



Invasive Species Survey of The Glens of Antrim

SPECIFIC REPORT AND RECOMMENDATIONS FOR:
**MID AND EAST ANTRIM BOROUGH
COUNCIL (MEABC)**

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Introduction

During Autumn 2016 the Heart of The Glens Landscape Partnership Scheme (a project within Causeway Coast and Glens Heritage Trust) carried out a survey in the Glens of Antrim on the distribution and relative abundance of some of the most commonly known invasive plant species. This work was presented to the community, CCGBC, MEABC, DEARA, Forest Service, National Trust and a range of stakeholders at a seminar in October 2017. As part of the discussion on the day, it was proposed that the Heart of The Glens Landscape Partnership Scheme would provide a short report to each of the stakeholders on the salient issues and, suggest practical ways that they may address them.

Context

Financial Implications

The estimated annual direct cost of invasive species to the economies of the island of Ireland is £207,553,528 (€261,517,445). Correcting the estimate for GB for inflation, the current estimate of the annual cost of invasive species to the GB economy is £1.8 billion (€2.3 billion). The current estimate of the annual combined UK and Ireland cost is £2 billion (€2.5 billion). (Kelly *et al.*, 2013)

Biological Implications

The World Conservation Union states that “Invasive alien species are the *second most significant threat to biodiversity, after habitat loss*. In their new ecosystems, invasive alien species become predators, competitors, parasites, hybridisers and diseases of our native and domesticated plants and animals.”

Health Implications

Some invasive species can have health implications. Perhaps, the most obvious example is Russian Hogweed (also known as Giant Hogweed). Russian Hogweed sap, contains photosensitising furanocoumarins. When this sap contacts human skin in conjunction with sunlight, it can cause phytophotodermatitis - a serious skin inflammation which can have an effect similar to serious burns. Heat and moisture (sweat or dew) can worsen the reaction which can lead to severe skin damage.

Symptoms can be:

1. Painful blisters that form within 24 to 48 hours and become dark and pigmented
2. Scars that last up to six years, though typically only last a few months
3. Long-term sensitivity to sunlight is common
4. Blindness may occur if the sap gets into the eye



Figure 1. Russian Hogweed damage to a child's hand (from The Express online July 16, 2015)

Survey

While there are now many hundreds of alien invasive species in our environment, this current study focused on the main plant species which have serious implications for land management as well as negative, economic, health and biodiversity impacts in the wider landscape/community. These species are commonly seen as the main invasive threats, but with the correct control regime they can be successfully removed. These species included: *Rhododendron ponticum*, Cherry Laurel, Japanese Knotweed, Russian (or Giant) Hogweed, Himalayan Balsam, Pheasant Berry (also known as Himalayan Honeysuckle) and Sea Buckthorn. However, when other invasive species were seen they were also recorded.

For photographs of the species go to <http://www.heartoftheglens.org/cms/wp-content/uploads/2017/06/Newsletter-Issue-13.pdf>

A survey was conducted along the major corridors through the Glens of Antrim. Major corridors, (corridors, in this instance are defined as rivers and roads), which act as the main routes for the dispersal of these species were surveyed in the first phase of the survey. The second part involved surveys of key public locations such as large forests and estates. Part three of the survey facilitated the community to record and submit details of the invasive species they observed.

Results and specific management suggestions for MEABC

The overall survey report, can be accessed at: <http://www.heartoftheglens.org/cms/wp-content/uploads/2017/06/Invasive-Species-Survey-of-The-Glens-Report-2.pdf>, This report is supplemented by an Invasives Newsletter which acts as a user friendly summary report: <http://www.heartoftheglens.org/cms/wp-content/uploads/2017/06/Newsletter-Issue-13.pdf>

The area surveyed, which falls under the authority of MEABC, focused mainly on the area running south from Garron Point to Glenarm. While the area surveyed is a relatively small area within the overall MEABC region, it still provides insights and methodologies which will be of value across the entire Council area.

Of the species observed, Japanese Knotweed, Pheasant Berry and Himalayan Balsam are the most widespread and dominant species in the MEABC region of The Glens.

Rivers: Carnlough, Glencloy and Glenarm rivers are generally clear though all have some Japanese Knotweed in their lower stretches. Himalayan Balsam is also a problem on these rivers.

Road Sides are generally clear of invasives, but there are localised problems with Japanese Knotweed (and sometimes the similar but less invasive Himalayan Knotweed).

Council owned/managed sites in The Glens in which invasive species were observed.

1. **Cranny Falls Local Nature Reserve:** There is a significant area of Japanese Knotweed on the entrance to the reserve as you enter along the Hurry Path.
2. **Glenarm:** The Estate and Mid & East Antrim Borough Council in partnership with other interested stakeholder groups should tackle the issue of Pheasant Berry and Japanese Knotweed encroaching on the Estate, Straidkilly Nature Reserve and Bachelors' Walk.
3. **Hurry Path Carnlough:** Removal of Crocosmia and Pheasant Berry needs to be actioned on the meadow site along the hurry path in Carnlough.
4. **Land adjacent to most southernly playpark in Carnlough:** This site has a significant area of Japanese knotweed which needs a consistent ongoing removal strategy.

