



Norfolk Non-native Species Initiative Newsletter



Here is the slightly belated autumn/winter edition of the NNNSI Newsletter! Once again, it's a bit of a bumper issue. We have everything from a native crayfish rescue operation to bugs with a penchant for chomping on knotweed! Also, as many of you will be aware, Scott Perkin

(Co-ordinator of the Norfolk Biodiversity Partnership) is moving on to assume a post with IUCN in Asia. Scott was the original 'mastermind' behind NNNSI, and has been a key player in making the project a success. Scott will be very much missed by all of us here. Read on for his personal highlights from his time with the Initiative.

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UPDATE FROM THE CO-ORDINATOR

2011 is the second year that many of the Initiative's priority control and eradication projects have been running, including the critically important project to eradicate floating pennywort from the River Waveney. Whilst these projects have continued to proceed well (we are still on track to eradicate floating pennywort by 2013), other new projects, such as the Broad Sweep initiative, are just getting underway.

Since my last update, we have:

- Played a key role in establishing the first 'ark' site for native white-clawed crayfish in Norfolk;
- Taken on the role of managing the mink control projects in Norfolk;
- Worked with NBIS to design and launch the 'citizen science' survey component of the Broad Sweep project;
- Helped organise a number of Community Action Days to remove invasive alien weeds across Norfolk;
- Run a training workshop for staff from local Internal Drainage Boards on invasive species identification and methods of control;
- Secured additional funding for the management of invasive alien species across Norfolk from DEFRA through our contributions to Water Framework Directive targets;
- Continued to deliver a variety of control and eradication projects, including the eradication of Japanese knotweed from the River Wensum SAC and the control of giant hogweed on the River Yare.

Mike Sutton-Croft

Co-ordinator, Norfolk Non-native Species Initiative

NEWS FROM NORFOLK

'Excellent' NNNSI Stakeholders' Forum the best yet!

The Fifth Norfolk Non-native Species Stakeholders' Forum, held on 24 May 2011, attracted more than 50 delegates and received the most positive feedback yet! A huge range of topics was covered in the half-day event, including an update on a potentially devastating new invader, the killer shrimp, and a reflection on a past success, the eradication of coypu during the 1980s.

Dr Dick Shaw, a scientist with CABI, started the Forum with an update on the project to identify a biological control for Japanese knotweed. The sap sucking psyllid *Aphalara itadori*, which feeds exclusively on this notorious invasive plant, is now being released for field trials at a number of sites, including Norfolk (read on for more details!)

Genevieve Madgwick from Natural England gave a fascinating presentation on the threats to our native aquatic ecosystems from the invasive killer shrimp. It is hoped that the recently launched 'Check, Clean, Dry' campaign should help to prevent the further spread of this species, which has the potential to severely reduce our freshwater aquatic biodiversity.



The NNNSI Co-ordinator gave a brief update to the group on the activities of the project since the last Forum. Particular highlights during the year included an intensive survey of Himalayan balsam in the Wensum catchment, the ongoing eradication of water primrose at Watton and the volunteer Day of Action, which once again generated a significant amount of media interest!

Paul Sims from Native Landscapes spoke about the NNNSI-led project to eradicate floating pennywort from the River Waveney. This highly invasive plant, which has the potential to choke rivers and waterways, should be eradicated from the river by 2013.



The day ended with an in-depth case study on the successful eradication of coypu in the UK, presented by Dr Simon Baker. This project was remarkable for its use of data and population modelling to guide eradication efforts, and remains one of the best examples to date of a successful eradication of an invasive mammal. Coypu are South American rodents introduced to Britain to farm for fur. Escapees established a self-sustaining population in the wild,

causing widespread damage to native vegetation and river banks and severe losses to agriculture.

Bug offers opportunity to tackle invasive plant

Norfolk has been chosen as one of the places for the controlled release of a biological control agent that will help in the battle to control Japanese knotweed. Many of you will be all too familiar with the plant, which currently costs £150 million annually to control in the UK.

The tiny control bug from Japan - which feeds exclusively on Japanese knotweed and doesn't pose a threat to any similar species - is called *Aphalara itadori* - and is related to aphids.

The young bugs suck the sap of the Japanese knotweed plants, hopefully weakening and stunting them, offering a sustainable, long-term control mechanism.

The bug has been licensed for use as a biological control agent under the Wildlife and Countryside Act, which ensures that it has gone through a thorough pest-risk analysis to ensure it won't become a threat itself.

Dr Dick Shaw from CABI which has been studying the specialist insect in quarantine said: "We are very excited about the use of *Aphalara itadori* to control Japanese knotweed. The bug has co-evolved alongside knotweed and is specific to it, so it's ideal for the job. It won't eradicate the knotweed completely, but it does give us the chance to manage it better, at a lower cost".



