

THE IDENTITIES OF *MACROPHTHALMUS ROUXII* LUCAS, 1836, AND
M. DENTIPES LUCAS, 1836, AND THE SUBSTITUTION OF THE
LATTER NAME FOR *M. PECTINIPES* GUÉRIN, 1838 (DECAPODA,
BRACHYURA, OCYPODIDAE)

BY

L. B. HOLTHUIS

National Museum of Natural History, P.O. Box 9517, NL-2300 RA Leiden, The Netherlands

In 1838, the National Museum of Natural History (at that time named 's Rijks Museum van Natuurlijke Historie) of Leiden received in exchange from the Muséum National d'Histoire Naturelle of Paris, a number of lots of Crustacea. It was Victor Audouin who sent this material to Wilhem de Haan. A list of this shipment is still held by the Leiden Museum; it mentions under no. 28 "*Macrophthalmus rouxii*, Guér. Mer rouge 2 [specimens]". A later inscription says "mâle manque". This lot is not mentioned in Herklots' (1861) catalogue of the Crustacea of the Leiden Museum; the only Red Sea *Macrophthalmus* listed there is a lot of syntypes of *M. depressus* Rüppell, 1830, collected and donated by E. Rüppell. Tesch (1915: 198) listed among the material of *Macrophthalmus depressus* in the Leiden Museum "one (male dried) from an unknown locality (found by me in a lot of *M. japonicus*, but certainly erroneously associated with that species, as both have never been recorded to occur in the same localities)". It is possible that this is one of the two long lost specimens of *M. rouxii* sent by Audouin. However, I could not find any other indication supporting this supposition apart from the locality given by Audouin, which would fit this specimen. This problem therefore will remain unsolved.

In the meantime, however, the specific name *rouxii* intrigued me as I had never heard of a *Macrophthalmus* species with that name. Tesch (1915) in his revision of the genus did not mention *M. rouxii* and neither did R.S.K. Barnes in his several fundamental papers on *Macrophthalmus*. The name is not even mentioned in Sherborn's Index Animalium. It was by mere chance that I came across the name in print. Looking up the article *Macrophthalmus* in F.E. Guérin-Méneville's (1836) "Dictionnaire pittoresque d'Histoire Naturelle," 4: 551, pl. 315 fig. 5, I found to my great surprise in this article, which was written by H. Lucas, the following sentence after the enumeration of the known species of the genus: "depuis il [= the genus *Macrophthalmus*] a été augmenté de deux autres espèces, par M. Guérin, dans un mémoire publié en extrait dans le Bulletin de la Société des sciences naturelles, et qui sera inséré dans le Magasin de zoologie, cl. VII; nous ne présenterons ici que leurs principaux caractères: Macro-phthalme de Roux, *M. Rouxii*, Guér., Magas. de Zool. cl. VII; [follows a short description of the species]. La seconde espèce à laquelle il a donné le nom de Macro-phthalme pieds-dentés, *M. dentipes*, Guér., Mag. de Zool., cl. VII, repré-

sentée dans notre Atlas, pl. 316 [recte 315], fig. 5 [again followed by a short description]. Ces deux espèces ont été trouvées à Bombay par feu P. Roux". Jean Louis Florent Polydore Roux, who signed himself usually as Polydore Roux, was born in Marseilles, France on 19 July 1792, and died in 1833. He was curator of the Municipal Natural History Museum of Marseilles and owner of a large private collection. He is well known for his beautifully illustrated "Crustacés de la Méditerranée et de son littoral" (1828-1830) and some other carcinological papers. In 1831 he left for a journey to Egypt and India and visited Bombay, where he died (according to other sources he died in Egypt, evidently after returning from India). The above *Macrophthalmus* specimens evidently were collected by him during his stay in Bombay.

Guérin-Méneville indeed later, in 1838, described the two species in Magasin de Zoologie, viz., in vol. 8 cl. 7, pp. 1-4, pls. 23-24. Here, however, he used the new name *M. simplicipes* (p. 3, pl. 24 fig. 1) for *M. rouxii* and *M. pectinipes* (p. 1, pl. 23) for *M. dentipes*. For both species material additional to that from Bombay is mentioned. No reference is made to Lucas' names nor to his figure of *M. dentipes*, but the descriptions, figures and localities show clearly that Guérin's species are identical to those of Lucas.

