

Photo: Oak at Earlham Park - David Boulton.

## Welcome to the latest edition of the NBIS newsletter

In this issue we highlight how the service is delivering real gains for wildlife through its advanced Geographical Information System (GIS) capability. Our news round-up includes **features** on:

- Recorders' meeting
- Rare orchid variant
- NBIS one year on
- Project fund
- Whale stranding



NBIS is partnering the International Year of Biodiversity (IYB), UK. Read more on the back page under News in Brief.

**NBIS is a partnership of organisations including Natural England, Norfolk County Council and some local district councils.** It is one of a number of Local Record Centres and operates a not-for-profit service, recording, managing and interpreting wildlife information for the conservation and enhancement of biodiversity in Norfolk.

## NBIS one year on . . . It's now a year since NBIS was launched, and the service is going from strength to strength.

**With some 1 million records of Norfolk's wildlife now uploaded and fully accessible to end users of the service, NBIS is the first place to call for comprehensive habitat and species data in the county.**

One of the major achievements has been the development of an advanced Geographical Information System (GIS) capability which has already led to involvement with significant projects, both county-wide and on a regional basis.

One of these was the Norwich Green Infrastructure Strategy, where NBIS was asked to develop habitat opportunity maps - pinpointing suitable areas for habitat re-creation and enhancement - within the key areas identified for growth. These areas, to the north-east and south-west of Norwich (which include the site for the new Rackheath Eco-town) have been targeted for 21,000 new homes between 2008 and 2026. NBIS involvement was important because it allowed

the refinement of strategy locations and corridors initially identified, to a more detailed field-based scale.

Phil Bennett-Lloyd, Environment Manager at Norfolk County Council which hosts the service and is a key end user - said "NBIS played an important role in helping to shape the Green Infrastructure Delivery Plan. In turn, this informed the environmental context for the Joint Core Strategy for Broadland, Norwich and South Norfolk - our blueprint for supporting sustainable growth. NBIS demonstrates how access to the many species records generated by Norfolk's outstanding network of voluntary Recorders, coupled with skilled use of mapping software to add value to the data by spotting the potential for habitat enhancement, can lead to real gains for wildlife in the future."

Find out more in the GNDP's Draft Joint Core Strategy For Broadland, Norwich and South Norfolk at: [www.gndp.org.uk/documents/content/FINAL%20JCS%20Proposed%20Submission%20PDF.pdf](http://www.gndp.org.uk/documents/content/FINAL%20JCS%20Proposed%20Submission%20PDF.pdf)

## Recorders' meeting

**NBIS and the Norfolk and Norwich Naturalists' Society (NNNS) were delighted to welcome over 25 County Recorders to a recent joint event.**

The meeting, which was the second held jointly between the two organisations, heard first from Martin Horlock, NBIS Biodiversity Information Officer. Martin gave a presentation on how the valuable raw material generated by the County Recorders - species records – is the basis for much of what the service offers, ultimately leading to the production of habitat opportunity maps, for example.

This edition of the newsletter contains an insert which summarises much of Martin's talk.



**Stephen Livermore, Chair of the NNNS, and Bob Ellis, Chair of the NNNS Research Committee, then led a discussion on formalising the appointment of County Recorders and their relationship with NBIS.**

Some draft principles were discussed, and a working group will be formed to develop these further.

Martin Horlock, Bob Ellis and Stephen Livermore address the meeting

## Rare variant orchid sighted

**Local wildlife enthusiasts who care for a Norfolk churchyard were rewarded with the sight of over 200 orchid blooms this spring.**

Wymondham Nature Group (WYNG) has been caring for the meadow at Hethel Churchyard for over a decade and has seen the population of Pyramidal Orchids grow spectacularly over this period – only a handful were recorded in the early 1990s. The group also noticed a new variant with pink sepals and white petals.

Simon and Anne Harrap, authors of *Orchids of Britain and Ireland: A Field and Site Guide*, comment:

“Pyramidal Orchid usually varies rather little in colouration. Plants with pure white flowers have been named var. *albiflora* (also var. *nivea*), but are rather rare. There are also pale pink variants where the lip is a little paler than the upper petals and sepals, but we have certainly never seen a plant with pale pinkish-lilac sepals and contrastingly white petals (including a white lip), and it may be unique as well as very attractive. This is the sort of plant that get the orchid buffs going, and if it appears again in 2010, we would love to know!”

