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Rossopsyllus obscurus n. sp. (Copepoda, Harpacticoida) from Macquarie Island, South Pacific Ocean

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**ROSSOPSYLLUS OBSCURUS N. SP. (COPEPODA, HARPACTICOIDA)  
FROM MACQUARIE ISLAND, SOUTH PACIFIC OCEAN**

BY

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RÉSUMÉ

Description, avec quelques considérations systématiques et biogéographiques, d'une nouvelle espèce de *Rossopsyllus*: *R. obscurus* n. sp. récoltée dans les eaux souterraines littorales de l'île Macquarie. *R. obscurus* n. sp. se rapproche de *R. kerguelenensis* Soyser; il s'en distingue cependant par l'exopodite biarticulé de la mandibule, et par la chétotaxie de l'endopodite des P2, des P5 et des branches furcales.

INTRODUCTION

In the present paper a second species of the genus *Rossopsyllus* Soyser is described. *Rossopsyllus obscurus* n. sp. was collected in marine interstitial waters of Macquarie Island, South Pacific Ocean, by Dr. Luigi Boitani, during the ANARE voyage in 1984. The project was partially funded by a grant from CNR (Gruppo di Biologia Naturalistica).

***Rossopsyllus obscurus* n. sp.**

Material. — 5 ♀♀ (2 ♀♀ ovigerous), "Sandy Bay" beach, and 2 ♀♀, "Green Gorge" beach; Macquarie Island, 23 Oct. 1984. Method Karaman-Chappuis. The holotype is a dissected female mounted in polyvinyl-lactophenol, on a slide labelled *R. obscurus* ht. The paratypes are all the remaining specimens, mounted in the same way, on slides labelled *R. obscurus* pt., numbered from 2 to 7. The type-series is part of the authors' collection, in the Zoological Museum of the Department of Animal and Human Biology, University "La Sapienza", Rome.

Diagnosis. — Characterized by an exopodite of mandible of two articles, the shape and ornamentation of P5 and the ornamentation of furcal rami.

Description of the holotype. — Habitus (fig. 1c). Length from apex of rostrum to distal margin of anal somite, 0.30 mm. Cephalothorax slightly longer than wide, with an articulated rostrum (fig. 1a) little longer than first segment of antennula. All somites pubescent dorsally and ventrally. Genital somites dorsally fused, with suture visible laterally and ventrally (fig. 2f).

Last abdominal somite (fig. 1f) short. Furcal rami (fig. 1f) twice as long as wide, pubescent, with three apical setae, the middle ones longest, one dorsal articulated thin seta, a haired-seta and one proximal seta on outer margin.

Antennula (fig. 1a) eight-segmented. First three articles largest. Fourth and last articles with an aesthete.

Antenna (fig. 1d): Coxa unarmed. Basis with one strong seta on inner corner. Exopodite of two articles, each bearing two haired-setae. First article of endopodite bare, second article with six apical setae (four geniculate).