Lucas' reference to the Bulletin de la Société des Sciences Naturelles in which an abstract by Guérin of the descriptions of *M. rouxii* and *M. dentipes* should have been published, puzzled me as I had never heard of such a serial. However, Prof. Jacques Forest of the Muséum National d'Histoire Naturelle in Paris, with his extensive knowledge of older literature, informed me that there indeed was a Bulletin de la Société des Sciences Naturelles de France (Paris, Imprimerie de Bourgogne). In the Paris libraries only a single copy exists, namely in that of the Muséum. It consists of a single incomplete volume 1, published in 1835, which evidently is all that was ever published. Also the catalogue of the library of the British Museum (Natural History) only lists this vol. 1 (1835). Prof. Forest consulted the Paris copy, but did not find the abstract written by Guérin referred to by Lucas (1836). Due to the discontinuation of the journal the abstract evidently was never published. *Macrophthalmus rouxii* and *M. dentipes* therefore have to be cited with H. Lucas, 1836, as author. As these two names are older than *M. simplicipes* Guérin, 1838 and *M. pectinipes* Guérin, 1838, they have priority.

At present it is generally accepted that *Macrophthalmus pectinipes* and *M. simplicipes* are synonymous (Tesch, 1915: 156; Barnes, 1970: 237). *M. rouxii* and *M. dentipes* thus also belong in this synonymy. A judicious selection of lectotypes might even make *M. rouxii* and *M. simplicipes* objective synonyms, and the same is true for *M. dentipes* and *M. pectinipes*. As the names *M. rouxii* and *M. dentipes* were published simultaneously it is up to the first reviser to select one over the other as the valid name of the species (Art. 24a of the International Code of Zoological Nomenclature). So far as known to me no such selection has ever

been made, and therefore as first reviser I now select here *Macrophthalmus dentipes* Lucas, 1836, to have precedence over *M. rouxii* Lucas, 1836.

Macrophthalmus dentipes Lucas, 1836, therefore is the valid name of the species, and *M. rouxii* Lucas, 1836, *M. pectinipes* Guérin, 1838, and *M. simplicipes* Guérin, 1838, have to be treated as junior synonyms.

The replacement of *Macrophthalmus pectinipes* by *M. dentipes* will not cause undue confusion, as the name *dentipes* has not been used for any other species of the genus, while the species is not very common and not of great interest in commerce or in general or applied biology. In my opinion there is therefore no need to ask the International Commission on Zoological Nomenclature for any action to save the junior name.

LITERATURE CITED

- BARNES, R. S. K., 1970. The species of *Macrophthalmus* (Crustacea: Brachyura) in the collections of the British Museum (Natural History). Bulletin British Museum (Natural History), (Zool.) **20** (7): 205-251, figs. 1-10.
- GUÉRIN-MÉNEVILLE, F. E., 1838. Crustacés du voyage de la Favorite. Magasin de Zoologie, **8** (cl. VII): 1-8, pls. 23-26. [In the title the initials of the author are incorrectly given as E.F.].
- HERKLOTS, J. A., 1861. Symbolae carcinologicae. Études sur la classe des Crustacés. I. Catalogue des Crustacés qui ont servi de base au système carcinologique de M. W. de Haan, rédigé d'après la collection du Musée des Pays-Bas et les Crustacés de la faune du Japon. Tijdschrift voor Entomologie, **4**: 116-156. [The title in the reprint differs somewhat from that given in the journal, where the words "Symbolae carcinologicae" and "Etudes sur la classe des Crustacés" are lacking].
- LUCAS, H., 1836. Macrophthalme, *Macrophthalmus*. (Crust.). In: F. E. GUÉRIN-MÉNEVILLE, Dictionnaire pittoresque d'Histoire Naturelle, **4**: 551, pl. 315 fig. 5.
- TESCH, J. J., 1915. The catometopous genus *Macrophthalmus* as represented in the collection of the Leiden Museum. Zoologische Mededeelingen, Leiden, **1** (3, 4): 149-204, pls. 5-9.

Received for publication 26 October 1993.

OBSERVATIONS ON *PORTUNION MAENADIS* (ISOPODA, EPICARIDEA, ENTONISCIDAE), PARASITIC IN *CARCINUS MAENAS* (DECAPODA, REPTANTIA, PORTUNIDAE) FROM THE FIRTH OF CLYDE, SCOTLAND

BY

D. W. SEARLE and D. W. T. CROMPTON

Department of Zoology, University of Glasgow, Glasgow G12 8QQ, Scotland, U.K.

