



# Spotlight on SSSIs

Working towards the goals of Biodiversity 2020

## Issue 11 – Winter 2017

I'm delighted to bring you the eleventh issue of 'Spotlight', the newsletter highlighting the achievements of farmers and other land managers improving the condition of SSSIs.

In the previous edition we reported on a project to reintroduce 121 endangered wart-biter crickets to a SSSI to help increase its condition to favourable by 2020. It was thought that it would take at least 2 years to see if the translocation was to be a success and eggs laid and hatched.

Great news! Two adult wart-biters have been found - a male and a female indicating that the first females translocated in 2015 had laid eggs, hatched and matured successfully. The SSSI can now look forward to progressing towards favourable condition by 2020.

In this edition, please take time to see whether the new regulations removing exemptions for around 5,000 significant water abstractions (known as New Authorisations) is relevant to you.

From the 1st January 2018 it will be a requirement to apply for a water resources abstraction licence from the Environment Agency if you abstract (take) more than 20 cubic metres a day for a previously exempt activity.

We look at ways of preventing heath fires, using experience from our National National Reserves. Heath fires can be absolutely devastating to wildlife, landscape character and public enjoyment. They can be a very real threat to property and the safety of the public.

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One could quite understand that there is not much to look at on the surface of Shippea Hill railway station SSSI – but it's what lies beneath that holds great importance as there is much archaeological interest here.

Floating Pennywort poses many problems to farmers and in a combined effort from Natural England, the Environment Agency and an internal drainage board, previous survey research is being acted upon to lessen this invasive plant. We look at the problems, what each agency is doing about it and the opinions of two farmers about the research.

Thank you for all your great work and commitment to helping our SSSIs towards favourable condition by 2020.

I hope you enjoy reading these articles and if you have any comments or would like to contribute an article, please email [sssi@naturalengland.org.uk](mailto:sssi@naturalengland.org.uk).

With very good wishes for 2018.



Caroline Cotterell  
Director, Strategy Implementation



## Improving the condition of lowland heaths through reducing fire risk.

### Graham Steven – Natural England

We have seen on the news recently the reports of massive wildfires in California and Portugal which have destroyed communities and livelihoods. There is no greater single factor that causes managers of lowland heaths anxiety than the threat of an uncontrolled fire.

Heath fires can be absolutely devastating to wildlife, landscape character and public enjoyment. They can be a very real threat to property and the safety of the public. It seems highly likely that the risk of fire will only increase in the face of climate change, with increasing frequency of exceptionally hot, dry spring and summer weather.

An 'agreed fire plan' is now a basic requirement for anyone applying for a Countryside Stewardship agreement which includes lowland heathland.

At Thursley National Nature Reserve in Surrey we experienced a huge fire in 2006 which affected nearly 80% of the site.

### First hand experience

The site is managed directly by Natural England and so we have first hand experience of fire risk and its effects! The incident caused us to radically re-think our approach to habitat management. It also had the knock on effect of creating better links with the local community, including a number of offers of help. The habitats on site have now recovered and we are implementing a range of measures to prevent another large fire.

In particular, we have been working with Surrey Fire Brigade to develop a fire resilience plan which looks at the issue from a landscape perspective and puts the local community at the heart of the plan. This has helped to identify key areas of risk and means of reducing threat to major roads, properties and adjacent land.

As a result we have been implementing a range of measures on the nature reserve. These include promotion and retention of 'buffer areas' of broadleaved woodland adjacent to settlements and domestic properties adjacent to the heath, removal of patches of dense gorse close to properties, mowing of heather and removal of the cut material,



Thursley heather mowing

creation of large patches of bare ground, mowing of vegetation alongside paths and focussed grazing of wet areas to prevent the build-up of leaf litter.

We have also extended wetland areas and created new ponds to increase the amount of open water. Visitors are encouraged to be vigilant during periods of high fire risk and litter is regularly removed. And we have regular input by local volunteers to undertake tasks such as vegetation clearance.

### Old fashioned ideas turned on their head

The fire resilience plans has turned old fashioned ideas about 'fire-breaks' and scrub barriers on their head and we are now looking to reduce fire risk across the whole area and to improve the ability of the Fire Service to tackle fires on site.

