

# A RED SEA GROUPER *EPINEPHELUS TAUVINA* CAUGHT ON THE MEDITERRANEAN COAST OF ISRAEL

A. BEN-TUVIA\* AND A. LOURIE

Sea Fisheries Research Station, Haifa

INSTITUUT VOOR  
ZEEWETENSCHAPP  
ONDERZOEK (I.Z.V.)

8420

De H<sub>2</sub>

## ABSTRACT

A grouper identified as *Epinephelus tauvina* (Forsskal, 1775) was caught in Haifa Bay in January 1966. This Red Sea species has not been previously recorded in the Mediterranean. Vivid coloration clearly differentiate *E. tauvina* from the known Mediterranean serranids.

A specimen of a grouper identified as *Epinephelus tauvina* (Forsskal, 1775) (Fig. 1) was caught in Haifa Bay (Hof Shemen) in January 1966, by commercial fishermen in a gill net at a depth of 12 m. This species with its vivid coloration clearly differs from the known Mediterranean serranids. The junior author, who found this fish alive among the catch, recognized its distinct character and preserved it in the collection of the Sea Fisheries Research Station, Haifa S.F.R.S. 2026. Notes on coloration were made less than one hour after death.

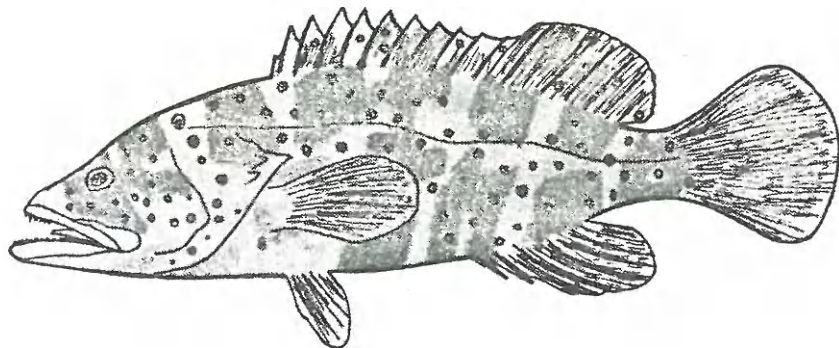


Fig. 1. *Epinephelus tauvina* (Forsskal)

An additional specimen of the same species, caught in Haifa Bay, was identified by the authors but was not preserved. According to information from Israeli fishermen this fish is caught on rare occasions in Haifa Bay in inshore waters. It is

\* Present address: FAO/UNDP Proyecto Para el Desarrollo de la Pesca Maritima, Bogota, Colombia.

Received May 2, 1969.

not known whether it is encountered in other localities along the Mediterranean coast.

This is the first record of this species in the Mediterranean. The fact that it was not noted until 1966 supports the view of the continuous migration of Red Sea fishes into the Mediterranean (Ben-Tuvia, 1966; George and Athanassiou, 1966; Collette, in press).

The systematic character of our specimen is in agreement with the description of Forsskal (1775) and in general terms with the descriptions given by other authors (Fowler and Bean, 1930; Klunzinger, 1870; 1884; Tortonese, 1935/36). *E. salmoides*, *E. malabaricus* and *E. semipunctatus* quoted by Day (1878) are considered by Boulenger (1895) as synonyms of *E. tauvina*. The Mediterranean specimen has three rows of teeth in the front of the lower jaw and two rows on the sides. Some authors (Barnard, 1927; Boulenger, 1895; Weber and Beaufort, 1931) mention the presence of three rows of teeth on the sides of the lower jaw in adults. According to Fowler and Bean (1930) teeth in young specimens are triserial in the front of the mandible becoming biserial laterally. Thus it would seem likely that the number of lateral rows increases with age in this species. Since *E. tauvina* may reach a length of two metres and a weight of about 22 kg (Marshall, 1964), the Mediterranean specimen, being 50 cm long, is relatively small and for this reason characterized by two rather than three rows of lateral teeth.

Blegvad (1944) pointed out the close similarity of his Persian Gulf specimen to Forsskal's 202 mm type specimen from the Red Sea. Our Mediterranean specimen fits Blegvad's description.

