

NOTE

**First record of *Gouretia denticulata* (Lutze, 1937)
(Crustacea, Decapoda, Thalassinidea) from the
Atlantic coast of Spain***I. LÓPEZ DE LA ROSA¹, J.E. GARCÍA RASO² and A. RODRÍGUEZ MARTÍN¹¹Instituto de Ciencias Marinas de Andalucía (CSIC), Polígono Río San Pedro s/n, Puerto Real, 11510 Cádiz, Spain.
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SUMMARY: The capture of a specimen of *Gouretia denticulata* (Lutze, 1937) (Decapoda, Ctenochelidae) from the Cádiz littoral zone, represents the first record of the species for Spain and for European Atlantic waters and confirms its presence in the East Atlantic Ocean. Some data on anatomic considerations and distribution are given.

Key words: *Gouretia denticulata*, Thalassinidea, Decapoda, Europe, Spain.

The family Callianassidae is represented in Spanish waters by one genus: *Callianassa*, with four species: *C. subterranea* (Montagu, 1808), first cited by De Buen (1887); *C. truncata* Giard and Bonnier, 1890, by Zariquiey Alvarez (1950); *C. candida* (Olivi, 1792) (sin. *C. pestae* and *C. pontica*, see Lewinsohn and Holthuis, 1986) by García Raso (1983) and *C. tyrrena* (Petagna, 1792) by Zariquiey Alvarez (1946). The presence of another species, *C. acanthura* Caroli, 1946, was mentioned by Zariquiey Alvarez (1968) as probable on the Mediterranean coast.

With the present study a new genus and species,

Gouretia denticulata (Lutze, 1937), is added to the Spanish Decapoda check-list.

This genus was included in the family Callianassidae by De Saint Laurent (1973) but recently Manning and Felder (1991) recognized a new family, Ctenochelidae, in which it is included.

De Saint Laurent (1973) placed *G. denticulata* (Lutze, 1937) (as *Callianassa minor*) in a new genus, *Gouretia*, of which it was made the type species. This genus includes three species from the East Atlantic and Mediterranean Sea: *G. denticulata*, *G. lahouensis* Le Loeuff and Intès, 1974 and *G. barracuda* Le Loeuff and Intès, 1974, and one species from Australia: *G. coolibah* Poore and Griffin, 1979 (De Saint Laurent and Le Loeuff 1979; Manning and Felder, 1991).

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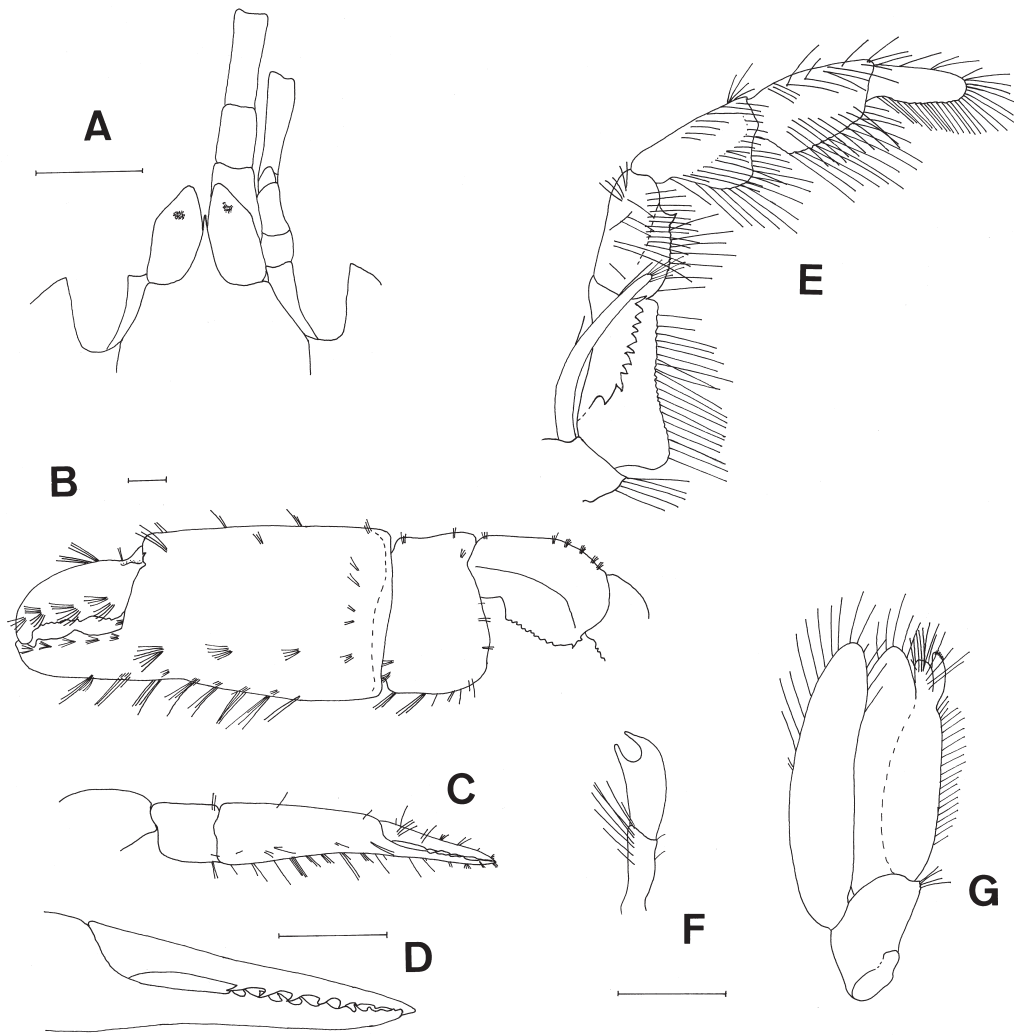


