

Non-native Species News: Issue 10, Autumn 2023

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Welcome to Issue 10

Thank you to everyone who has contributed to this newsletter. All links in this newsletter are external and an accessible HTML version is available on [our website](#).

News

Asian hornet update

In 2023 there have been 70 Asian hornet nests found in 54 locations. The majority of the nests have been found in Kent, but nests have also been found in Devon, Dorset, East Sussex, East Yorkshire, Essex, Hampshire, London, North Yorkshire, and Surrey. More information, rolling updates and information on previous sightings can be found on the [National Bee Unit website](#).

We would be grateful for your continued support in helping to raise awareness and encourage reporting of any further sightings. Alert posters and ID sheets are available to help, please see the [Asian hornet alert page](#) for details. Please report suspected sightings of *Vespa velutina* using the 'Asian hornet Watch' app for [iPhone](#) and [Android](#), or the [online reporting form](#).

On Monday 30th Oct BBC1's The One Show included a feature on Asian hornet with colleagues from the National Bee Unit attending an Asian hornet nest. You can [watch the episode on BBC iPlayer](#), the feature begins at 19 mins 30.

Pathway work

A working group is being established to develop a [pathway action plan](#) for non-native pets.

Major report on invasive non-native species published

In September the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) published the results of its four-year Assessment on Invasive Alien Species and their Control. The full report will be published shortly but you can view the [summary for policy-](#)

[makers](#), read the [press release](#), and watch our recent [webinar with Professor Helen Roy](#), co-chair of the assessment, where she discusses the findings of the report.

Scottish Horizon scanning project report published

In early October a horizon scanning study involving analysis of pathways of spread of invasive non-native species into Scotland was published. The study considers species having the highest likelihood of arrival and establishment and the magnitude of their potential negative impact on biodiversity and ecosystems over the next 10 years. [Find out more and read the report.](#)

Communications

NNSS and NNS Inspectorate awareness raising

The NNSS and NNS Inspectorate have joined Plant Health colleagues and Check Clean Dry partners at a range of events this year, including the International Canoe Federation World Slalom Championships, HTA National Plant Show, and Four Oaks Trade Show, to raise awareness of the Check Clean Dry and Be Plant Wise campaigns.



NNSS and British Canoeing at the International Canoe Federation World Slalom Championships in September (left) and Be Plant Wise and Asian hornet materials on display at the Hyde Hall Flower Show in Chelmsford in July (right).

Last month two NNS inspectors attended the Carp World Championships at Lac De Panneciere in France to remind competitors to Check Clean and Dry clothing and equipment on their return to

the UK. Planned event attendance this autumn includes the PestTech exhibition for pest controllers, to raise awareness of Asian hornet and other INNS, and FutureScape, to promote Be Plant Wise and [guidance on gardening without invasive plants](#) to the landscaping industry.

Be Plant Wise and dispose of plant waste responsibly this autumn

This autumn we are reminding gardeners to dispose of plant waste responsibly when clearing the garden for winter to prevent the spread of invasive non-native plants. Please help us to promote the campaign, [draft posts for social media](#) and [landscape](#) and [square](#) graphics are available.

Updates from non-native species projects

Beavers – an unexpected vector for Japanese knotweed?

Mark Purmann-Charles, Scottish Invasive Species Initiative

Since the Scottish Invasive Species Initiative began in 2018, we have worked across the River Tay catchment to identify Japanese knotweed infestations, prevent its spread, and eradicate it. During this time, we became increasingly aware of the impact the active beaver population in the catchment has been having on our control efforts.

After observing their behaviour on a number of our control sites, it has become apparent that the reintroduced beavers can play a significant role in spreading knotweed as they graze knotweed stands extensively for food and building material. This has led to several issues for us to consider:

- The Japanese knotweed stands are grazed, but not killed, and regrowth is more difficult to control.
- Stems and fragments left in situ after grazing activity exacerbate the existing problem and make control more difficult due to smaller, stunted growth.
- Grazed stems are physically moved around the area (sometimes upstream) by the beavers who often bring them back to burrows in the riverbank - translocating infestations, creating new problem areas and undermining already completed control work.
- In some cases, new beaver-spread infestations of knotweed are appearing in areas that are easy for a beaver to get to, but very hard for a human to access and control.
- Many grazed stems and fragments are left and float downstream, which can lead to new areas of infestation establishing many km away. A biosecurity nightmare.

