

Note on *Hydroides malleolaspinus* from the Kimberleys of Western Australia (Polychaeta: Serpulidae)

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ABSTRACT. Pillai (2009) described a series of specimens from the Kimberley area, Western Australia, considered them to belong to an unknown species and proposed the name “*Hydroides trihamulatus*” for them. In error, no type material was designated, so the name is unavailable. After reexamination of the same specimens, as well as the holotype of *Hydroides malleolaspinus* Straughan, 1967, we found that the specimens correspond to this latter species.

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Pillai (2009: 131–134) described a new species for which no types were designated (“*Hydroides trihamulatus*”). Because of this error the name is unavailable. Initially we thought to correct this by reexamining the same specimens, nominating type material, and describing them as a new species. However, as *Hydroides malleolaspinus* Straughan, 1967, was considered to be most similar to “*H. trihamulatus*” (see Pillai’s remarks on p.132), we also examined that holotype and other specimens identified by Straughan as *H. malleolaspinus*. We then discovered features on the holotype of *H. malleolaspinus* that were not included in Straughan’s original description, and which Pillai (2009) used as distinguishing characters separating the two species. We herein expand the description of *Hydroides malleolaspinus* Straughan, 1967, to include these characters.

Genus *Hydroides* Gunnerus, 1768

Type species. *Hydroides norvegica* Gunnerus, 1768.

Diagnosis. See Pillai (2009), and ten Hove & Kupriyanova (2009).

Hydroides malleolaspinus Straughan, 1967

Fig. 1A–B

Hydroides malleolaspina Straughan, 1967:222–224, figs. 7a–f.
“*Hydroides trihamulatus*” Pillai, 2009: 131–134, figs. 24A–G,
25A–C, 26A–L (name unavailable, types not designated).

Material examined. Holotype of *Hydroides malleolaspinus* Straughan, 1967, AM W3999, coll. from Pialba, Queensland, 25°16'44"S 152°50'32"E, June 1962 by G. McKeon. AM W3996 (1) identified by D. Straughan, from Shoal Point, Mackay, Queensland, coll. 7 Aug 1964, by I. Straughan. AM W4109 (1) identified by D. Straughan, from Heron Island, Queensland, coll. 1955 by B. Dew.

“*Hydroides trihamulatus*”: AM W202944 (5 specimens, all incomplete and only one with operculum present, removed from tubes, one posterior end also in vial), from Kimberley area, Western Australia, from sand cay on Port George IV, 15°20'S 124°39'E, St. 26, coll. 12 July 1988, by dredge. AM W21412 (5 specimens, of which two are anterior ends only and lack tubes, one is juvenile, incomplete posteriorly but possesses a tube, and one consists of radiolar crown of one side only), from Kimberley area, Western Australia, from sand cay on Port George IV, 15°20'S 124°39'E, St. 26, coll. 12 July 1988, by dredge. AM W202939 (1 radiolar crown from one side only, plus operculum), from sand cay on Port George IV, 15°20'S 124°39'E, 12 July 1988, St. 26. AM W202943 (1 adult specimen lacking tube), from reef north west of Buffon Island, 14°55'S 124°48'E, 12 July 1988, St. 85.

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AM W21469, (1 juvenile), from south west corner of Lucas Island, Kimberleys, Western Australia, 15°13'S 124°31'E, 30 m, 24 July 1988, St. 101. All specimens coll. by P.A. Hutchings.

Description. Holotype incomplete posteriorly, tube missing, with 7 thoracic and c. 80 abdominal chaetigers for length of 22 mm, maximum thoracic width 2.0 mm, 17 radioles plus operculum on right side, 21 radioles plus rudimentary operculum on left side, opercular length 2.1 mm, length of operculum with peduncle 5.5 mm, operculum with 9 unmodified coronal spines with T-shaped tips, plus 1 enlarged modified coronal spine with distal lateral “points” and large bulbous process directed medially, 21 infundibular spines with T-shaped tips (Fig. 1A); all spines lack a basal process.

