Scottish Invasive Species Initiative
Site Case Study

Himalayan balsam control on the North Ugie Water around Strichen, River Ugie, Aberdeenshire

Summary

The North Ugie Water is a major tributary of the River Ugie which runs through the village of Strichen in Aberdeenshire. Himalayan balsam, which had become established in the area around Strichen, was outcompeting native vegetation and increasing the risk of bank erosion. As this area was identified as the most upstream source of Himalayan balsam on the North Ugie Water, control at this location would prevent further and ongoing spread downstream.

Two management sites are combined in this study which summarises control undertaken by Scottish Invasive Species Initiative staff, volunteers, and the Aberdeenshire Community Payback team over approximately 2km of river length (4km of riverbank) over the period 2018-2025.

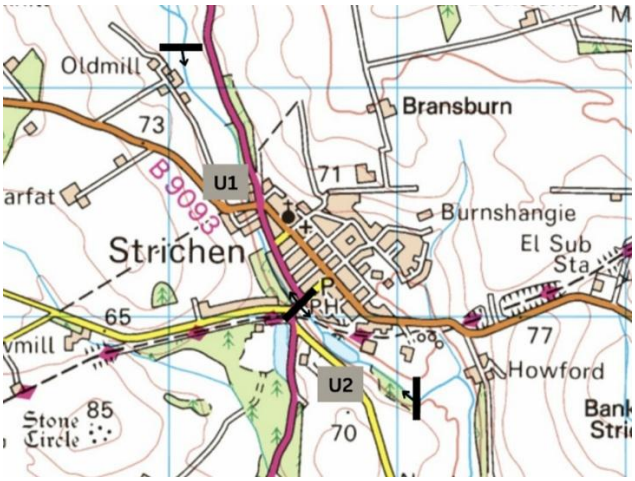
The initial five years of control had, by 2022, significantly reduced both the abundance of Himalayan balsam present and the time taken to complete annual control work. Unfortunately control work was not carried out in 2023, due to staff changeover, which caused plant abundance to increase in some areas. Management work was restarted in 2024 and maintained in 2025, with the sites continuing to improve due to this control. In 2026, Scottish Invasive Species Initiative staff will coordinate a further year of control and monitoring.

1. Site description

The sites in this study are two contiguous sections (Ugie 1 and Ugie 2) of the North Ugie Water extending above, through and below the village of Strichen in Aberdeenshire (see **Figure 1.**)

The upper site (Ugie 1), which starts at Old Mill Farm (grid ref NJ 9393 5617) and ends at the bridge in the middle of Strichen (grid ref NJ 9456 5504), is approximately 1.4km in length and, is owned in the main by a single local land manager upstream and a number of private individuals through the village. Land ownership could not be established on one section of the site, a woodland on the lower right bank. The second site (Ugie 2), which starts at the above mentioned bridge and extends approximately 0.6km through the town to the Aberdeenshire Council depot (grid ref NJ95005468), is owned by private individuals and includes a section where landownership could not be established.

Figure 1 – Location map of Himalayan balsam control sites on North Ugie Water



In total these sections extend to approximately 2km of river length and have been managed collectively under the co-ordination of the Scottish Invasive Species Initiative to control Himalayan balsam on both banks of the river – a total of 4km of riverbank under management.

Within the Scottish Invasive Species Initiative partnership the Ugie catchment is covered by the Deveron, Bogie and Isla Rivers Charitable Trust (DBIRCT).

The sites have a variety of bankside land use including conifer plantation, deciduous woodland, pastures, unimproved grasslands, arable fields and residential gardens bordering the river.

2. Background

The upper limit of the site marks the uppermost extent of Himalayan balsam on the North Ugie Water – the plant having escaped from a farm garden and spread and established to varying degrees downstream throughout the two sites.

In 2018, Himalayan balsam had become the most abundant species in some areas whilst elsewhere it grew amongst other bankside vegetation. If left unchecked, the likelihood was that the species would both spread further downstream from Strichen and further dominate these current locations.

In the worst areas, the balsam was successfully outcompeting native flora and leaving banks vulnerable to erosion when winter die back exposed bare soils. The small footpath within the site also provided an opportunity for further spread from people inadvertantly picking up seeds and transporting them to new locations.

In the section of unknown ownership (Ugie 2), control work was completed by project staff, individual volunteers and a group from the Aberdeenshire Council Community Payback.

These collaborations ensured that all parties were reassured that their work was meaningful when combined with work elsewhere.

3. Management works

The Himalayan balsam was treated for the first time in 2018 at Ugie 1, with control at Ugie 2 starting in 2019. A range of physical control techniques were used across the sites - dense stands were controlled using mechanical cutting (strimming) and hand cutting (slashing with ‘weed whackers’), while less dense areas were pulled by hand to ensure native vegetation was not damaged and left in place to recolonise.