This is, of course, an interaction between two species – one native and reintroduced, the other an invasive non-native - that would never naturally occur without human intervention. However, it is clear a combination of Japanese knotweed and beavers in the same catchment can cause problems for systematic plant control work and should be a consideration for beaver reintroduction programmes. Knotweed eradication in a catchment is likely to become more difficult, and if no

active and responsive management is taking place the infestation will become much worse, when beavers are present. Given the ongoing programme of Eurasian beaver introductions across the United Kingdom, these species interactions may be an emerging issue for us all to consider.



Grazed Japanese knotweed stems (left) and shoot regrowth after beaver grazing (right)

Tweed rust trials seeing positive results!

Emily Isles, Tweed Forum

Himalayan balsam (*Impatiens glandulifera*) has rapidly become one of the UK's most invasive weed species, colonising riverbanks, waste ground and damp woodlands. It successfully competes with native plant species for space, light, nutrients, and pollinators, and excludes other plant growth, thereby reducing native biodiversity.

Tweed Forum have been working with CABI to release a co-evolved rust pathogen from the plants native range. The rust, a *Puccinia* species, is an autoecious (completing its entire life cycle on a single species), macrocyclic (five spore staged rust fungus), which infects the stem and leaves of Himalayan balsam throughout the growing season.

The rust fungus is now established and self-sustaining. Plants that were inoculated in the Tweed Catchment in 2021 have overwintered for the 2nd year and the rust is now spreading to other plants outside the original site. Native plants are starting to come back.



The site in 2021 pre-rust release (left) and in 2023 post-rust release (right).

GB Floating Pennywort Strategy updates

Combating floating pennywort in Yorkshire, Andy Virtue, Environment Agency

Members of the National Floating Pennywort Technical Group visited Yorkshire on 2-3rd October 2023 to see the great work we are doing in our Area to combat our most invasive aquatic non-native weed. The group included floating pennywort leads from the Environment Agency and experts from the Canal and Rivers Trust, British Canoeing, Angling Trust, CABI and paddling groups.

In the morning, the group visited Fairies Hill Marina on the Aire & Calder Navigation, the worst affected floating pennywort site in Yorkshire. A demonstration event was held to show how volunteer paddlers and anglers can work together to deal with large infestations such as this. Members of the national group also got stuck in!



Volunteers and members of National floating pennywort group at Fairies Hill, Aire & Calder Navigation.

In the afternoon we moved on to Barnsley Canal, where the Environment Agency is co-funding a Floating Pennywort Weevil release. We watched as CABI staff undertook monitoring at the release site for the first time since the weevil was released, back in July 2023. The fantastic news is that the weevil is looking very happy, with both adults and larvae starting to attack the pennywort plants. Further monitoring will take place over the coming years to see how effective the weevil is.

On Wednesday 4th October we took Trevor Renals and Jo Heisse (national Environment Agency INNS leads) to see the important work being undertaken to save white-clawed crayfish (WCC) in Yorkshire. We visited York Gate Gardens to see rescued WCC that are currently being quarantined in giant vats until they can be released into newly created Ark sites. Once the crayfish plague outbreak burns itself out, and assuming we don't detect the presence of American Signal Crayfish, the hope is to reintroduce crayfish back into their original home at Meanwood Beck in Leeds.



Images: Weevil pupae and stem damage (left) White clawed crayfish rescued from Meanwood Beck (right)

Lea Navigation, Drew Chadwick, Angling Trust

Since January 2023, The Angling Trust & British Canoeing have been working in partnership on the Lea Navigation, as well as other waterways across the UK, to raise awareness of aquatic biosecurity and facilitate voluntary Floating Pennywort removal events with volunteers from angling and paddling clubs, as well as 25+ other organisations.