#### DESCRIPTION

T.1. 508 mm; St. 1. 420 mm. D XI 15; A III 8; L.1. 115; L. tr. 14 (1)30 (count between base of first D ray and origin of A); gill rakers 9(1)15 (the last four or five on each arch rudimentary). HEAD: 2.6; depth 3.9 (all in standard length). Snout 4.4; eye 7.8; interorbital 5.4; postorbital 1.5; maxillary 2.1; length of pectoral 2.1; length of pelvic fin 2.7; length of caudal peduncle 4.0; least depth of caudal peduncle 3.4; length of longest (the seventh) D spine 3.1; length of the longest D ray 2.1 (all in the length of the head). Teeth in upper jaw: one row of strong non-depressible teeth, behind which are several rows of depressible teeth of variable size, canines distinct. Teeth in lower jaw: three rows of conical teeth in the front merging into two rows on the sides and ending in one row in the far back; canines clearly visible although their bases are partly covered by flesh. Posterior edge of preopercle serrate. Middle opercular spine equidistant to the two lateral spines. Caudal fin rounded. COLOUR (less than one hour after death): From dark brown on the back to beige on the ventral side. Head and body covered with bright orange spots more or less regularly dispersed, becoming paler towards the belly; the spots extend over the

fins with the exception of pelvics. Five dark brown bands across the body spreading partly over the dorsal fin. Later the bright orange spots turned brown and the vertical stripes became more conspicuous.

DISTRIBUTION: Red Sea, Persian Gulf, Arabian Sea, Zanzibar, South Africa, Ceylon, India, Singapore, Indo-Malayan Archipelago, Queensland (Australia), China, Taiwan, Philippines, Polynesia, Melanesia, Hawaii.

#### REFERENCES

- BARNARD, K. H., 1927, Monograph of the marine fishes of South Africa, *Ann. S. Afr. Mus.*, 21, Pt. 2.
- BEN-TUVIA, A., 1966, Red Sea fishes recently found in the Mediterranean, *Copeia*, 254-275.
- BLEGVAD, H. and B. LOFFENTHIN, 1944, Fishes of the Iranian Gulf, *Dan. Scient. Invest. Iran*, 3, 1-247.
- BOULENGER, G. A., 1895, *Catalogue of Fishes*, I. London, Brit. Mus.
- COLLETE, B. B. (In press), *Rastrelliger kanagurta*, another Red Sea immigrant into the Mediterranean Sea with a key to the Mediterranean species of Scombridae.
- DAY, F., 1878, Observation on the fishes of India, *Proc. Zool. Soc. Lond.* 258-265.
- FORSKAL, P., 1775, *Descriptiones animalium avium, amphibiorum, piscium . . . Post mortem auctoris edidit Carsten Niebuhr*, Havniae.
- FOWLER, H. W. and B. A. BEAN, 1930, Contribution to the Biology of the Philippine Archipelago and Adjacent Regions. *Bull. U.S. natn. Mus.*, 10, 287-289.
- GEORGE, C. J. and V. V. ATHANASSIOU, 1966, Additions to the check list of the fishes of the coastal waters of Lebanon, The Amer. Univ. Beirut. Publ. Faculty of Arts and Sciences, *Misc. Pap.*, 5, 6-8.
- KLUNZINGER, C. B., 1870/1871, Synopsis der Fische des Rothen Meeres. *Verh. Zool.-Bot. Ges. Wien*, 20, 683.
- KLUNZINGER, C. B., 1884, *Die Fische des Rothen Meeres*. E. Schweizerbartsche Verlag. Stuttgart, 6.
- MARSHALL, T. C., 1964, *Fishes of the Great Barrier Reef and Coastal Waters of Queensland*, Angus and Robertson.
- TORTONESE, E., 1935-36, Pesci del Mare Rosso. *Boll. Musei. Zool. Anat. comp. R. Univ. Torino*, ser. 3, 45, 36.
- WEBER, M. AND L. F. DE BEAUFORT, 1931, *Fishes of the Indo-Australian Archipelago*, 6, 60-64.

