SHORT COMMUNICATION

# First record of the Starry Weever *Trachinus radiatus* (Cuvier, 1829) from the Madeira archipelago

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## INTRODUCTION

The Starry Weever (*Trachinus radiatus*, Cuvier 1829) is one of nine extant species of the Trachinidae family which typically inhabit sandy-bottomed environments. This species is wide-spread throughout the Mediterranean Sea and in the Eastern Atlantic from continental Portugal to Angola, including the Canary Islands (Seret & Opic 2011; Smith, 2016). It has, however, not yet been recorded from the Azores, Madeira, and the Cabo Verde Islands. Carneiro *et al.* (2019) mentioned a museum specimen allegedly from Madeira Island in the Paris Natural History Museum (MNHN-IC-2005-2436,1925) but this specimen is not from Madeira, it is from Casablanca fish market (Iglesias pers. comm. to the second author).

We herein provide the first true record of *T. radiatus* from the Madeira archipelago, in the Northeast Atlantic Ocean.

## MATERIAL AND METHODS

Baited Remote Underwater Video (BRUV) surveys were conducted between June and August 2022 as part of a broader survey effort to describe marine fish assemblages around the Madeira archipelago. Survey methods followed protocols for BRUV deployments outlined by Global FinPrint (https://globalfinprint.org) and further described in MacNeil et al. (2020). BRUV units were constructed from an aluminium frame, fitted with a 1,2m bait arm and GoPro Hero9 camera system. A total of 60 BRUV surveys were deployed around the island of Deserta Grande (Figure 1).

Two researchers independently reviewed footage from each BRUV survey. Reviewers recorded all fish species to the lowest taxonomic level possible, alongside the maximum number of individuals present in a single video frame (MaxN). After the initial video processing, reviewers met to settle differences between species and MaxN.

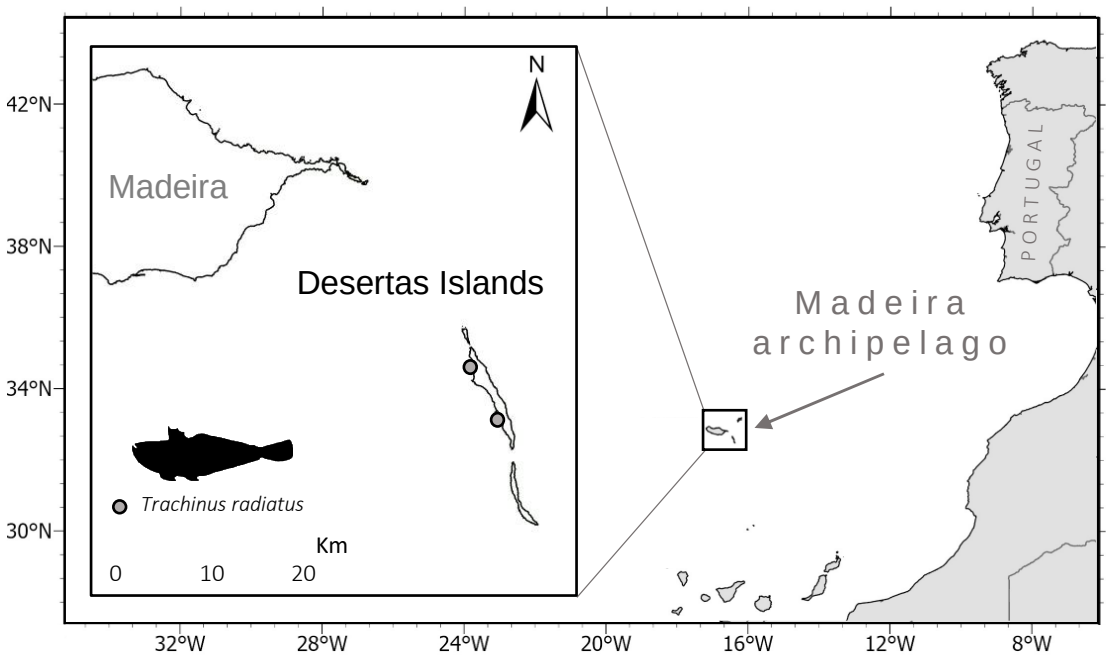


Fig. 1. Location of the observations of *Trachinus radiatus* at Desertas Islands, Madeira, Portugal.

