

# Inner Moray Firth Invasive Non-native Plants Project Progress Report, November 2014



The Inner Moray Firth Invasive Non-Native Plants Project aims to eradicate riparian invasive non-native plants (INNPS) in the Project area. The great majority of these are located along watercourses and on adjacent flood-prone areas in the Lower Ness, Lower Beaully and Nairn catchments (see Map overleaf).

Coille Alba has been controlling INNPS in the Lower Ness catchment since 2008, initially in Glenurquhart, extending operations in 2011 to the environs of Inverness.

The main species of concern are giant hogweed, Japanese knotweed and Himalayan balsam, but there are also smaller or more localised populations of other plants, especially white butterbur, American skunk cabbage, rhododendron and *Tolmiea*.

## Surveying

The presence of INNPS in the **Lower Ness catchment** has been fairly well mapped over the last few years. Nevertheless, new INNPS populations are still coming to light. These include a well-established colony of American skunk cabbage *Lysichiton americanus* along 400m of a burn at Ballindarroch (*pictured right*). This burn feeds into the River Ness, and



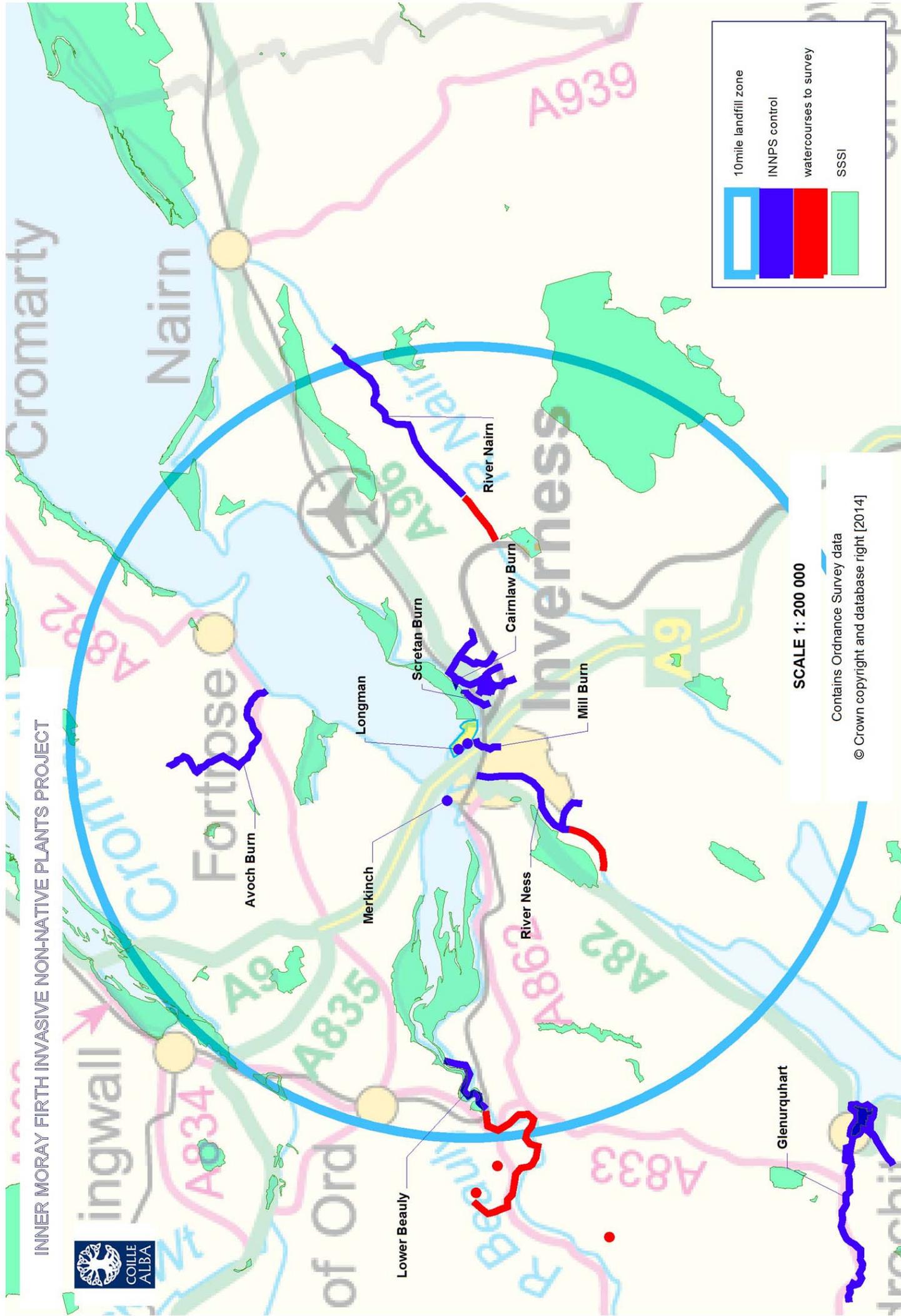
probably accounts for the occasional skunk cabbage records further downstream.

