

SUMMARY OF FINDINGS (EPA Project Code 2011-B-MS-1)

Ireland's invasive and non-native species –trends in introductions.

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Brief Abstract. Invasive non-native species are a threat to our biodiversity, ecosystem functions and have a cost to our economy. With increased globalization there is an increase in the movement of non-native species around the world and the increasing and accelerating trend of new introductions of non-native species into Europe across all taxonomic groups and environments which corresponds to a global pattern. This indicates that in the foreseeable future the numbers of non-native species as well as their impact are likely to increase.

Key Words: Invasive Species, biodiversity, National Biodiversity Data Centre, National Invasive Species Database

Background

The establishment of the National Invasive Species Database began in 2009 to fill an important gaps in data and information required to address the threat posed by invasive species in Ireland. As a result of the ongoing work programme utilising the National Invasive Species Database, Ireland now has a fit-for-purpose system to support policy and actions on invasive species. This work programme builds on the already extensive body of work on invasive species that has already been supported by the **Heritage Council and the Environmental Protection Agency**, through the National Biodiversity Data Centre.

Key points

- The National Invasive Species Database contains 34,800 records of 103 invasive species, all of which can be mapped and queried through the GIS Mapping system *Biodiversity Maps* <http://maps.biodiversityireland.ie/>.
- 13% of the non-native species are identified as having a high risk of negative impact on our economy and biodiversity
- The annual cost of invasive and non-native species to Ireland is estimated at €261 million
- 31 identification sheets have been produced to assist identification and improved recording of these invasive species, including species which have not yet arrived but are likely to do so in future

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- The latest new arrivals to Ireland, for which Early Warning Alerts were issued, were Japanese kelp (*Undaria pinnatifida*) and Ring-necked parakeet (*Psittacula krameri*), whose presences has been confirmed since 2012. An Early Warning Alert was also issued for the Squirrel Pox (SQPV) to encourage people to report sighting of squirrels exhibiting symptoms.
- A horizon scanning exercise has been completed which predicts what species are most likely to arrive in Ireland in future. This identifies Killer shrimp, Raccoon Dog and Oak Processionary Moth as the next likely arrivals.
- It also predicts that the percentage of high and medium impact species will increase in future, and that freshwater habitats will be under greatest threat of high impact species.
- Knowledge gaps relating to absence of checklists of non-native species, lack of inventories of extent of trade in pet species traded in Ireland, and poor monitoring systems were also highlighted.

Findings/Recommendations

The seven main recommendations from the report are as follows:

- 1:** Undertake an inventory and checklist of non-native species occurring in Ireland.
- 2:** Develop an inventory and checklist of non-native species in Ireland and ensure this inventory is interoperable with the Great Britain database of non-native species.
- 3:** Establish a database of pet, game and live food species traded or kept in Ireland to enable an overview of the threat posed by these sectors to be monitored.
- 4:** Increased monitoring of the distribution and spread of the medium impact species to better understand the threat posed.
- 5:** Continue to monitor species in the National Invasive Species Database to track distribution changes to support risk assessment. Much of this could be delivered by providing support for citizen scientist surveillance programmes.
- 6:** Create a protocol to improve the quality of data and information on non-native species being intercepted and introduced into Ireland to inform assessment and rapid response, especially for those species listed as having the potential to be high impact.
- 7:** Undertake an inventory of marine and brackish non-native species in Irish waters including information on status of establishment

For Further Information

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The report can be downloaded at <http://www.biodiversityireland.ie/wordpress/wp-content/uploads/NBDC-Trends-Report-2013.pdf>