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New position statement on water transfers

We know that water transfers have the potential to spread invasive species. We have produced a new position statement that describes how we will prevent the spread of invasive species from any new water transfer schemes, and address the risks posed by existing schemes. We expect the position statement to be published in the very near future.

The position statement will require that any new water transfer between catchments that are hydrologically isolated must have mitigation to prevent the transfer of potentially damaging organisms. If there is an existing hydrological link between the two waterbodies, such as a canal, the applicant must assess what additional risk the proposed transfer creates. Then we will make a decision on whether mitigation is required.

We are working with the water industry to seek practical ways in which they can avoid the spread of invasive species and pathogens, thus protecting their assets and the environment. We have also captured this within the PR19 process.

For further information, contact: Craig Hatcher

New Regulatory Position Statement on disposing of invasive non-native plants

The Japanese knotweed code of practice has now been superseded. The new statement describes our enforcement position with regards the treatment and disposal of a range of invasive non-native plants, including Japanese knotweed.

This regulatory position statement (RPS) applies if you want to dispose of invasive non-native plant material, and the substrate in which it is rooted, without a permit. RPS 178 is now available on the GOV.UK website.

The RPS was produced in consultation with the two main trades’ bodies that represent the invasive plant management industry; the Property Care Association and the Invasive Non-Native Specialists Association, as well as a representative from the independent sector. The enforcement position permits burial of invasive plant material and associated soils at the site of production, thus reducing costs, preserving landfill and improving biosecurity.

The Japanese knotweed code of practice will continue to be available as a guidance document on the Non-Native Species Secretariat website, but will no longer be updated. Since the production of the code, the UK has developed a highly successful weed management industry, particularly relating to Japanese knotweed. We are working with the industry to ensure that the guidance they produce will supersede the guidance currently available in the code of practice.

For further information, contact: Trevor Renals
Research partnership will improve our biosecurity

A collaborative partnership between the Agency and the University of Leeds has established a NERC-funded Ph.D. study to determine the efficacy of our current biosecurity measures and how we can refine them.

The University of Leeds previously performed important research on the efficacy of thermal shock for preventing the spread of invasive plants and animals, which has informed the advice we currently give our staff. We want to develop this research further, so that we can provide advice on a range of biosecurity methods to suit different situations and constraints. We also need to understand if the method is effective against pathogens.

We have established an operational research group, lead by Dave Barber, Yorkshire Analysis & Reporting team, to facilitate the study and allow Stephanie Bradbeer, the researcher, to get a good appreciation of the work we do and the facilities we operate.

For further information, contact: Trevor Renals or Dave Barber

Functional updates

Field Services

Major Incident Ready and Biosecurity

Exercise Certus was a national exercise that ran over 4 days in mid-October to test our winter readiness. Over 1000 staff participated and practiced our incident response arrangements ahead of the winter, using all the new tools and products that our Major Incident Ready programme has delivered over the last year.

There was live deployment of pumps and barriers at several locations with a test of logistics, haulage and deployment capabilities. We produced some biosecurity guidance during the 2012 floods as we observed ever-more equipment, particularly pumps, being deployed from not only our stocks but also from our partners. The vastly increased stocks of flood protection equipment that we now hold as well as that will be deployed by others has heightened our awareness of the need to review the advice and instruction that we give to all parties.

We have scaled up our ability to protect communities considerably. We previously held 8 km of temporary barrier, held in numerous depots around the country. Some was assigned to particular locations and the rest was for deployment on a mutual aid basis. We now have an additional 32 km which will be held and delivered at Resilience Centres operated by the Stobart Group. They will collect, quarantine, clean and repair all barrier before it is returned to storage.

We have also increased our pumping capability with a national stock of ultra-high volume pumps that now number 16 with capacities greater than 1cumec/minute. There is also a new stock of high volume pumps in various sizes between 6” and 12” that are strategically sited around the country. We can also call on hired in pumps from contractors. And, we can utilise our WEM framework contractors to support us with equipment and manpower through our colleagues in NCPMS. So, we have plenty of pumps available and you are likely to see and hear about them this winter.

