



Invasive Non-Native Species



Environment Agency

Non-Native Species Newsletter: Autumn 2015

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Our 'new look' newsletter

We are including much more of the great work you are doing in your Areas in the newsletter in future.

Each Area has a representative on the Invasive Species Action Group, who provide the national group with a summary of what the Area has achieved with regards biosecurity and invasive species management each quarter. These reports will now form the basis of the newsletter, in addition to some articles from national teams.

Our newsletter is shared across Defra and with many of our partners in the third sector. It's a great opportunity to share our experiences and make colleagues from other organisations aware of work in your Area that they may be able to contribute towards.

Please ensure that your Area ISAG rep is kept informed of the work you do on biosecurity.

For more information please contact [Trevor Renals](#).

Areas	Area ISAG Reps
Northumberland, Durham and Tees	Patsy Ryan
Yorkshire	Andrew Virtue
Cumbria and Lancashire	Chris Addy and David Milburn

Greater Manchester, Merseyside and Cheshire	Andrea Robson
Derbyshire, Nottinghamshire and Leicestershire	Phil Harding
Lincolnshire and Northamptonshire	Antony Mould, Rob Pitkin and Louise Bancroft
Staffordshire, Warwickshire and West Midlands	Niall McCracken and James Rowlinson
Shropshire, Herefordshire, Worcestershire and Gloucestershire	Martin Fenn
Cambridgeshire and Bedfordshire	Darren Trumper
Essex, Norfolk and Suffolk	Amy Prendergast
West Thames	Ian Stretton
Solent and South Downs	Claire Hamilton
London and North Hertfordshire	Collette Sales
Kent and South London	Jemma Shoobridge
Wessex	Anna Bright
Devon and Cornwall	James Burke

Gulf Wedge Clam discovered for the first time in GB

The Gulf wedge clam *Rangia cuneata* has been discovered in the lower reaches of the River Witham, Lincolnshire.

The clam originates from the Gulf of Mexico and has also been recorded in Antwerp harbour, Belgium, and the Vistula lagoon, Poland/Russia. We don't know how it arrived in the UK, but it is likely that it came across either in ballast water or on contaminated dredging equipment.

The clam needs mildly brackish water to breed, but it can live at the upper tidal range, almost in freshwater. It has been recorded in densities of over 4000 clams/m² in its invaded range.



Dr Mark Willing (image credit) discovered the clams whilst performing a survey for the rare native Witham Orb Mussel *Sphaerium solidum* on behalf of Natural England. Our Analysis & Reporting team, lead by Chris Extence, will be working with Dr Willing to establish the extent of the clam. Area staff have also been reminded to follow strict biosecurity whilst working in this area.

The clams can live in pipes and exacerbate siltation, thus increasing maintenance costs, but not on the same scale as zebra or quagga mussel. They are considered ecosystem engineers because their shells provide a hard surface for algae and invertebrates in substrate otherwise too soft to accommodate them and may therefore be regarded as potentially providing ecological benefit, but this must be considered in relation to potential competition with native species.

For more information please contact [Trevor Renals](#).

Great Britain Invasive Non-Native species Strategy launched

The strategy on Invasive Non-Native Species has been updated to reflect the significant changes since its original publication in 2008.

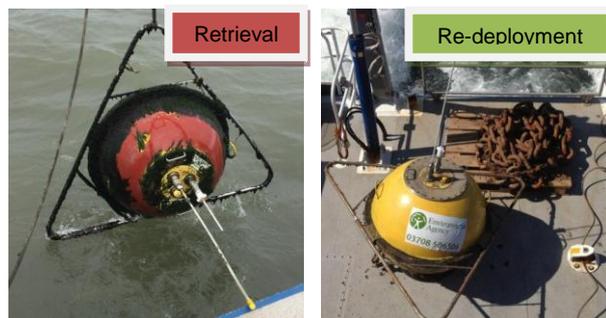
The Strategy highlights some of the successes achieved, such as the Check, Clean, Dry and Be Plantwise campaigns as well as species action plans and management programmes. It places a greater emphasis on pathways of introduction and the importance of applying good biosecurity to those pathways to avoid the species establishing in the first place.

