




NOTE

## The rare occurrence of the shore rockling *Gaidropsarus mediterraneus* (Linnaeus, 1758) (Osteichthyes: Gadiformes), in the South-Eastern Mediterranean, Turkey

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**ABSTRACT.** On 26 October 2021, one specimen of shore rockling *Gaidropsarus mediterraneus* (Linnaeus, 1758) was captured from Konacik, Iskenderun Bay (Southeastern Mediterranean, Turkey) with a commercial trawler at a depth of 50 m. The specimen measured 27.5 cm in total length and weighed 114.8 g. The present paper reports the rare occurrence of this species in Iskenderun Bay, Turkey (southeastern Mediterranean Sea). All measurements, counts, and color descriptions of *G. mediterraneus* agree with previous descriptions. The present study discusses its conservation in the area and the Mediterranean Sea.

**Key words:** Gaidropsaridae, occurrence, new records, Konacik coast, Iskenderun Bay.

**La rara ocurrencia de la bertorella *Gaidropsarus mediterraneus* (Linnaeus, 1758) (Osteichthyes: Gadiformes) en el sureste del Mediterráneo, Turquía**

**RESUMEN.** El 26 de octubre de 2021, un espécimen de *Gaidropsarus mediterraneus* (Linnaeus, 1758) fue capturado en Konacik, bahía de Iskenderun (sureste del Mediterráneo, Turquía) con arrastre comercial, a una profundidad de 50 m. El ejemplar medía 27,5 cm de longitud total y pesaba 114,8 g. El presente documento informa sobre la rara presencia de esta especie en la bahía de Iskenderun, Turquía (sureste del Mar Mediterráneo). Todas las medidas, recuentos y descripciones de color de *G. mediterraneus* concuerdan con las descripciones anteriores. El presente estudio discute su conservación en la zona y el Mar Mediterráneo.

**Palabras clave:** Gaidropsaridae, ocurrencia, nuevos registros, costa de Konacik, bahía de Iskenderun.



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The Family Gaidropsaridae is represented by four species in the Mediterranean Sea: Mediterranean bigeye rockling *Gaidropsarus macrophthalmus* (Günther, 1867), Azores rockling *G. granti* Regan, 1903, shore rockling *G. mediterraneus* (Linnaeus, 1758) and three-bearded rockling *G. vulgaris* (Cloquet, 1824). This family has recently been reviewed by Bañón et al. (2022) and Barros-García et al. (2022). This genus comprises three species in Mediterranean waters of Turkey (Bilecenoglu et al. 2002; IUCN 2023).

The shore rockling *G. mediterraneus* is known in the eastern Atlantic, from southern Norway, all around Britain and Ireland to northwestern African coasts (Hayward et al. 1996) and western Mediterranean Sea, the Adriatic Sea and the Aegean Sea, including the Black Sea (Svetovidov 1986; Froese and Pauly 2023). The occurrence of *G. mediterraneus* in the western Mediterranean basin was reported in northern and central Tunisian waters (Maurin 1962; Azouz 1974; Capapé and Rafrai-Noura 2021) and the Lebanon coast (Georges et al. 1964; Lakkis et al. 1996) as *Onos mediterraneus* (Linnaeus, 1758) (Bradaï 2000).

*Gaidropsarus mediterraneus* was first reported in Turkish waters of the Mediterranean Sea by Erazi (1942) and Akyuz (1957), and it was included in the list of marine fishes of Turkey (Aksiray 1954). However, no specimens of *G. mediterraneus* have yet been reported from the southeastern Mediterranean coast of Turkey. Hence, we herein

report the first capture record of *G. mediterraneus* in the southeastern Mediterranean.

A single specimen of *G. mediterraneus* was collected from the coast of Konacik ( $36^{\circ} 35' 080''$  N- $35^{\circ} 82' 507''$  E) (Figure 1) at a depth of 50 m by a commercial trawler on 28 November 2021 (Figure 2). Morphometric measurements were done to the nearest 0.1 cm using calipers. Measurements, counts and morphological descriptions of the shore rockling agreed with previous descriptions (Svetovidov 1986; Cohen et al. 1990; Bañón et al. 2022).