Since 2020, with the density and coverage of Himalayan balsam reduced, hand pulling was the main means of control applied to the remaining clusters of growth. Unfortunately, in 2023, control work was not completed due to staff changeover. In 2024 and 2025, control works were reinitiated with ‘weed whackers’ used as the main control method for larger clusters of plants and hand pulling for individual plants.

Tables 1 and 2 below show a summary of the control treatments deployed.

Table 1 – Summary of control treatments at Ugie 1 site (2018 – 2025)

Year	Invasive species	Work completed by	Control work – date and method
2018	Himalayan balsam	Land managers and project staff	July/August - Hand pulling, weed whacking, strimming
2019	Himalayan balsam	Land managers, volunteers and project staff	July/August - Hand pulling, weed whacking, strimming
2020	Himalayan balsam	Land managers and project staff	July/August - Hand pulling
2021	Himalayan balsam	Volunteers and project staff	August - Hand pulling
2022	Himalayan Balsam	Volunteers and project staff	August – Hand pulling
2023	Himalayan Balsam	*No control work took place*	*N/A*
2024	Himalayan Balsam	Project staff	August – Hand pulling/weed whacking
2025	Himalayan Balsam	Project staff	July – Hand pulling/weed whacking

Table 2 – Summary of control treatments at Ugie 2 site (2019 – 2025)

Year	Invasive species	Work completed by	Control work – date and method
2019	Himalayan balsam	Volunteers, community payback team and project staff	June/July/August – Strimming, weed whacking, hand pulling
2020	Himalayan balsam	Project staff	August – Weed whacking, hand pulling
2021	Himalayan balsam	Volunteers, project staff	August – Hand pulling
2022	Himalayan balsam	Volunteers, project Staff	August – Hand pulling
2023	Himalayan balsam	*No control work took place*	*N/A*
2024	Himalayan balsam	Project staff	August – Hand pulling/weed whacking
2025	Himalayan balsam	Project staff	July – Hand pulling/weed whacking

4. Results

4.1 Invasive species abundance

Monitoring was undertaken each year before control work took place. Two monitoring sites were established in the Ugie 1 section and four monitoring points in the Ugie 2 site.

The abundance of invasive species was measured using the DAFOR scale*. The recorded abundances are shown in **Table 3** below.

Following control in each year from 2018/2019 to 2021, a reduction in abundance was observed as the seedbank was depleted. By 2021 the abundance of the Himalayan balsam was reduced down to ‘rare’ or ‘not present’ at every monitoring point. Since 2022, the majority of survey sites have shown reduced

abundance, except for site 2a (right bank), where abundance has fluctuated, due to a large infestation in a dense woodland within Strichen at the bottom of the upper site (Ugie 1).

Access to this woodland is very challenging and so it has not always been possible to fully complete annual control work; in some years balsam will set seed which then wash down into the lower site (Ugie 2).

This was also observed in the change on the ground (see **Figures 2 and 3**).

Table 3 – Annual Himalayan balsam abundance from surveys (2018 – 2025) at North Ugie Water, Strichen

Monitoring point	Himalayan balsam abundance by year (DAFOR* scale)							
	2018	2019	2020	2021	2022	2023	2024	2025
Ugie 1a left bank	F	F	R	R	N	N	N	N
Ugie 1b right bank	D	D	F	R	R	R	R	N
Ugie 2a left bank	-	O	O	R	N	N	R	R
Ugie 2a right bank	-	A	F	R	O	F	F	F
Ugie 2b left bank	-	D	F	N	R	R	N	R
Ugie 2b right bank	-	F	R	R	R	R	R	R

*** - DAFOR Scale of abundance –** D = Dominant (50 – 100% cover), A = Abundant (30 – 50% cover), F = Frequent (15 – 30% cover), O = Occasional (5 – 15 % cover), R = Rare (<5% cover), N = not present

Images before and after control

Figure 2a.
North Ugie Water 2019 – prior to control – Ugie 1b right bank – Himalayan balsam is dominant

Figure 2b.
North Ugie Water 2025 – prior to control – Ugie 1b right bank – Himalayan balsam is not present

Figure 3a
North Ugie Water 2019 – prior to control – Himalayan balsam is dominant