Our biosecurity sub group has incident management as one of their priority actions. They will be working with David Baillie from the national Field Services team and colleagues who have been working to bring this additional capacity to manage flooding events forward for this winter. It will be vital that after we have protected lives, communities and property that we also protect against the risk of transfer of INNS from one area to another.

More information contact David Baillie
Internal Environment Management

Biosecurity added to the aspect register – The ISO 14001 Internal Environmental management standard that we have been certified to since 2002, is being revised. The ISO14001: 2015 revision puts more emphasis on leaders visibly and proactively considering the environmental risks and opportunities of their decisions, or decisions made on their behalf, the need to have ways to measure the effectiveness, ensuring our interested parties are factored in and being able to show how we have used information to improve. The Environment Agency maintains an internal aspects register. The register lists our activities and categorises the environmental impact as high, medium or low. We review this annually and identified the opportunity of adding biosecurity to this register. Biosecurity is relevant in various ways, including the environmental harm involved when biosecurity methods are insufficient, the impact on other environmental elements such as water use and energy use with biosecurity measures that may be employed, and the risk to the environment of biosecurity chemicals, to name a few. We will work with the business to clearly detail what we do but please think about anything further you can do to ensure you understand the environmental risks and opportunities of biosecurity and do share your examples with us. Contact for more information.

More information contact Chris Duncan.

Waterways

River User Group Newsletters and Winter Pennywort Programme

Environment Agency Waterways Teams have been feeding copy and articles into their customer’s river user group’s newsletters. This has resulted in two extensive Pennywort articles being published in the Summer Edition of GOBA News and a forthcoming edition of the Inland Waterways Association (IWA) Cambridge Branches Ouse News Newsletters. Collectively these publications are circulated out to tens of thousands of river users. Anglian Waterways also continues to push INNS messages via its twitter social media channel with potential reach to many thousands of followers.

Working in partnership with our Fisheries Biodiversity and Geomorphology and Field Operations Environment Agency Colleagues and with our neighbouring Cam Conservancy Navigation Authority colleagues we have established a winter pennywort treatment programme. This will be targeted on the River Cam and its tributaries working in partnership with the Cam Conservators and the upper end of the Bedford Great Ouse navigation to mechanically remove this highly invasive species where it had only recently been re-discovered in the past couple of years on this river reach where it had previously thought to have been eradicated. The species has become well established and widespread downstream from Bedford throughout the Bedford Ouse and the species was already established on the Ely Ouse part of the system where Field Operations have done much work to mechanically remove the problem. To follow a belt and braces approach the programme will also deliver a spray treatment in the spring in an attempt to reduce this species to a minimum. Due to the spread eradication will be unlikely but if a significant reduction can be achieved and control of this invasive gained, if we also have the assistance of a cold spell this winter it may well keep the Pennywort in check and increase the likelihood of eradication in future years programmes.
Images of Pennywort on the Bedford Great Ouse:

Our Cramlington based field ops team received one of their small excavators back after being on loan to another area for flood recovery work.

The machine was returned in a very dirty condition, on the tracks, body and inside the cab. Remains of vegetation were also visible. Invasive species not present in Northumberland are present in the area where the machine was used and returned from.

Members of the Field Ops team recognised the biosecurity risk and thoroughly removed as much mud and debris as they could, double bagging it and appropriately disposing of it. The machine was then washed down and left to thoroughly dry.

More information contact Paul Separovic from Waterways or Lesley Saint within FBG.

Area updates

Northumberland Durham and Tees

More information contact Chris Addy
Biosecurity Protocol – The first draft of Cumbria and Lancashire’s biosecurity protocol has been completed by the Cumbria and Lancashire Biosecurity Group. This is to be sent to area teams for feedback prior to rollout in the near future.

More information contact David Milburn

North East

Directors Visit and Biosecurity drop in session – We recently had a visit from our Environment and Business director, Harvey Bradshaw. We gave him a tour of our cleaning and drying facilities at Tyneside House and Cramlington Depot, showing him the biosecurity measures that we have installed over the last few years. We discussed the practicalities of ensuring good biosecurity and talked to the Operations team about the challenges they come across when ensuring good biosecurity.

