

## Nomenclatural notes on Mediterranean species of *Calappa* Weber, 1795 (Crustacea: Decapoda: Brachyura)

L.B. Holthuis

Holthuis, L.B. Nomenclatural notes on Mediterranean species of *Calappa* Weber, 1795 (Crustacea: Decapoda: Brachyura).

Zool. Verh. Leiden 334, 29.x.2001: 99-102, fig. 1.— ISSN 0024-1652.

L.B. Holthuis, National Museum of Natural History, P.O. Box 9517, 2300 RA Leiden, The Netherlands.

Key words: *Calappa gallus*; *C. granulata*; *C. pelii*; *C. rissoana*; *C. rosea*; *C. tuerkayana*; nomenclature.

Abstract: The species name *Calappa rissoana* Pastore, 1995, is a junior synonym of both *C. rosea* Jarocki, 1825, and *C. webbiana* Risso, 1977. The possibility of a narrow relationship between, or even of a synonymy of, *C. tuerkayana* and *C. gallus* has been pointed out.

### Introduction

Until very recently it was generally accepted that only a single species of *Calappa*, *Calappa granulata* (L., 1758), occurs in the Mediterranean (cf. Noël, 1992: 102). In 1995, however, Pastore (1995: 187-196) recognized no less than 4 Mediterranean species of that genus. Apart from *C. granulata*, these were the West African *C. pelii* Herklots, 1851, and two new species, *C. rissoana*, and *C. tuerkayana*.

Not having thoroughly studied Mediterranean *Calappa* material and not having seen Pastore's specimens, I am hardly competent to give an opinion on the taxonomy of the four species. I wonder, however, why Pastore did not compare his *C. tuerkayana* with the West African *Calappa gallus* (Herbst, 1803), the more so as the number of West African Decapoda that have been reported from his area is considerable: e.g., *Sternodromia spinirostris* (Miers, 1881) (cf. Pastore, 1976: 114), *Parthenope expansa* Miers, 1879 (cf. Pastore, 1975: 145), and *Calappa pelii* Herklots, 1851 (cf. Pastore, 1995: 189). The coloured figure of *C. tuerkayana* published by Pastore (1995, pl. 1 fig. E) is not very clear, but somewhat resembles *C. gallus*, as does the fact that the posterior part of the carapace of *C. tuerkayana* are said to have "some scarce serials of 2 tubercles" with which the transverse rugae on the clypeus, characteristic for *C. gallus* and related species, may be meant.

I am not quite convinced that *C. granulata* and *C. rissoana* Pastore, 1995, are more than colour forms of one species. The morphological differences as put forward in the key provided by Pastore, in my opinion are not very conclusive: the inner antennular flagellum with 23-27 articles (*granulata*) vs. 22-25 (*rissoana*); outer flagellum with 6 articles in both; antenna with 16-17 articles (*granulata*) vs. 15-16 (*rissoana*). Neither are the colour differences very spectacular: "ground colour of the anterior areas of the carapace pale-pink, whitening on the posterior side" (*granulata*) vs. "anterior areas orange-yellow, posterior areas clearer" (*rissoana*). Legs "white or pale yellow, nails dark brown" (*granulata*) vs. "decidedly yellow, nails brown" (*rissoana*).

Leaving alone the question whether *Calappa rissoana* is, or is not, identical with *C. granulata*, its nomenclature is now discussed under the assumption that it is a good valid species.

*Calappa rosea* Jarocki, 1825

*Calappa Granulata* Var. A. Risso, 1816: 19.

*Calappa rosea* Jarocki, 1825: 61.

*Calappa granulata* Var. Risso, 1827: 31.

*Calappa granulata* (Variété) Roux, 1830: pl.16.

*Calappa webbii* Risso, 1844: 94 (nom. nud.).

*Calappa webbiana* Monod, 1931: 107 (nom. nud.); Risso in Holthuis, 1977: 64.

*Calappa webiana* Monod, 1931: 122 (nom. nud.); Risso in Holthuis, 1977: 64 (nom. nud.).

*Calappa rissoana* Pastore, 1995: 189, figs.1 B, E, 2b, e, h, pl.1 figs. C, D.