The strategy can be found [here](#). For more information please contact [Trevor Renals](#).

Marine Monitoring Services

Our marine team have reviewed their working practices and introduced a number of simple biosecurity measures that will protect the environment from the potential spread of invasive species.

Wave Buoy Biosecurity - The EA Geomatics team manage a network of waverider buoys along the East coast from Lincolnshire to Essex. The buoys record real-time wave data from areas of the coast at risk from flooding. The data collected is used by the National Flood Forecasting Service and the Met Office. The buoys are retrieved annually and returned to the yard for cleaning, downloading the data and re-calibrating. All the buoys are located in approximately 10 – 20 m water depth, a few kilometres offshore and following a period of deployment at sea often have biofouling present (see image).



New biosecurity instructions have been added to the tender document for the renewal of the contract to maintain the wave buoy network:

'In order to minimise the spread of potentially harmful non-native marine life, all equipment including the DWR hull, mooring, floats and anchor weights should be washed down on site or safely transported back to the Consultant's yard for cleaning. Equipment must not be washed down on deck once the vessel has moved away from the deployment site or at the port/marina to prevent marine life being transferred to the nearshore environment. The Consultant must be able to demonstrate that all encrusted life and marine debris following the cleaning of equipment is suitably disposed of.'

For more information please contact: [Philip Staley](#)

Coastal Survey Vessel Biosecurity – new equipment rolled out. New sieve chutes have been installed on all five EA coastal survey vessels to prevent a build-up of sediment on the aft deck. The deck is difficult to clean due to the numerous crevices (e.g. beneath the winch), where sediment and biological material can become trapped. In addition these areas can remain damp for long periods of time creating an ideal environment for marine animals (friendly or otherwise) to survive. The chutes now enable the immediate removal of all unwanted sediment over the side.



For more information please contact [Luke Martina](#) or [Samantha Camp](#)

Area updates:

Northumberland Durham and Tees

Biosecurity Improvements - Following a recent drive for improved biosecurity all offices and depots in NDT Area now have biosecurity facilities which include a segregated washdown area with jet wash if required, and drying facilities (with Toprock dryers in Tyneside House). Our Field Ops teams use their facilities daily and have an excellent check, clean, dry compliance rate for PPE and clothing, this is helped along by having washing machines and ample drying space. The positive discussions and cooperation between the Sampling and Collection team and our Facilities Team in NDT meant investment in cleaning and drying facilities took place, not just as a one off piece of work but was incorporated into ongoing investment in Tyneside House.



Asset Performance and Field Operations Team hosted local Forestry Commission staff at our Cramlington Depot for a sharing ideas and best practice workshop. FC were shown our biosecurity facilities and the

session included a site visit to see our measures in action. The teams are confident in refusing and returning dirty hired plant, with a number of refusals recently. One occasion was a welfare cabin which was dirty inside and out and could have posed a serious biosecurity risk to a SAC.

Although outside wash down areas are available and used regularly there is still difficulty in the practicalities of cleaning all dirt from large and complex items. The Asset Performance and Field Operations Team ensured that their replacement floating working platform will be easier to check clean dry than the older ones, reducing biosecurity risks.

For more information contact [Paul Hannaby](#)

Yorkshire

In 2015 the Yorkshire Area (South & West) established a landowner INNS partnership with the Yorkshire Wildlife Trust (YWT) for two of the biggest catchments in Yorkshire. The overall aim is to create a sustainable programme for treating Japanese Knotweed and Giant Hogweed on the Don / Rother and Aire / Calder catchments.

We have secured £79K of funding from the FCRM maintenance budget. We used the argument that a headwaters-down approach was more sustainable in the long-term than just treating our downstream assets.

