

## The first record of *Monotaxis grandoculis* (Forsskål, 1775) (Osteichthyes, Lethrinidae) in the Mediterranean Sea

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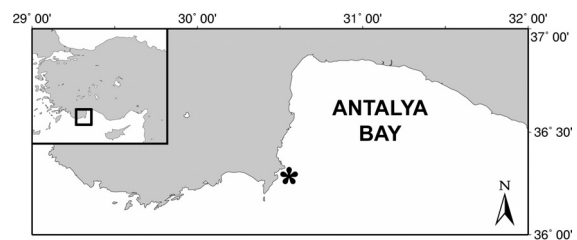
### Abstract

The first Mediterranean record of the Indo-Pacific humpnose big-eye bream, *Monotaxis grandoculis* (Forsskål, 1775), was reported on 4 August 2007 at Antalya Bay, Turkey. It is suggested that this fish had entered the Mediterranean through the Suez Canal.

**Key words:** *Monotaxis grandoculis*, Lethrinidae, Mediterranean Sea, alien species

The Lethrinidae (emperor fishes) are tropical marine fishes, with 39 species distributed in the Indo-Pacific Ocean, and a single species in the eastern Atlantic Ocean (Carpenter and Allen 1989).

On 4 August 2007, a single specimen of *Monotaxis grandoculis* (Forsskål, 1775) was observed during a scuba dive at Antalya Bay, Turkey, above a sandy bottom at a depth of 8 m (Figures 1 and 2). The specimen was approximately 12 cm in standard length and was a subadult. Although the fish could not be captured, a few underwater photos were taken enabling its identification. Distinctive characters are as follows (based on Figure 2): body oblong and compressed laterally; head profile strongly convex in front of eye, forming a hump. Eyes large, constituting less than one third of head length. The operculum, cheek and inner surface of pectoral fin base are scaled. Body color is bluish on the dorsal surface, grading to whitish on the lower half, with three prominent narrow



**Figure 1.** Locality of *Monotaxis grandoculis* report - at Adrasan on the coast of Antalya Bay, Turkey (indicated by an asterisk)

white saddles; the dorsal fin is dusky blue, with an orange/red margin. A large black blotch occurs posteriorly at the base of the dorsal fin. The anal fin is bluish at the base, with an orange/red margin. The pectoral and pelvic fins are pale, but the latter has a faint orange edge. A prominent black bar covers the eye, extending to cheek. The interorbital area is yellow and the nape is white. All color descriptions are in accordance with Carpenter and Allen (1989).



**Figure 2.** The sub-adult specimen of *Monotaxis grandoculis*, observed at Antalya Bay

The genus *Monotaxis* is monotypic (Carpenter and Johnson 2002), but two distinct color morphs are known (dark form and pale form), which has led some authors (i.e. Senou et al. 2007) erroneously to consider *M. heterodon* (Bleeker, 1854) as a valid species. According to Carpenter and Allen (1989), the color of the species changes very quickly in high-contrast environments and in light-colored rubbles, or even when harassed with a spear gun. *Monotaxis grandoculis* is widespread in the Indo-Pacific Ocean, with records from the Red Sea (Khalaf and Kochzius 2002), east African coast (Nzioka 1979), southern Pacific (Brunnschweiler and Earle 2006), southwestern Indian Ocean (Letourneur et al. 2004), Indonesia (Allen and Adrim 2003), Australia (Newman and Williams 1996), Japan (Senou et al. 2007) and Hawaii (Randall 1999). It is here reported for the first time from the Mediterranean Sea, where we assume it entered through the Suez Canal. The species is common between depths of 5 to 30 m, and generally found near coral reefs and on sandy bottoms (Carpenter and Allen 1989), where it feeds, nocturnally, mainly on bivalves, annelids and benthic crustaceans (Kulbicki et al. 2005). The largest specimen reported was 60 cm long (total length) and weighed 5890 g (Froese and Pauly 2007).

Only a single specimen was observed. It is assumed that the species is a very recent entry,

as its distinct color and form would have been noticed in previous studies in Antalya Bay.

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