

SOME NEW DATA ON THE OCCURRENCES OF *SCHEDOPHILUS OVALIS* (CUVIER, 1833)  
(PISCES: CENTROLOPHIIDAE) IN THE EASTERN ADRIATIC

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**Abstract**

Two specimens of the imperial blackfish *Schedophilus ovalis* (in 1979-TL=25.2 cm; in 2003- TL=37.7 cm) were caught in the southern Adriatic. Periodically occurrences of this species could be explained by the "Adriatic ingressions", NAOi and warming of Adriatic waters.

*Key-words: Schedophilus ovalis, occurrences, Eastern Adriatic*

**Introduction**

The imperial blackfish *Schedophilus ovalis* (Cuvier, 1833) is present in the Eastern and Western Central Atlantic, Australia, and throughout most of the Mediterranean (1). *S. ovalis* lives both in surface waters (juvenile phase associated with floating wreckage and jellyfish) and on slope bottoms in habitats which have not yet been defined. Many aspects of its biology remain obscure (1), especially in the Mediterranean, where it has for a long time been supposed that that this species is rare (2). Jardas (3) noted that *S. ovalis* (Cuvier, 1833) is very rare species in the Adriatic Sea.

In this paper we present some new data on the occurrences of the imperial blackfish in the eastern Adriatic.

**Material and methods**

The specimens were identified according to Jardas (3). They are deposited in the Ichthyological Collection of the Institute of Oceanography and Fisheries in Split, Croatia. The specimens were measured to the nearest 0.1 cm (TL-total length), and weighed to the nearest 0.1 g.

**Results and discussion**

On 26 June 1979 one specimen of the imperial blackfish was caught with the deep bottom trawl in the open waters of the southern Adriatic, about 20 Nm SE from Dubrovnik at depth of about 1000 m depth. The total length of caught specimen was TL = 25.2 cm (no data on weight and sex undetermined). Another specimen of the imperial blackfish was caught on 28 July 2003 with «brankarela» (ripping hook mounted together on the iron or wooden stick) in the open waters of southern Adriatic, 35 Nm SE from Dubrovnik (southern Adriatic), at about 1200 m depth. The sea surface temperature was SST=26.5°C. The total length was TL=37.7 cm, and weight W=820.2 g (sex undetermined). The growth of the imperial blackfish specimens to about 45 cm TL (4) corresponds to the first year of life. If we take this into consideration both caught specimens in the eastern Adriatic were juveniles (0+).

*S. ovalis* was firstly recorded in the Adriatic as *Centrophilus corcyrensis* (5) since it was caught in the vicinity of the Korčula Island (southern Adriatic). The second specimen (without measures) of this species was captured together with *S. medusophagus* in Pelješac channel (southern Adriatic) in 1982 (at depth 2 m, T=25°C) and it was accompanied the occurrence of *Pelagia noctiluca* (6). We assume that those periodically occurrences could be explained by the Adriatic ingressions, NAOi (North Atlantic Oscillation Index) and warming of Adriatic waters (7). Observations on the Adriatic ichthyofauna (period 1973-1998) showed changes in the quantitative and qualitative composition of the fish fauna. The number of thermophilic species has increased; several species, scarce or rare until now are more abundant, while others are new records (7). Dulčić *et al.* (7) considered that the presence of the imperial blackfish and cornich blackfish *S. medusophagus* in the Adriatic waters depends on water warming. The northward extension of *S. ovalis* to the Bay of Biscay (8) and recent occurrences of young *S. ovalis* along French Mediterranean coasts (9) could support this hypothesis. Francour and Javel (9) assume that the observations of small to medium sized *S. ovalis* they gathered in 2000-2001 in the Alpes-maritimes department (Cannes, Antibes, Beaulieu/Mer) could be also explained by the present warming of waters (10).

According to Morović (11), the rarity of certain fish species could be evaluated from the records in scientific literature. Same author pointed that if the species is recorded fewer than five times, it should

be treated as a very rare species. According to this, we could still treated the imperial blackfish (4 records in scientific literature until now) as a very rare species in the eastern Adriatic. We must also be careful with tools (gears) for providing target species if we want to evaluate their rarity since it is hard to sample the imperial blackfish (during different life phases) using conventional methods. FADs (Fishing Attractive Devices) provide a useful tool for studying mentioned species (12), so it could be proposed for next studies on fish assemblages in the southern Adriatic. The results of Deudero *et al.* (12) confirm the rare observations on the imperial blackfish (13) in the Ligurian Sea. Moreover, in the Balearic Sea only 3 catches of this species have been reported (14).

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