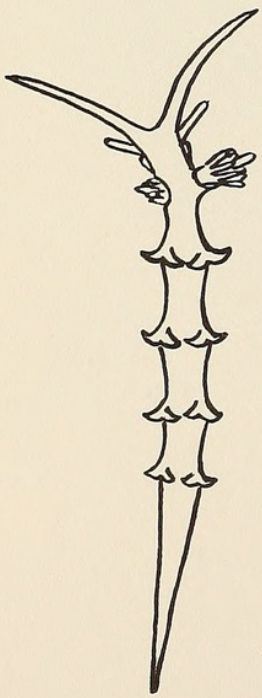

Figure 1
Aranucus bifidus (Odhner, 1936)
Dorsal View

Description of External Aspects: Length 7 to 12 mm. The body is long, higher than it is wide, with the back margins clearly marked off from the smooth sides (Figure 1). The dorsum is smooth from head back to tapering tail and normally has 4, rarely 5, pairs of smooth bifid projections along the margin. The first 3 pairs are of nearly equal size with the first pair being occasionally smaller and the fourth pair always smaller. One branch of each projection curves in toward the middorsum and on large animals overlaps the opposite projection; the other branch curves outward. On some animals there is a projection suggesting the beginning of a fifth pair and sometimes a single complete bifid projection.

The rhinophores are retractile into a high, wide sheath that has a fairly large pointed lobe projecting laterally and slightly anteriorly (Figure 2). The peduncle of the rhinophores is fairly heavy at the base, then narrows until it reaches the rhinophore club which is brush-like. The club is composed of a single long central papilla surrounded by 12 or 13 shorter, thin, digitiform papillae.

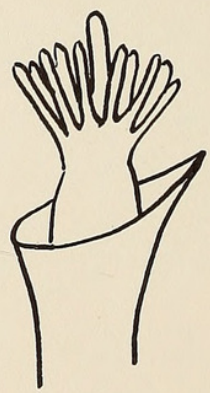

Figure 2
Aranucus bifidus (Odhner, 1936)
Rhinophore

The head has 2 pairs of tentacular processes, one pair long and tapering, directed forward; the other pair short, directed antero-laterally.

The foot, which projects very slightly past the body, is thin, widened and rounded anteriorly and is furrowed along its entire length. When not in contact with the substrate it is frequently folded at the midline.

The genital pore is directly below the first set of marginal projections on the right and the anus is lateral between the first and second set. Eye spots are barely visible through the dorsum at the posterior base of the rhinophores.

Color: The color of the dorsum varies from a light pink to a dark magenta, darker at the base of the marginal projections. The sides are lighter with a very light streak just below the margin. There is an internal dark spot visible middorsally between the first pair of projections and the orange color of the ovaries shows through the dorsum beginning at the second set of marginal projections, sometimes extending back to the fourth set. The marginal projections are white, as is the tail.

The rhinophore sheath has a dark red-violet base, lighter on the outside. The projecting lobe is white. The peduncle of the rhinophore is transparent, the brush-like papillae are orange with the long central one having a white tip. The basal third of the longer tentacles is red-violet with the remainder white. The shorter tentacles are transparent on smaller animals, and pink and translucent white on larger animals. The foot is transparent with tiny specks of translucent white.

Literature Cited

Odhner, Nils Hjalmar
1936 Nudibranchia Dendronotacea. A revision of the system. Mélanges Paul Pelseneer. Mém. Mus. Roy. d'Hist. Nat. Belg., Ser. II, Fasc. 3: 1057 - 1128; 1 plt.; text figs. 1 - 47