

OCCURRENCE OF *DENTEX (POLYSTEAGANUS) ANGOLENSIS* POLL & MAUL, 1953 (SPARIDAE) IN THE CANARY ISLANDS. Vicente RICO, José Ignacio SANTANA and José Antonio GONZÁLEZ, Instituto Canario de Ciencias Marinas (I.C.C.M.), Dirección General de Universidades e Investigación, Gobierno de Canarias, P.O. Box 56, E-35200 Telde (Las Palmas), SPAIN.

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The fact that the species of the genus *Dentex* Cuvier, 1814 (Osteichthyes, Sparidae) are widely distributed in Canary Island waters is well-known: *Dentex (Cheimerius) canariensis* Steindachner, 1881, *Dentex (Cheimerius) gibbosus* (Rafinesque, 1810), *Dentex (Dentex) dentex* (Linnaeus, 1758), *Dentex (Polysteganus) macrophthalmus* (Bloch, 1791), and *Dentex (Polysteganus) maroccanus* Valenciennes, 1830 (Dooley *et al.*, 1985; Brito, 1991). With regard to *Dentex canariensis*, a very rare species which was not reported in the Canary Islands before 1991 (Bauchot *et al.*, 1981; Dooley *et al.*, 1985; Bauchot and Hureau, 1990), this species was quoted by Brito (1991); at present there is no information about the presence of permanent populations in the Canaries, only two specimens having been examined, from the SW of La Gomera (Valle Gran Rey) and the E of Fuerteventura (Gran Tarajal), neither of which, unfortunately, was placed in a collection (A. Brito, pers. comm. 1995). However, some of these *Dentex* species are target species for the insular small-scale fisheries with handlines, longlines and traps (Carrillo *et al.*, 1985; González, 1991).

Since 1990, members of the I.C.C.M. have regularly checked the unloadings of the insular bottom-longline fishery in the port of Taliarte (East of Gran Canaria, Canary Islands). One *Dentex* specimen unknown by us was found on 26 April 1994 among individuals of the species commonly unloaded, which consisted of *Muraena helena* Linnaeus, 1758 (Muraenidae), *Conger conger* (Linnaeus, 1758) (Congridae), *Phycis phycis* (Linnaeus, 1766) (Gadidae), *Polymixia nobilis* Lowe, 1836 (Polymixiidae), *Beryx splendens* Lowe, 1834 (Berycidae), *Serranus atricauda*

Günther, 1874 (Serranidae), *Dentex gibbosus*, *Dentex macrophthalmus*, *Pagrus pagrus* (Linnaeus, 1758) (all Sparidae), *Pontinus kuhlii* (Bowdich, 1825) and *Scorpaena scrofa* Linnaeus, 1758 (both Scorpaenidae).

The problem-specimen was accurately identified as *Dentex angolensis* Poll & Maul, 1953, according to the taxonomic keys provided by Bauchot *et al.* (1981) and Bauchot and Hureau (1990).

Our specimen - a mature female - was caught by means of a bottom longline off Fuerteventura island (western coast, Ajuy, 28°25'N 14°17'W, sand with mud, 45-200 m). Values of morphometric (in mm) and meristic parameters of the specimen are: standard length, 155; cephalic length, 53.5; preorbital length, 13; predorsal length, 56; preanal length, 99; orbital diameter, 19.3; body depth, 61.3; caudal peduncle depth, 17.3; dorsal length, 78.8; anal length, absent; gill-rakers, 9 lower, 6 upper; dorsal fin rays, XII+10; lateral line scales, 47; canines in front of jaws, 6 lower, 4 upper. The specimen was finally deposited in the collection of the I.C.C.M.

Discussion

D. angolensis inhabits the west coast of Africa (from Morocco -33°N- to Angola), at depths between 15 and 300 m. It is a very common species, occurring on varied seabeds - mainly sandy mud substrates - of the shelf and upper slope. It was found to be the most frequent and abundant species during the fishing survey 'Guinea 90' carried out off Sierra Leone, Liberia, Ivory Coast and Ghana at depths between 20 and 700 m (Bauchot *et al.*, 1981; Bauchot and Hureau, 1990; Fernández Peralta and González Jiménez, in press).

This new record for the marine ichthyofauna of the Canary Islands extends the distribution area of this species westwards into the eastern Atlantic Ocean, seeming to be the first finding ever recorded in the Macaronesian archipelagos. All Mediterranean *Dentex* species (*D. gibbosus*, *D. dentex*, *D. macrophthalmus*, and *D. maroccanus*) are commonly present in the Canaries (Bauchot, 1987), whereas the African *Dentex* species (*D. canariensis* and *D. angolensis*) (Bauchot *et al.*, 1981; Bauchot and Hureau, 1990) can be considered rare off the Canary Islands coast.

Both inshore and upper bathyal benthic ichthyofauna of the Canary Islands are in accor-

dance with the inclusion of this archipelago within the Atlanto-Mediterranean biogeographical marine region of Briggs (1974) but with a remarkable presence of tropical, Guinean, and Macaronesian species. Those living in both shelf and upper slope seabeds show a dominance of Atlanto-Mediterranean species and of tropical and subtropical eastern Atlantic species; the inshore species show several models, the Guinean species amounting to a very small representation in this group (Brito, 1984; Brito *et al.*, in press).

These particular faunistic characteristics can be in part explained by the geographical location of these islands - close to the African and European continents but separated from them by great depths - and situated, moreover, in the eastern boundary flow which is the descendant branch of the subtropical gyre of the eastern central Atlantic. As a result of this, the Canaries are connected to the American, European and north-western African coasts, receiving a permanent larval flow (Brito, 1984; Brito *et al.*, in press).