On the same day we ran an invasive species drop in session for our Operations team. We had various plants and animals on display for the team to get hands on experience on critters they don’t come across very often, such as invasive shrimp and invasive mussels. We also highlighted the hot-off-the-press news of crayfish plague around the country and the importance of the check-clean-dry message to keep our rivers free from plague. Of course we also played Invasive Species Trumps!

American Signal Crayfish go mountaineering - Unfortunately, American signal crayfish were caught during our electrofishing surveys on the River Tees. The crayfish were found upstream of High Force waterfall, which is a 21m near vertical drop. The crayfish were found at Force Garth, approximately 1.3km upstream of the waterfall. It is unknown how the crayfish came to be here.

More information contact Patsy Ryan
Yorkshire

Spreading The Word – Our funding has allowed for the biosecurity message to be spread beyond the Environment Agency. We have been working closely with some of our partners who are developing their own biosecurity plans. Ailsa Henderson at the Yorkshire Wildlife Trust has now written a plan for Yorkshire and is working with other Trusts to help them achieve the same goal.

We are also working with the Yorkshire Dales National Park, helping them in the development of their own biosecurity plan. We have even been contacted by the South Yorkshire Fire Service who were worried that their techniques of drawing off water for fighting fires could spread the risk of crayfish plague. The message is clearly getting out there!

More information contact Andrew Virtue.

Demon Shrimp spreads northeast – In April *Dikerogammarus haemobaphes* (also known as Demon Shrimp) were found in a routine invertebrate sample on the River Ure. The presence of the shrimp was spotted by Analysis and Reporting team member, Libby Shakeshaft. Although first recorded in Yorkshire Area last year on the Leeds Liverpool canal, this is the first example of the invasive species being found in a Yorkshire river system. Yorkshire Analysis and Reporting staff will be surveying during the summer to establish if the distribution of Demon Shrimp is even wider than currently known. Field staff have been informed via the area biosecurity protocol and adapted their practices and work planning accordingly. Of concern are the long term ecological impacts of the invasion of this species which will be monitored with interest over the coming years.

More information contact Dave Barber

Greater Manchester, Merseyside and Cheshire

American Skunk Cabbage - After an article on BBC Countryfile a local farmer recognised this INNS growing on his land adjacent to the local brook. This area leads into a Cheshire SSSI (Rosstherne Mere) so after a call to the Environment Agency a site visit was organised.

American skunk-cabbage had spread downstream entering the boarder of a SSSI. Natural England are in the process of eradicating this.

Occurrences of American skunk-cabbage in the wild have increased by 84% in 15 years and at one site in the New Forest, Hampshire, nearly 100% of native flora has been excluded in places.

Operations field services were quickly mobilised (within 7 days) and they were granted permission from the relevant land owners and treated the weed which took approximately 4 hours to spray.

An article was put in the local weekly buzz to spread the word of ASC in our area. From this engagement, it was brought to our attention that it had been spotted in Dunham Massey (National Trust). We contacted the head gardener, who was aware of the plant and they notified us of their plans to eradicate it later in the year.

A date (June 2017) has been set to review the eradication of the ASC. This attempt to minimise the impact of ASC has been successful due to some great working and trusting relationships.

More information contact Nick Mercer

Big Dee Day – Members of FBG were out treating giant hogweed in Chester on Friday 24th June. We’re
workinng in partnership with The Land Trust, The Conservation Volunteers and Cheshire West Council to tackle INNS in the city.

More information contact Duncan Revell

**INNS Hit Squad** – We are in the process of setting up a “Hit Squad” to tackle new species in GMMC Area before they become established. The hit squad will be called upon when we have recordings of entirely new species in the area, or when an INNS is recorded for the first time in a new catchment.

More information contact Andrea Robson or Colin Liptrot

**Bury Environmental action day** – Colin Liptrot spoke to members of the local community about invasive species and the Check Clean Dry campaign. He handed out several packs of trumps cards and had had more requested.

More information contact Colin Liptrot.

**Shropshire, Herefordshire, Worcestershire and Gloucestershire**

**Spreading the word not the problem**
Martin Fenn, SHWG Invasive Non-Native Species lead, visited Natural England offices in Telford to deliver a workshop on invasive species and biosecurity. The presentation delivered sparked some very interesting debate on the issue of biosecurity and the difficulties faced. I was also an opportunity for Natural England staff to learn about invasives and biosecurity from an Environment Agency perspective, rather than the animal disease angle they are used to focussing on.