Dr Dick Shaw releasing the psyllid at the trial site in Norfolk Credit: CABI

Novel method to control New Zealand pygmyweed trialled in North Norfolk

The NNNSI always strives to control invasive weeds in the most cost efficient, effective and environmentally friendly way. With a detailed knowledge of the distribution of invasive species in Norfolk, and good relations with a range of landowners and stakeholders, we are in a good position to trial new control methods and disseminate the outcomes of these trials to our partner organisations.

One new method of weed control which shows promise involves the use of 'hot foam'. This technology uses heat, rather than chemicals, to kill the plant with the foam being made from completely organic and biodegradable products.



Hot foam being applied to the weed Credit: WeedingTech

'Hot foam' was trialled at a single pond in north Norfolk, where the weed is only found growing around the periphery of the pond, but not in the main water column. This pond forms part of a remarkably biodiverse 'pond-scape' in the area around Briston, which contains a large number of rare aquatic plants, so it is critically important that *Crassula helmsii* be eradicated from the area as soon as possible.



The pond will be carefully monitored over the coming months, with a full botanical survey being carried out next year as a part of an ongoing study into the freshwater biodiversity in the area. This should reveal whether the treatment has been successful, and also indicate how quickly it takes native species to re-colonise the pond following treatment.

New project gets to help reduce the impact of invasives in the Broads

The Initiative's new 'Broad Sweep' project was launched in summer 2011, and has got off to a flying start!

The 'citizen science' component of the project is well underway. The survey forms have been printed and are available from a large number of locations throughout the Broads, including pubs, boat hire centres, angling shops and tourist information centres. By far the most popular way to submit records has been over the internet, using the new online recording facility set up by NBIS. The survey has already generated a significant number of new records of invasive species within the Broads, and is due to run until 2013.

In addition to this, several 'Community Action Days' were held in the Broads during 2011 to remove invasive plants from some of the worst affected areas, including Rockland Broad. We are aiming to hold at least five more of these during 2012. Engagement with aquatic plant retailers in the area will begin in the near future, with a view to launching an Accreditation Scheme in 2012, so there is still a lot to do!

The importance of the project was recently highlighted by some shocking aerial photographs taken by Mike Page as a part of a survey commissioned by the RSPB. These pictures revealed the extent to which Himalayan balsam has already invaded some areas of fen, and generated a significant amount of media interest, being featured on local television and radio.



To view the NBIS online recording facility please visit:

<http://www.nbis.org.uk/BroadSweep2011>

An 'ark' site for crayfish in Norfolk

An exciting new initiative in Norfolk will help to safeguard the survival of the white-clawed crayfish in the county. The white-clawed crayfish is one of Britain's most threatened native wildlife species, but in Norfolk, a group of conservationists are now setting up safe havens for them where they can live and breed naturally.



The technique involves establishing "ark" sites - isolated waterbodies that can support a healthy, self-sustaining population of native crayfish with little need for ongoing management. Potential ark sites need careful vetting to ensure they are suitable and that introduction of the crayfish won't jeopardise other species. White-clawed crayfish can then be translocated under licence to the ark location.

The white-claws, which look like miniature lobsters, used to be widespread in Britain's rivers. Over the last 30 years, however, they have been driven to the verge of extinction by the introduction of invasive, non-native crayfish. These alien species are able to out-compete the white-claws, and also act as vectors

for crayfish plague (an exotic disease which is fatal for white-clawed crayfish but not for the invaders). The situation is similar throughout the range of white-clawed crayfish in Europe, so global extinction is a real possibility.

The most common non-native crayfish species in the UK is the American signal crayfish, which was introduced in the 1970s and 1980s to be “farmed” for food. It quickly escaped into the wild, where the species began to cause major problems for our crayfish populations. Several other non-native crayfish species are also frequently found in UK waters, including the narrow-clawed crayfish and the red swamp crayfish.

Invasive non-native crayfish continue to spread to new areas throughout the UK, and - short of using a biocide to kill everything in an infected waterbody - there is currently no way to eradicate the aliens once they are established. Establishing new populations of native white-clawed crayfish in isolated, safe areas is now considered essential to ensuring the survival of the species. These ark sites will act as an insurance policy, ensuring that there will always be some native crayfish present.

The Norfolk Crayfish Group has now established the county’s first ark site, on a north Norfolk river. White-clawed crayfish had been recorded in the river in the past but are no longer present (probably because of a pollution event during the 1980s). Some 300 white-clawed crayfish were taken from a nearby population, which is now threatened by signal crayfish, and placed in their new habitat during September 2011. Each individual was closely checked for disease, measured and then released into the new ark site. The stretch of river serving as the ark site had been carefully selected on the basis of a habitat survey, to ensure that the crayfish would be provided with the ecological conditions they require. Special burrows were also created in the banks of the river, in order to provide ready-made refuges for the new arrivals.



The new ark site will be monitored on a regular basis to assess the outcome of the project. It is hoped that, in time, the translocated crayfish will breed and establish healthy, self-sustaining populations.

Julia Stansfield from the Environment Agency said: “This is such a fantastic project. Loads of people have volunteered their time to help this feisty wee beastie. We may have some sore fingers from nipping claws, but it feels good to know there is a new population now.”

