

THE LOBSTER *ENOPLOMETOPUS ANTILLENISIS* (DECAPODA: ENOPLOMETOPIDAE), AND THE GOBY *GوبيUS XANTHOCEPHALUS* (PISCES: GOBIIDAE) - NEW RECORDS FOR THE MARINE FAUNA OF THE CANARY ISLANDS

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ARQUIPÉLAGO



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We record the presence of the reef lobster *Enoplometopus antillensis* Lütken, 1865 in the Canary islands. This species apparently is more common than the previously recorded *E. callistus* Intès & Le Loeuff, 1970 and has been confused with it in the past. The goby *Gobius xanthocephalus* Heymer & Zander, 1992, is common in sheltered places. The record of this species in the Canary Islands, which in the past has been confused with *Gobius auratus* Risso, 1810, extends the known range of the species 1000 km to the south.

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Descreve-se pela primeira vez a ocorrência da lagosta de recife *Enoplometopus antillensis* Lütken, 1865 nas águas das Ilhas Canárias. Esta espécie é provavelmente mais comum do que a espécie *E. callistus* Intès & Le Loeuff, 1970 registada anteriormente e com a qual foi confundida no passado. O góbideo *Gobius xanthocephalus* Heymer & Zander, 1992, é comum em lugares protegidos. A ocorrência desta espécie nas ilhas Canárias, onde no passado foi confundido com *Gobius auratus* Risso, 1810, o que aumenta a sua distribuição conhecida 1000 km para o sul.

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La presencia de la langosta de arrecife, *Enoplometopus antillensis* Lütken, 1865 es registrada por primera vez para las Islas Canarias. Esta especie es aparentemente más común que la previamente citada *E. callistus* Intès & Le Loeuff, 1970 y ha sido confundida con ésta en el pasado. El góbido *Gobius xanthocephalus* Heymer & Zander, 1992, es común en lugares resguardados. La presencia de esta especie en Las Islas Canarias, que en el pasado ha sido confundida con *Gobius auratus* Risso, 1810, extiende el rango conocido de distribución de la especie 1000 km al sur.

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INTRODUCTION

During SCUBA dives at the Canary Islands, we encountered several species apparently unrecorded for the area. In the following we record two such cases.

MATERIAL AND METHODS

Records and photos of *Enoplometopus antillensis* and *Gobius xanthocephalus* were accumulated during a large number of dives at the Canary islands in a depth range of 0 to 45 m. Animals were photographed in the field and collected for later identification.

RESULTS

1. *Enoplometopus antillensis* Lütken, 1865

DE SAINT LAURENT (1988) established the family Enoplometopidae and transferred it from the Thalassinidea to the Astacidea. Ten species are currently recognized in this family, two from the Atlantic and eight from the Indo-West-Pacific (TÜRKAY 1989). Previously, only the species *Enoplometopus callistus* Intès & Le Loeuff 1977 had been recorded from the Canary Islands (SANTAELLA & BACALLADO 1975). A colour photo of this species can be found in PÉREZ SANCHEZ & MORENO BATET (1991). The presence of a second species of the same genus at the Canary Islands has not yet been recorded, even though this species is much more common (at least in SCUBA diving range) than *E. callistus*.

We have recorded *Enoplometopus antillensis* Lütken, 1865, at Roques Salmor (Hierro island), at several places along the southeastern coast of Tenerife island, at several places around Gran Canaria island, and at Mala (northeastern coast of Lanzarote island). The depth range of these observations was 5 to 30 m. During daytime, animals hide in caves and below large rocks, at night they can also be encountered in the open.

Enoplometopus antillensis differs from *E. callistus* in many morphological features and also

in live colour: *E. antillensis* has a conspicuous white circle around a central white spot on each side of the reddish-orange carapace, which is absent in *E. callistus* - compare the photo on page 136 in PÉREZ SANCHEZ & MORENO BATET (1991) and figure 2 in WIRTZ et al. (1988) (but note that the texts of figs. 2 and 3 are exchanged in WIRTZ et al. 1988). *E. callistus* is occasionally collected by fishermen in traps set at 40 - 200 m depth at Tenerife island and at Gran Canaria.

In the Western Atlantic *E. antillensis* has been recorded from northern Brazil to Florida, the Bahamas, and Bermuda (MANNING & CAMP 1989), in the Eastern Atlantic it has been recorded from St. Helena (MIERS 1880, MANNING & CAMP 1989), São Tomé (FOREST 1959, WIRTZ unpublished), off Gabon (MANNING & CAMP 1989), the Cape Verde Islands (WIRTZ et al. 1988), and Madeira (colour photo by P. Wirtz in NAHKE 1985).

2. *Gobius xanthocephalus* Heymer & Zander, 1992

Gobius xanthocephalus has recently been described by HEYMER & ZANDER (1992) from a population in the northwestern Mediterranean Sea. The species can be recognized in the field by its conspicuous live colour of a yellow-topped head and greenish body. We always saw it on sandy bottom, associated with pieces of hard substrate such as pipes or boulders, in a depth range of one to 22 m. The species is common in all harbours on the SW coast of Gran Canaria island (Pto. de Pasito Blanco, Pto. de Puerto Rico, Pto. de Mogán), in sandy bottoms with boulders to 1-12 m depth, and also in Pto. de Taliarte, on the east coast (sand with boulders). It occurs as well in a water reservoir at Jinamar (NE coast of Gran Canaria near Las Palmas where the bottom is like that in Pasito Blanco). In Pto. Rico there are gobids in a pipe on sandy bottom (22 m depth). May be they are less common in deeper water. BRITO (1991) cited *G. auratus* down to down to 30 m in Lancarote. A specimen from the harbour of Pasito Blanco, south coast of Gran Canaria, has been deposited at the "Staatliches Museum für Naturkunde in Stuttgart", Germany,

under the registration number SNMS 15430. HEYMER and ZANDER (1992) already indicated that the species from Lanzarote island called *Gobius auratus* by CASTILLO & BRITO (1982) probably corresponds to *G. xanthocephalus*.