There have been 10 voluntary Floating Pennywort removal events so far on the Lea Navigation in 2023, with over 200 different volunteers attending and accumulating over 1000+ hours of voluntary labour. Working in a strategic manner and working from upstream – downstream where possible, the project has removed an estimated 20 Tonnes+ of Floating Pennywort during these events.

Fortunately, there are many fantastic volunteers in the Lee Valley who all have a passion for their river. Some of which are out on the water, or the riverbank regularly on “Pennywort Patrols”, removing FP where possible, and reporting any outbreaks. This local knowledge has helped the project enormously in identifying areas which needed managing.



Volunteer paddlers on the water collecting floating pennywort. Image: Pippa Rowlandson, British Canoeing

River Weaver, Ian Doyle, Angling Trust

The Angling Trust and British Canoeing have organised several events over the last twelve months which have seen approximately a mile of the river Weaver in Winsford Cheshire cleared of this invasive scourge. You can see from the images that the pennywort removal work has been undertaken with biosecurity in mind which, when considering a recent find proved to be a Demon Shrimp (*Dikerogammarus haemobaphes*), has shown to be a needful approach. It remains a tragedy that a further non-native species has turned up in our river, thankfully a Check, Clean, Dry approach will help prevent its further spread.



Volunteers cleaning paddling equipment after removing floating pennywort (left) and an invasive shrimp detected and removed during cleaning (right).

The work undertaken by the Angling Trust and British Canoeing and volunteers from the Mersey Rivers Trust, local anglers and canoe/paddler groups the EA and CRT amongst others has proven to be a great success. It's encouraging to see that this stretch of the river has been adopted by the local paddling group who continue to fight floating pennywort on a regular basis.



Floating pennywort removed from the water during a volunteering event

For further details of upcoming floating pennywort volunteer events please keep an eye on the Angling Trust's website and social media, or contact our Environment Officers:

- Ian Doyle (North): ian.doyle@anglingtrust.net
- Drew Chadwick (South): andrew.chadwick@anglingtrust.net

Find out more about the [GB Floating Pennywort Strategy](#).

Biosecurity resources for marine invasive non-native species in the Solent

Kate Ansell, Solent Forum

The Solent Forum, in partnership with Natural England, have developed a web resource on marine invasives species in the Solent and the biosecurity actions that can be taken to help manage them and prevent their spread. Information has been developed for four different Solent pathways: recreation, coastal and marine infrastructure, commercial vessels and habitat and species restoration.

The resources include images of marine invasive species and numerous videos that can be shown to staff and customers. Biosecurity action plans have been developed for the Eastern Harbours, Southampton Water and the Isle of Wight. We have also included links to best practice guides, templates and biosecurity plans from other locations. Find out more at: [Solent Forum - Solent Biosecurity Planning](#).



The invasive marine species Didemnum vexillum on a mooring. Image: Jess Taylor, Natural England.

Invasive non-native species in the Parc Cenedlaethol Bannau Brycheiniog/Brecon Beacons National Park

Beverley Lewis, Parc Cenedlaethol Bannau Brycheiniog/Brecon Beacons National Park

We are dealing with more species and more sites than ever before which is satisfying but very hectic during the main plant growing seasons. For this reason, I am only including 3 highlights here:

Japanese knotweed

Year 4 of our Japanese knotweed programme on the river Usk has completed covering the area between Sennybridge and Talybont on Usk. All last year's sites were re-surveyed in the summer and 27% were found to be completely clear and of the remainder over 65% are much reduced in stand size and number of plants. Herbicide spraying took place in the first two weeks of September (spraying in a heatwave was very tiring!). 133 stands of knotweed were treated.

Himalayan balsam

We are working with the Centre for Agriculture and Bioscience International (CABI) and Natural Resources Wales (NRW) on their '4 Rivers for LIFE' project to trial biological control of balsam on the river Usk. This biocontrol is a rust fungus specific to Himalayan balsam that does not affect other plants.

