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Revision of the Maghrebian species of the genus *Porcellio* Latreille, 1804. VII. A new species of *Porcellio* from Tunisia: *Porcellio dominici* n. sp. (Crustacea, Isopoda, Oniscidea)

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Abstract

The authors describe and illustrate a new species of *Porcellio* from Tunisia: *P. dominici* n. sp. The new species belongs to the *monticola* group and is compared with *P. orarum alpicola*.

Keywords: Taxonomy, new species, *Porcellio*, *Oniscidea*, Tunisia, North Africa

Introduction

In the North African *Porcellio*, which we have studied for some time (Caruso & Di Maio 1990a, 1990b, 1990c, 1990d, 1993; Di Maio 1996; Di Maio & Caruso 1990, 1991; Di Maio & Dalens 1991) we found some populations that could not be attributed to any species known to date: it was therefore necessary to raise a new species that is described here in the present paper.

Materials and methods

The examples were collected on more than one occasion by one of us (D.C.) during some studies carried out in North Africa within the framework of the research project on western Mediterranean fauna. We also received some samples from Dr Lamia Medini of Tunis, whom we would like to thank. The animals were kept in 70% alcohol. The drawings of the pleopoda were made at the optical microscope, from samples mounted on slides, using a camera lucida. The seventh male pereopod, the anterior portion of the body and the pleon were drawn using a Zeiss STEMI SV8 stereo-microscope and relative camera lucida. Type specimens are

deposited in the Department of Animal Biology in Catania (D. Caruso collection).

Taxonomic accounts

Porcellio dominici n. sp.

Material examined: Tunisia: 6 km after Tabarka, 1♀, 17.10.1989; Djedeida, roadside, 1♂–4♀, 27.02.1981; 15 km west of Jalta 250 m a.s.l., 3♂–1♀, 28.02.1981; Tunisia, 90 km towards Tabarka, 300 m a.s.l., 2♂–1♀, 11.04.1969; Region El Alya (Bizerte) November 1994 (L. Medini leg.), 2♂–2♀.

The samples examined measured about 8 mm in length, the males were slightly, although constantly, longer than the females, and light colored; some examples had a slight brownish-rose pigmentation.

The body was flat, a little convex; the epimera were relatively narrow and generally the shape of the body was elongated.

The tegument had a particular granulation: even if not large, the granules were very clear and had a longitudinal extension so as to appear like ribbing. They were in three transverse lines, of which the third was in the posterior portion of the tergite of the pereon (Figure 1A). The pleon only had granules on the posterior margin of the tergite (Figure 1B).

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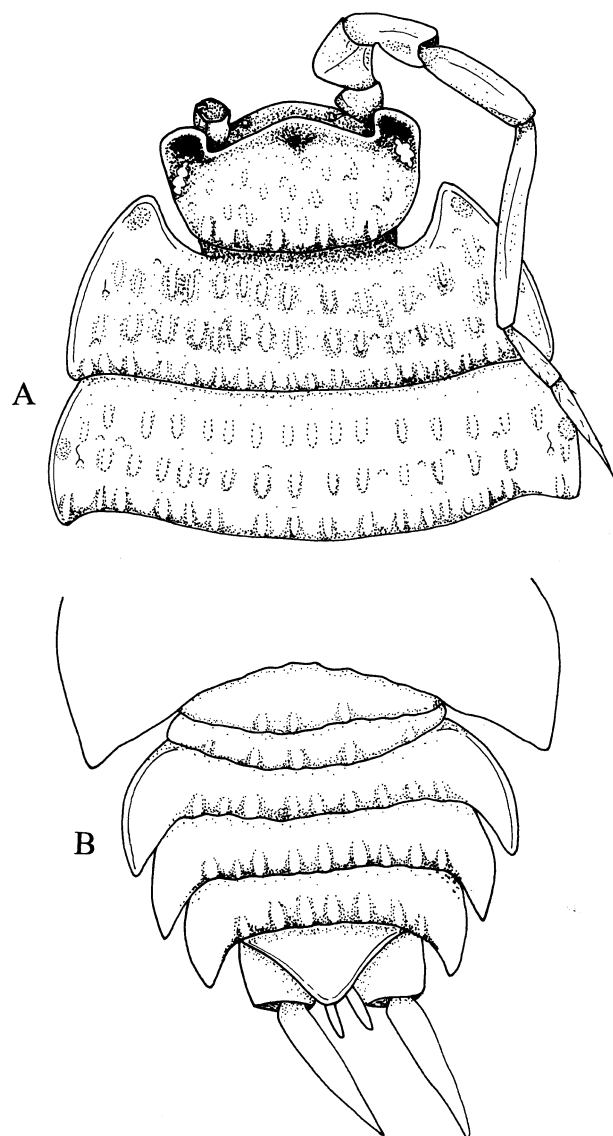


Figure 1. *Porcellio dominici* n. sp., male: **A**, cephalon, antenna and I and II tergite of the pleon; **B**, pleon, telson and uropods.

