Invasive Alien Species Impacting the Aquatic Environment in Ireland

Professor Joe Caffrey INVAS Biosecurity 15th Eur-INBO Conference, Dublin 22nd September 2017

Invasive Alien Species (IAS)

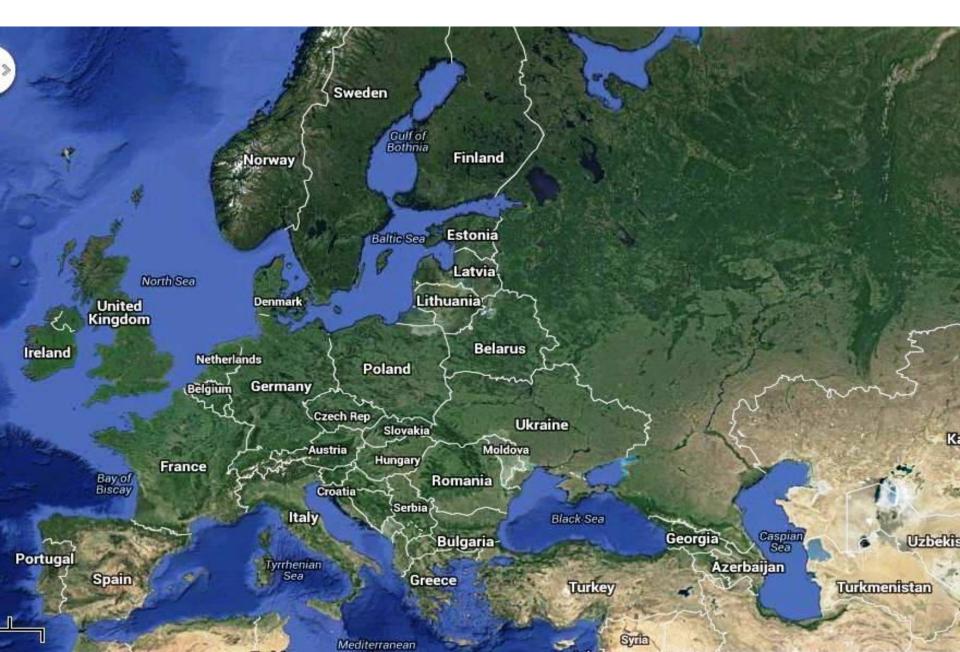
Species introduced, through human action, outside their natural range whose presence threatens biological diversity, the environment, environmental services, the economy, human health

The EC has recognised invasive species introductions as one of the main causes of natural biodiversity loss (second only to direct habitat destruction)





Ireland – a small island on the western edge of Europe



























Dreissena polymorpha (Zebra Mussel)



Photo by Simon vonMechelen









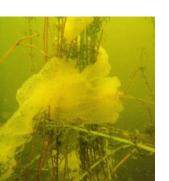




General Impacts of Invasive Alien Species

Cost to economy







Economic Cost of Invasive Species

Estimated damage from IAS worldwide is \$1.4 trillion or 5% global economy \$1,400,000,000

Total annual cost in the European Union is > €12 billion

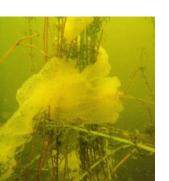
Total annual cost in Britain is > £1.7 billion

Total annual cost in Ireland is > €266 million



Impacts of Invasive Alien Species

- Cost to economy
- Biodiversity loss
- Introduction of pathogens (e.g. Crayfish plague, Ash dieback, Salmon fluke)
- Health & Safety implications
- Erosion and flooding
- Alter and degrade habitats
- Recreation and amenity
- Reduce property value







Stopping the Introduction and Spread of IAS

What is being done in Ireland (Europe)?

IAS are aggressive colonisers and successful competitors

.... can jeopardise the achievement of WFD (and other policy) objectives by reducing species diversity, damaging wildlife habitats and affecting attainment of conservation goals....

Progressive policies + appropriate legislation \rightarrow strategic management of IAS

IAS recognised as significant threat to biodiversity in Ireland:

National Biodiversity Action Plan (2017 – 2021)

IAS Strategy for Northern Ireland (2013)

Valuing Nature: a Biodiversity Strategy for NI (2015 – 2020)



Stopping the Introduction and Spread of IAS

WFD characterisation process (2015) identified IAS as a significant issue for water management

Hence, PoMs to tackle IAS included in for next cycle (2017 - 2021) of River Basin Management Plans - "Protecting water bodies from invasive alien species"

Key measures:

- implement the new EU Regulation on IAS (1143/2014)
- clear governance arrangements across public bodies, north and south
- develop national guidelines for biosecurity
- develop Management Plans for IAS listed in EU IAS Regulation

EPA funding national research projects on IAS



Key Legislation and IAS in Ireland

NI - Wildlife and Natural Environment Act 2011



Rol - Wildlife Act, 1976 and Wildlife (Amendment) Act, 2000

- EC (Birds and Natural Habitats) Regulations 2011 – SI 477

Reg 49 – Prohibition on introduction and dispersal of listed species

(Reg 50 – Prohibition on dealing in and keeping listed species)

Currently, legislation not aligned to provide guiding policy on IAS management for the island of Ireland



Legislation To Tackle IAS in Europe

EU Regulation on "prevention and management of the introduction and spread of Invasive Alien Species" (No. 1143/2014)

Became a legally binding tool on 1/1/2015

- Aim: to prevent, minimise and mitigate the adverse impacts of IAS on
 - to tackle problem of IAS spread across borders in a coordinated way
- All MS must take measures for ED and RE of new incursions
 - manage populations already widely spread

At core of Regulation is the list of "IAS of Union Concern"



- species that cause most damage to biodiversity
- concerted control measures are required across the EU



IAS of Union Concern

Original list (37 species) adopted in August 2016 New list (49 species) adopted in July 2017



All 49 species now subject to restrictions on:

keeping importing

transporting selling

exchanging breeding

growing releasing



Illegal to sell no. popular pond plants as of August 2017 (12 month rule) (i.e. Lagarosiphon, Cabomba, Lysichiton, Eichhornia)







EU Regulation on Invasive Alien Species

Is it working?

Two new incursions of IAS of Union concern already tackled in Ireland (2016)

Coypu (Myocastor coypus)

Curly waterweed (Lagarosiphon major)





Rapid eradication at early stage of invasion (Article 17)

- within 1 to 3 months NPWS implemented control/eradication measures

Will the EU IAS Regulation Work for Ireland & Europe?

- Is good and timely legislation
- Has embraced ideas put forward by Ireland
- Strict timelines provided
- Rapid reaction by Ireland welcomed
- Has serious weaknesses funding

 must achieve complete and permanent control
- List of Union concern too few?
- Enforcement and penalties
- Too early to see how 27 MS will interact / cooperate
- Brexit???





Go Raibh Maith Agaibh

Thanks You