**Simon and Anne Harrap**



The three forms of Pyramidal orchid.  
Photo credit:  
Simon and Anne Harrap

**Events > >**

**13 - 14th March 2010 - Norfolk Rocks, Norwich Castle Museum.**

**Contact: [kathryn.moore@norfolk.gov.uk](mailto:kathryn.moore@norfolk.gov.uk)**

# NBIS one year on - more!

In addition to the development of spatial mapping, other significant achievements for NBIS this year include:

- **Launch of the NBIS website in January 2009**

[www.nbis.org.uk](http://www.nbis.org.uk)

This excellent resource provides an easy portal to services offered by NBIS as well as a host of other information including biological recording; species and designated sites in Norfolk; BAP habitats; reports and publications. Some 300 visits to the site have been recorded each month. Further developments are set to include an interactive recording area and enhanced record upload function. Contact Sam Neal if you have any comments about the website:

[Samuel.neal@norfolk.gov.uk](mailto:Samuel.neal@norfolk.gov.uk)

- **Launch of a project fund** to invest in recording in Norfolk;
- **Awareness-raising**, such as attendance at many public events such as the Norfolk Show and Wild About Norfolk to raise our profile; whilst
- **Meetings with stakeholders** and those who help to gather biological records – the **County Recorders** have

helped to shape the service;

- **Production of promotional material** – such as newsletters, leaflets and displays - for information and advocacy;
- **Opportunity mapping** for the Broads BAP;
- **Habitat mapping** for the Norfolk coast AONB;
- Assisting with the **collation of 500,000 species records** for the Brecks Biodiversity Audit, which will help with the production of a Local Biodiversity Action Plan for Breckland;
- Over **200 enquiries** related to development control, completed this calendar year.

### Looking ahead, NBIS priorities for the near future include:

- **Publication of a 3 year Development Plan for the service:**
- **Seeking to improve data flow into the service from sources such as environmental consultants;**
- **Raising our profile with local district councils.**

## Project Fund

The NBIS project fund has committed some £10,000 towards recording projects this year:

- Contribution towards Norfolk Wildlife Trust's Parish Survey publication.
- Support for the County Bird Recorders.
- Contribution towards the mammals of Norfolk publication.
- Help towards production of a Red Data book for Norfolk.
- Arable Plant Report.
- Bats and Roadside Mammals survey received monies towards project expenses.
- Contribution towards a survey of off-shore chalk gully habitat off the north Norfolk Coast.
- Digitisation of moth records to match-fund a Defra award.

If you are interested in applying for money from the fund please contact:

Martin Horlock  
01603 224458 or email:  
[martin.horlock@norfolk.gov.uk](mailto:martin.horlock@norfolk.gov.uk)

## Rare moth record comes to light

Understanding of Norfolk's moths has been improved through a project jointly funded by NBIS and Defra to digitise paper moth records. Jim Wheeler, County Recorder for moths, has put over 25,000 records from this decade alone onto the database, and plans to start work on the 1990s and 1980s records soon. The best discovery so far was *Catoptria margaritella*, recorded in Eccles in July 2001, the first and only county record for this species. This rare migrant with a distinctive unbroken white longitudinal streak is found in boggy and heathland habitats. It was positively identified by photograph.



*Catoptria margaritella*  
Photo credit: Neil Bowman

**24th March 2010 - Norfolk non-Native Species Initiative (NNSI) Stakeholders' Forum.**  
Contact: [Michael.sutton-croft@norfolk.gov.uk](mailto:Michael.sutton-croft@norfolk.gov.uk)

**22nd May 2010 - International Day of Biodiversity. NBIS and Norfolk Biodiversity Partnership displays at The Forum, Norwich.**  
Contact: [scott.perkin@norfolk.gov.uk](mailto:scott.perkin@norfolk.gov.uk)

## Whale stranding

A Sowerby's beaked whale was stranded at Blakeney Point on the north Norfolk Coast this summer. This marine mammal which normally inhabits the deep waters between Norway and the UK, has a long, prominent beak which it raises high as it surfaces. Little is known about Sowerby's, but they are thought to live in small groups and feed on squid and fish. It is thought that the shallow waters at the coastline of the North Sea act as a trap, confusing the creatures and leading them to beach. This individual was successfully returned to the sea following strenuous efforts by a group of

six by-standers, with help from National Trust staff from Blakeney Point National Nature Reserve.

This stranding is the second record for Norfolk of a Sowerby's whale - the first was from Happisburgh in 1952.



Helping to return the Sowerby's whale to the sea.

Photo credit: Richard Porter

### CAN YOU HELP?

Can you help us record marine cetaceans (porpoises, dolphins and whales)? The Norfolk Biodiversity Partnership has helped to fund a SeaWatch survey card, which will enable you to do just that (the card includes information on how to record from land and sea). We need more records of marine life on our NBIS database to help get a better picture of what's happening to wildlife in this habitat. Download the card at: [http://www.norfolkbiodiversity.org/news/images/Cetacean%20Lft%20\(DY\)%20-%20compressed.pdf](http://www.norfolkbiodiversity.org/news/images/Cetacean%20Lft%20(DY)%20-%20compressed.pdf)

# NBIS

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If you need this document  
in large print, audio, Braille,  
alternative format or in a  
different language, please  
contact us on 01603 224458  
and we will do our best to  
help.

## News in Brief . . .

**iSpot** is a new website allowing users to post records, observations or descriptions of wildlife. It uses social networking techniques such as Facebook to provide a forum for people of all ages to share information and help with identifying unusual records.