NNNSI – Some Personal Reflections from Scott Perkin

One of the defining highlights of my time with the Biodiversity Partnership has been the launch of the Norfolk Non-native Species Initiative in 2008. It has been tremendously fulfilling to work with Mike and to witness the transformation of NNNSI from a relatively minor, one-year project into a fully-fledged programme with a major presence in the county.



NNNSI has a growing list of accomplishments to its name. The evidence base has been significantly strengthened through the accumulation of records and data; the profile of invasive species has been substantially raised through the media and stakeholder events; and perhaps most importantly, many different control and eradication projects have been designed and implemented. The project to eradicate floating pennywort from the River Waveney stands out as a particular achievement. Without NNNSI's involvement, it is entirely possible that this highly invasive plant would by now have spread out of control, threatening biodiversity and recreational interests as well as the Broads National Park.

My involvement with NNNSI has spanned a wonderful array of activities. Personal favourites have included the construction of an "alien" spaceship outside the Forum in Norwich; our attempt to eradicate water primrose from a pond in Watton using a very unstable Canadian canoe; and explaining the impacts of American signal crayfish to a seemingly endless army of Brownies at the "Wild about Norfolk" wildlife fair. The development of our European project proposal "RINSE" (Reducing the Impacts of Non-native Species in Europe) has also left an indelible impression...

I am very grateful to the many partners who have supported NNNSI over the years, including Defra, Natural England, the Environment Agency, the Broads Authority, Norfolk County Council, the Broads Sustainable Development Fund, the Water Management Alliance and the GB Non-native Species Secretariat. I would particularly like to thank Stewart Clarke at Natural England for providing the initial impetus for NNNSI back in 2007/8, Trevor Renals at EA for his belief in Local Action Groups, and Andrea Kelly at the Broads Authority for guiding NNNSI so effectively in her role as the Chair of the Initiative's Steering Group.

I wish NNNSI every success in the years ahead and am sure that – under Mike's enthusiastic and committed leadership – the Initiative will continue to make a real and important difference to the county.

Scott Perkin
Co-ordinator, Norfolk Biodiversity Partnership

NATIONAL AND INTERNATIONAL NEWS

CABI's Invasive Species Compendium is now available

CABI has recently released an Invasive Species Compendium which is a free, online resource covering recognition, biology, distribution, impact and management of the world's invasive plants and animals. The compendium already contains details of more than 1,500 species, with more being added before the end of 2011. The Compendium is built on a brand new technical platform, allowing CABI's experts to update the Compendium on a weekly basis!



To view the Compendium, please visit:

<http://www.cabi.org/Default.aspx?site=170&page=4127>

Check, Clean, Dry!

Earlier this year, Defra launched the 'Check, Clean, Dry' campaign to promote good bio-security practices amongst the users of freshwater waterbodies in the UK. It is hoped that the campaign will help prevent the further spread of invasive non-native plants and animals, such as the recently discovered killer shrimp. NNNSI will play a key role in promoting the campaign in Norfolk, and already has plans to undertake a range of activities to raise the profile of the campaign locally.



To find out more, please visit:

<https://secure.fera.defra.gov.uk/nonnativespecies/index.cfm?sectionid=98>

UPCOMING EVENTS

31 January – 1 February 2012: For the third consecutive year, the GB Non-native Species Secretariat will be holding a **Local Action Group Workshop** at the Preston Montford Field Studies Centre. The two-day workshop is a free event aiming to promote networking and exchange of information for anyone working in a Local Action Group on non-native species.

For more details, please contact the GB Non-native Species Secretariat:
nns@fera.gsi.gov.uk

28-29 February 2012: The **Robson Meeting** is an annual conference focussing on the ecology and control of aquatic weeds, including a lot of information on the control of invasive aquatic weeds such as *Crassula helmsii*. This year, the conference is being held at The Dolphin Hotel in St Ives, Cambs.

For more details, please visit:
<http://www.robsonmeeting.org/>

If you would like to contribute to the next NNNSI newsletter, then please contact Mike Sutton-Croft, Co-ordinator of the Norfolk Non-native Species Initiative. Tel: 01603 228977; E-mail: michael.sutton-croft@norfolk.gov.uk

The Norfolk Non-native Species Initiative was launched in 2008 to promote the prevention, monitoring and control of invasive alien species. It seeks to do this by:

- *Collating and monitoring data on the distribution and spread of non-native species in the county;*
- *Developing action plans to address the species of most urgent concern;*
- *Facilitating control and eradication projects at high priority sites; and*
- *Promoting awareness of the risks and impacts associated with non-native species.*

The Initiative has been established under the umbrella of the Norfolk Biodiversity Partnership and works through a stakeholders' forum comprised of representatives from over 20 organisations. It is financially supported by the Broads Authority, Defra, the Environment Agency, Natural England, Norfolk County Council and the Water Management Alliance.