By working in partnership with YWT the Agency will achieve a strategic and targeted control programme for Japanese Knotweed and Giant Hogweed. Using a landowner database they will engage all landowners and ensure a system of treatment is in place. In this way the eventual cost of treating our land and assets will be significantly lower. In future years it is envisaged that the project will pay for itself, due to revenue accrued from landowners.

The programme is being managed by Ailsa Henderson, INNS Project Officer for the YWT.

For more information contact [Dave Barber](#)

Cumbria and Lancashire

New recording of invasive shrimp and Zebra Mussel

Dikerogammarus haemobaphes have been discovered at four new sites. We shared this information via our internal comms procedures and created an external press release in conjunction with the local Canal & Rivers Trust press office to inform the wider public. The new sites are as follows:

- Lancaster Canal @ Moons Bridge Marina
- Leeds/Liverpool Canal @ Appley Bridge
- River Douglas @ Appley Bridge
- Leeds/Liverpool Canal @ Burscough Bridge

In addition, The Marine Biological Association (MBA) undertook some surveys at Glasson Dock and found both *D.haemobaphes* and Zebra mussel. The specimens they found were sent to our lab in Penrith and formally identified.

For more information contact [Rosalind Jukes](#) or [David Milburn](#).

American Mink on the River Alt - Lancashire Wildlife Trust have taken over the mink management responsibilities at the Lunt Meadows Wetland Nature Reserve and Flood Storage Reservoir. The EA are continuing with mink management on the main River Alt. For more information please contact [Sue Slamon](#).

Greater Manchester, Merseyside and Cheshire

Promoting Check, Clean, Dry - The field teams from GMMC took part in Broughton Family fun day in September. As well as promoting our flood work in the area, we also promoted the check clean dry message using the banner from the March biosecurity campaign along with further information inside the gazebo. We also handed out over 20 packs of the invasive trumps



cards to people who showed an interest in the campaign.

For more information contact [Colin Liptrot](#).

New recording of Signal Crayfish - Fisheries, Biodiversity and Geomorphology team have found a new population of Invasive Signal Crayfish on Wood Brook, Nr Lees, Oldham on an upper tributary of the River Medlock.

For more information contact [Gary Morris](#).

Big Dee Day. We took part in "Big Dee Day – The Invasion" on 26th June. We removed Himalayan balsam at Farndon, Tilston and Finchetts Gutter / Sealand Main Drain in Chester.

For more information contact [Duncan Revell](#).

Japanese Knotweed - On 9th September 2015 Paul Breslin gave a presentation to Environment Officers on the management of Japanese knotweed along river banks and on development sites. This was in response to a number of EO's asking basic knotweed questions, and Paul took the opportunity to give a talk on the facts and busting some myths surrounding this highly invasive plant.

For more information contact [Paul Breslin](#).

Derbyshire, Nottinghamshire and Leicestershire

River Soar Floating pennywort Control - The annual programme of control by spraying has Floating pennywort has driven down the extent and scale of growth in the River Soar in Leicestershire. Many small



River Soar at Cossington Mill. Die-back (yellowing) of FP beds after spraying

beds have re-grown in 2015, and the success of ongoing spraying is being monitored by fixed-point photography.

For more information contact [Phil Harding](#)

Lincolnshire and Northamptonshire

Successful Floating pennywort control continues on the river Nene - Pending results from the last survey of the season, our contractor has again recorded no floating pennywort growing in the river Nene, Northants. Following extensive treatment & removal work in past seasons this will be the third year in a row that no

pennywort has been recorded in the river. Our contractor uses a boat to survey sections of river for FP. The boat allows large areas of river to be covered effectively and provides access to all the bays, backwaters, backchannels and areas generally difficult to access by bank.

For more information contact [Rob Pitkin](#)

Treatment of Creeping Water primrose continues - We have continued our treatment of Creeping Water primrose at a private pond site in Lincolnshire. The work has been undertaken by the area Operations Delivery team, who have used a combination of chemical treatment (using Roundup + adjuvant) and manual removal. This the third year of treating the site and now only a few small stubborn patches remain *in situ*. It is hoped that manual removal will clear these final persistent patches.