General actions to clear invasive species

The main recommendation of the report is that invasive species such as Japanese Knotweed, Himalayan Balsam and Russian Hogweed (Russian Hogweed was not found in the area surveyed but is an issue in other regions of MEABC) are best managed in a catchment wide process. These species have spreading mechanisms that use linear features, especially rivers, but also roads and tracks. Rhododendron and Cherry Laurel utilize different

strategies for dispersal. Therefore, it is an economic and biological imperative to understand how these species move through the landscape before beginning removal actions. If this is not accounted for, it is possible and in many cases very likely, that 'reinfection' of cleared sites will occur from adjacent upstream sources, wasting resources.

1. PRIORITISE FOR MAXIMUM LONG-TERM BENEFIT

It is understood that MEABC is currently formulating a strategy to clear invasive plants from their lands (Niall Curneen pers. com.). It would be worth considering a strategic approach in this work. Many of MEABC properties are linked to corridors (rivers and roads) or are adjacent to other sites which have invasive plants. In this context, it may not be strategically or cost effective to remove invasive plants from council sites that could easily be 'reinfected' / recolonised, without removing them from the broader catchment.

As part of MEABC remit of community planning, it may be more effective to look at species in relation to biogeographical catchments such as river catchments (but also road networks). This will allow for a more complete assessment of the problem, both in relation to species which cause most risk e.g.: Russian Hogweed - health risk, Japanese Knotweed – planning / economic development risk etc. This approach would allow council to create a matrix to prioritize their removal actions over short, medium and long term.

2. UNDERSTAND THE BIOLOGY OF THE SPECIES AND PLAN FOR A LONG-TERM PROCESS

Each invasive species has a specific lifecycle and habitat preferences. Understanding these and tailoring eradication programmes around them is the key to the success of any removal efforts. Removal of invasives from any one site is a commitment to a process which will, at the very least, last over several years. There are many examples of poorly planned eradication attempts, that have wasted many thousands of pounds and have failed due to poor planning and long-term commitment.

Training staff in identifying an, under the right conditions, removing invasives is a key part of this activity.

3. DO NOT BE A SOURCE OF THE PROBLEM.

It may seem strange, but many invasive species, that cost millions of pounds to remove every year, are still legally sold, thus reinfesting the countryside. While the removal of these plants from sale is a legislative issue for government, local government bodies such as MEABC can create its own 'best practice' code by not planting invasive species on their own property, removing existing stands and providing advice for others. Without such practice MEABC may be the source of the problem for neighbouring landowners. Currently, MEABC or previous councils have used invasive species such as Cherry Laurel in some planting schemes.

4. PLANNING ADVICE AND CREATING NEW 'BEST PRACTICE' FOR MEABC

Traditionally planners have instructed on planting schemes, especially in relation to newbuild properties. These schemes, which may include instructions to use 'native hedges and trees' or just 'trees and hedges', are often not implemented to the same detail as the rest of the 'grey infrastructure' such as buildings, roads, drains, etc.

Planners at MEABC Council have an opportunity to suggest 'best practice' in this matter by also actively advising against the use of invasive species in planting schemes. This can form part of the planning papers which may advise architects and developers why the use of specific species in their schemes could be detrimental to the environment.

5. WORKING IN PARTNERSHIP AND DEMONSTRATING BEST PRACTICE AND LEADERSHIP TO OTHER BODIES AND GOVERNMENT

By creating an embedded cross departmental approach to invasives within council, MEABC can act as a source of best practice for other bodies to follow. Other councils, government bodies, NGO's, large businesses and others will be more easily persuaded to change if they have best practice examples to follow. This will highlight MEABC as a leader in this area, draw positive attention to CCGBC, and more importantly create a realistic solution to this ongoing and growing issue.

Summary

The Glens Invasive Species Survey provides a starting framework of high quality information for MEABC to assess their long-term approach to invasive plant species. Clearly, a quality, community wide, yet focused and stepped plan is needed to eradicate these species. This in turn will work towards providing health, economic and biodiversity benefits. It is hoped that this summation report along with the other documents provided will be a useful reference in any future process as council moves forward on this issue.

References

1. The economic cost of invasive and non-native species in Ireland and Northern Ireland (2013) John Kelly, Dave Tosh, Kathy Dale and Anthony Jackson, The Northern Ireland Environment Agency and the National Parks and Wildlife Service As part of: Invasive Species Ireland
2. Health Hazards & Safety Instructions for Giant Hogweed, New York State Dept. Of Environmental Conservation (web site) 2017

Useful Website

A useful Website for information on invasives through the The Island of Ireland (Supported by Department of Environment, Agriculture and Rural Affairs NIEA and National Parks and Wildlife Service) <http://invasivespeciesireland.com/>