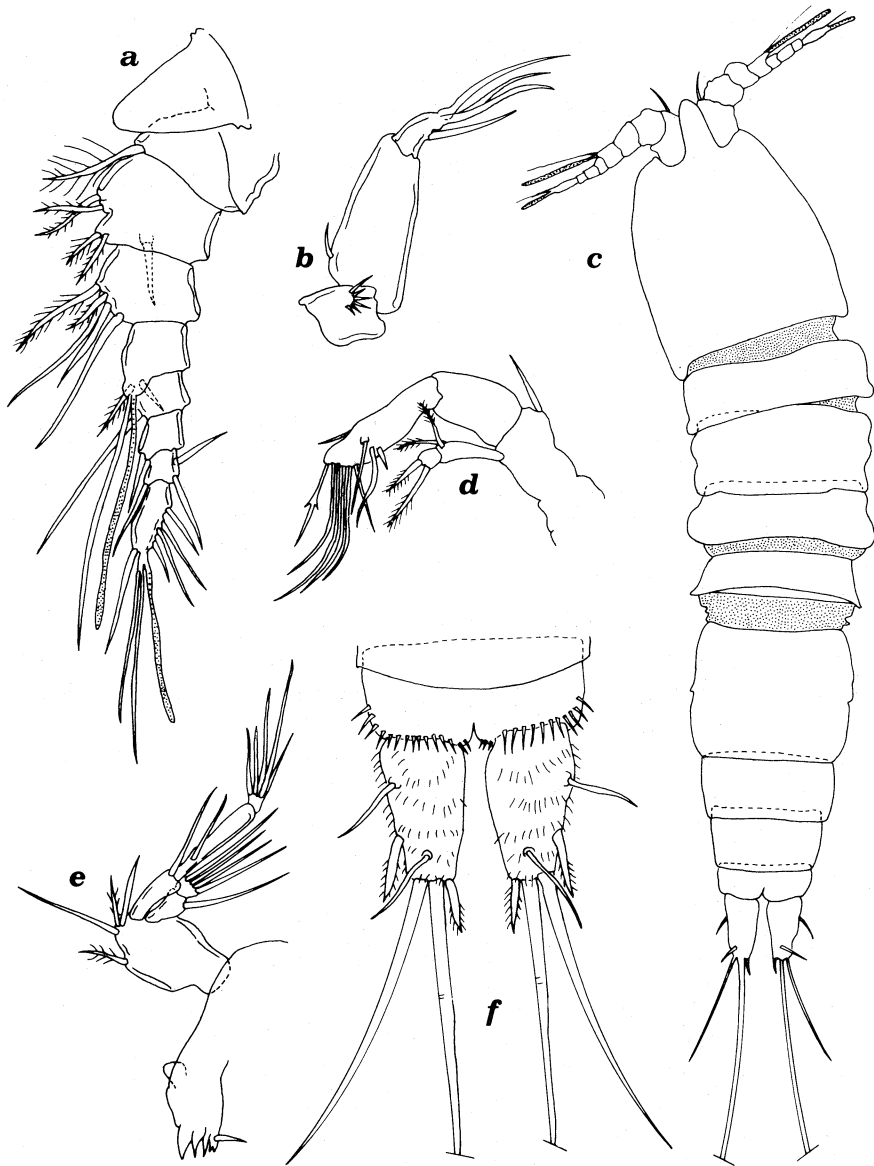


Fig. 1. *Rossopsyllus obscurus* n. sp., holotype ♀. a, antennula and rostrum; b, maxilliped; c, habitus; d, antenna; e, mandible; f, anal somite and furca.

Mandible (fig. 1e): Coxa-basis with four setae. Endopodite of three segments, the first two with one seta, the last short, with five distal setae. Exopodite of two segments, the first with one seta, the second with four setae.

Maxillula and maxilla undescribed.

Maxilliped (fig. 1b): Basiendopodite with a row of spines. First endopodite segment with a proximal seta, the second ones with four unguiform distal setae.

P1 (fig. 2d): Basis with a haired-seta on outer corner, and one internal haired-seta with a row of fine cilia. Exopodite of two articles, the second with seven setae. First endopodite segment, longer than exopodite, bearing a long seta near the middle of its lateral margin. Second segment of endopodite with a strong distal claw and two spiniform setae.

P2-P4 (fig. 2a, c, e): Exopodite of three articles, the first two bearing one seta on inner distal corner; third with five setae. Endopodite P2 of two articles, the first twice longer than the second with a long fine seta on inner distal corner. Second article with five setae. Endopodite P3-P4 of three segments; first and second with a seta on inner distal corner, third with three distal setae.

P5 (fig. 2b) laminar and fused. Distal margin with a short seta near the middle of its length. Lateral margin with three anterior setae and a posterior projection with a haired-seta.

P6 (fig. 2f) represented by a little plaque bearing three setae.

Variability. — All the above mentioned features are constant for the type-specimens.

The genus *Rossopsyllus* was established by Soyer (1974) for *R. kerguelenensis*. *R. obscurus* n. sp. is closely related to the other species but differs in the following respects: exopodite of antenna with proximal segment bearing one more seta; mandible with an exopodite of two-articles (instead of three); endopodite of maxilliped with first segment bearing one proximal seta (lacking in Soyer's species); distal segment of endopodite P2 with five setae (instead of four); P5 with one more seta on distal margin; furca with six setae (instead of four).

The new species having a two-segmented exopodite of mandible, does not fit the generic diagnosis inferable from the work of Soyer (1974) and Kunz (1981).