The key principles are to significantly reduce the overall availability of material to fuel a fire and improve accessibility for vehicles.

All of this has been achieved at relatively low cost just by adjusting regular management. And it has helped to improve the condition of the SSSI.

The increase in structural diversity of the heathland, control of scrub development, increased extent of bare ground and short turf all mean that key objectives are being achieved.

The site supports a wide diversity of species including smooth snake, sand lizard, woodlark and Dartford warbler and all of these are thriving under the management regime.

It is particularly pleasing that the work has strong support from the local community because of the drive to include consideration of the whole landscape in developing the project.

## Shippea Hill railway station SSSI

### Naomi Stevenson – Natural England

Shippea Hill railway station in Cambridgeshire is one of the least visited in England, a minor and often forgotten station on the Ely to Thetford Line. It is, however, famous as a result of its infrequent use!

Those in the know look over their steaming coffee and across from the train to an equally obscure and identically-named geological SSSI; obscure because here there are no towering cliffs or brightly-coloured strata, no tourists marvelling at landforms created by waves crashing on a coastal cliff or climbers looking longingly at a rock face.



What lies beneath?

What is distinctive about this site is that it is designated for its buried interest; there is literally nothing visible at the surface to indicate its importance!

Nevertheless, importance it has. It is a key location for the dating of a rise in sea level flooding the land surface in its area of the Fenland. The geological interest (Earth Science Classification Criteria, or ESCC) is what we call an 'Extensive Buried' one and it belongs to a block of Geological Conservation Review (GCR) sites selected to represent the Quaternary of East Anglia.

The Quaternary deposits underlying the soil hold an important record of changes in climate and in their deposition conditions. Combining the GCR block and the classification criteria suggest a management programme for any given types of sites; for a site like this, it would for instance involve promoting appropriate agricultural practice or avoiding tree planting to avoid disturbance by the root systems.

This site is in good condition, maintained by a cultivation regime that does not disturb the precious geology and archaeology beneath the cultivated land. Analyses of sediments from Shippea Hill demonstrate that peat accumulation started early in the Holocene - the "wholly recent" – epoch at a time when the coastline was many kilometres seaward of the present and familiar coast.

### So, what happened here?

Peat started to accumulate in a depression in the old floodplain of the Little Ouse river, the direct influence of sea level cannot be directly observed until the later deposition of the famous brackish/marine "Fen Clay."

The pollen record also shows a gradual change to a high marsh environment with an increase in sedges, grasses, goosefoots, bur-reeds and bulrushes. There is much archaeological interest here: A nearby sand ridge was occupied during the Mesolithic, the Neolithic, and the Early Bronze Age. These occupations can be identified within the peat by inwashed layers of sand and also there is some pollen evidence for them.

This site is additionally of great historical interest since many of the applications of pollen analysis to sea level change, archaeology, vegetation development and radiocarbon dating arguably originated from the excavations at Peacock's Farm in the 20th century.



## Walking on a knife edge - surveying invertebrates for condition assessment at Compton Chine to Steephill Cove SSSI on the Isle of Wight.

**Pete Boardman – Natural England Field Unit**

During the summer of 2017 myself and Vicky Gilson from the Natural England Field Unit (NEFU) joined Mark Larter of the Dorset, Hampshire and Isle of Wight team to survey invertebrates along the slumped and slumping cliffs that make up the Compton Chine to Steephill Cove SSSI on the Isle of Wight.

This wasn't without its challenges as some of the cliffs are fairly extreme to access (one only accessible by a rope down the cliff) with a heavy rate of coastal erosion in others but the site is nothing if not spectacularly beautiful.

The SSSI is a linear feature spread across several miles of the south west corner of the island and encompasses a range of different habitats with differing underlying geology, geomorphology, and hydrology. These habitats subsequently have invertebrate assemblages that are at times a little difficult to assess, and had not been looked at in at least twenty years.