In summer 2023 three rust releases took place on a trial site. We were pleased to see that the plants in the site chosen were susceptible to the rust strain released. The rust colonies should now build up in numbers so that they remain in the leaf litter overwinter and then the spores will be picked up by the new plants pushing through the leaf litter in spring 2024.

Crassula helmsii

In 2022 under DEFRA license gall forming mites, *Aculus crassulae*, were released onto the *Crassula helmsii* in the invaded pond on Mynydd Illtyd near Libanus, Brecon. The mites seemed to thrive in the pond despite the two heatwaves drying up the water levels. The question was would they survive the water inundation and winter temperatures up there on the high-altitude site. Unfortunately, surveys in spring 2023 found no signs of the mites. A weather station in the area recorded that in December there was an extended period of extremely cold temperatures which may have been too damaging for the mites to survive. In July and in September 2023 more mites were released onto the trial site with the aim of building up larger colonies with a better chance of overwintering survival.



Evidence of rust fungus infection on a Himalayan balsam leaf (left) and staff working on site (right)

For more information, please contact Beverley.Lewis@beacons-npa.gov.uk.

Invasive plant surveys in River Tame discover Bohemian knotweed

Mike Beard, Greater Manchester Combined Authority

Following on from the eye-opening results from the comprehensive [Natural Course Irwell Catchment INNS plant survey 2022](#), Greater Manchester Combined Authority commissioned a similar survey of invasive plants in the River Tame catchment during the summer of 2023. Both surveys benefited from the assistance of volunteers, and the survey results have raised concern about Bohemian Knotweed in Greater Manchester.

In the Tame Catchment, 104 km of river was surveyed and there are over 500 instances recorded of Japanese Knotweed as well as 20 instances of Giant Hogweed, 11 Bohemian Knotweed and 2 Giant Knotweed. Himalayan Balsam was too widespread to feasibly record other than the furthest upstream locations or where it might have impact upon flood management.

