NOTES AND NEWS

ON THE OCCURRENCE OF MONODAEUS ROUXI (DECAPODA, BRACHYURA, XANTHIDAE) IN THE CANARY ISLANDS

BY

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The brachyuran genus Monodaeus, established by Guinot (1967, 1971) for some species from the southwest Indian Ocean, the eastern Atlantic (from the British Isles to South Africa), the Mediterranean Sea and the Easter Islands, currently contains seven valid species: Monodaeus arnaudi Guinot & Macpherson, 1988; Monodaeus couchii (Couch, 1851), the type-species; Monodaeus cristulatus Guinot & Macpherson, 1988; Monodaeus pettersoni Garth, 1985; Monodaeus rectifrons (Crosnier, 1967); Monodaeus rouxi (Capart, 1951); and Monodaeus tuberculidens (Rathbun, 1911) (DecaNet eds., 2023).

The taxonomic position of M. couchii, M. tuberculidens and M. rouxi has been controversial, as these species have not ceased to be transferred from one genus to another (Guinot & Macpherson, 1988; d’Udekem d’Acoz, 1999; DecaNet eds., 2023).

As for the eastern Atlantic species, M. couchii is a sublittoral species, occurring at depths between about 60 m to at least 1415 m (mostly between 30 m and 100 m), on sandy, sandy mud, and gravel bottoms, which has been reported from the Shetland Islands, Scotland to Angola, including the Azores, Canary, and Cape Verde Islands, and in the Mediterranean in scattered localities from the Alboran Sea to the Sea of Marmara (Crosnier, 1967; Zariquiey Álvarez, 1968; Manning & Holthuis, 1981; Fransen, 1991; d’Udekem d’Acoz, 1999; González, 2018). M. guinotae Forest, 1976 is currently considered a junior subjective synonym of this species (DecaNet eds., 2023). M. cristulatus is a deepwater species that has been
reported from the southern coasts of Namibia, from 160 m to about 300 m depth, on rocky and coral bottoms (Guinot & Macpherson, 1988). *M. rectifrons* is an offshore species, occurring on the shelf and upper slope, in depths mainly between 75 m and 255 m, on mud, sandy mud, and mud with rocks, which has been reported from the Gulf of Guinea, from off the Ivory Coast and Pointe-Noire, the Republic of Congo (Crosnier, 1967; Manning & Holthuis, 1981). Finally, *M. rouxi* is a sublittoral species, occurring from scattered localities off West Africa, at least from Senegal to Angola, but also from Madeira (Fransen, 1991), in depths between 11 m and 510 m, on mud, sand, sand and clay, broken shells, rocks or coral bottoms (Fransen, 1991; Manning & Holthuis, 1981; d’Udekem d’Acoz, 1999).

Here we report the first occurrence of *Monodaeus rouxi* for the Canary Islands, based on an individual recently caught by the second author off the island of Tenerife. The studied specimen was accidentally discovered, in situ photographed and collected by hand. Then, it was photographed freshly caught and preserved in 80% ethanol for morphological analysis and identification at the laboratory. The voucher specimen was labelled, curated, data-based and deposited in the ICCM study collection at the University of Las Palmas de Gran Canaria (Gran Canaria, Canary Islands, Spain). The abbreviations CL and CW stand for carapace length and maximum carapace width (from tip to tip), respectively, and are measured in millimetres with a digital calliper.

The present systematic classification and higher taxa arrangement follow Ng et al. (2008) and the global database WoRMS (DecaNet eds., 2023).

**Suborder PLEOCYEMATA** Burkenroad, 1963  
**Infraorder BRACHYURA** Latreille, 1802  
**Section EUBRACHYURA** de Saint Laurent, 1980  
**Subsection HETEROTREMATA** Guinot, 1977  
**Superfamily XANTHOIDEA** MacLeay, 1838  
**Family XANTHIDAE** MacLeay, 1838  
**Genus Monodaeus** Guinot, 1967  
**Monodaeus rouxi** (Capart, 1951) (fig. 1)

Material examined.— Voucher code: ICCM525, one juvenile male (CL 3.5 mm, CW 5.0 mm). Collection data: eastern Tenerife, off Radazul, 28°24′04″N 16°19′33″W, 25 m depth, on a detritical bottom occupied by a colony of *Galathea intermedia* Lilljeborg, 1851 and several gastropod species, 6 May 2023.

Remarks.— The specimen examined was well in agreement with the description and illustrations of the species provided by Capart (1951, as *Micropanope rouxi*) and Crosnier (1967, as *Medaeus ?rouxi*). The species’ most characteristic morphological details include:
Fig. 1. A-D, Live individual of the brachyuran crab *Monodaeus rouxi* (Capart, 1951) (ICCM525, male, CL 3.5 mm, CW 5.0 mm) from off the Canary Islands: A, in its natural habitat; B-D, freshly caught; E-F, specimen preserved in alcohol; E, dorsal view; F, ventral view.

Carapace almost smooth, antero-lateral margin cut into four spiny teeth, the two extreme ones reduced; claw rough, a ridge of tubercles on the outer surface. Legs 2-5 long, slender, barely granular (cf. Capart, 1951). *M. rouxi*, which has a West African distribution like that of *M. rectifrons*, is easily distinguished from *M. cristulatus*. In *M. rouxi*, the carapace is only slightly areolate and barely ornamented; the chelipeds are relatively thin, with a granular proximal ridge in the lower third of the hand, and with very elongated and thinned fingers; the ambulatory legs P2-P5 are cylindrical, slender, and very sparsely ornamented,
both on the upper edge and on the outer surface of the articles (cf. Guinot & Macpherson, 1988).

We have not found any description of the colour pattern of the species in the literature. In this regard, C.H.J.M. Fransen informed us on this matter: “I cannot recollect its colour pattern from the time I collected the species. Some species also have these kinds of patterns when they are young, but it could also be its usual colour pattern”. The studied material is well within the depth range given for the species, as well as within its habitat preferences.

Size: The type-material used by Capart (1951) consisted of a male specimen measuring 7 mm long and 11 mm wide; the ovigerous female, much smaller, 4.5 mm × 6 mm. Crosnier (1967) pointed out that this is a relatively small species; he examined one ovigerous female 4.3 mm long and 6.6 mm wide. Material examined by Manning & Holthuis (1981) had carapace widths of 5 to 15 mm. The studied specimen measured 3.5 mm × 5.0 mm and is therefore a juvenile.

To date, the specimen of *M. rouxi* collected with a grab sampler south of Porto Santo (33°01′N 16°20′W), Archipelago of Madeira, in October 1978 (Fransen, 1991) represents the northernmost record of the species in the eastern Atlantic Ocean. The present finding constitutes the second northernmost record (28°24′N) of the species in the region. Furthermore, this is the first record of *M. rouxi* for the Canary Islands. The occurrence of *M. rouxi* in Canarian waters can be interpreted as a natural range expansion of the African continental populations. A second explanatory hypothesis for the presence of this species in the Canary archipelago would be its introduction due to anthropogenic causes (for instance, ship’s ballast water or in relation to activities on oil platforms). In this regard, the fact is well known that the Canary Islands are in a geographic area with heavy maritime traffic.

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REFERENCES


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