In the original description of the species, HEYMER & ZANDER (1992) only give the area of Banyuls-sur-Mer as distribution of the species. *G. xanthocephalus* is undoubtedly common in other areas of the Mediterranean Sea (the second author has recently seen it in the harbour of Almería, Spain) and it also occurs at the Atlantic coast of continental Portugal (A.J. Almeida, pers. comm.). The record of *Gobius xanthocephalus* at the Canary islands extends the known range of the species 1000 km to the south.

DISCUSSION

The presence of *Enoplometopus antillensis* at the Canary Islands raises the question of niche separation with its congeneric *E. callistus*. At the Canary Islands, *E. callistus* appears to occur in deeper water than *E. antillensis*. On the other hand, a specimen of *E. antillensis* collected off Ghana came from 201 m depth. *E. callistus* had so far been recorded only from Nigeria (BURUKOVSKY 1972, using the synonym *E. biafri*), Ghana (INTÈS & LE LOEUFF 1970), and from Tenerife and La Palma islands (SANTAELLA & BACALLADO 1975).

Prior to its description in 1992, *Gobius xanthocephalus* has consistently been called *Gobius auratus* (cf HEYMER & ZANDER 1992). All records of *G. auratus* now need confirmation. BRITO (1991) lists *G. auratus* as a species of the Canary Islands. As this name has in the past been used for *G. xanthocephalus* by scientist from La Laguna and Las Palmas universities, the record of *G. auratus* should be deleted from the list of the fishes of the Canary Islands and be replaced by *Gobius xanthocephalus* Heymer & Zander 1992.

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REFERENCES

- BRITO, A. 1991. *Catálogo de los peces de las Islas Canarias*. Francisco Lemus Editor. 230 pp.
- BURUKOVSKI, R.N. 1972. *Enoplometopus biafri* - novyi vid raka iz semeistva Nephropidae (Decapoda Crustacea). *Trudi Atlantiro* 42: 180-189.
- CASTILLO, R. & A. BRITO 1982. Primera cita para las Islas Canarias de *Gobius auratus* Risso, 1810 (Pisces Gobiidae). *Investigaciones Pesquera* 46: 391-396
- FOREST, J. 1959. Introduction, I. Campagne de la *Calypso* dans le Golfe de Guinée et aux îles Principe, São Tomé, Annobon (1956), X. Résultats scientifiques des campagnes de la "Calypso" 4. *Annales de l'Institut Océanographique* 37: 4-36.
- HEYMER, A. & C.D. ZANDER 1992. Le statut de *Gobius auratus* Risso, 1810 et description de *Gobius xanthocephalus* n.sp. de la Méditerranée (Teleostei Gobiidae). *Zoologische Jahrbücher Systematik* 199: 291-314.
- INTÈS, A. & P. LE LOEUFF 1970. Sur une nouvelle espèce de genre *Enoplometopus* A. Milne Edwards de Golfe de Guinée: *Enoplometopus callistus* nov. sp. (Crustacea, Decapoda, Homaridae). *Bulletin de Muséum d'Histoire Naturelle Paris* (2)41: 1442-1447.
- MANNING, R.B. & D.K. CAMP 1989. Additional records for an atlantic reef lobster, *Enoplometopus antillensis* Lütken, 1865 (Crustacea, Decapoda, Enoplometopidae). *Proceedings of the Biological Society of Washington* 102(2): 411-417.
- MIERS, E.J. 1880. Crustacea Anomura and Macrura (except Penaeidae). On a collection of Crustacea from the Malaysian region, III. *Annals and Magazine of Natural History* (5)5: 370-384.
- NAHKE, P. 1985. Atlantik bei Nacht. *Tauchen - Internationales Unterwassermagazin*, Jahr Verlag, Hamburg 1985/3: 32-35.
- PÉREZ SANCHEZ, J.M. & E. MORENO BATET 1991 *Invertebrados Marinos de Canarias*. Ediciones del Cabildo Insular de Gran Canaria, Las Palmas de Gran Canaria. 335 pp.
- DE SAINT LAURENT, M. 1988. Enoplometopoidea, nouvelle superfamille de Crustacés Décapodes Astacidea. *Compte Rendu Hebdomadaire des Séances de l'Académie des Sciences, Paris, Zoologie* (3) 307: 59-62.
- SANTAELLA, E. & J.J. BACALLADO 1975. Sobre la presencia en Canarias de dos especies de Crustáceos Decápodos: *Plesionika williamsi* Forest, 1964 (Fam. Pandalidae) y *Enoplometopus callistus* Intès y Loueff, 1970 (Fam. Nephropidae). *Vieraea* 4:160-163.

TÜRKAY, M. 1989. *Enoplometopus (Hoplometopus) voigtmanni* n.sp., ein neuer Riffhummer von den Malediven. *Senckenbergiana Maritima* 20: 225-235.

WIRTZ, P., B. MÜLLER, P. NAHKE 1988. The Caribbean shrimp *Tuleariocaris neglecta* Chace, 1969 found

in association with *Diadema antillarum* at Madeira, and two new records of decapod crustaceans from the Cape Verde islands. *Courier Forschungs - Institut Senckenberg* 105: 169-171.

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