

PROCEEDINGS
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AUSTRALAUGENERIA POTTSI, NEW NAME FOR
POLYNOE LONGICIRRUS POTTS, FROM THE MALDIVE
ISLANDS (POLYCHAETA: POLYNOIDAE)

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The original description of the polynoid polychaete *Polynoe longicirrus* Potts, 1910, was based on material collected by Mr. J. Stanley Gardiner in 1899 from four localities in the Maldive Islands: South Male, North Male ("off a Gorgonian"), South Nilandu, and Fadifolu. Syntypes from one of these localities, that of South Nilandu, are now deposited in the British Museum (Natural History), having been transferred from the Cambridge Museum. As pointed out by Augener (1922, p. 10, footnote) and Hartman (1959, pp. 103, 108, Catalogue), *Polynoe longicirrus* Potts, 1910, is a junior homonym of *Polynoe* (*Lepidonotus*) *longicirra* Schmarda, 1861. In my recent paper on "A review of some species referred to *Scalisetosus* McIntosh" (Pettibone, 1969, p. 25), I indicated that Potts' *Polynoe longicirrus* might prove to belong to *Australaugeneria* Pettibone and that the type-specimens needed to be re-examined. Such re-examination has now confirmed my earlier supposition and Potts' species is herein given a new name and re-described.

I wish to thank David George of the British Museum (Natural History) (BMNH) for the loan of the type-specimens and Fenner A. Chace, Jr., of the Smithsonian Institution for critically reading the manuscript. This study was aided in part by a grant from the National Science Foundation (NSF GB-1269).

FAMILY POLYNOIDAE MALMGREN

Genus *Australaugeneria* Pettibone, 1969; emended

Type-species: *Polynoe rutilans* Grube, 1878, by original designation.

Emended diagnosis: Buccal segment (II) without notosetae (type-

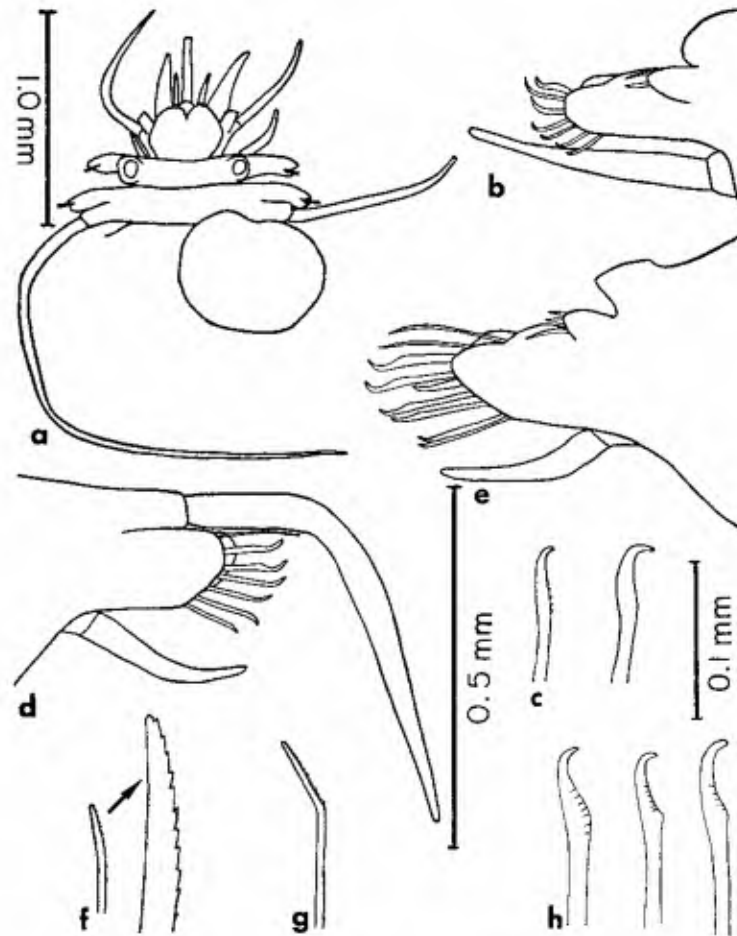


FIGURE 1. *Australaugeneria pottsi* n. name (Syntypes of *Polynoe longicirrus* Potts, BMNH 1924: 3: 77): a, Dorsal view anterior end, tip of antenna broken, upper tentacular cirri and first pair elytra missing; b, elytrigerous parapodium from segment II, anterior view; c, neurosetae from same; d, cirriferous parapodium from segment III, posterior view; e, elytrigerous parapodium from segment IV, anterior view; f, notoseta from same and tip magnified; g, upper neuroseta from same; h, middle and lower neurosetae from same.

species) or notosetae few in number. Presetal neuropodial lobes of segments II and III enlarged, hoodlike (type-species) or only slightly enlarged.

Australaugeneria pottsi new name

Figs. 1-3

Polynoe longicirrus Potts, 1910, p. 336, pl. 18, fig. 9, pl. 20, fig. 29, pl. 21, figs. 37, 38.—Augener, 1922, p. 10 (footnote). Not *Polynoe* (*Lepidonotus*) *longicirra* Schmarda, 1861.