FIG. 1. – *Gourretia denticulata* (Lutze, 1937). A. Antero-dorsal view of carapace. B. Large left cheliped. C.- Right cheliped. D.- Fingers of small chela. E.- Left third pleopod of male. F.- Left first pleopod of male. G.- Left second pleopod of male. Male specimen, 32 mm of total length; Valdelagrana Beach, Bay of Cadiz. Scales: 1 mm.

***Gourretia denticulata* (Lutze, 1937)**
(Fig. 1)

- Callianassa denticulata* Lutze, 1937, p. 6, fig. 1-7; 1938, p. 170.
- Callianassa subterranea* var. *minor* Gourret, 1887, p. 1034; 1888, p. 96, pl. 8, fig. 1-15
- Callianassa (Cheramus) subterranea* var. *minor*- Pesta, 1918, p. 205
- Callianassa minor*- de Man, 1928 p. 26, 100; Holthuis and Gottlieb, 1958, p. 56, fig. 11-12
- Callianassa subterranea*- Adensamer, 1898, p. 620.
- Callianassa stebbingi*- Gottlieb, 1953, p. 440
- Gourretia minor*- de Saint Laurent and Božić, 1976, p. 27, figs 6, 14, 22, 37, 41 and 48; Le Loeuff and Intès, 1974, p. 26, fig. 4a-k?; Manning and Števcíć, 1982, p. 296; Števcíć, 1979, p. 127; 1985, p. 314.
- Gourretia serrata* de Saint Laurent, in de Saint Laurent and Le Loeuff 1979, pag, 79, fig. 24c.
- Gourretia denticulata*- Lewinsohn and Holthuis, 1986; Števcíć, 1990, p. 218.

Material examined: Cadiz Bay, 36°34'24''N 6°14'19''W (Valdelagrana Beach); dredging at 4.7 m in depth; sandy bottoms with seaweed (*Caulerpa prolifera* (Forskål) Lamouroux); 8-January-1996. 1 adult male of 32 mm total length.

The best descriptions and figures of *G. denticulata* are found in Gourret (1888), Holthuis and Gottlieb (1958), de Saint Laurent and Božić (1976) and Le Loeuff and Intès (1974).

A discussion on the taxonomic position of the species and the correct spelling and name is given by Holthuis and Gottlieb (1958); de Saint Laurent (1973), de Saint Laurent and Le Loeuff (1979) and Lewinsohn and Holthuis (1986).

Morphological considerations: Le Loeuff and Intès (1974) found the species in the Gulf of Guinea (also quoted in de Saint Laurent and Božić, 1976), but later de Saint Laurent and Le Loeuff (1979) drew the attention to the fact that the small specimen (a juvenile) showed some anatomic differences and argued as to its correct taxonomic assignation. Our

specimen fits to the description of the Mediterranean specimens given by Holthuis and Gottlieb (1958) but for slight differences. The rostrum is longer in our specimen, whereas the cornea is apparently shorter, as it does not reach the distal part of the basal segment of antennular peduncle. These characters are similar to the Guinea specimen. However, analysis of the figures given by Gourret (1888), Holthuis and Gottlieb (1958), and de Saint Laurent and Božić (1976) shows some variability in these characters.

The appendix interna and masculine of the second male pleopod, contrary to that mentioned previously, do not overreach the distal part of the endopod (fig. 12f in Holthuis and Gottlieb, 1958; fig. 24c in de Saint Laurent and Le Loeuff, 1979); but, these differences may be due to intraspecific variability, since these structures usually change with size and age.

Distribution: the species is known from the Mediterranean waters: Gulf of Marseille, Adriatic Sea (Italy, Yugoslavia), Aegean Sea, Malta, Cyprus and Israel (see before quoted references, between others), between 2.5 m (Štević, 1990) and 146 m (Lewinsohn and Holthuis, 1986). The habitats from which the species has been reported are calcareous seaweed "melobesias" from coraligenous bottoms (Gourret, 1888) and muddy bottoms (Štević, 1990). In the Atlantic Ocean the only previous reference, and that is doubtful, is by Le Loeuff and Intès (1974) from the Gulf of Guinea (dredging at depth of 39 m). The present specimen, from shallow sandy bottoms with seaweed, constitutes the first record and confirms the presence of the species in the East Atlantic.