With Mark's guidance we sampled our way along the SSSI, starting at Compton Bay in the west and working eastwards each day. The ultimate goal was to sample enough specimens from these specialist habitats (calcareous grassland and soft rock cliff assemblages) to give Mark an idea of the condition of the invertebrate assemblages.



Collecting ground dwelling invertebrates with a pooter

This is done by identifying catches and then putting subsequent species lists through PANTHEON invertebrate analysis software that has recently been developed by our Senior Invertebrate Specialists and others.



Slumped cliff

Once all the results are in and written up Mark will have the information to add to habitat assessments he had done and enable him to complete an up to date assessment.

The cliffs are an important habitat for a range of invertebrates including aculeate hymenoptera (bees, wasps and ants), flies and spiders that thrive on the semi-vegetated south-facing sunny conditions of the cliffs close to areas of calcareous grassland.

Seepages and wetter pockets provide habitat for a specialised fly fauna including some species endemic to the UK, as well as more charismatic species as the grey bush cricket, and Glanville Fritillary, both being seen during the survey.

We found caterpillars of the Glanville Fritillary in their protective webs rather than adults due to a flight season that finished earlier than normal in 2017.

Though not all results are in at the time of writing, early indications look encouraging with a number of nationally uncommon species already identified and several new to the Isle of Wight.

Within NEFU we are constantly working with our Senior Specialists and others to embrace the challenges of conservation through evidence and innovation. Meaning this work, initially commissioned to ask a specific question of local condition status, will also ultimately feed into the development of a proxy invertebrate methodology to assess these types of habitat along the southern coast of England at a landscape scale.

This brings extra value to our survey and is a great way of ensuring data we take great pains to gather is used to inform and contribute to other processes and continues to develop our science and evidence base.

## Changes to water abstraction exemptions

### Environment Agency

It is a very significant time for management of water resources, with the biggest change in legislation for over a quarter of a century, since the Water Resources Act of 1991.



Esthwaite Water SSSI Cumbria

On the 31st October Defra laid regulations in Parliament and published the Government's [consultation response](#) on removing exemptions for around 5,000 significant abstractions known as New Authorisations.

From the 1st January 2018 it will be a requirement to apply for a water resources abstraction licence from the Environment Agency if you abstract (take) more than 20 cubic metres a day for a previously exempt activity. This includes abstraction to support SSSIs, Water Level Management Plans, Environmental Stewardship sites, water meadows and managed wetlands where abstraction is taking place under an exemption is currently unlicensed.

Transitional arrangements are in place which require you to take action before specific dates. There is a two year window [to apply for a licence](#) from 1st January 2018 until 31st December 2019. The Environment Agency will determine your new licence application between 1st January 2020 and 31st December 2022.

We strongly recommend that you submit your application in good time before the transitional application period closes as there will be no extensions to the deadline of 31st December 2019.

We suggest that you apply early and ideally before the end of October 2018 for applications involving SSSIs and managed wetlands etc. We cannot guarantee to check all applications we receive close to the deadline (three months prior to the application period closing), and those that are found to be incorrect or invalid will be rejected and risk missing the opportunity to take advantage of the transitional arrangements. There are charges associated with these applications. Details on abstraction charges can be found [here](#).

You can continue to abstract water at the same quantities until a decision is made on your application. If you need more water while your new licence application is being determined you'll need to make an additional application before taking any extra water to cover the extra amount of water required. In these cases you will need to allow sufficient time to make the necessary applications which normally take up to four months from the date we receive a valid application. For more information please go to: <https://www.gov.uk/guidance/water-management-apply-for-a-water-abstraction-or-impoundment-licence>

The UK Government expect the Regulator to take a light-touch, risk based approach to licensing these existing abstractions. This approach means that the majority of licences will be granted based on existing abstraction requirements. You will need to demonstrate, to the reasonable satisfaction of the Environment Agency, your abstraction requirements and that abstraction has taken place within the previous seven years.

Licences may be subject to conditions once issued. Further details can be found in the Government's [consultation response](#).

If having read the .gov.uk guidance you are still unsure if you require a licence or have any questions please phone the Environment Agency on 03708 506506 or email [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)

## A combined battle in controlling Floating Pennywort

Cath Jackson – Natural England

Most of the problems on protected sites need people to come together to fix them – this is a great example.

