First record of *Sphoeroides spengleri* (Osteichthyes: Tetraodontidae) in the Mediterranean Sea

J.A. Reina-Hervás*, J.E. García Raso* and M.E. Manjón-Cabeza*

*Departamento Biología Animal, Facultad Ciencias, Universidad Málaga, Campus de Teatinos s/n, 29071 Málaga, Spain.

*Corresponding author, e-mail: jarh@teleline.es

The capture of a specimen of *Sphoeroides spengleri* (Osteichthyes: Tetraodontidae), 17 December 2000 and 29.7 mm total length, from the Málaga coast (Alborán Sea, western Mediterranean) represents the first record of a new alien species for Mediterranean waters.

The family Tetraodontidae is represented in Mediterranean waters by four genera and six species (Tortonese, 1986; Golani et al., 2002): *Ephippion guttiferum* (Bennett, 1831), *Lagocephalus lagocephalus* (Linnaeus, 1758), *L. spadiceus* (Richardson, 1844), *L. suezensis* Clark & Gohar, 1953, *Sphoeroides pachygaster* (Müller & Troschel, 1848) and *Torquigener flavimaculosus* Hardy & Randall, 1983.

With the present note a further tetraodontid species, the bandtail puffer, *Sphoeroides spengleri* (Bloch, 1792) (Figure 1), is added to the Mediterranean fish check-list.

**Material examined**

Málaga coast, 36°44.5′N 03°47.6′W, (El Cañuelo beach, P.N. Maro-Cerro Gordo) (Figure 2); collected at 14–16 m in depth, with Agassiz bottom trawl; sandy bottoms with sea grass (genus *Zostera*); 17 December 2000. One juvenile of 29.7 mm total length, deposited in the Museo de Ciencias Naturales of Madrid (Spain).

Morphometric and meristic data for the specimen captured in Málaga coast are: dorsal fin rays (8), anal fin rays (8), pectoral fin rays (15), 29.7 mm total length, 23.9 mm standard length, 7.45 mm body height, 1.74 mm orbital diameter and 1.6 mm interorbital distance.

The specimen can be identified as *Sphoeroides spengleri* from the presence of 1 lateral line, skin with spines and a row of black spots on lower side of head and body. The dorsal body colour ranges from brown to tan to olive. The caudal fin has two broad black bands, one at the base and the other at the rear edge.

**Discussion**

*Sphoeroides spengleri* is abundant in inshore habitats where there is adequate cover, such as sea grass beds and reef flats, usually close to the bottom where it feeds on benthic invertebrates (Lieske & Myers, 1994).

A dominant and persistent characteristic of bottoms with sea grass (genus *Zostera*) off the Málaga coast is the great abundance of young fish in comparison with adult fish in the samples. This difference in abundance can be explained in that the inshore area is intimately related to the presence of certain coastal species and of the larvae and juvenile stages of more or less neritic species, which in many cases go through their complete biological cycle in this zone (unpublished data).

The species is known on both sides of the Atlantic Ocean (demersal, depth range 2–70 m, subtropical 40°N–23°S), with status of native for: the Azores, from Madeira to Angola and from New England to Brazil and Bermuda. On European coasts this species has only been recorded from Portugal, where it is locally rare. The capture in

![Figure 1. Photograph of bandtail puffer, *Sphoeroides spengleri* (Bloch, 1792), captured off the Málaga coast, (Alborán Sea, western Mediterranean).](image-url)
Alborán waters confirms its presence in the western Mediterranean Sea.

The number of new alien fish species immigrant in the Mediterranean Sea from the Atlantic Ocean (tropical and subtropical origin) has rapidly increased in recent years (Fistularia petimba, Beryx splendens, Seriola fasciata, Seriola carpenteri, Pseudupeneus prayensis, Centrolabrus exoletus, and others). These imports would be explained by an increase in water flux through the Strait of Gibraltar and hydro-climatic modifications in the eastern Atlantic and the Mediterranean (tropicalization phenomenon) proposed by some authors (Quignard & Tomasini, 2000; Golani et al., 2002; Andaloro & Rinaldi, 2004).

This work is part of a study of the shore fauna of sea grass (genus Zostera and Cymodocea) community of south Spanish coasts of the Mediterranean Sea, which was supported by the Projects DGICYT, PB97-1116 and MAR98-1706-E.

REFERENCES