Scalisetosus longicirrus (Potts).—Hartman, 1959, p. 108. [HOMONYM.]

Material examined: South Nilandu, Maldives Islands, Indian ocean, J. S. Gardiner collection—3 syntypes of *Polynoe longicirrus* Potts (BMNH 1924: 3: 77). [Three anterior fragments of 12, 16 and 20 segments; posterior fragment of 9 segments; and 6 middle fragments.]

Description: Body small, flattened, tapered gradually posteriorly. Length 6.5-7.5 mm, width, including setae, 2 mm, segments 37-38. Elytra 15 pairs, arranged on segments 2, 4, 5, 7, alternate segments to 23, 26, 29, and 32. Elytra large, covering dorsum, soft, translucent, smooth, without tubercles or papillae. Prostomium bilobed, with lobes rounded anteriorly, without distinct cephalic peaks; ceratophore of median antenna in anterior notch, with style long and tapered; lateral antenna with distinct ceratophores, inserted ventrally, with styles very short; ventral palps short, stout, tapered; no eyes visible (fig. 1a). Tentacular parapodia (I) achaetous, with 2 pairs long tentacular cirri. Buccal segment (II) with ventral buccal cirri slightly longer than following ventral cirri; without nuchal fold; notopodia small, each with 2 short notosetae; neurosetae hooked; presetal neuropodial lobe longer than postsetal lobe but not especially enlarged (fig. 1a-c). Neurosetae of segments 3 and 4 also more strongly hooked than following neurosetae (fig. 1d-h). Parapodia sub-biramous (figs. 2a, b, 3a, b). Notopodia small, conical, confined to middle of neuropodial lobe; notosetae few in number (2-7), short, more slender than stouter type of neurosetae, slightly curved, with serrated border and blunt, slightly bidentate tips (figs. 1f, 2c, 3c). Neuropodia elongate, diagonally truncate distally, deeply notched dorsally and ventrally, forming anterior and posterior rounded lobes, former slightly longer than latter. Neurosetae of 2 types: upper few (2-5), slender, bent, spinous, with tips blunt (figs. 1g, 2d, 3d); middle and lower neurosetae slightly more numerous (6-8), stout, wider subdistally, smooth or faintly spinous on enlarged part, with slightly hooked tips (figs. 2e, 3e). Dorsal cirri with elongate cylindrical cirrophores and long filamentous styles (figs. 1d, 2a, 3a). Dorsal tubercles inconspicuous. Ventral cirri short, subulate, extending slightly beyond neuropodial lobes. Two dorsal transverse ciliated bands per segment.

Distribution: Indian Ocean (Maldives). May be found on gorgonians (Potts, 1910).

Remarks: *A. pottsi* differs from the two previously described species of *Australaugeneria* from the Philippine Islands and southwest Australia, *A.*

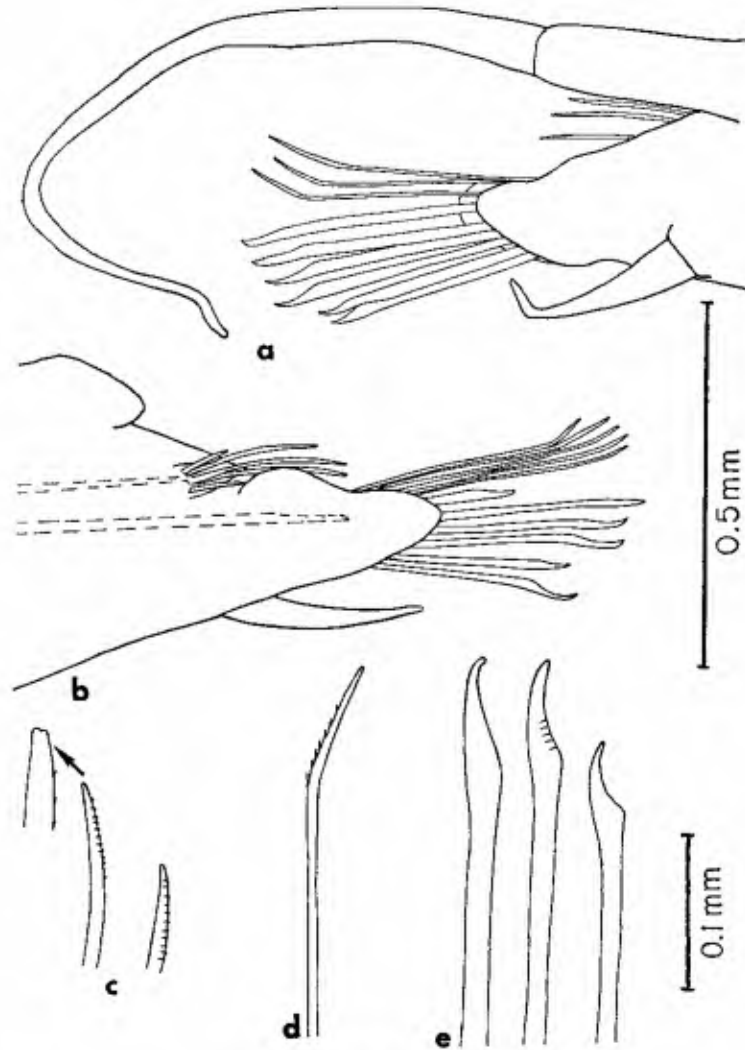


FIGURE 2. *Australaugeneria pottsi* n. name (Syntypes of *Polynoe longicirrus* Potts, BMNH 1924: 3: 77): a, Middle cirriferous parapodium, posterior view; b, middle elytriferous parapodium, anterior view; c, notosetae from same and tip magnified; d, upper neuroseta from same; e, middle and lower neurosetae from same.