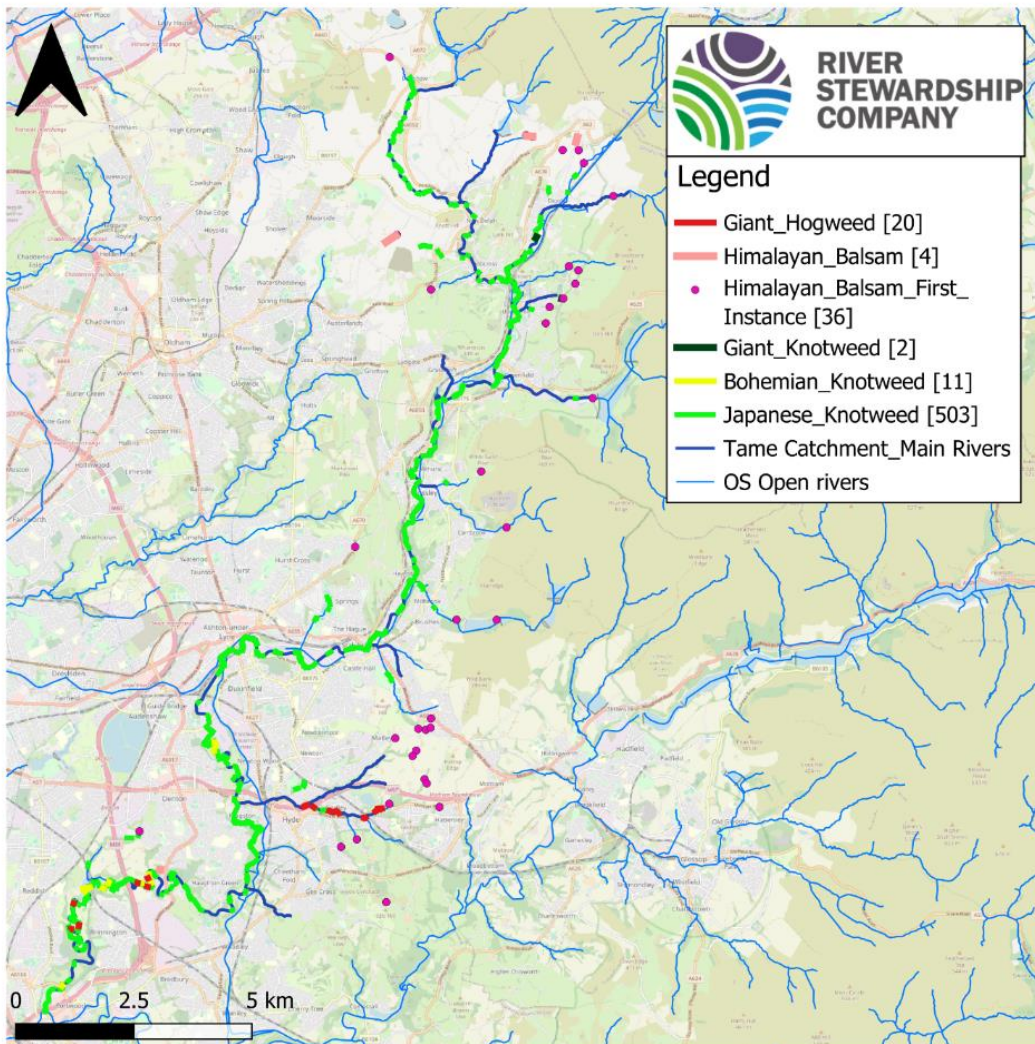


Image: Whole Tame Catchment overview

The potentially very invasive Bohemian Knotweed is often mis-identified as the very similar Japanese Knotweed, and two survey projects have discovered that Bohemian Knotweed is more widespread across Greater Manchester than previously known: it was found in Diggle (Oldham), Dukinfield (Tameside), Outwood (Bury), Reddish Vale (Tameside), and Winton (Salford).

The Tame INNS survey 2023 will soon be published on the [Natural Course website](#). The results will be used by the [Upper Mersey Catchment Partnership](#) to inform future strategy to manage invasive plants in the Tame Catchment. For further information please contact Mike Beard: mike.beard@greatermanchester-ca.gov.uk

American mink control

Ben Mott, WaterLife Recovery Project

In response to the serious impact that American mink are having on our riparian ecosystems, WaterLife Recovery East has developed a mink removal project, focused on East Anglia, to restore waterways and river habitats by trapping and humanely dispatching mink. This began with a 'control' phase, and now has moved onto eradication. The aim is for this regional project to test the feasibility of a UK-wide project.

After eradication success in a core area of Norfolk and Suffolk, where no mink have been caught over a 5,000km² area, the eradication phase is being extended into Essex, with Essex Wildlife Trust as a partner. Previously in Essex the project had been operating in the control phase, aiming to restrict mink population growth. The aim of the eradication project is to remove this population and obviate the need for future control as no mink will be breeding in Essex (hopefully).

As such, this summer has seen the WaterLife Recovery eradication phase expand further towards the Thames, with 15 remote mink trap rafts now active and functioning well in the Roding Catchment in partnership with Thames21.

Moving forwards, the aims are to continue the expansion of the eradication project in the Eastern Region whilst maintaining 'buffer' zone trapping in neighbouring counties, to prevent mink travelling into the eradication zones.

The WaterLife Recovery project is currently recruiting for full and part time Mink Project Officers. Please visit the website for more details: <https://www.waterliferecoverytrust.org.uk/>.

Angling Improvement fund

Drew Chadwick, The Angling Trust

April 2023 saw the re launch of the Angling Trusts' Angling Improvement Fund (AIF). This is a grant which has been generated via the Environment Agency's rod license income. The AIF is targeted at angling clubs and fisheries throughout the UK to fund projects which focus on Biosecurity and Invasive Non-Native Species Management, grants will be accepted up to £5k.

