



Proceedings of the Fourth Annual Invasive Species Ireland Forum

**National Botanic Gardens, Glasnevin
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1. Introduction

Invasive Species Ireland and the Environmental Protection Agency held a joint event to present the results of the EPA funded 'Alien invasive species in Irish Water bodies' project to enable stakeholders to feed into the final project outputs and input into the next phase of Invasive Species Ireland. The event was hosted by the National Botanic Gardens, Glasnevin. The Forth Annual Forum was organised as part of Invasive Species Ireland which is funded by the National Parks and Wildlife Service and the Northern Ireland Environment Agency.

The keynote address was given by Dr Dick Shaw from CABI. Dick is a leading expert in the field of biological control and has extensively researched the potential for biological control of Japanese knotweed. As part of his keynote address, Dick presented an overview of the research programme that was undertaken prior to the recent release of the biological control agent for Japanese knotweed in the UK, information on the relevant policy context and progress of the research programme.

The morning session was a dissemination workshop for the EPA Strive funded project 'Alien invasive species in Irish Water bodies'. This project aimed to address the knowledge gaps identified under the Water Framework Directive for alien invasive species in Ireland's River Basin Districts. This was achieved through a combination of research and policy development comprising of analysis of the impacts of selected invasive species on structure and function of natural ecosystems (primarily by innovative studies of impacted and non-impacted foodwebs using stable isotopes in exemplar waterbodies); preparation of an archived GIS-based database of aquatic aliens in Ireland; development of a monitoring and reporting strategy; and guidance on preventing and containing aquatic introductions.

The afternoon session focused on facilitating stakeholder input into the ISI work programme 2009-12. Over the next 3 years ISI will continue to develop Ireland's risk assessment protocols; IAS exclusion and management plans; sectoral Codes of Practice and an extensive stakeholder engagement and partnership process. New actions include the development of IAS strategies, setting up local catchment invasive species action groups, development of an industry standards award scheme and an assessment of the socio-economic and environmental impacts of IAS in Ireland.

2. 2010 Programme

Registration			09.00 – 10.15
Welcome and Introduction		Ciaran O’Keeffe (NPWS)	10.15 – 10.30
Session 1	Title	Speaker	Time
Key Note Address	Natural control of Japanese knotweed: amongst others	Dr Dick Shaw (CABI)	10.30 – 11.15
Coffee Break			11.15 – 11.30
Chair: Michael Usher			
Session 2	Title	Speaker	Time
New developments on invasive species	The National Invasive Species Database	Colette O’Flynn (National Biodiversity Data Centre)	11.30 – 11.50
	Control of <i>Lagarosiphon major</i> and chub in Ireland	Joe Caffrey (CFB)	11.50 – 12.10
	New methods to assess invasive species impacts	Chris Harrod (QUB)	12.10 – 12.30
	Latest developments on prevention, containment and monitoring of aquatic invasions	Cathy Maguire (QUB)	12.30– 12.50
Open Discussion: Aquatic invasive species and the WFD		Panel	12.50 – 1.10
Lunch			1.10 – 2.00
Chair: Matthew Jebb			
Session 3	Title	Speaker	Time
Invasive Species Ireland	Invasive Species Ireland 2009-2012	John Kelly (Invasive Species Ireland)	2.00 – 2.20
Technical Working Group Meetings	<ul style="list-style-type: none"> • Freshwater Technical Working Group • Marine Technical Working Group • Terrestrial Working Group • Education and Awareness Working Group • Strategy and Legislation Working Group 		2.20 – 3.45
Coffee break			3.45 – 4.00
Report back from Working Groups and open discussion		Rapporteurs	4.00 – 5.00
Close			5.00

3. Keynote Address Abstract

Natural Control of Japanese knotweed: amongst others

Dick Shaw, Rob Tanner, Ghislaine Cortat, Djami Djeddour & René Eschen,
CABI, Bakeham Lane, Egham, Surrey, TW20 9TY. r.shaw@cabi.org

Invasive non-native species can wreak havoc in their new environments either directly or indirectly. Though animals receive much of the attention, plants are actually more numerous exotics in Europe and can often be much more damaging. Much effort has been expended attempting to identify the traits that make invasive species just that but the taxa involved are so diverse that this is an almost impossible task. Although one factor that is always involved is the loss of specialist natural enemies during the translocation process. This has been summarised in the enemy release hypothesis which attempts to explain the influence of natural enemies as well as providing the basis for what we call biological control. Classical biological control involves the selection, safety testing and subsequent release of highly specialist natural enemies from the target's native range for its permanent suppression in the introduced range.

