

Fishes of Brotulidae family of Ligurian Sea

by

LIDIA RELINI ORSI

Istituto di Anatomia Comparata dell'Università di Genova (Italia)

It is known that Teleosts of the Brotulidae family are represented by few species in the Mediterranean and that in general their recording is not common. After the finding of an *Oligopus ater* specimen at Nice (which RISSO used to describe the genus and the species) in the Ligurian Sea a certain number of captures have been effected in the last few years only. At the present time, the following species may be added :

Oculospinus brevis Koefoed, 1927
Cataetyx laticeps Koefoed, 1927
Bellottia apoda Giglioli, 1883

Oculospinus brevis

This species is known as from 1970, the year in which a mature adult female was fished off Arenzano [RELINI ORSI 1971]. From that time, captures have been repeated on the muddy bottom of the inner part of the Gulf of Genoa, the trawling ground of red shrimps (*Aristeomorpha foliacea* and *Aristeus antennatus*), so much so that *Oculospinus brevis* may be considered a common component of its population. One is concerned with bottoms fouled with solid wastes from both the coast and above all from vessels, given that this sea zone is covered by routes from Genoa and Savona. This fish has, up to this time, never been fished on the bottom of the East Ligurian sea, which is apparently similar (i.e. characterized by the same *Isidella elongata* community) but not as fouled. The greater finding was observed in a trawl carried out in the summer of 1974 off Savona (that is of six individuals- after two hours of trawling), the weight ratio of refuse and organisms recovered from the net being in the order of 20 : 1. The presence of *O. brevis* could be associated with this form of pollution, in that the fish has the possibility of sheltering in small empty objects (cans etc.) found on the bottom. The availability of a good number of specimens enabled the obtaining of primary data on the biology of this species [RELINI ORSI 1974]. *O. brevis* reproduces in summer; males and females are found in equal proportions and are easily distinguished by the presence of a copulatory apparatus in the male; fertilization is internal but spermatosphere are lacking. As far as feeding is concerned, the examination of the stomach contents showed that this fish eats benthic Invertebrates, particularly Polichaetes and Amphipods, occasionally *Calocaris macandreae*, and seems incapable of capturing fast prey such as fish or Cephalopods.

Cataetyx laticeps

The recording of this species in the Ligurian sea is very recent (by RELINI ORSI & GAVAGNIN [1974]) even if the only specimen on which this finding is based was fished as far back as 1968. The history of this fish is very complex. P. E. GAVAGNIN obtained a magnificent specimen of an unknown bony fish which was hooked on a surface long-line 20 miles off San Remo, the depth at this point being about 2.000 m. He handed it to the late prof. G. BELLOC for preliminary study, who identified the family to which it belonged (Brotulidae), and who began to study it by means of very careful executed radiographs. However, given his age he was unable to complete this work. Some time after, during *Jean Charcot* ocea-

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nographic expedition in the Western Mediterranean, three *C. laticeps* specimens were recovered from a depth of 2.300 - 2.830 metres, south of Sardinia - Baleari junction [GEISTDOERFER & RANNOU 1971, 1972]. It seemed probable, therefore, that the large ligurian brotulid which GAVAGNIN had spoken to me about could be a *Cataetyx*, and for this reason I contacted BELLOC in order to examine the fish and NIELSEN (Zoological Museum of the University, Copenhagen) as to have the chance of comparing it with a *C. laticeps*. BELLOC agreed to reassume the joint study of the specimen, but unfortunately he died last September before he could be brought up to date on my latest observations.

Before this recording *Cataetyx laticeps* was known only through the type described by KOEFOED [1927].

Bellottia apoda

I now set out details of the first finding in the Ligurian sea : an adult female of 48 mm standard length, captured on the 24th July 1974, on a trawling ground, roughly 200 m in depth, and SW of Mesco Point. This fish, was undoubtedly captured only once before, at the end of the last century, when five samples ended up together in a single net that had trawled a *Posidonia* bed at a depth of 30 m. Two of these were used by GIGLIOLI in order to describe the species, and which are preserved in the museum at Florence. A further two were handed over to Milan museum, and the last to the Zoological Station at Naples, but these latter were lost during the world war II. The fact that no other such finding had been recorded, had induced some to doubt the validity of the species which, however, was confirmed by NIELSEN & COHEN [1968] after a careful reexamination of the specimens in Florence. When I caught this specimen it was of a dark grey colour with bright blue reflexions. Its meristic characters are: D 83, A 71, C 6, P 22, V 0.

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