After Martin’s presentation there was a drop in sessions with INNS specimens available, a biosecurity pledges board and a game of invasive species trumps. A number of Natural England staff made biosecurity pledges to improve the way they work in the future – a great day and outcome for all!

More information contact Martin Fenn

**Area Incident Day**

On 23rd June 2016 SHWG held an area incident day at Worcester racecourse. On the day the Analysis and Reporting team had a table to highlight the importance of biosecurity where we promoted Check Clean Dry, the distribution of our crayfish populations (with signal crayfish on hand for staff to look at), the ever popular Invasive species trumps and new Virkon sprayers handing out to staff.

More information contact Martin Fenn
Derbyshire, Nottinghamshire and Leicestershire

Floating Pennywort invading new area

A worrying new occurrence of Floating Pennywort has been found in some wetland improvement habitat on the Day Brook in Nottingham. It was identified by a Biodiversity Officer for Nottingham City Council. Due to already well-established links with the EA we were quickly notified and could plan our combined response. Several small plants were found over the ponds which may indicate a population upstream. The plants were manually removed to stop the spread further downstream. The A&R team will now be surveying upstream water bodies to investigate this new occurrence.

More information contact Naomi Diver

Tackling Signal Crayfish on the River Leen

We have teamed up with the Nottingham Crayfish Group, Nottingham City and Nottingham County Councils to undertake a Signal Crayfish eradication project on Bulwell Hall Fishing Lakes, Nottinghamshire. These 2 fishing lakes are in scarily close proximity to the River Leen which is an East Midlands stronghold for White Clawed Crayfish.

We have worked with David Holditch and Paul Stebbings of CEFAS to devise an effective programme to eventually eradicate the crayfish from these ponds. We have begun an intensive trapping programme, where we will remove the large males’ reproductive organs then put them back to predate on the juveniles, as well as humanely dispatching all juveniles and females to slowly reduce the population. In the future we will then integrate Paul Stebbing’s latest research project to further control the population.

This is a task we expect to take a number of years with a high amount of effort from committed volunteers, but the overall protection for the native White Clawed Crayfish in the River Leen is paramount.

More information contact Katie McNamara

West Midlands

White Clawed Crayfish incident – During late August three unlinked waterbodies suffered from what we are now almost certain was crayfish plague. Restrictions on staff entering catchments were enforced and this gave us an opportunity to produce a biosecurity protocol for the area and improve staff understanding of their role regarding biosecurity. We also kept external partners updated and shared our biosecurity best practice message.

More information contact Martin Fenn

Ludwigia – Our Ops Delivery staff have been working with landowners to remove Ludwigia grandiflora from all our sites in SHWG. Unfortunately two more sites have also been confirmed bringing the number of sites we are working on up to five. It is encouraging that the
sites we have been managing for several years are only showing very little regrowth.

More information contact Martin Fenn

Spreading the word – With the potential outbreak of crayfish plague and new Ludwigia sites we have been spreading our biosecurity message to external partners. This has led to discussions with local fire service on how they can improve their biosecurity, especially with the use of pumps which are able to move large amounts of water.

More information contact Martin Fenn

East Midlands

Raging War on the Soar – Volunteers from FBG, S&C and A&R joined forces with the Canal and Rivers Trust and Leicester City Council to wage war on the Soar. The mammoth task of the green leave day was pulling out Floating Pennywort. Great fun was had by all and it was an excellent opportunity to promote Check Clean Dry internally and externally.

More information contact Naomi Diver

Check Clean Dry at Chatsworth - Analysis & Reporting team was asked to attend Chatsworth show with Fisheries Enforcement on the Wildlife Crime stand. There were invertebrates collected from the nearby river Derwent with microscopes to see the amazing beasties up close. It was an ideal chance to talk to people about the aquatic environment and the dangers to it including invasive non-native species. We were situated very close to the angling section which allowed us to talk to many anglers about Check/Clean/Dry.