We also undertook a survey of *Tolmiea menziesii* (*left*) in Urquhart Bay Woods SSSI, and a population of Tibetan cowslip *Primula florindae* at Tullich, near Loch Ruthven.

The distribution of INNPS in the Nairn and Beaully catchments was less well-known. We have been adding to data collected by the fishery trusts through more comprehensive surveys.

Isolated colonies of Himalayan balsam and Japanese knotweed in the **Beaully catchment** above the Lovat Bridge were mapped.

INNER MORAY FIRTH INVASIVE NON-NATIVE PLANTS PROJECT



10mile landfill zone

INNPS control

watercourses to survey

SSSI

SCALE 1: 200 000

Contains Ordnance Survey data

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*left: a previously unrecorded population of Tibetan cowslip Primula florindae was discovered at Tullich in Strathnairn, where it has started to colonise Loch Ruthven SSSI. Given Loch Ruthven's highly designated status, its hydrology and sensitivity (breeding Slavonian Grebes inter alia), we will be trialling mechanical rather than chemical control methods.*

*below: local volunteers helped survey the River Beaully from a boat; this shot shows a colony of Japanese knotweed which dominates the left bank of the river Beaully for a distance of over 1.5 kilometres; its extent is estimated to exceed 3 hectares.*

Because these populations are further upstream than the known established populations, they are a high priority for action.

The extensive population of Japanese knotweed in the tidal lower reaches of the river Beaully proved difficult to assess from land. This was finally achieved much more expediently from a boat (*right*). This transport was kindly provided by a local volunteer.



We also located and mapped colonies of Himalayan balsam and Salmonberry *Rubus spectabilis* (*left*).

The tidal nature of the lower Beaully and steep riverbanks presented a number of new challenges for the project.

A number of rhododendron colonies were also assessed and mapped in the Beaully catchment.

INNPS were also surveyed along the River Nairn.

## Liaising with riparian owners and local communities

Coille Alba has been working in partnership with riparian owners, anglers and angling clubs, local residents and two Fishery Trusts: the Ness & Beaully FT and the Findhorn, Nairn & Lossie FT.

One of the project's first tasks was to determine ownership of all affected sites, and to seek consent from land-holders to access their property for the purposes of survey, control and monitoring INNPS.

All but two owners have given consent. Scottish Natural Heritage have undertaken to negotiate access to these holdings before the start of next growing season.

*right: the riparian owner of Kilravock Estate discusses the rationale behind our programme to control Japanese knotweed on the river Nairn with an angler; note the damage inflicted by the August floods on the knotweed stems*



## Control operations



Unfortunately, we were unable to secure a signed contract from WREN until July. Because of the late start, we were forced to re-visit our workplan priorities, and accept that some sites might not receive the attention they deserved.

Despite the late start, we did however manage to achieve a great deal. On many of the watercourses in the Ness catchment, where we have been controlling Himalayan balsam for 3 years or more, very few plants were located and eradication appears likely next year.

One impact of the late start was that the giant hogweed was already flowering. We would normally aim to spray hogweed

*left: tackling flowering giant hogweed plants is generally best avoided; however it is occasionally necessary, and doing so helps to prevent seed-set. Great care, full PPE and a long-handled billhook or polesaw minimise the risk of contact with sap.*

plants when they are knee- to waist-high (usually in late April – May).