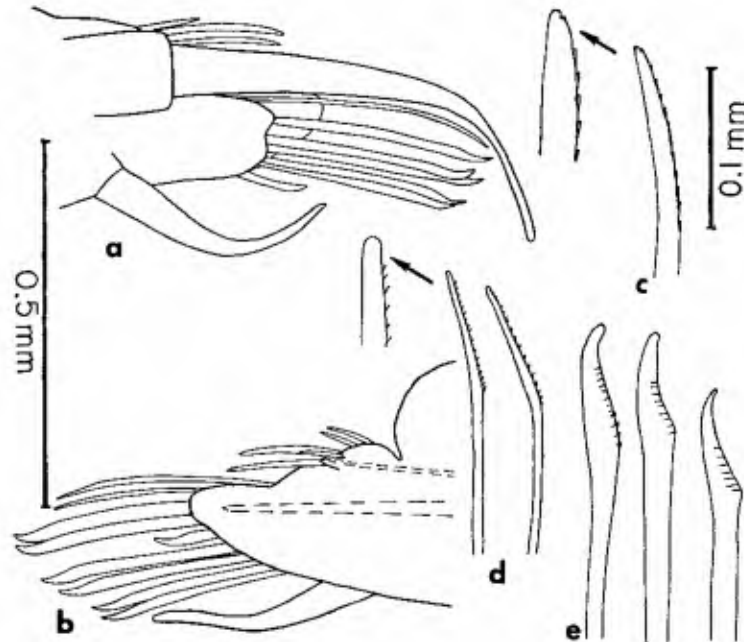


FIGURE 3. *Australaugeneria pottsi* n. name (Syntypes of *Polynoe longicirrus* Potts, BMNH 1924: 3: 77): a, Posterior cirriferous parapodium, posterior view; b, posterior elytriferous parapodium, anterior view; c, notoseta from same and tip magnified; d, upper neurosetae from same and tip magnified; e, middle and lower neurosetae from same.

rutilans (Grube, 1878) and *A. michaelsoni* Pettibone, 1969, in that the parapodia of segments II and III are less modified, i.e., the presetal neuropodial lobes are not especially enlarged or hoodlike, the neurosetae are not as strongly hooked, and two notosetae are present in segment II and not absent, as in the other two species. *A. pottsi* agrees more closely with *A. rutilans* in having the notosetae more slender than the stoutest neurosetae, curved, with spinous rows and bifid tips, and not smooth, stout, spikelike, as in *A. michaelsoni*. The notopodia are short and confined to the middle of the neuropodial lobes in *A. pottsi* and *A. rutilans* and not extending to near the distal tips of the neuropodia, as in *A. michaelsoni*.

In her Catalogue of the Polychaeta of the World, Hartman (1959, p. 108) referred *Polynoe longicirrus* Potts, 1910, to *Scalissetosus*, perhaps following a suggestion by Augener (1922, p. 10, footnote) that it might be a *Scalissetosus*-like form. As indicated by Pettibone (1969), it does not agree with *Scalissetosus* McIntosh.

LITERATURE CITED

- AUGENER, H. 1922. Revision der australischen Polychaeten-Typen von Kinberg. *Ark. Zool. Stockholm*, 14(8): 1-42, 10 figs.
- GRUBE, E. 1878. *Annulata Semperiana*. *Mém. Acad. Imp. Sci. St. Pétersbourg*, (7), 25 (8): 1-300, 15 pls.
- HARTMAN, O. 1959. Catalogue of the Polychaetous annelids of the World. Allan Hancock Found. Publ. Occas. Paper, No. 23: 1-628.
- PETTIBONE, M. H. 1969. Review of some species referred to *Scalissetosus McIntosh* (Polychaeta, Polynoidae). *Proc. Biol. Soc. Washington*, 82: 1-30, 12 figs.
- POTTS, F. A. 1910. Polychaeta of the Indian Ocean. Pt. 2. The Palmyridae, Aphroditidae, Polynoidae, Acoetidae and Sigalionidae. *Trans. Linn. Soc. Zool.*, ser. 2, 16: 325-353, pls. 18-21.
- SCHMARDTA, L. K. 1861. *Neue wirbellose Thiere beobachtet und gesammelt auf einer Reise um der Erde 1853 bis 1857*. Leipzig, vol. 1. Turbellarien, Rotatorien und Anneliden. Pt. 2, 1-164, 22 plates, 100 figs.