# Occurrence of Scalloped ribbonfish, *Zu cristatus* Bonelli, 1819 (Lampriformes Trachipteridae), in the Gulf of Cagliari (South Sardinia, Italy)

Pierluigi Piras<sup>1</sup> & Domenico Meloni<sup>2\*</sup>

**ABSTRACT** The recent capture of two specimens of Scalloped ribbonfish, *Zu cristatus* Bonelli, 1819

(Lampriformes Trachipteridae) in the Gulf of Cagliari (South Sardinia, Italy) is here described

and meristic data are reported.

**KEY WORDS** Zu cristatus; Cosmopolitan species; South-Western Mediterranean Sea; Sardinia.

Received 26.01.2022; accepted 25.03.2022; published online 24.04.2022

## INTRODUCTION

The Scalloped ribbonfish *Zu cristatus* (Bonelli, 1820) (Lampriformes Trachipteridae) is a mesopelagic and cosmopolitan species, inhabiting the Mediterranean Sea, Azores and Madeira in the Atlantic, Pacific and Indian Oceans (Dulčić, 2002; Bianco et al., 2006). In the Mediterranean Sea, records of *Z. cristatus* are relatively rare (Bianco et al., 2006): it has been reported in the Adriatic and Ligurian Sea, central and south-eastern Tyrrhenian Sea, off the coasts of Spain and North Africa (Zenetos et al., 2015; Falsone et al., 2017; Tiralongo et al., 2019).

# MATERIAL AND METHODS

During the summer 2021 fishing season, two specimens of *Z. cristatus* (Figs. 1, 2) were accidentally caught on 24 of July in the Gulf of Cagliari (South Sardinia, Italy) 12 miles off the coast (39°03'20.2"N 9°19'29.3"E), by using a trawl net

aimed at catching red prawns. Samples were transported to the wholesale fish market in Cagliari where individuals were identified by the Veterinary Public Health and Food Security Service of the Region of Sardinia. The two specimens were examined and measured by visual inspection using the available expertise of the Veterinarians. Morphometric and meristic characters were recorded according to the methods described by Strauss & Bond (1990).

### **RESULTS**

The distinctive characters of the two specimens were represented by a total length of 72 cm (Fig. 1) and 68 cm (Fig. 2). The body was elongated and compressed, with a sinuous ventral profile and abdominal region higher than the caudal region. The skin was covered with clear cycloid scales. The head was short with a small and protractile mouth and presence of robust conical and pointed teeth. The red dorsal fin was very long with the first 6-8 rays separated from

<sup>&</sup>lt;sup>1</sup>Veterinary Public Health and Food Security Service of the Region of Sardinia, Cagliari, Italy

<sup>&</sup>lt;sup>2</sup>Department of Veterinary Medicine, University of Sassari, Sassari, Italy

<sup>\*</sup>Corresponding author: e-mail: dmeloni@uniss.it



Figures 1, 2. The two specimens of *Z. cristatus* accidentally caught in the Gulf of Cagliari (South Sardinia, Italy) by using a trawl net.

each other. The brownish caudal fin was fan-shaped, and the red pectoral fins were very small with a horizontal base. The specimens presented silvery coloration with the presence of a few incomplete dark bands on the trunk. On the contrary, complete dark bands were more visible in the caudal region.

### **DISCUSSION**

A new finding of two specimens of scalloped ribbonfish in the Italian waters confirms the widening of its distribution in the Mediterranean Sea. To the best of our knowledge, this is the first record of the scalloped ribbonfish off the coasts of Sardinia (Italy). This record extends the known distribution of *Zu cristatus* and highlights the importance of the geographical position of the Gulf of Cagliari in monitoring the spread of mesopelagic species in the Central Mediterranean Sea.

### REFERENCES

Bianco P.G., Zupo V. & Ketmaier V., 2006. Occurrence

of the scalloped ribbonfish *Zu cristatus* (Lampridiformes) in coastal waters of the central Tyrrhenian Sea, Italy. Journal of Fish Biology, 68 (A): 150–155.

Dulčić J., 2002. First record of scalloped ribbon fish, *Zu cristatus* (Pisces: Trachipteridae), eggs in the Adriatic Sea. Journal of plankton research, 24: 1245–1246.

Falsone F., Geraci M.L., Scannella D., Okpala C.O.R., Giusto G.B., Bosch-Belmar M., Gancitano S. & Bono G., 2017. Occurrence of two rare species from order Lampriformes: Crestfish *Lophotus lacepede* (Giorna, 1809) and scalloped ribbonfish *Zu cristatus* (Bonelli, 1819) in the northern coast of Sicily, Italy. Acta Adriatica, 58: 137–146.

Strauss R.E. & Bond C.E., 1990. Taxonomic methods: morphology. In: Schreck C.B. & Moyle P.B. (Eds.), Methods for Fish Biology. MD: American Fisheries Society, 109–140.

Tiralongo F., Lillo A.O., Tibullo D., Tondo E., Lo Martire C., D'Agnese R., Macali A., Mancini E., Giovos I., Coco S. & Azzurro E., 2019. Monitoring uncommon and non-indigenous fishes in Italian waters: one year of results for the AlienFish project. Regional Studies in Marine Science, 28: 100606.

Zenetos A., Kh.Akel Z.H., Apostolidis C., Bilecenoglu M., Bitar G., Buchet V., Chalari N., Corsini-Foka M., Crocetta F., Dogrammatzi A., Drakulić M., Fanelli G., Giglio G., Imsiridou A., Kapiris K., Karachle

P.H., Kavadas S., Kondylatos G., Lefkaditou E., Lipej, L., Mavrič B., Minos G., Moussa R., Prato E., Pancucci-Papadopoulou M.A., Renda W., Ríos N., Rizkalla N.I., Russo F., Servonnat M., Siapatis A., Sperone E., Theodorou J.A., Tiralongo F. & Tzovenis I., 2015. New Mediterranean Biodiversity Records (April 2015). Mediterranean Marine Science, 16/1: 266–284.