The history of *Calappa rissoana* Pastore starts with the publication by Risso (1816; 19) of a "Var. A" of *Calappa granulata*, based mostly on colour differences with the typical form. In 1827, Risso again refers to the colour form, this time as *Calappa granulata* var. Three years later, Roux (1830: pl. 16), referring to Risso's variety, gives a description and excellent coloured illustrations of this form which he named "*Calappa granulata* (Variété)". In 1844, Risso, in a guide for tourists visiting Nice, published a list of "Les plus particuliers [des Crustacés] que j'ai fait connaître et dont plusieurs n'ont pas encore été décrits" and mentioned in it "*Calappe de webb Calappa webbii*". This evidently is the same as his *Calappa granulata* var. As Risso does not provide any information on this species here, the name *Calappa webbii* is a nomen nudum and thus unavailable for nomenclatural purposes. Monod (1931), when dealing with Risso's manuscripts, listed from these the names *Calappa webbiana* and *Calappa webiana* (the latter spelling obviously a lapsus calami of Risso's); but as these names were published without description or indication, they are nomina nuda, although it can be inferred that they are given to the *Calappa granulata* var. A of Risso (1816). Holthuis (1977: 64) reproduced Risso's complete manuscript description of *Calappa webbiana* and thereby made this name available as from 1977 with Risso as the author. Risso's description and his references make it clear that *Calappa webbiana* is the same as his 1816 *Calappa granulata* Var. A, and also Roux's (1830) *Calappa granulata* (Variété).

Pastore (1995: 189), in his description of *Calappa rissoana*, refers to "*Calappa granulata*, var., Roux 1828-30, pl.XVI fig.2", but does not further discuss Roux's figure. In his text of *Calappa rissoana*, Pastore does quote verbatim part of Risso's manuscript description of *Calappa webbiana* as this was first published by Holthuis (1977: 64), and he remarked that *C. webbiana* "is probably to attribute to *Calappa rissoana*". On the next page he is more positive on this point and dedicates his new species to "A. Risso, who described roughly the species in his manuscript G"; this would make *Calappa webbiana* Risso, 1977, a senior synonym of *C. rissoana* Pastore, 1995, and it thus should have to be used for the species, were it not that there is a still older synonym: In 1825, the Polish zoologist F.P. Jarocki, namely, published a textbook of zoology under the name "Zoologija"; the first part of its vol. 5 being entirely devoted to the Crustacea. The book is largely based on Cuvier's (1816) *Le Règne Animal*, but otherwise is an entirely independent work, and some new species are described in it. The genus *Calappa* occupies pp. 60-62, and the second species of that genus (on p. 61) is new and is named *Calappa rosea*. The name is followed by a short description in Polish and a reference to "*Calappa granulata* var. Riss.", (see fig. 1) making it clear that this is the same as the species later named *Calappa webbiana* by Risso. This means that if the species *Calappa rissoana* indeed is distinct from *Calappa granulata*, it should be known

2. Okrywacz różowy. *Calappa rosea*.

Jednostajnie blada różowy, ziarnkowato-chropowaty. W rozszerzonych brzegach boków po sześć zębów. — *Calappa granulata*. var. Riss. — Żyje w morzu Szwedzkiem.

Fig. 1. Facsimile reproduction of the text of the original description of *Calappa rosea* Jarocki, 1825, which runs in translation: "Pink Calappa, *Calappa rosea*. Carapace evenly pale pink, granular and rough. Both lateral margins of the broadened part of the body with six teeth. *Calappa granulata* var. Risso.- Lives in the Mediterranean Sea".

as *Calappa rosea* Jarocki, 1825, with *Calappa webbiana* Risso, in Holthuis, 1977, and *Calappa rissoana* Pastore, 1995, as junior synonyms.

*Calappa granulata* (Linnaeus, 1758)

The nomenclature of *Calappa granulata* (L., 1758) is also rather complicated. In the original (1758: 627) publication, Linnaeus gives a general description of a *Calappa*, which may fit practically any species of that genus. He refers then to Catesby (1743: 36, pl. 36) and to "Mus. de Geer". In the 12th edition of his *Systema Naturae*, Linnaeus (1767:1043, 1044) under *Cancer granulatus* gives practically the same description, adds a reference to Seba, and completes his reference to Mus. de Geer as follows: "Mus. de Geer, ex Algiria mihi". This Algerian material may have come from Mr. Erik Brander (1722-1814), who from 1753 to 1766 was employed at the Swedish consulate in Algiers and regularly sent zoological material to Linnaeus (and evidently also to De Geer). *Cancer granulatus* L., 1758, thus is a composite species, the types consisting of Catesby's American specimens and De Geer's Algiers material. The identity of the species depends on the first lectotype selection for it. This lectotype selection was made by M.J. Rathbun (1937: 198, footnote), who said "we infer that the locality "America" [in Linnaeus' description] was taken from Catesby and that Linnaeus's type of *Cancer granulatus* was Mediterranean.". We can even narrow this down somewhat by saying that if the Algiers material consisted of more than one specimen, the largest should be the lectotype of *Cancer granulatus* Linnaeus, 1758. This definitely settles the identity of *Cancer granulatus* L., 1758, which is the more important as *Cancer granulatus* is the type species of the genus *Calappa*, and as such figures on the "Official List of Specific Names in Zoology" of the International Commission on Zoological Nomenclature. Unfortunately Linnaeus's Algerian specimens are no longer extant and his description of *Cancer granulatus* is not sufficiently detailed that it can be decided whether his material belonged to *Calappa granulata* sensu Pastore or to *C. rosea* Jarocki. If a further study of the question would prove that there indeed are two distinct species, it might be necessary to select neotypes for both.