The low percentage of Guinean tropical species off the Canary Islands coast (Brito *et al.*, in press) seems to be mainly related to the absence of permanent ascendant sea currents to the Canaries and to the thermic barrier due to the upwelling phenomena occurring opposite Cape Blanc. The only natural means of arrival in the Canary Islands of this tropical fauna (which can be considered at this point) is the possible occasional displacement of African waters by certain conditions of the wind from the south when the ascending coastal current (reverse current) flows copiously past Cape Blanc (20°46'N 17°03'W) and reaches Cape Bojador (26°08'N 14°30'W), an occurrence that appears to take place during winter (Mittelstaedt, 1983).

Some benthic species which have been recently recorded for the Canary Islands represent valid examples of the above-mentioned colonization patterns. *Lutjanus goreensis* (Valenciennes, 1830) (Lutjanidae) (González and Santana, 1986) and *Pagrus africanus* Akazaki, 1962 (Sparidae) (Brito, 1991), in the case of Guinean species. *Argyrosomus regius* (Asso, 1801) (Sciaenidae) (Brito, 1991), *Citharus linguatula* (Linnaeus, 1758) (Citharidae) and *Arnoglossus imperialis* (Rafinesque, 1810) (Bothidae) (González and Hernández, 1987), in the case of Atlanto-Mediterranean species. Finally *Dentex angolensis* in the case of tropical and subtropical eastern Atlantic species.

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REFERENCES

- BAUCHOT M.L., 1987. - Poissons osseux. Sparidae, pp. 1343-1376. *In*: Fiches FAO d'Identification des Espèces pour les Besoins de la Pêche. (Révision 1). Méditerranée et Mer Noire. Zone de Pêche 37. Vol. II, Vertébrés (Fischer W., Bauchot M.L. & M. Schneider, eds). FAO-CEE, Rome.
- BAUCHOT M.L. & J.C. HUREAU, 1990. - Sparidae, pp. 790-812. *In*: Check-List of the Fishes of the eastern Tropical Atlantic. Vol. II (Quéro J.C., Hureau J.C., Karrer C., Post A. & L. Saldanha, eds). UNESCO-SEI-JNICT, Portugal.
- BAUCHOT M.L., HUREAU J.C. & J.C. MIQUEL, 1981. - Sparidae, pag. var. *In*: Fiches FAO d'Identification des Espèces pour les Besoins de la Pêche. Atlantique Centre-est; Zones de Pêche 34, 47 (en partie). Vol. IV (Fischer W., Bianchi G. & W.B. Scott, eds). Canada Fonds Dépot-FAO.
- BRIGGS J.C., 1974. - Marine Zoogeography. 475 p. McGraw Hill Book Co., New York.
- BRITO A., 1984. - Zoogeografía marina de las Islas Canarias, pp. 66-86. *In*: Fauna (marina y terrestre) del Archipiélago Canario (Bacallado J.J., dir.). Edit. Regional Canaria, Las Palmas de Gran Canaria.
- BRITO A., 1991. - Catálogo de los Peces de las Islas Canarias. 230 p. Edit. F. Lemus, La Laguna (Tenerife).
- BRITO A., LOZANO I.J., FALCÓN J.M., RODRÍGUEZ F.M. & J. MENA, in press. - Análisis biogeográfico de la ictiofauna de las islas Canarias. *In*: Oceanografía y Recursos marinos del Atlántico centro oriental (Linás O., González J.A. & M.J. Rueda, eds). Inst. Canario Cienc. Mar., Telde (Las Palmas).
- CARRILLO J., GONZÁLEZ J.A., CASTILLO R. & J. GÓMEZ, 1985. - Recursos demersales de Lanzarote y Fuerteventura (Islas Canarias), pp. 799-823. *In*: Simp. int. Afl. O Afr., Vol. II (Bas C., Margalef R. & P. Rubiés, eds). Inst. Inv. Pesq., Barcelona.

- DOOLEY J.K., VAN TASSELL J. & A. BRITO, 1985. - An annotated checklist of the shore-fishes of the Canary Islands. *Am. Mus. Novit.*, 2824: 1-49.
- FERNÁNDEZ PERALTA L. & J.F. GONZÁLEZ JIMÉNEZ, in press. - Resultados obtenidos para *Dentex angolensis* Poll & Maul, 1953 (Familia Sparidae) en la campaña "GUINEA 90". In: Oceanografía y Recursos marinos del Atlántico centro oriental (Llinás O., González J.A. & M.J. Rueda, eds). Inst. Canario Cienc. Mar., Telde (Las Palmas).
- GONZALEZ J.A., 1991. - Description générale des pêcheries artisanales aux Iles Canaries, pp. 365-370. In: La Recherche Face à la Pêche Artisanale, Symp. int. ORSTOM-IFREMER, Vol. I (Durand J.R., Lemoalle J. & J. Weber, eds). ORSTOM, Paris.
- GONZÁLEZ J.A. & C.M. HERNÁNDEZ, 1987. - Catálogo de las especies del Orden Heterosomata (Pleuronectiformes) (Osteichthyes) en Canarias. *Vieraea*, 17(1-2): 155-170.
- GONZÁLEZ J.A. & J.I. SANTANA, 1986. - Sobre la presencia de *Lutjanus goreensis* (Valenciennes, 1830) (Osteichthyes: Lutjanidae) en aguas de Canarias. *Vieraea*, 16: 283-286.
- MITTELSTAEDT E., 1983. - The upwelling area from North-west Africa- A description of phenomena related to coastal upwelling. *Prog. Oceanog.*, 12: 307-331.

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