

***Paramisophria variabilis*, a New Arietellid (Copepoda: Calanoida) from Hypersaline Waters of Shark Bay, Western Australia**

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ABSTRACT. Both sexes of *Paramisophria variabilis* n. sp. (Copepoda: Arietellidae) taken in plankton samples from hypersaline (50.00–56.5 ‰) waters of Shark Bay, Western Australia, are described. A key to differentiate the known species of the genus is presented,

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KEYWORDS: Copepoda, Arietellidae, *Paramisophria*, taxonomy, Western Australia, hypersaline waters.

The genus *Paramisophria* comprises three species, the type *Paramisophria cluthae* T. Scott, 1897, *P. spooneri* Krishnaswamy, 1959 and *P. ammophila* Fosshagen, 1968. *Paramisophria cluthae* is known from Scotland (T. Scott, 1897) and Norway (Sars, 1903, Matthews, 1967, Fosshagen, 1968). Fosshagen (1968) commented that Tanaka's (1966) record of *P. cluthae* from Japan may represent the first record of another species. *Paramisophria spooneri* was described from bottom fauna collections off Plymouth, U.K. (Krishnaswamy, 1959), and *P. ammophila* from shallow water collections in the northeastern Bahamas (Fosshagen, 1968).

This paper describes a fourth member of the genus, taken in plankton samples on the Fauré Sill, a region of high tidal flow on the seaward side of Hamelin Pool, the southernmost region of the eastern gulf of Shark Bay, Western Australia. We sampled repeatedly using a 150 µm plankton net suspended 2.0 m under the anchored boat for periods of 30 minutes, over an entire tidal cycle. Once obtained, samples were stained with

neutral red for 1 hour, then fixed in 10% formalin. Salinities ranged from 50.0‰–56.5 ‰.

We mounted specimens on microslides in polyvinyl lactophenol, and drew them using a Wild M20 phase contrast microscope and camera lucida. Further examination was made with an Olympus microscope with Nomarski optics.

Family Arietellidae Sars, 1902

Genus *Paramisophria* T. Scott, 1897

Type-species: *Paramisophria cluthae* T. Scott, 1897

The genus was established by T. Scott (1897) based on females only. Sars (1902) presented a description of both sexes of *P. cluthae* and a complete generic diagnosis. Fosshagen (1968) made several additional comments on the morphology of *P. cluthae*. Krishnaswamy (1959) altered the generic diagnosis to accommodate an endopod on the fifth leg of the male.

Key to Species of *Paramisophria*.

1. Exopod of antenna 2-segmented.....2
 —Exopod of antenna with more than 2 segments.....3
2. Segments of antenna with 0, 4 setae respectively. Inner margin of female leg 5 coxa bifid, male (? right) leg 5 with a 1-segmented endopod extending from coxa to distal margin of 2nd exopod segment.....*P. spooneri*