

## 3.5 Invasive Non-Native Species (INNS)

### Gnèithean Sgaoilteach Neo-dhùthchasach

**Objective:** To tackle invasive non-native species by undertaking practical projects and spreading good practice.

**Amas:** Aghaidh a chur ri gnèithean sgaoilteach neo-dhùthchasach le bhith a' gabhail phròiseactan practaigeach os làimh agus le bhith a' sgaoileadh deagh chleachdadh.

#### **Background**

##### **Cùl-fhiosrachadh**

There is a large range of invasive non-native species present in, and spreading towards, Highland.

Plant species such as *Rhododendron ponticum*, Japanese knotweed, Himalayan balsam and giant hogweed have been present in Highland for some time and are threatening native biodiversity by shading out native plants and reducing available habitat for wildlife.



Highland remains one of the last strongholds in the UK for red squirrels, but the larger American grey squirrel is moving north. American mink have devastated breeding bird colonies on the west coast. North American signal crayfish have become established on the River Nairn, to the

detriment of native freshwater crustaceans and fish.

#### **Opportunities**

##### **Cothroman**

**Awareness:** There is increased recognition of invasive non-native species and the problems that they can cause by the general public, as well as by land managers and funding bodies.

***Rhododendron ponticum*:** Forestry Commission Scotland has prioritised the removal of *R. ponticum* from the National Forest Estate. If surrounding land managers are able to do the same, this presents us with our best opportunity to eradicate this species from vast areas within Highland. (Projects such as this are more likely to be successful if they are carried out on a catchment scale, removing the seed source and reducing opportunities for re-infestation.)

**Funding:** The Scottish Rural Development Programme (SRDP) will provide some funding to tackle invasive non-native species and a collaborative scheme whereby land managers can get together to either manage habitats or control issues over wider areas.

However, there are concerns over the levels of funding that have been allocated to the control of invasive non-native species in the new Programme.

The issues, updates, project ideas and case studies for Invasive Non-Native Species are

## Long Term Funding

### Maoineachadh Fad-ùine

#### Issues

#### Cùisean

There is a lack of secure long-term funding to tackle invasive non-native species, including managing and supporting a trained volunteer base. It usually takes a number of years to rid a place of an invasive non-native species, but funders are reluctant and often unable to commit to projects that are more than three years.

For example, numerous projects have taken place to tackle the problem of American mink (Northern Mink Project, Skye Mink Survey, Lochaber Mink Control Project). However, a funding bid by the Rivers & Fisheries Trusts Scotland for a large project which amongst other things would continue mink control was unsuccessful. Mink are still an important predator of ground nesting birds such as terns, eiders, waders and gulls; we must keep up pressure to control them.

#### Update

#### Cunntas às Ùr

**Highland Rhododendron Project:** The Highland Rhododendron Project identified and mapped key control zones, and helped private estates to seek funding for control.

grouped under the following four sub-headings:

Long Term Funding

Difficulties of Scale

New Threats

A Project Officer was employed from 2010-12, now the project continues without one.

14 Sols (Statements of Intent) for Rhododendron control were submitted to the Scottish Rural Development Programme (SRDP) by the time the scheme shut. The project prioritised key areas of control and funded surveys to expedite future SRDP applications; SRDP is only source of funding for rhododendron clearance on private land.

This augments work done by partners such as Forestry Commission Scotland, the John Muir Trust and the National Trust for Scotland (see Case Study).



**National Forest Estate:** The Forestry Commission Scotland's Rhododendron Strategy was produced and significant clearance work has been carried out in Highland. FCS is committed to removing *R ponticum* on its land and since 2011, 2,891

hectares have been cleared of *Rhododendron* on the National Forest Estate.

Despite this good work on publicly owned land, there has been a lack of action on Highland roads and railways, and there has been some public criticism and lack of public support for Rhodie removal.

FCS and SNH are preparing a national rhododendron control strategy, which is due to be published shortly.

**Landfill Communities Fund:** The Landfill Communities Fund can provide a source of funding for practical, habitat-based works such as this, and many such projects have received funding in this way over the past six years e.g. Dingwall Green Gym tackling Himalayan balsam, Lower Ness Invasive Plants Project. Coille Alba has secured larger quantities of funding from WREN (a Landfill Fund distributor) for a continuation of this project for three years.

## Case Study Sgrùdadh Cùise

### *Rhododendron ponticum*:

The National Trust for Scotland has been tackling invasive *Rhododendron ponticum* at its properties in Wester Ross for a number of years and is now looking at new initiatives to raise awareness and provide some positive solutions.

The NTS property at Inverewe Garden is producing 'eco charcoal' with the help of the newly formed Highland Conservation Volunteers. The charcoal kiln can produce up to 25 bags, using an ingenious sorting tray built and invented by the NTS volunteers.

Charcoal was produced in the 1600's in vast amounts to supply the nearby 'Red Smiddy' blast furnace on the River Ewe. This NTS 'Micro-project' represents a return to local charcoal production after 400 years, but will most likely

be used to fire the humble barbecue, and will be using invasive *Rhododendron ponticum* rather than the native oak trees that were once used.