More information contact Naomi Diver
**Essex, Norfolk and Suffolk**

**End of the cheeky monkey-flower** - On Friday 10th June nine colleagues used their environmental outcome day to help fight back against invasive species. We cleared the main outbreak on the River Tat as well as the upstream source in local gardens. This is the second year of control which is helping to protect the rare chalk stream habitats of the Rivers Wensum and Tat. This year there was much less of it, hopefully this is a result of our efforts but could have also been due to the weather favouring growth of water cress. In carrying out this control work we are protecting the new habitat improvements downstream which we walked along and pulled up any monkey flower we saw. Everyone involved said that they had enjoyed the day and got to know each other a little better.

More information contact Amy Prendergast

**Bitesize learning** – As part of a programme of bitesize learning in ENS Area to improve knowledge and capabilities I have held some short sessions on invasive species and biosecurity awareness. These sessions were held at the three main offices aimed at any staff who step outside in the course of their work. I brought in specimens of key invasive species to show people what they look like in the flesh. In total forty people participated, from lots of different teams and I really enjoyed it too!

More information contact Amy Prendergast

**Catfishing** - We have been working with fishing clubs and reviewing the ILFA licences with fisheries, highlighting waters with potential for harm to local rivers. Removal and relocation of catfish from waters that had previously had ILFA licences and waters with a close proximity to rivers and floodplains. Ben and external fisheries companies have worked together to remove them. This will be ongoing and if anyone knows of waters that are not registered or have fears over the destruction they are causing please inform the local fisheries officer.

More information contact Ben Norrington
Himalayan Balsam pulling - EA colleagues used an Environmental Leave day to help remove Himalayan Balsam from a woodland close to the river Stour in Boxted, Essex. The Dedham Vale and Stour Valley, and Suffolk Coast and Heaths AONB Teams were also involved.

The Balsam extended for many metres in the woodland. It was present in various stages of growth, from saplings at a few centimetres up to 2 foot or so. Even though everyone put in lots of effort, there was too much to clear in one day, however large sections of the growth were cleared including down by the stream.

The day was organised and led by Alex Moore Da Luz, River Stour project officer. As a result of this work, the landowner donated £800 to the Stour Valley Environment Fund.

More information contact Eleanor Bellotti

Lincolnshire and Northamptonshire

Freshwater polychaete Hypania invalida-a new UK record from a previously uninvaded catchment

Hypania invalida, an invading species of freshwater polychaete known previously from the Trent, Severn and Thames catchments, was discovered in the lower River Nene in April 2016. It is considered to have been transported to the location on boat traffic from the River Trent. The potential impacts of the H. invalida on native flora and fauna are currently uncertain.

More information contact Alex Pickwell

Gulf Wedge Clam Rangia cuneata-an update

The first UK record of Rangia cuneata (G. B. Sowerby I, 1831) was made by Dr Martin Willing, Conchological Society, in August 2015 in the South Forty Foot Drain (SFFD), Boston, Lincolnshire. Subsequent surveys by Area staff have found the non-native bivalve to be restricted to the SFFD and in none of the surrounding watercourses with potentially suitable habitats. Examination of the growth bands on shells by Dr. Willing suggest the species has been present in the SFFD for approximately 7 or 8 years.

Specimens of R. cuneata have been submitted for DNA analysis and comparison with European populations in order to determine if the UK population originated from continental Europe. Furthermore, Dr. David Aldridge of Cambridge University researching the susceptibility of R. cuneata to Biobullets (particulate biocides with specific action on the target species) as part of a long term goal of eradicating the known UK population.

More information contact Alex Pickwell
Invasive Non-Native Species

Biosecurity newsletter: Autumn 2016

Killer Shrimp *Dikerogammarus villosus (Dv)*-an update

The Killer Shrimp has been moving throughout Pitsford Reservoir, Northamptonshire, since its discovery in 2015. Specimens of *Dv* have now been found close to the dam and outflow of the reservoir, although monitoring of the downstream watercourse has not yet detected any escapees.

Research into substrate preference by *Dv* and *Dikerogammarus haemobaphes (Dh)* at Pitsford Reservoir has been undertaken by Kelly Clinton (supervised by Prof. Paul Wood, Loughborough University), resulting in several important conclusions:

- There were significant differences between the distributions of *Dh* and *Dv* throughout the reservoir, with the range of *Dh* more widespread, whilst *Dv* was confined to zones composed of large/coarse boulders and cobbles.
- Native macroinvertebrate diversity and abundances reduced in areas containing *Dv*, whilst the impacts of *Dh* presence were less pronounced.

