

More than 31 freshwater species have 'moved' to Galicia over past century

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The mosquito fish (*Gambusia holbrooki*) is a freshwater species that have naturalized in Galicia. Credit: Estación de Hidrobiología de la USC.

Galician researchers have studied the evolution in the introduction of non-native fresh water species in Galicia over the past century, and have compared this with the rest of the Iberian Peninsula. The results show that 31 exotic aquatic species out of the 88 recorded for the entire Iberian Peninsula have become established in the region over the past century.

An analysis of the introduction of non-native species in Galicia and the Iberian Peninsula carried out by researchers from the University of Santiago de Compostela (USC) and the University of Coruña (UDC) has shown not only the number of species introduced over the past 100 years, but also the periods during which the greatest number of new

species appeared, and also current trends.

It has taken longer for exotic species to be introduced in Galicia than in the rest of the Iberian Peninsula. "While the species introduced in the Iberian Peninsula at the start of the 20th Century took between 80 and 90 years to be recorded in Galicia, this delay has been virtually negligible since the 1990s", María J. Servia, coordinator of the study and a researcher at the UDC, tells SINC.

According to Servia, species introduced in the Iberian Peninsula are now detected at "practically" the same time in Galicia. The data analysed show that 1995 marked a turning point, coinciding with the approval of the Schengen Treaty, which opened up the borders of European countries to the free movement of people and goods. From this time on, the pace of introduction of new species in Galicia has been the same as for the rest of Spain.

The study, which has been published in *Biodiversity and Conservation*, also shows that 31 exotic aquatic species out of the total of 88 recorded throughout the [Iberian Peninsula](#) as a whole have become established in Galicia, including [fish](#), amphibians, insects, plants, molluscs, invertebrates, reptiles, mammals and crustaceans.

Some of the most significant exotic species introduced in Galicia include the Asian clam (*Corbicula fluminea*), the red swamp crayfish (*Procambarus clarkii*), the mosquitofish (*Gambusia holbrooki*), and aquatic plants such as *Elodea canadensis* and the water hyacinth (*Echhornia crassipes*).

Introduction of invertebrates and plants on the rise

"Although the introduction of new vertebrate species has slowed down, the entry of new invertebrate and plant species has continued to increase

over recent years, with many of these coming from the aquarium trade", says Fernando Cobo, lead author of the study and director of the USC Hydrobiology Station.

The researchers are calling for this kind of trade to be regulated as a matter of "urgency", since "there is still a perception that exotic plants and invertebrates, except in exceptional cases, are inoffensive".

The biologists say that invasive species pose a "serious" threat to the conservation of biodiversity in the areas they establish themselves in, because they compete with [native species](#) for both habitat and food. "Freshwater courses have not been immune to this problem", say the authors of the study, who add that the building of large hydraulic infrastructures have made a "major" contribution to the phenomenon.

Because of its climatic and geographical characteristics, Galicia has a large wealth of freshwater species, many of which are endemic to the region. Until now, the introduction of non-indigenous species in the region has been "relatively" slow, because of its geographical isolation and the small size of its river basins, which do not allow for commercial shipping. However, over recent decades an increasing number of exotic species have appeared in Galician waters.

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