However, we tackled some of the more critical giant hogweed sites by the more laborious method of stem-cutting (*page 4*).

Early in the season, Himalayan balsam was controlled by cutting.

When ripe seed-capsules started to form, we switched to uprooting plants and removing seed-heads. These were collected in a strong plastic sack and removed from site (*right*).

Chemical control of Japanese knotweed is most effective in late summer, when photo-synthates are translocated and stored in the root system.

Colonies which we had treated in previous years were controlled by knapsack spraying.



However, we have found that for well-established colonies such as those on the banks of the Beaulieu (*left*), control can be more readily achieved using a combination of stem-injection (*below*) and spraying.

*right: injecting every individual knotweed stem is a slow and laborious process. However it allows the application of a higher dose of glyphosate than is possible by foliar spraying. It can also be undertaken in all weathers.*



Access to some INNPS colonies is hindered by scrub, especially on the River Nairn (*below*). This makes spraying difficult and conceals balsam plants. To facilitate control operations next summer, some clearing will be undertaken this winter.



*above: Japanese knotweed and giant hogweed growing in scrub on the seasonally-flooded banks of the River Nairn*

## **Trialling control methods**

Over the last few years, Coille Alba has been actively working to identify the most cost-effective and environmentally friendly control techniques for many INNPS species. This is especially important for this project, as control operations are focussing primarily on environmentally sensitive riparian habitats.

For many species, there is little or no published guidance on control methods. We will disseminate the findings of our trials among fellow practitioners.

## **Reviewing the project workplan and priorities**

The project area includes two catchments in which Coille Alba has not previously controlled INNPS. This has entailed a lot of surveying, mapping and liaising with owners. Different circumstances have also presented the project with a new set of challenges. These include the tidal reaches of the River Beauly, where access changes according to the state of the tide. High-energy rivers such as the Nairn are frequently prone to heavy summer spates; in August this year, high water caused damage to Japanese knotweed and skunk cabbage. This reduces their ability to take up a foliar application of herbicide. To overcome this, next year we plan to treat vulnerable colonies in July, before the peak period for summer rains.

Control operations are prioritised in the reviewed 2015 workplan overleaf.

## **Thanks**

This project is funded by WREN's Biodiversity Action Fund and Scottish Natural Heritage.

*jp/141104*

# INNER MORAY FIRTH INVASIVE NON-NATIVE PLANTS PROJECT

Control operations 2015: workplan and priorities for action												
	J	F	M	A	M	J	J	A	S	O	N	D
<b>Glenurquhart</b>												
Survey and monitoring			*	*	*	*	*	*	*	*	*	
Himalayan balsam						■	■	■	■	■		
White butterbur						■	■					
Tolmiea						■	■	■				
Japanese knotweed							■	■	■			
<b>River Ness</b>												
Survey and monitoring			*	*	*	*	*	*	*	*	*	
Giant hogweed				■	■	■						
Himalayan balsam				■	■	■	■	■	■	■		
American skunk cabbage							■	■				
Japanese knotweed							■	■	■			
Clearing to allow access										■	■	■
<b>Inverness environs</b>												
Survey and monitoring			*	*	*	*	*	*	*	*	*	
Giant hogweed				■	■	■						
Himalayan balsam					■	■	■	■	■	■		
American skunk cabbage							■	■				
Japanese knotweed								■	■			
Tibetan cowslip					■	■						
Clearing to allow access										■	■	■
<b>Beaully</b>												
Survey and monitoring			*	*	*	*	*	*	*	*	*	
Himalayan balsam				■	■	■	■	■				
Japanese knotweed							■	■	■			
Clearing to allow access	■	■	■									
Rhododendron	■	■	■	■							■	■
<b>Nairn</b>												
Survey and monitoring			*	*	*	*	*	*	*	*	*	
Giant hogweed			■	■	■	■						
Himalayan balsam			■	■	■	■	■	■	■	■		
White butterbur						■	■					
Japanese knotweed							■	■	■			
American skunk cabbage						■	■					
Clearing to allow access	■	■	■									