Four shore crabs (*Carcinus maenas* (L.)), out of a sample of 639, were each found to be infected with a single entoniscid isopod. The crabs, which formed part of a study of the population biology of *Polymorphus (Proflicollis) botulus* Van Cleave, 1916 (Acanthocephala), had been caught off the eastern shore of Great Cumbrae in the Firth of Clyde (55°45'N 04°53'W). The infected crabs were caught in creels in February 1993 at 11 m depth, in April 1993 at 18 m depth,

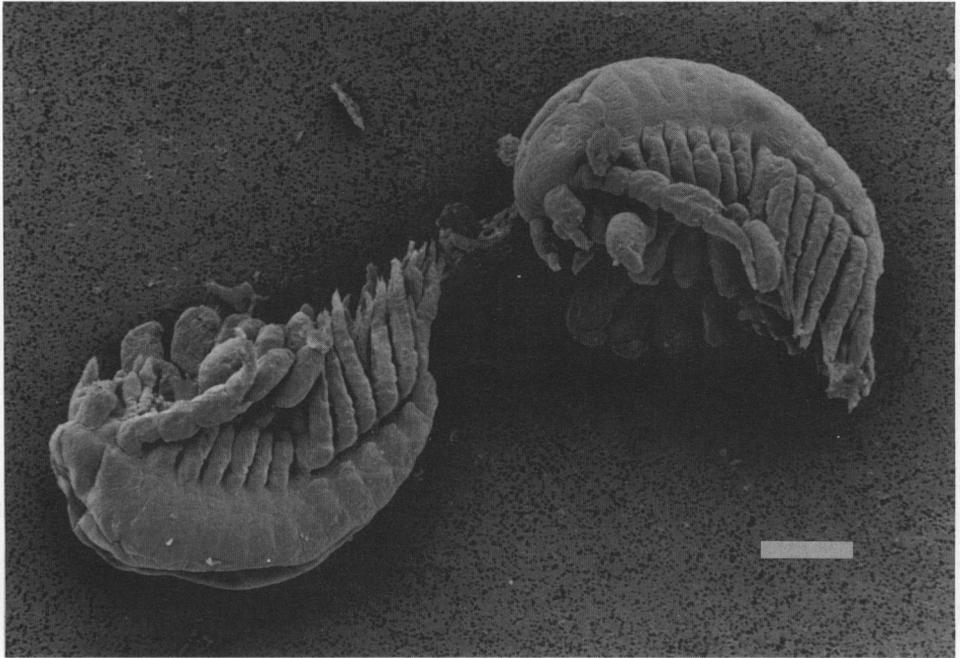


Fig. 1. Scanning electron micrograph of epicaridia of *Portunium maenadis* (Giard, 1886). The specimens were fixed in 10% aqueous formaldehyde solution and prepared for examination with a Philips 500 scanning electron microscope. The scale bar represents 50 μm .

in August 1993 at 16 m depth, and in October 1993 at the low water mark on the shore.

Although a formal description of this parasite is still lacking in the literature, each specimen was identified as a sexually mature female *Portunium maenadis* (Giard, 1886), using Veillet's work on the parasite (Veillet, 1945) and comparison with descriptions of other species of the genus (Nierstrasz & Brender à Brandis, 1926; Shiino, 1942; Muscatine, 1956), with particular emphasis on the morphology of the epicaridium stage (fig. 1). The marsupium of the female found in the crab caught in April was greatly distended with epicaridia, either free, or enclosed in membranes prior to release and dispersal.

This finding of *P. maenadis* is the first report of its presence in the fauna of Scottish waters, and its most northerly report. The previous most northerly record of this parasite is from Wimereux in northern France (50°46'N 01°37'E), (Giard, 1886). The parasite has been reported from the U.K. only twice before: at Cattewater, Plymouth (50°21'N 04°06'W) in 1923 (MBA, 1957) and at Exmouth (50°36'N 03°25'W) (Perkins, 1924), both on the south English coast. *Carcinus maenas* has been intensively studied in the Clyde by a succession of researchers from Great Cumbrae since 1885 (Marshall, 1987), but *P. maenadis* has never been reported (Allen, 1967). Although the presence of the parasite