This approach is not appropriate for those species for which a conflict of interest exist such as *Buddleia davidii* and *Rhododendron ponticum*, whose showy flowers are valued by many. For these problem weeds a stump treatment based on naturally occurring native fungi, mass produced and mass applied is more appropriate. However, there are many targets receiving attention at present including *Heracleum mantegazzianum* and *Impatiens glandulifera* for which fungi may prove to be the most promising agents and the aquatics *Hydrocotyle ranunculoides* and *Crassula helmsii*, for which weevils are proving to be of interest in a similar way to the our current use of the ordinarily resident azolla weevil, *Stenopelmus rufinasus*. However, these are early days and more research is required.

This presentation deals in detail with the biological control of one of the worst weeds in the world, Japanese knotweed following the 6 years of research that culminated in the release of the specialist psyllid, *Aphalara itadori* in the UK. This is a first for any EU country and could only take place after extremely thorough safety testing, a full pest risk analysis and expert consultation followed by a full public consultation. After a limited and intensively monitored first phase release it is hoped that the benefits of this natural enemy can be felt more widely in Great Britain and eventually the rest of Europe and North America alike.

4. Links to presentations

Dick Shaw (CABI)

Natural control of Japanese knotweed: amongst others

<http://vimeo.com/10028613>

Colette O'Flynn (National Biodiversity Data Centre)

The National Invasive Species Database

<http://www.invasivespeciesireland.com/files/public/Forum%20Proceedings/Forum%2010/COFlynn.pdf>

Joe Caffrey (CFB)

Control of Lagarosiphon major and chub in Ireland

http://www.invasivespeciesireland.com/files/public/Forum%20Proceedings/Forum%2010/Joe_Strive_WP2.pdf

Chris Harrod (QUB)

New methods to assess invasive species impacts

<http://www.invasivespeciesireland.com/files/public/Forum%20Proceedings/Forum%2010/CHarrod.pdf>

Cathy Maguire (QUB)

Latest developments on prevention, containment and monitoring of aquatic invasions

<http://www.invasivespeciesireland.com/files/public/Forum%20Proceedings/Forum%2010/CMaguire.pdf>

John Kelly (EnviroCentre)

Invasive Species Ireland – Phase 2 Overview

<http://www.invasivespeciesireland.com/files/public/Forum%20Proceedings/Forum%2010/JKelly.pdf>

5. Notes from first Open Discussion

The panel for the first Open Discussion session consisted of Cathy Maguire (QUB), Dick Shaw (CABI), Chris Harrod (QUB) and Colette O'Flynn (NBDC)

Conclusions and key points raised:

- Invasive species are an issue impacting on the naturalness of a waterbody and as such are considered under the Water Framework Directive. Regulators need to consider carefully how invasive species will be assessed under the influence of other factors such as climate change and eutrophication. It may be difficult to interpret the driving factor reducing the ecological status of a waterbody.
- It is unclear how invasive species will impact on water quality monitoring methodologies when invasive species can impact on the species that are being monitored. A common European approach is being developed through the EcoStat group but it is a complex problem with little agreement on a joint approach amongst countries.
- The economic and social impacts associated with invasive species are not yet understood in Ireland. ISI will be investigating the economic impacts during the work programme.
- The stakeholder group recommended that there is a need for ISI to liaise with the agriculture sector and identify where joint working would benefit both biodiversity and agriculture.
- It was noted that some stakeholder groups may remain unconvinced about the impacts associated with invasive species. Effective communication should be targeted at such experts. Information should be evidenced based and in unambiguous terms.
- The group acknowledged that there is currently little statutory obligation to require public bodies or private parties to prevent the impacts associated with invasive species.
- Stakeholders are concerned that legislation to protect biodiversity and prevent the release of invasive species is not actively enforced in Ireland. Contact should be made with An Garda Síochána and the Police Service of Northern Ireland to encourage greater awareness of invasive species crime.
- Stakeholders were concerned that some high impact species can still be legally sold in Ireland. One stakeholder gave the example of Japanese knotweed. This species is currently on sale in Ireland despite the growing body of evidence that supports a ban on sale.
- There was some concern that focusing too much on expert or stakeholder groups may not be the most effective means to prevent the spread of invasive species. The support and building of public knowledge of the issue should receive greater attention. Stakeholders recommended that the general public is the key stakeholder group that should be targeted with key messages and information.

6. Introduction to Working Groups

There are five Technical Working Groups (terrestrial, freshwater, marine, education and awareness, and strategy and legislation) that operate as part of ISI. The 2010 Forum was the first opportunity for the groups to meet and discuss the ISI 2009-2012 work programme and help guide outputs and priorities.

The working groups have an important role as they not only provide expert input into the programme but also represent key stakeholders and ensure that an integrated and cross-sectoral approach is taken in delivering the project activities. The main functions of the working groups are to input into the programme and activities, identify priorities and inform the development of the work programme to ensure best use of available resources.

