

**AMMODYTIDAE**

sand-eels

**Gymnammodytes semisquamatus**

Jourdain, 1879



Drawing : Tuvia Kurz

Relevant synonyms: None  
 Misidentification: None  
 Meristic formula: D, 53-56; A, 26-31; P, 12-15

**SHORT DESCRIPTION**

Body elongated and subcylindrical, with myotomes clearly visible. Ventrolateral skin fold, extending from the base of the pectoral fin to just beyond the rear end of this fin. Lower jaw protruding beyond upper jaw; teeth absent. Dorsal and anal fins elongated, their margins undulated. Pelvic fin absent. Body naked, except posterior third where some small cycloid scales are present but inconspicuous. Lateral line branched, with pores at ends of branches. Swim bladder absent.

**color:** silvery, with the back dark brown and the flanks and belly whitish. In some specimens, a pale brownish pigmentation appears on the flaks.

**common size:** 4-14 cm (max. 28 cm).

**DISTINGUISHING CHARACTERISTICS**

- *Gymnammodytes cicerelus*: the ventrolateral skin fold extends from the base of the pectoral fin to beyond the anal fin. Iridescent silvery coloration, with the back bluish-grey and the flanks and belly whitish. In this species it is possible to observe a strip of quite marked dark pigmentation along the top part of the flanks and over the head.

Other **Ammodytidae** species: lateral line unbranched.

## BIOLOGY / ECOLOGY

Feeds on zooplankton. In the Mediterranean spawning occurs from December to March. Eggs demersal and adhesive, attaching to sand-grains, while larvae are pelagic. In the Mediterranean, larvae have been found in winter (January-March) and few individuals in July.

**habitat:** sandy gravel bottoms between 5 and 20 m depth, with diel movements by feeding actively in the water mass during the daytime. Schooling behavior well developed.

## DISTRIBUTION

**Worldwide:** eastern North Atlantic, from the southern coast of Norway to Spain.

**Mediterranean:** recorded only off northeastern Iberian coast, where there is a stable population which co-occurs with *Gymnammodytes cicerelus* (Sabatés *et al.*, 1990).

## MODE OF INTRODUCTION

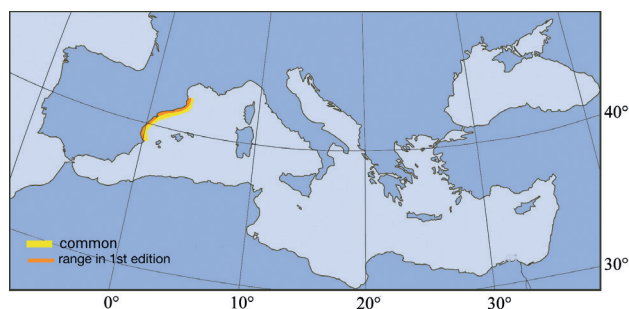
Via Gibraltar.

## ESTABLISHMENT SUCCESS

It has been reported as common along the Spanish coast. Given the taxonomic confusion with *G. cicerelus*, its actual occurrence and distribution in the Western Mediterranean sectors could be under appreciated.

## IMPORTANCE TO HUMANS

Used for bait and food in some areas. On the Catalan coast, the two *Gymnammodytes* species are exploited in a seasonal commercial fishery using modified boat seine nets, with annual landings that during the last decade have fluctuated between 40 to 300 tons, of which 98% are estimated to correspond to *G. cicerelus* and 2% to *G. semisquamatus*.



1<sup>st</sup> Med. record  
Off northeastern  
Iberian coast,  
1990.

## KEY REFERENCES

- Collette B., Fernandes P. and Heessen H. 2014. *Gymnammodytes semisquamatus*. The IUCN Red List of Threatened Species 2014.
- Reay P.J. 1986. Ammodytidae. pp. 945-950. In: Whitehead P.J.P., Bauchot M.L., Hureau J.C., Nielsen J. and Tortonese E. (eds.). Fishes of the north-eastern Atlantic and the Mediterranean. Vol. 2. UNESCO. Paris.
- Sabatés A., Demestre M. and Sánchez P. 1990. Revision of the family Ammodytidae (Perciformes) in the Mediterranean with the first record of *Gymnammodytes semisquamatus*. *Journal of the Marine Biological Association of the United Kingdom*, 70: 493-504.
- Sabatés A., Zabala M. and García-Rubies A. 2003. Larval fish communities in the Medes Islands Marine Reserve (north-west Mediterranean). *Journal of Plankton Research*, 25: 1035-1046.
- Sánchez P., Colmenero, A.I., Demestre M., García-de-Vinuesa A., Lleonart J., Martín P. and Recasens L. 2016. Spawning season of *Gymnammodytes cicerelus* and *G. semisquamatus* in the NW Mediterranean. *Rapp. Comm. int. Mer Médit.*, 41: 551.