The Mediterranean specimen of *G. mediterraneus* was 27.5 cm in total length (TL), 25.0 cm standard length (SL), and weighed 114.8 g. The specimen had the following diagnostic characters: first dorsal fin rays I, second dorsal fin rays 44, third dorsal fin rays 51, pectoral fin ray 15, anal fin ray 43, and pelvic-fin rays 6. Measurements were determined as body depth (19.20% of SL), head length (21.92% of SL), pre-dorsal

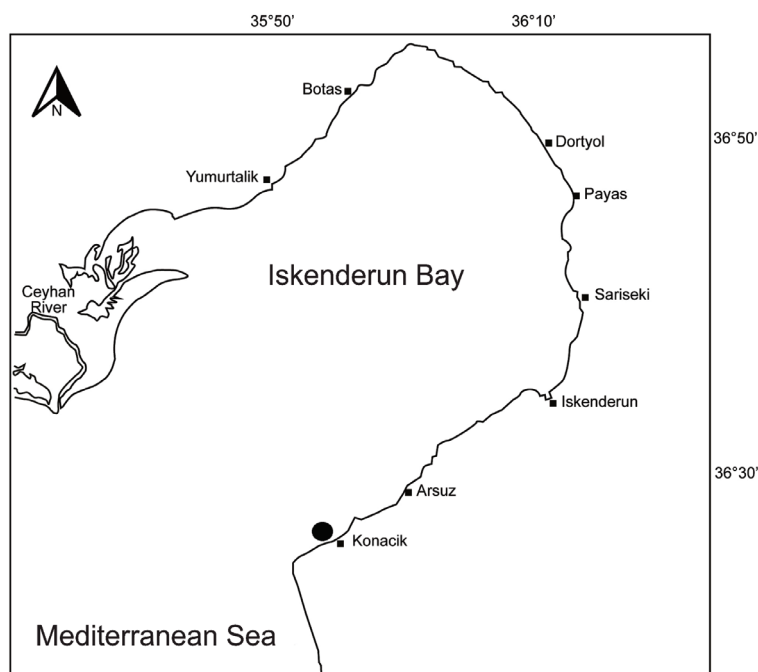


Figure 1. Iskenderun Bay (southeastern Mediterranean) indicating the capture site (●) of the shore rockling *Gaidropsarus mediterraneus* (Linnaeus, 1758).



Figure 2. Specimen of the shore rockling *Gaidropsarus mediterraneus* (Linnaeus, 1758) from Iskenderun Bay (southeastern Mediterranean).

length (20.04% of SL) and pre-anal length (49.52% of SL). Eye diameter (23.80%), interorbital length (25.90%), and pre-orbital length (30.18%) were calculated as percentage of head length. The shore rockling *G. mediterraneus* has an elongated body with smooth, scaleless skin. The first dorsal-fin ray is followed by a few small fleshy filaments, and the second dorsal fin and anal fin extend most of the body-length (Neal 2007). *Gaidropsarus mediterraneus* has three barbels around its mouth on the back side marbled coloration: a single barbel on the chin and a pair of barbels at the anterior nostril. Corners of the mouth barely extend past the eyes (Golani et al. 2006). The colour is dark brown, sometimes reddish, and the dorsal side has a mottled pattern. The ventral side is paler and median fin borders are dark.

*Gaidropsarus mediterraneus* is a demersal species (Riede 2004) inhabiting between 1 and 450 m (Froese and Pauly 2023), predominantly up to 60 m depth. This species can reach a maximum of 50 cm TL (Cohen et al. 1990). It commonly feeds on fishes, crustaceans, polychaetes, and algae (Capapé and Rafrai-Noura 2021; IUCN 2023). It is found on rocky shorelines and on sublittoral rocky habitats with plenty of algae covers,

but can also be found in seagrass beds (Froese and Pauly 2023).

*Gaidropsarus mediterraneus* is similar to the three-bearded rockling *G. vulgaris*. This species is distinguished from *G. vulgaris* mainly by its mottled dark brown color, while *G. vulgaris* has a reddish brown back with noticeable blotches (Muus and Nielsen 1999).

Although *G. mediterraneus* has been listed as Least Concern (LC) in the Global Red List by the International Union for Conservation of Nature (IUCN) since 2011 for Mediterranean waters (Di Natale et al. 2011), there is no available information on specific conservation measures for shore rockling species in the Mediterranean Sea (IUCN 2023).

*Gaidropsarus mediterraneus* is rarely found in the eastern Mediterranean. It is not a commercial species, and it is probably discarded at sea by local fishermen. Available records are insufficient to indicate the threat to its population. This species needs to be reevaluated in the eastern Mediterranean, including Turkish marine waters. Therefore, further monitoring and fisheries data are needed in the area. The population structure of *G. mediterraneus*, its potential threats, and its presence on the Mediterranean Sea coast of

Turkey have not yet been thoroughly investigated. The present finding is interesting because there has been no record of *G. mediterraneus* in more than 65 years since the species was first reported in the Mediterranean coastal waters of Turkey, and will be helpful in the field of fisheries research.

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