The Technical Working Groups were asked to feed into the ISI work programme for key deliverables such as:

- ISI Forum and stakeholder engagement programme
- Risk assessments
- Management/Contingency plans
- Codes of Practice
- Education and awareness programme
- Development of species alert networks
- Pathway risk assessment and management planning
- Assessing the potential for biological control
- Industry standards awards scheme
- IAS strategy for Northern Ireland
- Further development of the National Invasive Species Database

The ISI team will also be supporting the setting up of local catchment invasive species groups and the initiation of control and eradication projects including providing support for funding applications.

Membership of the groups will remain open with stakeholders free to opt in or out as they see fit. However, the groups will have a number of "core members" that hopefully will remain constant throughout the three years.

7. Feedback from Technical Working Group Workshops

7.1 Agreed Terms of Reference

1. The working groups will operate from May 2010 until December 2012.
2. The working group will appoint its own Chairperson, whose role will include liaising with the ISI project, and keeping all working group members advised of progress and seeking their input and comment.
3. The working group will input into the overall ISI project programme and activities, identify priorities and inform the development of the project to ensure best use of available resources.
4. Working group members should participate in the ISI Forum and stakeholder engagement programme.
5. Working group members should share information on existing and planned activities to enable partnership working.

6. Working group members will provide expert overview of research and developments relating to invasive species and their management including risk assessment and the development of policy, plans and stakeholder action.
7. Working group members will participate in the species alert and information sharing networks to support the development of an early warning system and more effective surveillance and monitoring system.
8. The working group will disseminate ISI information to stakeholders through member's organisations and networks.
9. The working group will participate in the review of ISI and inform the development of the way forward.

7.2 Key recommendations or points raised

The following is a summary of the key points raised in all workshops:

- The working groups should be organised to facilitate communication between the members. The chairs should be enabled to contact the members of the groups and ensure communication between all members. ISI should consider establishing a web notice board for each of the groups and should consider establishing dedicated newsletters for each of the groups.
- Education and awareness was considered an important part by each group. The Education and Awareness group recommended that ISI facilitates an "Invasive Species Week" for Ireland.
- The state agencies and ISI should look at innovative ways to disseminate relevant information. For example, information such as species alerts or practices that would prevent the spread of species could be provided on fishing licenses.
- ISI will face issues when different stakeholder groups have different remits or interests. The same message for one stakeholder group may not be appropriate for another. This will require careful consideration of the chosen message.
- Web fora should be a target of the education and awareness programme.
- There may be merit to developing video guidance which could be provided online through the ISI website.
- Aquaria trade, deliberate introductions, pet trade, aquaculture, trade in large trees/ornamental plants, marinas, and recreational small crafts should be considered for pathway risk assessments.
- The role that Codes of Good Practice (CoPs) can play in supporting legislation should be clarified. CoPs can be updated more regularly to ensure they are effective. The role of the CoP's developed by ISI should be clarified and made clear to stakeholder groups.
- There remains scope to clarify all definitions associated with invasive species to ensure all stakeholders can easily understand the definitions used by state agencies on the island of Ireland and that a consistent approach is taken.
- Policy and legislation needs to be harmonised and either an all-island strategy or two harmonised strategies should be developed.

8. Notes from second Open Discussion

The following recommendations were raised during the open discussion:

- Stakeholders acknowledged that charismatic or economically important species are sometimes considered invasive species.

- When engaging in education and awareness programmes, it is important to consider how people respond to the programme. Lessons from the research to gauge public awareness, attitude and behaviour towards invasive non-native species in England and the GB NNSS Media and Communications Plan could guide ISI work. Evidence from this work suggests that the term “non-native” may be more appropriate when engaging with the public as opposed to “alien”.
- ISI should investigate if invasive species could become part of the Tidy Towns scheme.
- ISI should develop links with voluntary clubs and other relevant organisations.
- There is a need to provide training and developed accredited courses in invasive species management.