Floating Pennywort is a fast-growing aquatic weed from South America. It smothers native wildlife and can cause problems for landowners, particularly livestock farmers, because animals can drown in infested ditches.

Pevensy Levels is one of the largest and most important freshwater sites in England. Since the 1990s Floating Pennywort has been an increasing problem. By 2008 about 10% of the 450km of freshwater ditches on the site had Floating Pennywort. At that time there was no effective treatment. The infestation raged across over 50 owners' land including main drains which were managed by the Environment Agency.

### What did we do?

Natural England and the Environment Agency commissioned a survey so there was a definitive map of where Floating Pennywort was. Taking suggestions from local landowners, the Agency commissioned trials of possible treatments and the impact they would have on local wildlife. The trials identified a suitable treatment.

Most wetland issues need to be dealt with on a catchment scale. The Environment Agency, Natural England and from 2016, the newly formed Pevensy and Cuckmere Water Management Board set up contracts to remove the weed.

Eradication is impossible but after 5 years of treatment the weed has been managed back to about a tenth of its original cover.

Local landowners work with the contractors, letting them know where the weed is present and helping them navigate the complex system of ditches to get the job done effectively.

### What does the future hold?

Natural England and the Environment Agency have been working with CABI who are developing a biological control for the Floating Pennywort.

Pevensy Levels has been put forward as a trial site. Until the control has been proven to be effective the removal work will continue.

## Different points of view

### Environment Agency

*Why is Floating Pennywort a problem for you?*

Mats of weed can get trapped in water control structures stopping them from working. The site and the farmers who manage it are reliant having water being adequately managed.

*What are you doing to tackle it?*

Each year we mechanically remove what we can, followed up by a team spraying the remainder from a boat.



Before and after mechanical extraction.



*How are you working with NE, the Water Management Board and landowners to sort it out?*

We are working alongside Natural England and Pevensy and Cuckmere Management Board to ensure that the main drains, which we control, are managed at the same time as private and Water Board ditches.

We would not be able to do as much as we do without land owners being on our side - the permission to not store plant on their land and leave the removed weed on-site, on their land is invaluable. Without all of these people the struggle to control this weed would be out of reach.

continued...



## **Pevensey and Cuckmere Water Management Board**

*Why is Floating Pennywort a problem for you?*

Floating Pennywort stops water moving through culverts, clogs pumps and blocks weed screens leading to increased flood risk. It is critical that the weed is regularly managed.

*What are you doing to tackle it?*

The Water Management Board treats it the same way as the Environment Agency, Through mechanical control with chemical spray to follow up.

We also manage the spread of weed by regular machine wash-downs and biosecurity measures.

*How are you working with NE, EA and landowners to sort it out?*

We work closely with Natural England and the Environment Agency to ensure an integrated approach. Our water bailiff is our 'eyes on the ground' who liaises with local landowners to make sure we are working effectively together.



## **Local farmers David and Angela Walker**



*Why is Floating Pennywort a problem for you?*

The main problem is that many of our sheep and cattle have taken a liking to grazing it, increasing the risk of drowning.

*What do you think about the work being done to tackle it?*

The mechanical removal and spot spraying of Floating Pennywort is effective in the short term, however, in the long term it damages the banks and knocks back the local wildlife.

*How we work with others*

We allow Natural England and the Water Management Board access and give detailed information on the whereabouts and extent of this invasive plant.

However, the current approach is about control not eradication so we are looking forward to a longer term solution.



We have a statutory duty to keep up-to-date contact details for our SSSI owners / occupiers. Please can we have the following details to ensure our records are correct:

- **Your name**
- **Name of SSSI**
- **Postal Address**
- **Email Address you would like correspondence sent to**



If you would like to receive future copies of the SSSI Annual Statement and/or newsletter, please let us know by email on [sssi@naturalengland.org.uk](mailto:sssi@naturalengland.org.uk) or call 0300 060 3900

#### **Photo credits**

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Natural England is here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

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