

Cambiamenti climatici e sicurezza alimentare: indagine molecolare, microbiologica e tossicologica sulle specie ittiche tossiche presenti in alcune zone del Mar Tirreno.

Laura Gasperetti

Summary

Global warming is transforming the Mediterranean Sea as a result of the increase of the sea water temperature. Exotic tropical species, originating from the Indo-Pacific area and entering via the Suez Canal (“Lessepsian” migration) are spreading (tropicalization). Some of these “alien” species, such as those belonging to the family Tetraodontidae, or “puffer fish”, are toxic, as they are able to accumulate a potentially lethal neurotoxin. According to the available reports, 3 species of puffer fish are now present in Italian waters: *Lagocephalus sceleratus*, *Lagocephalus lagocephalus* and *Sphoeroides pachygaster*. The project “*Climate change and food safety: molecular, microbiological and toxicological analysis on toxic fish species in the Tyrrhenian Sea*” led by the Istituto Zooprofilattico Sperimentale of Lazio and Tuscany in partnership with FishLab, Department of Veterinary Sciences, University of Pisa and the Veterinary Services and Animal Health, Ministry of Agriculture & Rural Development, Israel, is funded by the Ministry of Health.

The project monitored the occurrence of toxic fish species along the Mediterranean Sea coast and characterized them under a molecular profile to obtain a more detailed picture on the presence of these toxic species. The first part of the project was dedicated to dissemination activities using dedicated informational brochures and posters, a report form, a Facebook page and a specific section on the official site, in addition to newspaper articles, TV interviews and meetings with fishermen, divers and control authorities. All these activities were aimed at creating a network for the collection of reports and samples, to update the presence and toxicity of these species, allowing a better assessment of the associated risk.