The lateral nodules and the glandular fields were not very evident: the former were visible under the stereo-microscope after placing the animal correctly; the latter were situated in the anterior portion of the epimera, and were covered by the posterior margins of the previous tergite.

The head had a small triangular median lobe; the lateral lobes were relatively large, wider than long and continued with the median lobe in a regularly rounded line. The interior anterior margin was turned up (Figure 1A); the forehead was convex and on half of it there was a slight swelling: the frontal tubercle.

The posterior margins of the first three pereionites were slightly sinuous at the base of the epimera (Figure 1A).

The pleon continued the pereion without interruption. The telson, a rounded triangle in shape, was slightly longer than the protopodites of the uropods, which were rectangular and wider than long. The endopodites extended beyond the telson apex, the exopodites were spear-shaped and similar in both sexes (Figure 1B).

The antennae were turned back and extended beyond the second pereionite; the flagellum had similar articles (Figure 1A).

The males had a bristly brush on the mero of the 1st and 2nd pairs of pereiopods. The VII pereiopods did not have a carpal swelling; on the mero there was a tuft of thin hairs and on the ischio a slight depression surrounded by a few thin hairs (Figure 2B).

The 1st pair of male pleopods had the exopodite with a triangular point much shorter than the genital apophysis and regularly rounded (Figure 2C); the tracheal field was in the posterior position; the extremity of the endopodite was surrounded by a tuft of thin hairs (Figure 2A).

Affinity

Porcellio dominici n. sp. could be assigned to the *monticola* group (Vandel 1946, 1951, 1956, 1962) that in Tunisia is also represented by two other

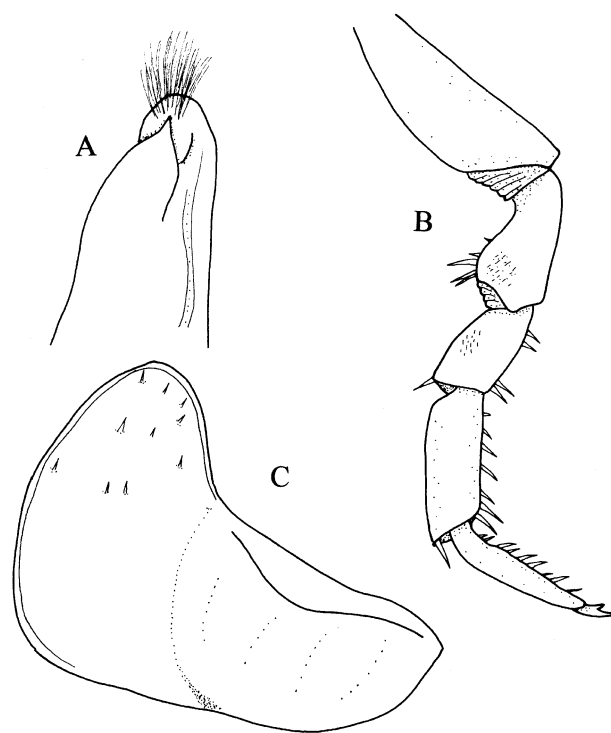


Figure 2. *Porcellio dominici* n. sp., male: **A**, apex of the endopodite of the I pleopod; **B**, VII pereiopod; **C**, exopodite of the I pleopod.

species: *P. monticola* Lereboullet, 1853 and *P. spatulatus* Costa, 1882. The first species was reported by Simon (1885) as *P. lugubris* Koch, 1839 for Algeria and Tunisia, after which it has not been further reported; the second, instead, was recently found by Ferrara and Taiti in Tunisia (Di Maio 1996).

The new species seems to be similar to *P. orarum alpicola* Vandel, 1951, known for some maritime Alpine valleys, for the morphology of the exopodite of the first pleopod of the male and for the seventh male pereopod having a small area surrounded by thin hairs and the absence of the carpal swelling. It is, however, clearly different from *P. orarum alpicola* due to: the particular tergal ornamentation (Figure 1A–B), the shape of the lateral lobes of the head, the morphology of the telson, and the coloring and dimensions.

The new species is, to date, valid only for Tunisia.

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