For more information contact [Rob Pitkin](#)

Staffordshire, Warwickshire and West Midlands

After Biosecurity Month the Hydrometry and Telemetry team took on the challenge of improving their biosecurity measures in a two week trial. Each team member was supplied with Virkon Aquatic tablets, a bucket, two spray bottles and a scrubbing brush. The principals of 'Check, Clean, Dry' were undertaken between sites concentrating on waders, boots and tools. A few challenges were discovered during the trial, but have generally been overcome by increasing drying time between surveys.

There was a very small impact on number of sites that could be visited in a day. Following the success of the trial it has been fully implemented and further improvements continue to be investigated.

For further information contact [Martin Fenn](#)

Shropshire, Herefordshire, Worcestershire and Gloucestershire

Community Engagement at Merefest, Ellesmere, Shropshire 2015 - Invasive non-native species played a part in engaging the public about the health of our local waterbodies at Merefest in Shropshire during September 2015.

Water primrose and Quagga muscles were highlighted as something to keep an eye out for in the local area and a pack of invasive species trumps kept the parents busy whilst the children gawped at some (massive!) macroinvertebrates under the microscope.



Check, clean and dry leaflets were available for anglers and boaters to take away as a reminder of what they can do to help prevent the naughty non-natives invading further.

For further information contact [Martin Fenn](#)

Cambridgeshire and Bedfordshire

Floating pennywort on the Bedford Ouse - A recent report of floating pennywort on the Bedford Ouse was investigated and the plant was confirmed to be present along the river. This is a new location for our Area, a significant distance upstream from all previous records. A full survey will be undertaken to determine the extent of the new invasion and a plan put together to treat the floating pennywort as soon as possible. Treatment of the pennywort is likely to be very difficult as it is growing amongst large stands of marginal vegetation and therefore multiple management techniques will need to be applied.

Floating Pennywort on the Cam & Ely Ouse - This year FB&G and A&R are working in partnership with the Conservators of the River Cam to control floating pennywort on the rivers Cam and Ely Ouse. This work is a continuation of a 5 year planned pennywort control programme on these rivers, which commenced in 2014. Working in partnership will allow us to engage with community groups to raise awareness of the problems caused by floating pennywort and encourage reporting of the plant to help us work towards eradication of the floating pennywort in this part of the catchment.

Himalayan Balsam at Flitwick Moor - The Environment Agency has funded Himalayan balsam work this summer enabling work to continue on a five year project upstream of Flitwick Moor SSSI on County Wildlife Sites and connecting farmland and woodland. In total 8km of river was covered plus three adjacent undesignated sites, four County Wildlife Sites and Flitwick Moor SSSI. A dramatic reduction in the amount of Himalayan balsam was observed at all sites previously worked on. Each area was visited twice, once in June/July and once late August as previous years have shown that many plants emerge later in the season.

London and North Hertfordshire

HNL Area Bio-security Group - Following in the footsteps of the discovery of the Quagga mussel in HNL the Area is setting up a Bio-security task Group. The main objectives of the group are to raise awareness internally & externally of the necessity for enhanced bio-security for everyone. It will form the main route out by which to disseminate all Bio-security and INNS work to the Area.

For more information contact [Colette Sales](#)

Topmouth gudgeon Fish Eradication - The National Virtual Fisheries Team carried out an eradication of Topmouth gudgeon at Clissold Park in London earlier this year. There was a lot of interest from the public due to the location and the project took many months of planning but has been successful in removing Topmouth gudgeon in the lakes at the park.



For more information contact [Neale Winter](#)

EA & DEFRA visit Thames Water - In early July staff from HNL, National & DEFRA visited Thames Water to thank them for all their efforts in response to the discovery of the Quagga mussel in their waterbodies. Staff were shown some of the bio-security measures that have been put in place around TW's waterbodies and measures TW staff are now undertaking following the Risk Assessment that they drawn up with the help of EA guidance.