Disparities between substrate preferences of *Dv* and *Dh* were shown to be influenced by body size; larger organisms associated strongly with the largest substrate, whilst juveniles (primarily *Dh*) were recorded in higher abundances on the smaller substrate types. This pattern is probably as a result of avoidance strategies of the younger individuals in order to avoid the highly predative adults.

More information contact Alex Pickwell

East Anglia

Ops day of INNS action! During early August a small team from the Kings Lynn ops team spent the day treating Giant Hogweed on the Great Ouse Relief Channel between Denver and Saddlebow. We knew it was present in good numbers from previous visits but ended up treating well in excess 50 individual plants at various stages of growth. This has helped to reduce the risk to anglers who have been spotted fishing in amongst the giant hogweed plants! On the same day, 2 small patches of Pennywort near Denver that had lingered from the previous autumn were also treated.

More information contact Darren Noble

Early intervention to help save reserve - Darren Noble has been in contact with the Norfolk Wildlife Trust warden at Holme Dunes, who has found a small patch of New Zealand Pygmyweed *Crassula helmsii* on the grazing marsh adjacent to their reserve. The site is a SSSI and runs directly into the river Hun so the arrival of *Crassula* at the site is unwelcome from a biodiversity perspective. We have been assisting the warden with the preferred control methods and will be undertaking a joint site survey in early October. We need to act fast due to the rising water table over the next few weeks which could help mobilise the plant and spread it across the site.

More information contact Darren Noble

River Nar attempting to stop the march of signal crayfish - We have been working on the ongoing signal crayfish control programme in the lower reaches of the river Nar, a riverine SSSI which was known to have a population of native crayfish several years ago. Traps have been in place for two years now and Darren routinely checks and empties the traps, the data highlight that populations of signal crayfish seem to be stable, in low abundance and have not migrated any further upstream. We are undertaking this work in an attempt to prevent the migration of signal crayfish upstream, above a weir at Marham.

More information contact Darren Noble

Controlling Azolla – Due to the huge infestation of water fern *Azolla filiculoides* on Ramsey River the approach of bio-control is now the only option. The club has a huge catchment and can provide up to 100 swims when the river is free. The concern is not only
from a loss of fishing and local income but from the potential of aquatic life being destroyed. Oxygen levels have started to decrease and macro invertebrates have declined. Fish are at a great risk from the total smothering of the surface and have potentially been reduced already.

The situation also poses a risk to birds with swans seen struggling through the plant. Dogs, livestock and even humans are vulnerable because the dense carpet the plant creates looks obscures deep water.

The plant was successfully controlled using the Azolla weevils from CABI. Unfortunately, because the control was applied late in the season, the destruction of the Azolla rafts was associated with low dissolved oxygen levels which caused a fish kill. This is subject to an ongoing investigation to learn key lessons.

Catfish removal - Following the suspected dumping of an unknown number of non-native Catfish into a lake near Ramsden Crays, Essex, FBG worked with the fishing club to install signs stating that any catfish caught must not be returned to the lake as well as check–clean–dry signs. This resulted in one Catfish removal, which we are in the process of moving to an ILFA/Permitted water and steps are being taken to remove the remaining Catfish.

More information contact Andy Ward

Solent and South Downs

EA maintain our reputation on the IoW

Did you know the EA owns 18 acres of land alongside the River Medina and Eastern Yar on the Isle of Wight? Incidentally, the main 2 rivers on the Island to have Himalayan balsam and lots of it!
Working with the IoW Local Action Group, over the last few weeks, the Asset Performance Team have worked with FBG to come up with a strategy to control Himalayan balsam growing on our land. We have employed our local flood maintenance operatives to control the balsam while we manage the works and pull the remaining plants. Providing a commitment to managing non-native plants on our own land has maintained our reputation and made it far easier requesting others to follow our example.

