

# The sources of invasive freshwater species in Europe's lakes and rivers

November 13 2015

---

A JRC-led article has identified escape from aquaculture facilities, releases in the wild due to pet/aquarium trade and stocking activities as the main pathways of alien species introduction in European lakes and rivers. Germany, the UK and Italy are the main entry gateways. The authors recommend tightened controls, and improved prevention and management measures in order to halt the increasing trend of freshwater alien species introductions in Europe.

The study analysed the spatial and temporal patterns and trends of the main pathways and gateways of [alien species](#) (AS) in Europe, using the JRC's European Alien Species Information Network (EASIN) inventory. This inventory currently includes over 750 freshwater species reported as aliens (established or suspected) in European inland waters.

It found a marked increase in the introduction of freshwater alien species in Europe over the past 60 years, largely as a result of globalisation. Most of the initial introductions in Europe come from aquaculture, which is one of the fastest-growing sectors of the world food economy. Aquaculture is trailed by aquarium trade, a multi-billion dollar industry which has also seen remarkable growth in recent years.

Freshwater ecosystems suffer from greater loss of biodiversity than most terrestrial ecosystems, mainly due to human activities including the introduction of species outside their natural range. Twenty percent of species extinctions are caused by [invasive alien species](#) (IAS). The authors note that public education could greatly help increase awareness

of the risks for [freshwater ecosystems](#), and stricter regulation and control measures will be needed to minimise the entry of alien species through the main introduction pathways.

The study is the first pan-European assessment of both the main pathways and gateways of first introductions for freshwater alien species in Europe. Its results could greatly help achieve the Aichi Biodiversity Target 9 regarding the prevention and control of IAS, and help Member States fulfill their obligations under the European Regulation on IAS to analyse and identify the entry routes of IAS that require priority action.

**More information:** Pathways and gateways of freshwater invasions in Europe: [www.aquaticinvasions.net/2015/...\\_2015\\_Nunes\\_etal.pdf](http://www.aquaticinvasions.net/2015/..._2015_Nunes_etal.pdf) The European Alien

Species Information Network (EASIN): [easin.jrc.ec.europa.eu/](http://easin.jrc.ec.europa.eu/)

EU Regulation 1143/2014 on Invasive Alien Species:  
[eur-lex.europa.eu/legal-content...uri=CELEX:32014R1143](http://eur-lex.europa.eu/legal-content...uri=CELEX:32014R1143)

Aichi Biodiversity Targets of the Convention on Biological Diversity:  
[www.cbd.int/sp/targets/](http://www.cbd.int/sp/targets/)

Ana Nunes et al. Pathways and gateways of freshwater invasions in Europe, *Aquatic Invasions* (2015). [DOI: 10.3391/ai.2015.10.4.01](https://doi.org/10.3391/ai.2015.10.4.01)

Provided by CORDIS

Citation: The sources of invasive freshwater species in Europe's lakes and rivers (2015, November 13) retrieved 27 April 2024 from <https://phys.org/news/2015-11-sources-invasive-freshwater-species-europe.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.