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CRABS CALAPPA GRANULATA AND C. RISSOANA
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Short note

ON THE OCCURRENCE OF THE SHAMEFACED CRABS *CALAPPA GRANULATA* AND *C. RISSOANA* (DECAPODA: BRACHYURA) IN THE STRAIT OF SICILY (CENTRAL MEDITERRANEAN SEA)

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CALAPPIDAE
SHAMEFACED CRABS
STRAIT OF SICILY
MEDITERRANEAN SEA

SUMMARY. – During two experimental trawl surveys carried out in the Strait of Sicily (Central Mediterranean Sea) in September 2000 and November 2001, four anomalous specimens of *Calappa granulata* (Linnaeus, 1758) were found. The examination of the morphological features allowed us to ascribe these crabs to the species recently reported for the Mediterranean Sea (*Calappa rissoana*), but not quoted before for the Strait of Sicily.

CALAPPIDAE
CRABES HONTEUX
DÉTROIT DE SICILE
MER MÉDITERRANÉE

RÉSUMÉ. – Les auteurs signalent la capture de quatre exemplaires de *Calappa granulata* (Linnaeus, 1758) dans le Déroit de Sicile lors de deux expéditions en 2000 et 2001. Les analyses des caractéristiques morphologiques montrent que ces exemplaires peuvent être rapportés à *Calappa rissoana* signalé par Pastore dans la mer Ionienne.

Introduction

Calappidae (shame-faced crabs) are medium size crustaceans (up 110 and 80 mm of carapace width) easily identifiable given the large claws, which are held close to the front of the body. These crabs are distributed in all oceans showing a preference for tropical waters, and inhabiting a wide variety of bottoms (sandy, shell grit, hard rocks and corals), between 10 and 400 m. Typically, they burrow on inshore soft bottoms (Zariquiey Alvarez 1968).

In this note we report the record of 4 specimens of *Calappa* genus which exhibited differences in colour and other body features. According to Pastore 1995, these anomalous *Calappa* specimens were classified as *C. rissoana*, never reported for the investigated area. In this note, these new findings are described and discussed. In the Strait of Sicily, the wide trait of Sea laying between the southern coasts of Sicily and the northern coasts of Africa (Fig. 1), only *Calappa granulata* is reported in the historical literature as an incidental catch of trawl (Arena 1985, Pipitone & Tumbiolo 1993, Falciai 1997, Levi *et al.* 1998).

Materials and Methods

Direct data about the shame-faced crabs were gathered in two experimental bottom trawl survey carried out in the Strait of Sicily (the waters surrounding for 25 nautical miles the Maltese Island excluded) in September 2000 and November 2001. The survey was planned within the Italian national research program GRUND (Relini 2000). The *Calappa* crabs captured in each haul were sorted, classified (according to Pastore 1995) and counted; selected specimens were preserved in alcohol 70%, labelled and stored in the collection of the IRMA-CNR.

Results and Discussion

Overall, 76 specimens of *Calappa* were caught. *Calappa rissoana* resulted only in 3 (47-116 m) and 1 (at 67 m) hauls in 2000 and 2001, respectively. In particular, four specimens of *C. rissoana* were gathered in three hauls located in a restricted area 70 miles eastward of Kerkenah Island, whereas the last one was caught at 10 miles west Lampedusa Island. It is worth noting that the two species were never found together (Fig. 1).

Beside the general appearance and colour (red-orange colour carapace and chelae with pereopods

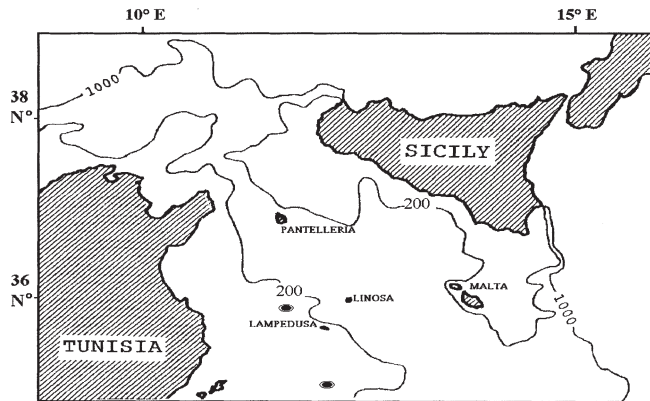


Fig. 1. – The Strait of Sicily with the locations (●) where *Calappa rissoana* specimens were gathered.

rose-coloured), the main features which allowed the recognition of *C. rissoana* were: carapace wider than long with granulose surface, tubercles on gastric and branchial region, orbital margin with 2 fissures, frontal margin with 2 thorns separated from a deep V shaped sinus, numerous tubercles on the antero-lateral margin, also numerous thorns on the posterior margin, surface of chelipeds granulose and the “crest” of chelae constituted from 6 sharpened thorns (Fig. 2). Some morphometric measures are presented in Table I.

At present, it is difficult to check the effectiveness of such a specific diversity in the Mediterranean *Calappa* and the abundance and habitat preference given the paucity of comparable information on the other (presumed) species. Coming back to the *Calappa* of the Strait of Sicily, only the “classic” *C. granulata* species was recognised both on historical (Arena 1985) and recent (Pipitone & Tumbiolo 1993, Falciai 1997) papers. At present although almost no historical comparable data exist, it seems that the abundance of the *C. granulata* of the Strait of Sicily has undergone a drastic reduction. Could the light recent presence of *C. rissoana* indicate an opportunistic behaviour of a

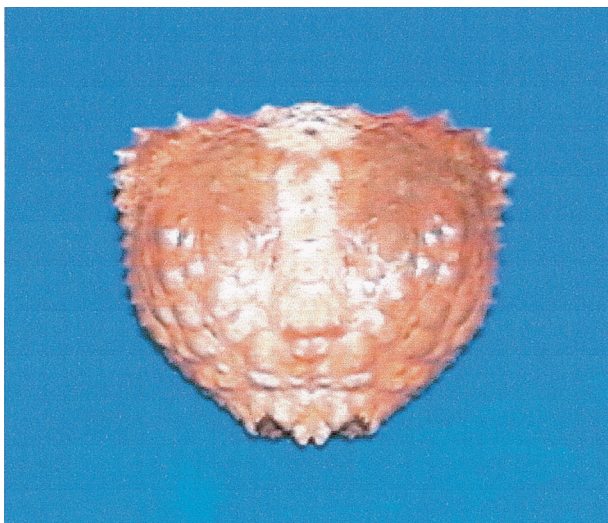


Fig. 2. – *Calappa rissoana* sampled in the Strait of Sicily.

Table I. – Basic measures (mm) of *Calappa rissoana* specimens caught in the trawl surveys of the Strait of Sicily.

Sex	Carapace Length	C. Width	Meropodite	Carpopodite	Propodite	Dactylopodite
♂	33	38	12	8	7	8
♀	37	40	13	9	9	8
♀	35	39	13	8	7	8
♂	35	40	14	9	8	9

species once limited by the more aggressive and abundant congener in restricted and not trawlable habitats? With the scanty data available this hypothesis remains only a matter of speculation, which will be demonstrated only giving more attention to the identification of the shame-faced crabs in the next future.

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