The use of cut rhododendron wood offers the opportunity to use the raw material for something useful at the same time as providing a conservation message to the public. Inverewe is one of a number of NTS properties producing charcoal and it is hoped that the project will also make some financial profit; or at least - keep in the black!



Interpretive panels have also been produced to explain the need to manage rhododendron as an invasive species, and explain the process in producing charcoal.

**Inverewe Garden Charcoal making**

**A saleable solution to the 'ponticum problem'**  
The garden and estate teams are working together to forge a sustainable solution to the problem of *Rhododendron ponticum*.

**Killer plants**  
*Rhododendron ponticum* is very invasive and can carry the pathogen *Phytophthora ramorum* (sudden oak death). It destroys native habitats by creating a dense, dark jungle - ideal conditions for cottoy, camellia scale which also destroys ornamental plants. The Inverewe team is removing *Rhododendron ponticum* from both the garden and estate.

**Dead wood**  
The rhododendron wood is then taken and made into good quality home-made charcoal in our estate kiln which we sell in the shop. This is a good, sustainable solution to the 'ponticum problem'.

**Historic heat**  
Charcoal production isn't new to the area. The remains of a blast furnace by the River Ewe and place names such as 'Furnes' on the shore of Loch Maree are evidence of a thriving 17th century iron producing industry. The oak trees alongside the Loch provided the raw material to produce charcoal for the furnace.

In those days the charcoal burners were made using earth but today we use an iron kiln that burns for 12 hours before the wood is turned into charcoal.

**Ask in the Visitor Centre for details about public demonstration days of the charcoal making process and to buy bags of our Inverewe eco-charcoal.**

1. Dense area of ponticum debris, native habitats. 2. Disposed 'waste' used by *Phytophthora ramorum* to create oak death. 3. Removing *Rhododendron ponticum*. 4. Inverewe team cut. 5. Charred *Rhododendron* wood is burned to make charcoal. 6. Bags of white eco-charcoal.

A further NTS initiative being deployed in the community at Torridon is to offer a 'plant swap' scheme. The Trust, with the support of SNH, has been taking out invasive rhododendron hedges in public gardens and replacing with alternative non-invasive cultivars.

## Future Action

### Gnìomh san Àm ri Teachd

#### 28. Highland Rhododendron Project

##### Pròiseact Ròs-chraoibhe na Gàidhealtachd

**Rationale:** *Rhododendron ponticum* is a major threat to biodiversity. The first Highland Rhododendron Project co-ordinated funding applications & clearance work to give eradication projects the best chance of success, but this has ended.

##### Project Proposals

**28.1** Facilitate action to take forward a landscape-scale Rhododendron clearance in the four priority areas identified by the last project, instigate action on road and railway verges, investigate options for Rhododendron removal from gardens, facilitate different models for surveillance of 'cleared' areas (to stop recolonisation), and secure public support for Rhododendron removal.

**28.2** Continue to map the occurrences of *Rhododendron ponticum*, as well as actions undertaken to control it, and ensure all partners have access to this data to help them prioritise future works.

**Lead Partner:** Highland Invasive Species Forum partners

## Difficulties of Scale

### Duilgheadasan a rèir Meud

#### Issues

#### Cùisean

Most invasive non-native species need to be tackled using a catchment-scale approach, starting at the top of the catchment and working towards the sea. However, this often involves many landowners, and projects of this nature need time and dedicated support for facilitation and co-ordination of action.

With increased awareness about invasive species, particularly Japanese knotweed where home surveys are picking this up on mortgage reports, more people are seeking help in dealing with this issue. There is a lot of guidance available on this, but householders may find difficulties with plant

identification and the ongoing commitment required to get rid of these plants.



#### Update

#### Cunntas às Ùr

**Invasive Species Forum:** The Highland Invasive Species Forum produced a database, maps and a report to help prioritise future invasive species work, and

meets regularly to update members on progress and prioritise future work.

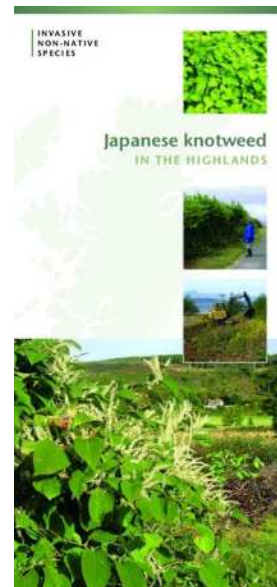
**Biosecurity Works:** Local Fisheries Trusts produced Biosecurity Plans and some, such as the Cromarty Firth Fisheries Trust, the Nairn and Lossiemouth Fisheries Trust and the Spey Fisheries Board have carried out eradication and control programmes on large stretches of the catchments, tackling Japanese knotweed, Himalayan balsam, *Ranunculus* and other invasive non-native species.