For more information contact [Colette Sales](#)

Kent and South London

Control of invasive sea squirt - *Didemnum vexillum*.

This species is rapidly spreading around the world and several years ago was identified on the North Kent coast. Unusually it was found in the intertidal zone and quickly smothered the underside of large boulders and disused Oyster trestle tables (see photo). The only remaining oyster hatchery in England is situated on this section of coastline and became infested with this organism. This animal grows in the right conditions extremely quickly and began to affect production at the hatchery. They had to weekly dewater growing areas and scrub everything down to slow the growth of the sea squirt which blocks the water circulatory systems. We suggested that freshwater which is harmless to the oyster spat was used as a trial control method and it was found to be quite successful. More importantly as the farm exports throughout Europe, it also lessens the likelihood of spreading the invasive species further afield.



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For more information contact [Ian Humphreyes](#)

Wessex

Creeping Water Primrose control - The remaining three sites in Wessex are under control:

- (i) Breamore – after mechanical removal of the marsh top layer in 2014, regular hand pulling by Hants WT and partnership project (Source to Sea) seems to be being effective;
- (ii) West Bay – the fourth year of West Dorset Council contract with Kingcombe Aquacare on an urban drainage ditch has shown very minimal regrowth – continued spraying.
- (iii) Shaftesbury – the small private pond suffering from CWP and Crassula is due to be (almost) filled in this winter, with concerns over GCNs being managed through design.

For further information contact [Anna Bright](#)

Crayfish monitoring and Riverfly partnership - The current arrangement with Wiltshire Riverfly volunteers in monitoring presence/absence of crayfish populations, both INNS and native, is being rolled out in Dorset for next year. Methodology and volunteer training is currently being undertaken by EA, WT and Riverfly staff.

For further information contact [Anna Bright](#)

Devon and Cornwall

Increasing numbers of signal crayfish are being found across Cornwall, which had, until recently, been relatively free of invasion. The spread seems to be scattered across the county, rather than describing an east-to-west pattern of spread

For further information contact [Jess Thomasson](#)

The 30th Water Primrose site recorded in GB



Water primrose *Ludwigia grandiflora* is a serious invader of wetlands in Western Europe. We are facilitating a programme of eradication to prevent our wetlands suffering the same fate.

I have just received initial reports of our 30th site. This site is an on-stream garden pond with an established water primrose infestation, which may have resulted in further colonies downstream. Water primrose forms dense mats which excludes native species, accumulates silt and increases flood risk. Its pretty

flowers conceal a pernicious weed that usually takes 5-7 years of herbicide treatment and manual removal to eradicate from a site.

We believe ten of the thirty sites in GB have been successfully eradicated. All, bar one, of the sites are in England. The single site in Wales has shown no regrowth this year due to the determined efforts of Julie Gething and her colleagues in Cyfoeth Naturiol Cymru.

Phil Harding, one of our most experienced ecologists, is currently developing a 'Ludwigia toolkit' to assist Area staff and landowners with water primrose management. The toolkit will be based on the presentations by European experts and project coordinators given at the recent workshop in Reading. One resounding message came from the workshop; there is no room for delay or complacency when dealing with water primrose. In the words of R.G. Westbrooks, 'weeds don't wait'.



It is essential that Area teams support colleagues who are coordinating water primrose management projects. We have been provided dedicated funding by Defra for this purpose as part of the WFD programme. We have also developed a Regulatory Position Statement (RPS 178) to facilitate the burial

of silts infested with water primrose and other invasive alien plants without the need of a permit. This is the favoured method of management in mainland Europe, where the use of herbicides in or near water is much more restricted.



It is sobering to consider that in the future, British wetlands may achieve a particular European significance because we have preserved them from water primrose inundation.

For more information please contact [Trevor Renals](#).