#### Acknowledgements

I should like to express my gratitude to Mrs B. Koebe for the translation of the Polish description of *Calappa rosea*.

## References

- Catesby, M., 1754. The natural history of Carolina, Florida and the Bahama Islands, 2: 1-100, 1-20, pls.1-100, 1-20.— W. Innys, London.
- Cuvier, G., 1816. Le Règne Animal, 4 vols.— Déterville, Paris.
- Holthuis, L.B., 1977. The Mediterranean Decapod and Stomatopod Crustacea in A. Risso's published works and manuscripts. In: Th. Monod & J.-C. Hureau, Antoine Risso 1777-1845. Volume publié à l'occasion du bicentenaire de sa naissance.— Annales Muséum d'Histoire Naturelle de Nice, 5: 37-81, pls. 1-7.
- Jarocki, F.P., 1825. Skorupiáki. Crustacea. In: Zoologiia czyli zwiérzetopismo ogólne podług Náynowszego Systematu, 5: 1-314.— Rzadowéy Jego Cesarsko-Król. Mosci, Warszawie.
- Linnaeus, C., 1758. Systema Naturae per regna tria naturae, (ed.10) 1: 1-824.— L. Salvii, Holmiae.
- Linnaeus, C., 1767. Systema Naturae per regna tria naturae, (ed.12) 1 (2): 533-1328, index.— L. Salvii, Holmiae.
- Monod, T., 1931. Inventaire des manuscrits de Risso conservés à la bibliothèque du Muséum d'Histoire Naturelle.— Archives Muséum d'Histoire Naturelle, Paris, (6) 7: 101-133, figs. 1-10.
- Noël, P.Y., 1992. Clé préliminaire d'identification des Crustacea Decapoda de France et des principales autres espèces d'Europe.— Collection Patrimoines naturels, (sér. Patrimoine scientifique) 9: 1-145, figs.
- Pastore, M., 1975. Riscoperta di *Parthenope expansa* Miers in Mediterraneo.— Memorie di Biogia marina e di Oceanographia, 5 (6): 145-154, figs. 1-4.
- Pastore, M., 1976. Decapoda Crustacea in the Gulf of Taranto and the Gulf of Catania with a discussion of a new species of Dromidae (Decapoda Brachyura) in the Mediterranean Sea.— Thalassia Jugoslavica, 8 (1) (for 1972): 105-117, fig. 1.
- Pastore, M., 1995. The genus *Calappa* in the Ionian Sea.— Oebalia, 21: 187-196, text-figs. 1, 2, pl. 1.
- Rathbun, M.J., 1937. The oxystomatous and allied crabs of America.— Bulletin U.S. National Museum, 166: i-vi, 1-278, text-figs.1-47, pls. 1-86.
- Risso, A., 1816. Histoire naturelle des Crustacés des environs de Nice: 1-175, pls. 1-3.— Librairie Grecque-Latine-Allemande, Paris.
- Risso, A., 1827. Histoire naturelle des principales productions de l'Europe méridionale et particulièrement de celles des environs de Nice et les Alpes Maritimes, 5: i-vii,1-403, [pls. 1-10] figs. 1-62.— F.G. Levrault, Paris.
- Risso, A., 1844. Nouveau guide du voyageur dans Nice et notices sur l'histoire civile et naturelle de cette ville, (ed. 2) (Crustacés): 93-99.— ? Société typographique, Nice.
- Roux, P., 1828-1830. Crustacés de la Méditerranée et de son littoral, pls.1-45.(1828: pls. 1-10; 1829: pls. 11-15; 1830: pls. 16-45).— Levrault, Auscher Eloy et Veuve de Boisjolin, Dufour et d'Occagne, Treuttel et Wurtz, all in Paris; P. Roux, Marseille.