



## MALTESE FISHERMEN AND PUFFERFISH, WHO WILL PUFF THE MOST?

**Adriana Vella\* and Noel Vella**

Conservation Biology Research Group, Department of Biology, University of Malta,  
Msida MSD2080, MALTA

\*Corresponding author: [adriana.vella@um.edu.mt](mailto:adriana.vella@um.edu.mt)

### Abstract

Maltese fishermen operating in both coastal and offshore waters have increasingly found alien species in their catch. While some species may end up contributing toward new exploitable resources, others are not only interfering with the indigenous species but are found to be toxic, dangerous to consume and are causing a serious nuisance to fishermen. Among the alien species that are being investigated through ongoing research, there are various toxic and dangerous species, including the blunthead puffer (*Sphoeroides pachygaster*) which has extended its range from the Atlantic to the Mediterranean since the 1980 and recorded in Maltese waters in 1999. Through scientific interviews with Maltese fishermen ongoing since the 2000s, it was possible to find out not only how extensive the abundance and distribution of this species is but also the various impacts to artisanal fishing activities around the Maltese Islands. In fact, *S. pachygaster* is becoming progressively frequent, with fishermen increasingly finding damaged fishing gear as individuals of this species are able to cut fishing lines with their teeth. Molecular genetics research on alien species and options for applications of eDNA methods may pave the way to assist in early warning signals and management to introduce adaptive strategies that deal with problematic invasive species before it is too late for environmental managers and fishermen. Additionally, fishermen themselves are important monitoring allies by assisting in coordinated scientific research.

**Keywords:** Blunthead pufferfish; *Sphoeroides pachygaster*; alien species; Maltese waters; Mediterranean

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