**South Loch Ness Invasive Plants Project:** Coille Alba is carrying out a large project to control invasive non-native plants in the Lower Ness catchment. This has involved work to identify and control populations of Japanese knotweed, Giant hogweed and Himalayan balsam. A number of other invasive non-native plants have been identified around Inverness and the Great Glen, some of which are evidently spreading, and the Project is tackling some of these such as white butterbur, American skunk cabbage and sycamore.



**Giant hogweed:** Co-ordinated control has been carried out on the Wick River, Black Isle and River Nairn in a project that has been running since 2009. The project has had very positive results; in 2013 both the

Nairn and Wick Rivers had control programmes in place so all known areas of Giant hogweed in Highland are being controlled. The project has been extended to 2016, when we hope Giant hogweed will cease to be a major issue in Highland.



**Japanese knotweed:** There is a lot of guidance available on the internet, visit the Highland Biodiversity website<sup>1</sup> for some introductory leaflets and links to more detailed information. The Highland Council has produced a Japanese Knotweed Policy and Priority Assessment Guidelines, and carries out ongoing control works on Council owned land.

Since the production of the Final Report of the Committee of Enquiry on Crofting (commonly referred to as the Shucksmith Report) and subsequent Crofting (Scotland) 2010 Act<sup>2</sup>, crofters with Japanese knotweed on their land have felt increased pressure to control it and show legitimate use of their land.

<sup>1</sup> [www.highlandbiodiversity.com](http://www.highlandbiodiversity.com)

<sup>2</sup> [http://www.legislation.gov.uk/asp/2010/14/pdfs/asp\\_20100014\\_en.pdf](http://www.legislation.gov.uk/asp/2010/14/pdfs/asp_20100014_en.pdf)

Similarly, householders are much more aware of Japanese knotweed as it is now picked up in surveys and could affect the value of their property. This can lead to knee-jerk management of a species which spreads very easily through cutting and transporting materials. There is a need for targeted advice for crofters and householders.

## Case Study

### Sgrùdadh Cùise

#### River Conon Work

#### Obair Abhainn Chonan

The Cromarty Firth Fishery Trust worked with the British Trust for Conservation Volunteers (now TCV), using the Apprenticeship Scheme and Green Gym to tackle invasive non-native species on the River Conon and neighbouring catchments.

Plant species such as Japanese knotweed and Himalayan balsam have been mapped

and controlled, starting in the upper catchments and moving down river. Mink is controlled across the area in a follow-on project from the Scottish Mink Initiative.

The partners are starting to make real headway but to be effective, control needs to be maintained for a minimum of five years and the projects are heavily reliant on securing funding from different pots such as the Landfill Communities Fund, which is allocated on an annual basis.



## Future Action

### Gnìomh san Àm ri Teachd

#### 29. Highland Invasive Non-Native Species Projects

##### Pròiseactan Gnèithean Sgaoilteach Neo-dhùthchasach na Gàidhealtachd

**Rationale:** The Highland Invasive Species Forum identified and prioritised the main invasive non-native species threatening Highland Biodiversity as *Rhododendron ponticum*, American mink, Japanese knotweed, giant hogweed and Himalayan balsam. Rhododendron, mink and giant hogweed are being tackled through various projects, but there is a need for additional work on Japanese knotweed and Himalayan balsam, and there are other locally important threats such as Salmonberry in Caithness.

##### Project Proposals

**29.1** Run a project to train volunteers and survey urban areas for invasive non-native species, and improve opportunities for land managers to report invasive non-native species on their land. This would inform future co-ordinated control programmes.

**29.2** Control / eradicate problem species such as Japanese knotweed, Himalayan balsam and Salmonberry, particularly in urban areas and along road verges and streams where these species escape from gardens.

**29.3** Raise awareness of Japanese knotweed and how to eradicate it in a project specifically targeted at crofters and householders.

**29.4** Replicate the TCV Apprenticeship Programme, which proved a very effective way of co-ordinating INNS projects on the Cromarty Firth, on other Highland catchments.

**Lead Partner:** Highland Invasive Species Forum

**Supporting Partners:** RAFTS, TCV, NTS, THC, SNH, HBRG, LBGs

## New Threats

### Bagraidhean Ùra

#### Issues

##### Cùisean

With climate change and increased movement of plants across the world, the list of invasive non-native species is getting longer.

#### Update

##### Cunntas às Ùr

The Rivers & Fisheries Trusts have produced Biosecurity Plans for the major river catchments in Highland.

## Future Action

### Gnìomh san Àm ri Teachd

#### 30. Rapid Response Pathway

##### Slighe Grad-fhreagairt

**Rationale:** More and new Invasive Non-Native Species are being found throughout Highland, and there is a need to clarify reporting procedures & action.

##### Project Proposals

**30.1** Identify and agree clear rapid response pathways for new species that may start to colonise, as well as raise awareness amongst the general public.

**Lead Partner:** Highland Invasive Species Forum Partners

