

DO NOT EAT *LAGOCEPHALUS SCLELERATUS*: A TRANSNATIONAL ALERT THROUGH THE WESTERN MEDITERRANEAN

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Abstract

A key action in the process of effectively managing the risks posed by an invasive species is to engage and communicate with the public. Here we illustrate the initial stages of a joint alert campaign launched by ISPRA in Italy and by the ICM-CSIC in Spain, aimed to warn about the spread of the toxic silver-cheeked toadfish through the western Mediterranean.

Keywords: Alien species, Fishes, North-Western Mediterranean

Introduction

Public awareness and health surveillance, aiming at preventing the consumption of pufferfishes has assumed increasing relevance in the Mediterranean Sea due to the rapid expansion of the highly toxic *Lagocephalus sceleratus* (Gmelin, 1789), one of the “worst” biological invaders of this basin. Eating this fish may provoke severe intoxications, even lethal, and this renders crucial a rapid dissemination of information. Yet, various initiatives in countries such as Egypt, Turkey, Greece, Cyprus and Tunisia have raised awareness on this issue. In October 2013 the species was firstly found in Italian waters and in July 2014 an individual was recorded in Spain [2].

Materials and Methods

Informative campaigns were launched in Italy and Spain soon after the first occurrences of *L. sceleratus* in these countries, and in 2015 these two separate actions were extended to the national territory and interconnected on the principles of mutual benefit and public biosecurity. The campaigns were mainly based on posters (Fig 1) and divulgated by a variety of different media. Institutional emails and cell phones were dedicated to receive sightings of pufferfishes (from both fishermen and the general public). Both the Spanish and Italian campaigns were promoted by the interactive web platform SEAWATCHERS www.seawatchers.org under the action ‘invasive fishes’. The social impact of the alert campaigns was estimated by searching the number of internet pages related to *L. sceleratus* according to the year and country of publication.

Results and discussion

The cumulative number of web pages (Fig 2) shows an abrupt breakpoint in correspondence of the year 2015. In Spain, the number of web pages bearing information on *L. sceleratus* jumped from 73 in 2015, to 1220 in 2016. In Italy, 902 pages were available in 2015 and 2070 in 2016. Since November 2013 (beginning of Italian the campaigns), ISPRA registered 5 new records of *L. sceleratus* in Sicily waters and 3 captures of *L. lagocephalus*. In Catalonia - Spain, since August 2014, the Agriculture department of the Catalan Government, together with fishermen associations and the platform SEAWATCHERS registered 22 sightings of pufferfish. Of them, 6 were record of *Sphoeroides pachygaster* and 16 of *L. lagocephalus*. In conclusion, the two campaigns are being useful tools to both inform the general public and to retrieve information related to the occurrence of pufferfish. Because of the risks associated to *L. sceleratus*, it would be advisable to extend this practice to neighboring countries.



Fig. 1. Images of the posters being used for the alert campaigns in Catalonia (left) and Italy (right).

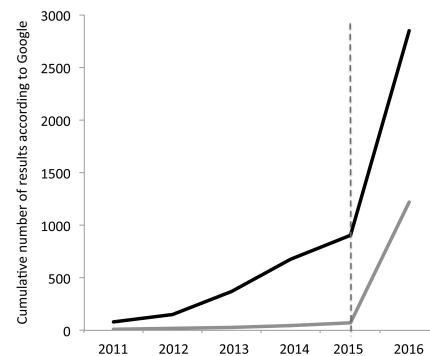


Fig. 2. Cumulative number of results according to the search engine Google and the keyword “*Lagocephalus sceleratus*”: Black line = results from Italian web pages; Grey line = results from Spanish web pages. The dotted vertical line indicates the beginning of the joint awareness campaign in Italy and Spain.

References

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