More information contact Claire Hamilton

The New Forest Non-Native Plants Project Update

Project officers Jo Gore and Catherine Chatters have had a busy season leading volunteer work parties to pull Himalayan balsam during summer and early autumn. An amazing total of 246 people have generously given over 2,250 hours of their time. In addition to our ‘regular’ pullers, volunteers have been drawn from a variety of sources including youth organisations, The Forest Trust, The RYA, Oil Spill Response, SSE, Bournemouth Water, Lloyds Bank, Ridge LLP and a computer company. Work has focussed on the Lymington River and its tributaries (the Passford Water and the Mill Lawn Brook), the Avon Water and the Cadnam River. Volunteers have also helped to remove pitcher plants from a number of locations.

Work has continued with the control of American skunk cabbage, Japanese knotweed, bog arum, parrot’s feather, giant hogweed, giant knotweed, bamboo, buddleia, Iris laevigata and montbretia. Herbicide treatment to control Cotoneaster has started in 2016 and a contractor has been commissioned to control the recently-discovered non-native golden club Orontium aquaticum in a pond in the New Forest; it will be interesting to see how it responds to herbicide treatment.

Trevor Renals assesses the creeping water primrose at Barton on Sea golf club - Anyone for skipping!!!

Trevor, our invasive species national technical advisor took time out of his busy schedule to visit four creeping water primrose sites across Hampshire and the Isle of Wight. Two sites were given the “green light” as eradicated and Trevor gave his expert advice on the remaining problematic sites. Thanks Trevor!

More information contact Claire Hamilton

Golden club Orontium aquaticum

More information contact: Catherine.Chatters@hiwwt.org.uk
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Kent, South London and East Sussex

Biosecurity Toolkit Talks with Ops – During August, two members of our Biodiversity team presented toolkit talks to the Mole and South London rivers Ops Delivery teams, who’ve recently had some new starters join them. The talks covered identification of INNS frequently seen in the catchments and best practice biosecurity measures including Check Clean Dry guidance and our portable biosecurity boxes. There were also follow up site visits to help inform ongoing management of some of the Area’s most troublesome INNS such as floating pennywort.

Floating Pennywort on the River Mole – The Mole has been particularly affected this year by mats of floating pennywort. Contractors have been brought in to help tackle this INNS and mechanically remove it from the channel. Biodiversity, APT and Ops Delivery staff visited some of the most affected sites in October with Trevor Renals, our INNS National Technical Advisor, to see the works taking place. Biodiversity staff were also on hand to provide advice to avoid any impacts to the Mole’s wildlife such as eels. FBG continue to work closely with APT towards eradication of floating pennywort on the Area’s rivers.

Biosecurity Risk Successfully Managed at Holmwood Depot – A visit in August by Biodiversity staff to Holmwood depot highlighted some major biosecurity risks, with Quagga mussel and floating pennywort spread being of particular concern. FBG are working together with Ops Delivery staff and Facilities to arrange access to hot water which will allow the team to wash down their boats and equipment in line with Check Clean Dry guidance. There are also plans to increase the amount of drying space available at the depot which will also help minimise any risk of INNS spread.

More information contact Thea Cox

Wessex

Invasive shrimp, Dikerogammarus haemobaphes - Data collected by Wessex monitoring teams has shown that the Demon shrimp D. haemobaphes has colonised 55km of the Bristol Avon since the first Area record from the Kennet and Avon Canal near Devizes in 2013. Water is transferred between the canal and river and results from routine invertebrate samples show a progressive move to the main river and downstream in just 3 years. This year it was recorded in Bristol Floating Harbour just above the tidal limit.

Another three Ponto-Caspian species have been confirmed in the Bristol Avon since 2012; the Zebra mussel Dreissena polymorpha, a freshwater polychaete Hypania invalida and the amphipod Chelicorophium curvispinum.

Dreissena polymorpha - The Zebra mussel Dreissena polymorpha has been recorded from the Somerset Levels for the first time this year in the River Huntspill. Wessex FB&G and monitoring teams will now be conducting a wider search of surrounding rivers for this species. The nearby River Brue has a notable population of Depressed River Mussels which could potentially be under threat and as the Somerset Levels holds more Agency assets than anywhere in the country the spread of this species to structures and pumping stations could have serious economic consequences for the organisation.

More information contact Andrew Goodman