## RESULTS

In June and July 2022, a single individual of *T. radiatus* was observed at two different locations of Deserta Grande (32°33'07.7"N 16°32'23.2"W and 32°30'27.9"N 16°30'31.8"W) at about 16m depth. The observations of *T. radiatus* were made over sandy habitats.

Figure 2 shows a still image obtained from one of the BRUV surveys. It clearly shows an individual of *T. radiatus*. The species can be recognized by its colour pattern (upper half of flanks speckled with circular rosettes and small brown spots) and body shape (large, bulky head with large mouth opening upwards). Compare with, for instance, Wirtz (2018) and Louisy (2015), alongside numerous other published photos.

The species *Trachinus draco* Linnaeus, 1758, occurs in sympatry with *T. radiatus* in Madeira and is morphologically similar. *Trachinus draco*, however, has oblique greenish-brown vertical lines on the upper body, which are not present in the animals photographed (Heneish & Rizkalla 2021).

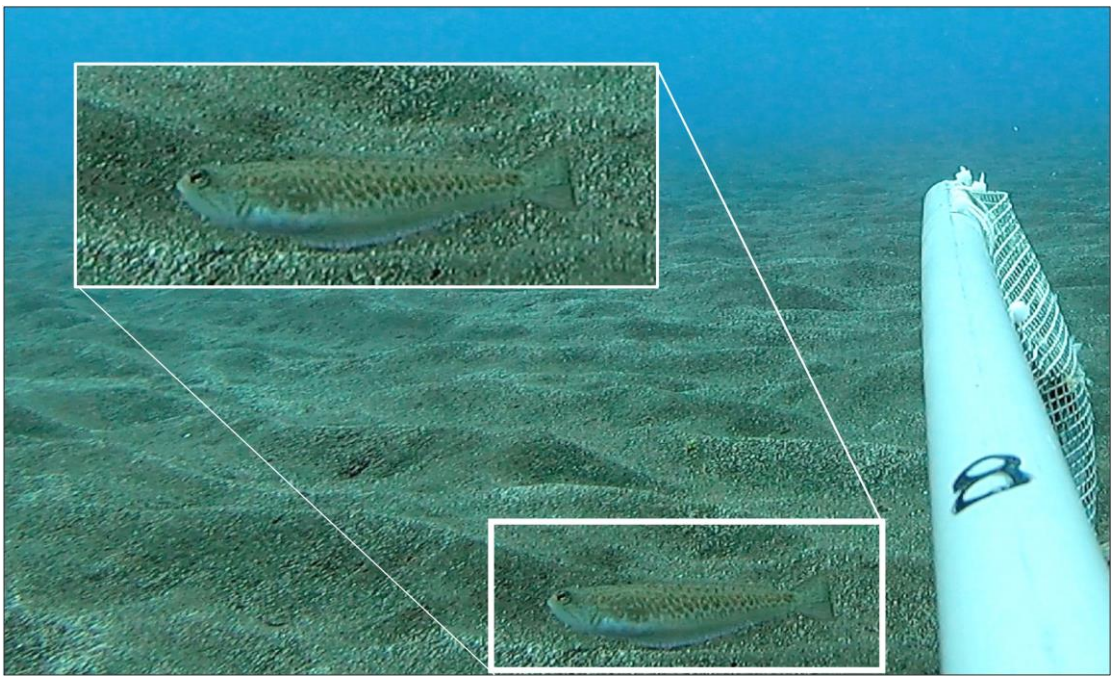

Fig. 2. *Trachinus radiatus* individual observed during a baited remote underwater video survey June and July 2022 from Deserta Grande, Madeira archipelago.

## DISCUSSION

It is unlikely that *T. radiatus* is a new arrival in the Madeira archipelago. Due to the species' secretive habit of burrowing into the substrate and similar morphology to *T. draco* it has most likely been overlooked in the past. Nevertheless, *T. radiatus* was shown to occur in low abundances in Deserta Grande and may well be present in other areas of the Madeira archipelago.

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