9. List of Delegates

First Name	Last Name	Organisation
James	Allison	Sea Fisheries Protection Authority
Victoria	Appleyard	Joint Nature Conservation Committee
Peter	Archdale	Council for Nature Conservation and the Countryside
Jan-Robert	Baars	University College Dublin
Charmaine	Beer	Northern Ireland Environment Agency
Andy	Booth	Conservation Services
Patrick	Boylan	Loughs Agency
Bill	Brazier	Galway Mayo IT
John	Brophy	National Parks and Wildlife Service
Tommy	Buckley	Prohibitions & Restrictions Unit, Customs Division
Joe	Caffrey	Central Fisheries Board
Gerard	Cahalane	Forest Service
Eimear	Campbell	Northern Ireland Environment Agency
William	Carr	University College Dublin
Tom	Cowan	DCAL Inland Fisheries Group
Kieran	Cummins	Horticulturist/ Solicitor
Marine	Danek-Gontard	Queen's University Belfast
Bob	Davidson	Northern Ireland Environment Agency
Brian	Deegan	RPS Consulting Engineers
Jaimie	Dick	Queen's University Belfast
Cormac	Dodd	University of Dublin, Trinity College
Tom	Donovan	CHM
Sheila	Downes	RPS Consulting Engineers
Avril	Doyle	Trinity College Dublin
David	Dwyer	Heritage Council
John	Early	Northern Ireland Environment Agency
Stephanie	Evers	Central Fisheries Board
Fernando	Fernandez	Ecologic Environmental & Ecological Consultants Ltd.
Billy	Flynn	Irish Wildlife Trust
Seamus	Forde	Waterford Institute of Technology
Mark	Godden	Corvus Consulting
Jonathan	Guy	Veterinary Service, DARD NI
Alan	Hamilton	Department of Environment (NI)
Chris	Harrod	Queen's University Belfast
Brian	Hayden	University College Dublin

First Name	Last Name	Organisation
Tara	Higgins	Environmental Protection Agency
Matthew	Jebb	National Botanic Gardens
Rebecca	Jeffrey	National Parks and Wildlife Service
Stephen	Jess	Agri-Food and Biosciences Institute
Sean	Kelly	Northern Ireland Environment Link
John	Kelly	EnviroCentre
Ruth	Kelly	Queen's University Belfast
Judith	Kochmann	UCD, School of Biology and Environmental Science
John	Langan	Botany Department, Trinity College
Gerry	Leckey	National Parks and Wildlife Service
David	Lyons	DEHLG
Christine	Maggs	Queen's University Belfast
Mairead	Maguire	Meath County Council
Orla	Maguire	Belfast City Council
Cathy	Maguire	Queen's University Belfast
Marcus	Malley	Craigavon Borough Council
Rosie	Mangan	BioControl Research Unit, School of Biology and Environmental Science, UCD
Ferdia	Marnell	National Parks and Wildlife Service
Nick	Mc Carthy	Waterford Institute of Technology
Margaret	Mc Caul	Dublin City University
J	McCarville	Botany Department, Trinity College
Steven	McDowell	Northern Ireland Environment Agency
Gerardine	McEvoy	Department of Environment (NI)
Liam	McGarry	Irish Deer Society - Leinster Branch
Ciarain	McGonigle	Loughs Agency
Deirdre	McGovern	An Taisce Education Unit
Emma	McLaughlin	Northern Ireland Environment Agency
Sarah	McLean	QUB / AFBNI
Peter	Mercer	Agri Food and Biosciences Institute
Michael	Millane	Central Fisheries Board
Niall	Moore	GB Non-native Species Secretariat
Jim	Moore	National Parks and Wildlife Service
Paul	Murphy	EirEco Environmental Consultants
Thomas	Murphy	University of Limerick.
Anne	Murray	Golder Associates
Favel	Naulty	University College Dublin
Brian	Nelson	National Parks and Wildlife Service
Colette	O Flynn	National Biodiversity Data Centre
Francis	O'Beirn	Marine Institute
Grainne	O'Brien	BIM
Cliona	O'Brien	Heritage Council
Rick	Officer	Galway-Mayo Institute of Technology
Ciaran	O'Keefe	National Parks and Wildlife Service
Elaine	O'Riordan	NUI, Galway

First Name	Last Name	Organisation
Bruce	Osborne	UCD, School of Biology and Environmental Science
Shane	O'Toole	Institute of Technology Tralee
Beverley	Pierson	Leave No Trace Ireland
Pat	Roberts	McCarthy Keville O'Sullivan
Tim	Ryle	Ecologist
Trevor	Seery	Environmental Management Graduate
Dick	Shaw	CABI
Catherine	Shields	Corvus Consulting
Noeleen	Smyth	National Botanic Gardens
Enda	Thompson	Shannon IRBD
Mary	Tubridy	Mary Tubridy and Associates
Michael B	Usher	School of Biological and Environmental Sciences
Hans	Visser	Fingal County Council
Emer	Walker	University College Cork
Tony	Waterman	Northern Ireland Environment Agency
Alice	Wemaere	Environmental Protection Agency
Glen	Wightman	Mulkear LIFE (Shannon Regional Fisheries Board)
James G	Wilson	Zoology Dept., TCD
Sue	Wilson	Ecologic Environmental & Ecological Consultants Ltd.
Faith	Wilson	Faith Wilson Ecological Consultant