Kunz (1981) emphasizes the remarkable phylogenetic position of *Rossopsyllus* between genera of Paramesochridae, and regards this genus as a "relict" specialized in the remote Kerguelen Islands. Furthermore some different plesiomorph characters make both *Rossopsyllus* and *Tachydiopsis* closely related to the hypothetic ancestor of Paramesochridae. The discovery of *R. obscurus* n. sp. supports Kunz's statement, though a two-segmented exopodite of mandible represents one more apomorph character compared with that of *R. kerguelenensis*.

The new species seems to confirm the faunistic peculiarity of "province kerguelenienne" (Knox, 1960). Furthermore the genus *Rossopsyllus*, as well as *Tapholaophontodes* (Cottarelli & Baldari, 1987), at present found only in interstitial waters of Kerguelen and Macquarie, shows some faunistic affinity between the islands.

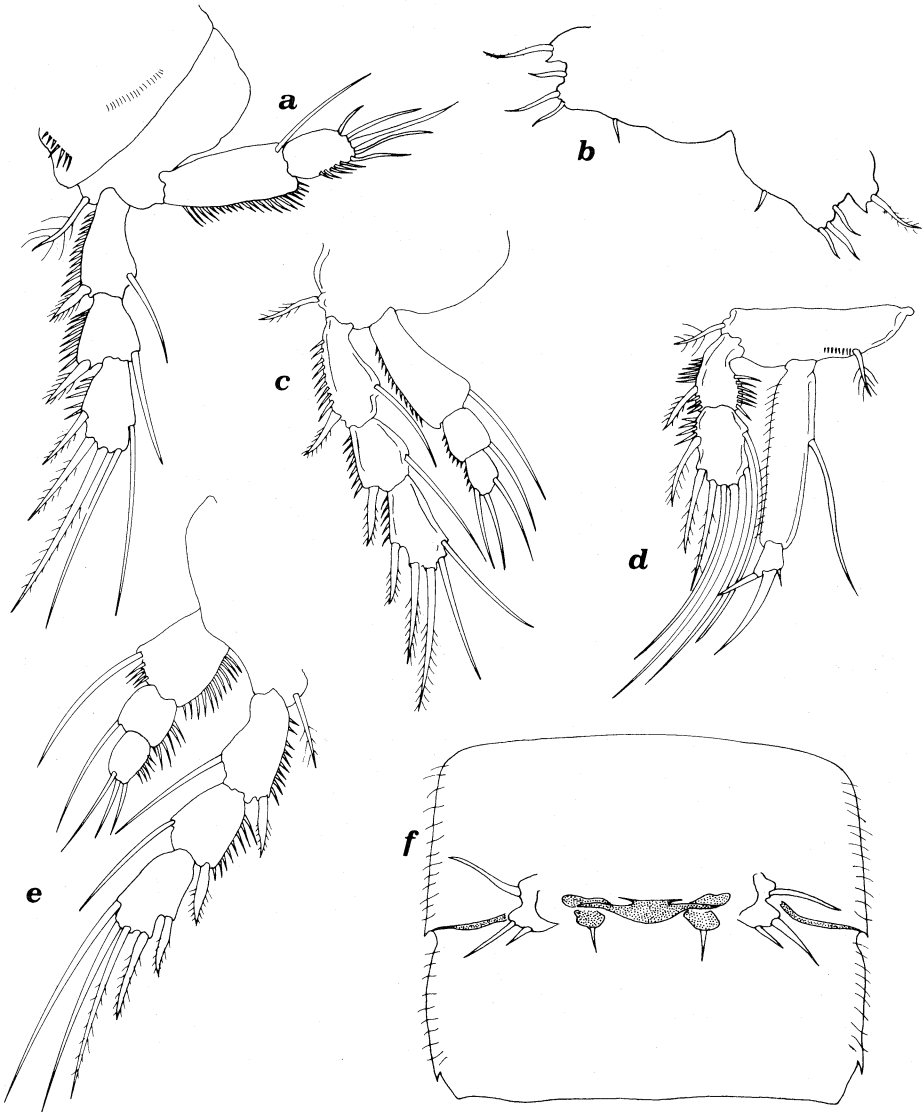


Fig. 2. *Rossopsyllus obscurus* n. sp., holotype ♀. a, P2; b, P5; c, P3; d, P1; e, P4; f, P6 and genital area.

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