There have been some fantastic projects delivered by angling clubs up and down the country through 2023, including installation of washdown facilities and sending club representatives and training courses to help manage various INNS including, Giant Hogweed, Floating Pennywort & Japanese Knotweed. A total of 19 projects have been approved and are underway accumulating a total of £69,476, this is an increase in successful applicants from previous years.

INNS Mapper videos launched

Steph Bradbeer, Yorkshire Water

Following the [launch of the INNS Mapper app and website](#) in August, the steering group have released the following new videos:

- [Sut i roi gwybod am weld rhywogaeth anffodrol ymledol gan ddefnyddio Ap Mapiwr INNS](#)
- [How to report an invasive non-native species sighting using the INNS Mapper App](#)
- [What is the INNS Mapper app](#)

Shortly there will be further videos launched going through each of the functions of INNS Mapper and INNS Mapper promotion materials. These will be circulated with LAGs when available.

Emergency Ruffe mitigation and Asian hornet awareness meeting

Kate Hills and Becky Northey, South West Water

At South West Water we identified that the invasive fish species Ruffe was present in three of our reservoirs in Cornwall. Ruffe is native to much of England, but a non-native in Devon and Cornwall. We are unsure how the populations have arrived at each location. Our local Environment Agency have asked us to investigate the presence of Ruffe in the reservoirs and look at potential screening options to prevent them being transferred downstream.

During last year's drought we had a surprise report of large numbers of dead Ruffe below one of our reservoirs. The mass escapement of Ruffe was most likely caused by the reduced water levels in the reservoir down to 15%. The Ruffe are thought to have been shoaled closer together and near to the offtake zones which had begun drawing from lower depths and indecently sucking the Ruffe out.

With the help of specialists and the local Salmon hatchery on site we undertook emergency fish netting using fyke nets. In the area where the Ruffe had accumulated most were dead, some stunned/maimed through the pipework journey, but some alive. The fyke nets remained in place and emptied daily by the hatchery team until early summer this year when a 2mm screen has been installed to prevent any further movement downstream. All data has been collected and collated from the netting and continued screen clearance.

We are monitoring the daily screen catch to review the effectiveness or whether we need to look at improvements. We are carrying out continued monitoring of river sections downstream to understand if further control is needed and continue to investigate our screening options for the reservoir offtakes to avoid this future scenario.



Image of Ruffe showing spiky dorsal fin and small size. Image: South West Water.

We also held an emergency regional meeting during Asian hornet Awareness week in September to discuss the ever-growing threat of Asian hornet establishment in GB. Our meeting was attended by over 80 people from across the south west including bee keepers, conservation organisations and SWW interested employees. We had guest speakers from Hampshire Asian Hornet Action Team, South West regional bee inspector, monitoring station demonstrations and groups discussion with local and national experts. We fed back a large list of outcomes to GBNNSS.



Left image: Speakers (left to right): Rebecca Northey, SWW Invasive Species Officer; Dr Sarah Bunker, Author of the Asian Hornet handbook; Megan Seymore, SW Regional Bee Inspector; and Alan Baxter, Hampshire AHAT Coordinator. Right image: Audience participation at the Asian hornet meeting. Images: South West Water.

South West Lakes Trust: New Invasive Species Officer and providing training for CIEEM course

Nicola Morris and Laura Dee, South West Lakes Trust

We are so pleased to welcome Laura Dee the new Invasive Species Officer at South West Lakes Trust who will be working closely with SWW. A few words from Laura:

Hello! I am Laura Dee, my job is to keep track of the Invasive Non-Native Species (INNS) by managing the control of them and implementing biosecurity measures to aid with prevention. The project I have been working on so far finishes in 2025 and aims to focus on 12 key sites, having new washdown facilities in place with signage. This will help to work towards a higher AQUA Accreditation.