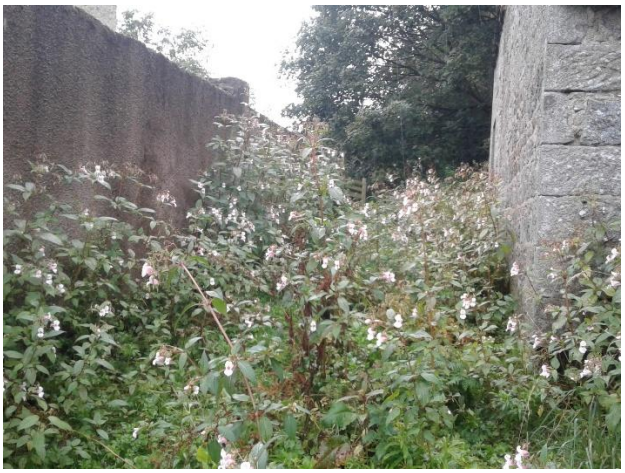
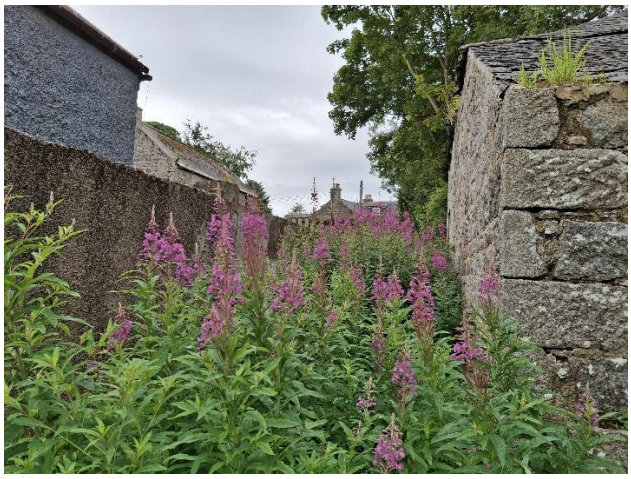


Figure 3b
North Ugie Water 2015 – following years of control work, Himalayan balsam has been replaced by native willowherb



4.2 People effort

Control work, undertaken by project staff, started in the upper (Ugie 1) reaches of the site in 2018 and continued each year until 2022, with additional help from volunteers and land managers. In 2019, the bottom section (Ugie 2) was controlled for the first time by project staff and the Aberdeenshire Community Payback team. Control in Ugie 2 continued in 2020, carried out by project staff, and in 2021 and 2022 by project staff with the additional help of a volunteer.

After the large collective effort in 2019 to bring all sites under control, reduced effort was required in 2020 and 2021 to maintain control – even though work had switched to the slower hand pulling method.

Control work was not carried out in 2023 due to staff changeover. In 2024 and 2025, control was reinitiated and effort was reduced in Ugie 1 as the section had greatly improved overall and only a handful of plants were found. However, control effort in Ugie 2 was greater due to increased abundance caused by the aforementioned woodland infestation in Strichen, at the lower end of Ugie 1.

Table 4 (below) shows the effort in terms of hours of control work spent on site.

Table 4 – People hours used to control Himalayan balsam (2018 – 2025) at North Ugie Water, Strichen

Site name	Hours of control work by year							
	2018	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Ugie 1	10	11	7	2	6	n/a	3	2
Ugie 2	n/a	62	3	1	2	n/a	3	4
All sites	**10**	**73**	**10**	**3**	**8**	**n/a**	**6**	**6**

5. Conclusions and Progress Made

Work to control Himalayan balsam on the North Ugie Water around Strichen since 2018 has significantly reduced both the abundance of the plant at the site and the effort required to deliver annual control.

This is demonstrated by the change in abundance of the plant observed by fixed-point photography (see **Figures 2 and 3**) – which show notable reductions in the extent of Himalayan balsam present – and in the

DAFOR scores at monitoring points which recorded a reduction in abundance by 2023, down to 'frequent' at one monitoring point and 'rare' or 'not present' at all other points (see **Table 3**).

Progress is also shown by the reduction in the hours of work needed to treat the balsam across the site – particularly from 2019 to 2020 when the lower section (Ugie 2) was first brought under management. From 2019 to 2025 the hours required for annual control reduced by 92%.

In 2018 and 2019, strimmers and 'weed whackers' were used to deal with the most heavily infested areas. In 2020 and 2021, when the scale of balsam growth had been reduced, only hand pulling was required across the site – this is a more selective control method which prevents damage to non-target vegetation. With the increased abundance in certain areas, 'weed whackers' were again used for control in 2024 and 2025.

By reducing the scale of Himalayan balsam growth around Strichen, eradication of the plant from these sites on the North Ugie Water is now achievable and the risk of further downstream spread has been reduced. These sites highlight the importance of control work being carried out from the uppermost extent of an infestation in a downstream direction to prevent further spread. Downstream managers will be less likely to carry out control on their land if there is no reduction or prevention of continuous seed dispersal to them from uncontrolled areas upstream.

6. Next Steps

In 2026, Himalayan balsam monitoring and control will be delivered around Strichen by Scottish Invasive Species Initiative staff and volunteers to further reduce the abundance of the plant here and prevent any remaining plants seeding. As the problem has now improved, and with landownership fragmented around the town and unknown in some sections of the sites, we will not look to handover this site to land managers for ongoing control at this time.

Further efforts will be made to establish landownership of the woodland in the upper section of the site (Ugie 1, lower right bank) and to find solutions to complete control work where the site is inaccessible.

Alongside this work, dialogue will be initiated with land managers further downstream to begin control work here now that the upstream problem has improved and is in hand.

Together these steps would provide a sustainable solution to the Himalayan balsam infestation on the North Ugie Water and, ultimately, allow us to move towards eradication of the plant from this part of the River Ugie catchment.

Further information

Contact: sisi@nature.scot
Website: www.invasivespecies.scot