

ARENICOLA FROM SOUTH-EASTERN AUSTRALIA.¹

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(Plate xviii; Figures 1-6; Map.)

This note records the occurrence for the first time on the Australian mainland of the widely distributed southern form *Arenicola assimilis* var. *affinis* Ashworth, the nearest locality from which it has been recorded being at Burnie on the north coast of Tasmania (Ashworth, 1912). Ashworth (1916) also describes four specimens of *Arenicola loveni* from Kangaroo Island and Lacedpede Bay (South Australia). The writer and other members of the McCoy Society collected a large series of specimens referable to *A. loveni* during that society's expedition to the Sir Joseph Banks Islands in Spencer Gulf (South Australia) in December, 1936 (McCoy Society, 1937, 1939), thus extending the range of this form further west in southern Australia. The south Australian form of this species merits varietal distinction from the typical South African form as described by Ashworth (1910, 1911).

Arenicola loveni sudaustraliense, var. nov., is one of the dominants of the *Katelysia-Arenicola-Entromorpha* faciation of the sand beach association of the intertidal biome of southern Australia. This faciation is described in detail elsewhere by the writer (Stach, 1944).

Arenicola assimilis Ehlers var. *affinis* Ashworth, 1903.

A. assimilis var. *affinis* Ashworth, 1903, p. 764; *idem*, 1912, p. 124.

Specimens identical with Ashworth's description and ranging in size between 8 and 17 cm. were obtained in abundance at several localities along the coast in Western Port Bay (Victoria) between Balnarring and Point Leo. In life the trunk is light brown in colour and nearly transparent, the blood vessels being visible through the integument; the tail region is pale green-brown and transparent.

Arenicola loveni sudaustraliense, var. nov. (Figs. 2-6; Plate xviii.)

Arenicola loveni Ashworth, 1916, p. 38.

Descriptive Notes.—The largest of the series of twenty-three specimens examined (and probably the largest specimen of *Arenicola* yet recorded) attains a total length of 560 mm., the trunk being 235 mm. long; the smallest specimen of the series has a trunk length of 117 mm. In life the trunk is deep brown in colour posterior to the first nephridial aperture, while anterior to it the leathery integument is heavily pigmented with black; the tail is light brown. The external characters (Figs. 2, 3; Plate xviii, fig. 1) agree in all particulars with Ashworth's most recent account (1916, pp. 38-41) of the species and need not be discussed further, except to note in one specimen the presence of an additional posterior segment consisting of four small annuli and an enlarged chaetiferous annulus without gills, but with notopodium and neuropodium on the right side only (Figs. 4, 5; Plate xviii, fig. 1).

In the twelve specimens dissected, it was found that in no case did both septal pouches pierce the second septum. In four of these, one pouch pierces septum 2 and the other, like those of the remaining eight specimens, is doubled back from septum 2 towards septum 1 (Plate xviii, fig. 2, *sp*).

¹This paper was completed in 1937, but owing to the author's absence from Australia, presentation has been delayed. Circumstances do not permit reference to literature (if any) bearing on *Arenicola* later than 1937.