The latest news to report on is that we are in the process of having two new dip tanks installed, one at Bussow and the other Cargenwen Lake. These are both Angling lakes so the biosecurity is crucial. Alongside this, we are planning to install 5 Boot Scrub fixtures at the following sites: Burrator, Siblyback, Wimbleball, Wistlandpond and Upper Tamar. We have plans for more signage at the majority of our sites to help guide the visitors in the right direction and to provide awareness.

Within my first few weeks I have attended two angling competitions and where I helped implement biosecurity for Upper Tamar Lake. Alongside this I have been visiting a range of lakes to report on INNS. This also included joining in with Crayfish surveys along the River Meavy, this concluded that crayfish have not gone up or down stream from Burrator Reservoir which is delightful news! I look forward to continuing in this role and learning more about the industry. Contact email: Lauradee@swlakestrust.org.uk



New Invasive Species Officer Laura Dee. Image: South West Lakes Trust

We are also delighted to share that South West Lakes Trust has been invited by CIEEM (Chartered Institute of Ecology and Environmental Management) to become their training provider for their course “Identifying and Managing Invasive Species”. Nicola Morris, Head of Environment at SWLT, will lead the sessions with the courses run online and bookings opening soon.

Funding Success for Invasive Non-native Species (INNS) across Leicestershire & Rutland!

Roseanna Burton, Leicestershire County Council

We are pleased to announce that the new county wide Local Action Group (LAG); the Leicestershire & Rutland Invasive and Non-native Species Initiative (LINNSI) has been successful in the award of two funding bids to aid the monitoring, education and management of high impact INNS across the Leicestershire & Rutland landscape.

Invasives to Natives

This project has been awarded £17,881.28 from Defra’s Local Invasive Species Management Fund via the UK Government. The project funding will run over two years, until the 31st March 2025.

The project will improve a 10km stretch of the river Wreake and associated riparian habitat, via the targeted control & removal of Japanese knotweed (*Fallopia japonica*) and Himalayan balsam (*Impatiens glandulifera*), by recruiting and upskilling existing volunteers to build a localised taskforce of volunteers and INNS wardens. It will aim to recruit and train specialist INNS volunteers to join their balsam task force to help carry out vital control and monitoring efforts. This will include reporting sightings, undertaking specialist training in species ID and good biosecurity practise, eradication, control measures & wider community support and awareness. Japanese knotweed encountered at ‘hotspot’ control sites will be dealt with by specially trained contractors using chemical treatment.

LINNSI INNS Keepers Project

The project has been awarded £8,888.30 from Natural England's Seedcorn funding. The project funding runs until March 2024.

The project is a pilot, which will initially focus on Himalayan balsam, American mink (*Neovison vison*) and floating pennywort (*Hydrocotyle ranunculoides*). It will provide evidence & up to date INNS data through targeted ecological site surveys. It will involve liaising with local landowners and associated parishes/communities to increase local buy in, enhance further partnership learning opportunities and collaborative work to deliver through future projects a prioritised list of efficient focused resource interventions.

The project will focus on the under-represented areas identified in the current evidence base to the Soar Catchment to the East and South of the county where INNS data is largely absent. This

largely includes Harborough, Melton and Rutland. A new dedicated webpage is coming soon, but for any enquiries in the meantime please email Environment Policy and Strategy Team EnvironmentTeam@leics.gov.uk

Contact us

Contact us at: nss@apha.gov.uk. For more information please visit www.nonnativespecies.org where you can find:

- [The Non-native Species Information Portal \(NNSIP\)](#) with detailed factsheets for over 300 non-native species and distribution data for over 3000 species
- [‘What can I do?’](#): links to our [Be Plant Wise](#) and [Check Clean Dry](#) campaigns, [training](#), and other guidance
- A gallery of [non-native species images](#) for education and awareness raising
- [ID sheets](#) for over 60 non-native species
- [Non-native species legislation](#)
- Information on [Local Action Groups](#)
- [Biosecurity resources](#)
- And much more!

You can also follow our awareness raising campaigns on X (Twitter) [@CheckCleanDryGB](https://twitter.com/CheckCleanDryGB) and [@InvasiveSp](https://twitter.com/InvasiveSp).