Variation. Specimen from AM W3996 complete but damaged posteriorly, 17.0 mm in length, maximum thoracic width 2.0 mm, tube present for most of abdomen, dirty-white with 3 longitudinal ridges, radioles regrowing, 19 radioles on each side plus rudimentary operculum on left and operculum on right, opercular length 2.0 mm, 10 unmodified coronal spines with T-shaped tips, plus 1 enlarged modified coronal spine with small distal lateral “points” and large medial beak-like process directed perpendicular to axis of spine, 28 infundibular spines with T-shaped tips (Fig. 1B). Specimen from AM W4109 incomplete, damaged, juvenile, length of 1.5 mm with 3 abdominal chaetigers, maximum thoracic width 0.4 mm, tube missing, 6 radioles on each side plus rudimentary operculum on right and operculum on left, opercular length 0.7 mm, 7 unmodified coronal spines with T-shaped tips, plus one modified, enlarged coronal spine with slight medial bulge, 20 infundibular spines with blunt tips.

All specimens cited by Pillai (2009) under “*Hydroides trihamulatus*” are incomplete posteriorly, and are smaller than the type specimen of *H. malleolaspinus* and specimen AM W3996, but most are larger than specimen AM W4109. Maximum thoracic width ranges from 0.5–1 mm, opercular length ranges from 0.6–1.3 mm, number of radioles varies from 6–10 per side (plus operculum or rudimentary operculum), coronal spine number varies from 10–15, shape of the modified spine ranges from a small bulge to a beak-like process perpendicular to the axis of the spine. Number of infundibular lobes/spines ranges from 17–26. Coronal and infundibular spines show variations associated with ontogenesis. For a description of the size-related variability of spine shape/form, refer to Pillai (2009: 131, figs. 24C–G, 25A–C, 26E–F). Tube is square to trapezoidal in cross-section; 2–3 longitudinal ridges present along tube: smaller specimens possess two longitudinal ridges (Pillai, 2009: figs. 24A,B, 26A–C), which may only be weakly developed (Pillai, 2009: fig. 24E); the larger specimen AM W3996 possesses three longitudinal ridges along the tube. For detailed description of chaetae refer to Pillai (2009: 131–132, fig. 26G–L).

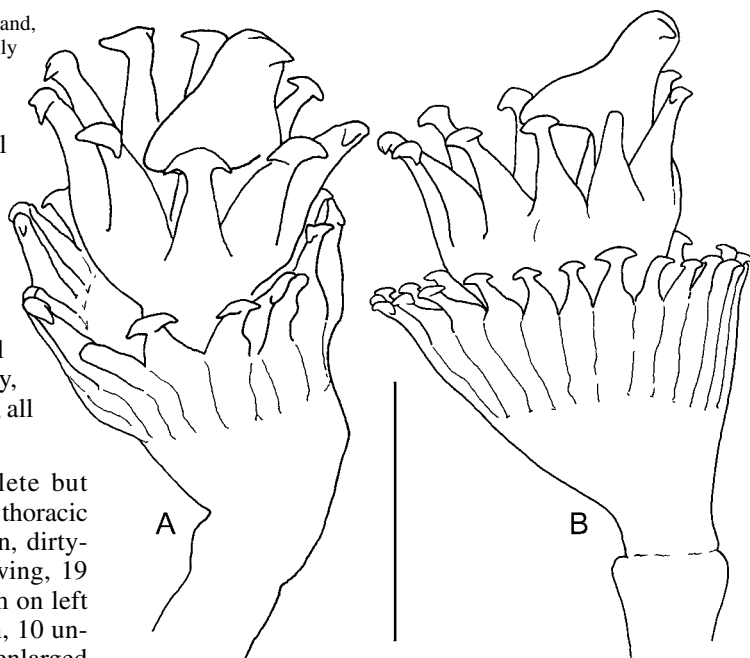


Figure 1. *Hydroides malleolaspinus*. (A) operculum of AM W3999, holotype; (B) operculum of AM W3996. Scale bar is 1 mm.

Remarks. Straughan (1967) described the enlarged modified coronal spine on the operculum of *H. malleolaspinus* as being “somewhat hammer-shaped”, she made no mention of a medial process, and her illustration (1967: fig. 7a) is ambiguous. Having confirmed that the holotype and another specimen identified by Straughan, possess a “bifid” tip and a large beak-like medial process on the modified coronal spine of the operculum, we have expanded the description of *H. malleolaspinus* to include these characters. We thus conclude that the specimens cited by Pillai (2009) under “*Hydroides trihamulatus*” represent this species. The variability in opercular spine form and count lies within the range that we regard as normal for conspecific individuals of varying age and size. The name “*Hydroides trihamulatus*” should be treated as unavailable. The geographical distribution of *H. malleolaspinus* is thus expanded to include NW Australia.

References

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