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REFERENCES

Adensamer, T. – 1898. Decapoden gesammelt aus S. M. Schiff "Pola" in den Jahren 1890-1894. Berechte der Commission für Erforschung des östlichen Mittelmeeres. XXII. Zoologische Ergebnisse. XI. *Denkschr. Akad. Wiss. Wien* 65: 597-628.

- Buen, O. de. – 1887. Materiales para la fauna carcinológica de España. *Ann. Soc. Esp. Hist. Nat.*, 16: 405-434.
- García Raso, J.E. – 1983. Aportaciones al conocimiento de los Thalassinidea Latreille, 1831 (Crustacea, Decapoda) del sur de España. *Inv. Pesq.*, 47(2): 317-324.
- Gottlieb, E. – 1953. Decapod Crustaceans in the collection of the Sea Fisheries Research Station Caesarea, Israel. *Bull. Res. Coun. Israel* 2: 440-441.
- Gourret, M.P. – 1887. Sur quelques Décapodes macroures nouveaux du golfe de Marseille. *C. r. hebd. Séances Acad. Sci. Paris*, 105: 1033-1035.
- Gourret, M.P. – 1888. Révision des Crustacés Podophthalmes du golfe de Marseille, suivie d'un essai de classification de la classe des Crustacés, *Ann. Mus. Hist. natur Marseille*, 3 (5): 1-212.
- Holthuis, L.B. and E. Gottlieb. – 1958. An annotated list of the decapod Crustacea of the Mediterranean coast of Israel, with an appendix listing the Decapoda of the Eastern Mediterranean. *Bull. Res. Coun. Israel*, 7B (1-2): 1-126.
- Le Loeuff, P and A. Intès. – 1974. Les Thalassinidea (Crustacea, Decapoda) du golfe de Guinée. Systématique - écologie. *Cah. O.R.S.T.O.M., sér. Océanogr.*, 12(1): 17-69.
- Lewinsohn, CH. and L.B. Holthuis. – 1986. The Crustacea Decapoda of Cyprus. *Zool. Verhand.*, 230: 1-64.
- Lutze, J. – 1937. Eine neue Callianassa-Art aus der Adria. *Not. Ist. Biolog. mar. Rovigno*, 2: 1-12.
- Lutze, J. – 1938. Ügber Systematik, Entwicklung und Ökologie von Callianassa. *Helgolander wiss. Meeres.*, 1(2): 162-199.
- Man, J.G. de. – 1928. The decapoda of the Siboga-Expedition. Part. VII. The Thalassinidae and Callianassidae collected by the Siboga Expedition with some remarks on the Laomedidae. *Siboga Expedition Monogr.* 296: 1-187.
- Manning, R.B. and D.L. Felder. – 1991. Revision of the American Callianassidae (Crustacea: Decapoda: Thalassinidea). *Proc. Biol. Soc. Wash.*, 104(4): 764-792.
- Manning, R. B. and Z. Štević. – 1982. Decapod fauna of the Piran Gulf. *Quad. Lab. Tecnol. Pesca*, 3(2-5): 285-304.
- Pesta, O. – 1918. *Die Decapodenfauna der Adria. Versuch einer Monographie.* Franz Deuticke Leipzig-Wien.
- Saint Laurent, M. de. – 1973. Sur la systématique et la phylogénie des Thalassinidea: définition des familles des Callianassidae et des Upogebiidae et diagnose de cinq genres nouveaux (Crustacea Decapoda). *C. R. Acad. Sc.- Paris, ser. D*, 277: 513-516.
- Saint Laurent, M. de, and B. Božić. – 1976. Diagnoses et tableau de détermination des Callianasses de l'Atlantique nord oriental et de Méditerranée (Crustacea, Decapoda, Callianassidae). *Thalassia Jugosl.*, 8(1) (from 1972): 15-40.
- Saint Laurent, M. de, and P. Le Loeuff. – 1979. Crustacés Décapodes Thalassinidea. I. Upogebiidae et Callianassidae. Campagnes de la Calypso au large des côtes atlantiques africaines (1956 et 1959). 22. *Rés. Sci. Camp. Calypso*, 11: 29-101.
- Štević, Z. – 1979. Contribution a la connaissance des crustacés décapodes de Malta. *Rapp. Comm. Int. Mer Médit.*, 25/26, 4: 127-128.
- Štević, Z. – 1985. New and rarely reported species of decapod Crustacea from the Adriatic Sea. *Rapp. Comm. Int. Mer Médit.*, 29, 5: 313-314.
- Štević, Z. – 1990. Check-list of the Adriatic decapod Crustacea. *Acta Adriat.*, 31(1/2): 183-274.
- Zariquiey Álvarez, R. – 1946. *Crustáceos decápodos mediterráneos. Manual para la clasificación de las especies que pueden capturarse en las costas mediterráneas españolas.* Inst. Esp. Est. Medit., Barcelona.
- Zariquiey Álvarez, R. – 1950. Decápodos españoles. III.- Más formas interesantes del mediterráneo y de las costas españolas. *E.O.S.*, 26(1,2): 73-113.
- Zariquiey Álvarez, R. 1968. – Crustáceos decápodos ibéricos. *Inv. Pesq.*, 32: 1-510.

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