Rob Coleman is Biodiversity Mentor for iSpot in the East of England. Register with the website and let him know how you get on!

[www.ispot.org.uk](http://www.ispot.org.uk)

### International Year of Biodiversity (IYB) - UK

NBIS is partnering the IYB-UK, an informal network of organisations working to conserve biodiversity in the UK. Together with the Norfolk Biodiversity Partnership, NBIS will be attending an event at the Norwich Forum on International Biodiversity Day – 22nd May 2010 to highlight species loss and all that is underway locally to conserve biodiversity.

Read more about IYB – UK at [www.biodiversityislife.net](http://www.biodiversityislife.net)

### Norfolk Wildlife Survey

NBIS and NWT are inviting you to take part in a simple survey to record barn owl, grey partridge, brown hare and harvest mouse sightings. All of these animals were once commonplace, but populations are dwindling. To conserve them, we need to know more about their distribution and strongholds. Can you help? If you have seen any of these species, please visit [www.norfolkwildlifetrust.org.uk/naturalconnections](http://www.norfolkwildlifetrust.org.uk/naturalconnections) to add your sighting online. Or you can download a survey card and send it in. Further details available by phoning 01603 598333.

### Norfolk Non-Native Species Initiative (NNSI)

A new report has been published by the NNSI, which includes distribution maps prepared by NBIS of 6 invasive plant species, identified as high priority for action. [www.norfolkbiodiversity.org/pdf/NNSI%20Status%20Report%20\(Draft1.2\)%20\(Reduced\).pdf](http://www.norfolkbiodiversity.org/pdf/NNSI%20Status%20Report%20(Draft1.2)%20(Reduced).pdf). Further records are always welcome: you can help by sending in your sightings of: Giant Hogweed, Japanese knotweed, floating pennywort, Himalyan balsam, Australian swamp stonecrop and parrot's feather. For further information contact: [michael.sutton-croft@norfolk.gov.uk](mailto:michael.sutton-croft@norfolk.gov.uk)

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The use of a Geographical Information System (GIS) underpins much of the new service offered by NBIS. It is a powerful tool, facilitating the presentation and analysis of information.

In this section we show how high quality data processed by a GIS can inform conservation work, development control and strategic planning work.

## Records - the raw material

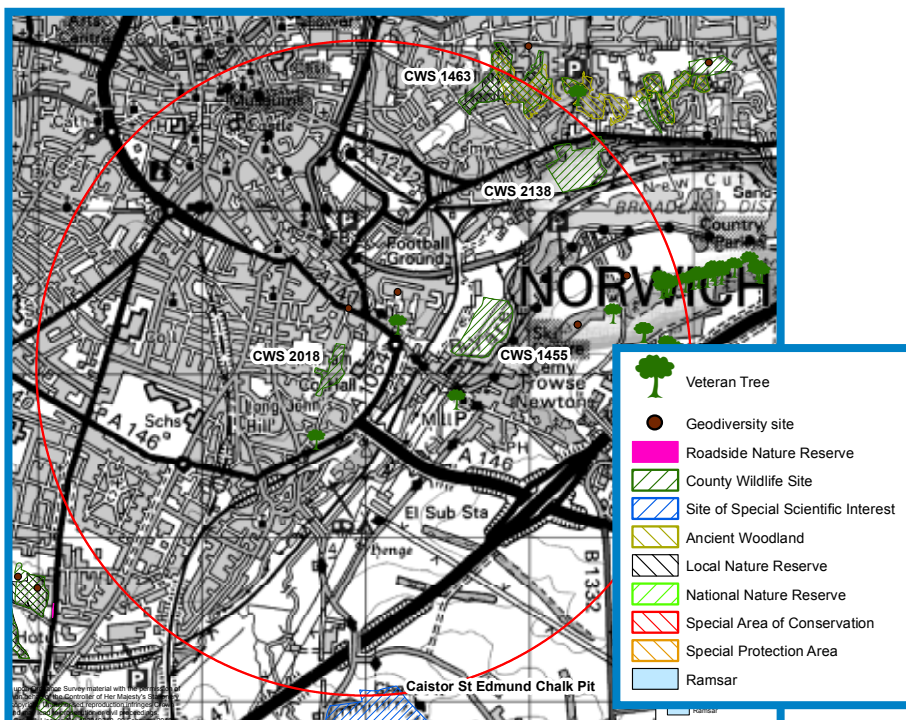
**Biological records form the basis of the work of NBIS.** These in their simplest form comprise 4 pieces of information – the 4 Ws. **What** species, **where** and **when** it was seen and **who** saw it, although a record may also have other information such as counts, sex and stage. Records come from a variety of sources such as the public, conservation bodies and ecological consultants, but the majority are provided to NBIS by the County Recorder network. These local experts record species themselves, but also validate all the data gathered by others before passing it to NBIS. This ensures the quality of the data held by NBIS is of a high standard.

## Recorder 6

**Once received the data is transferred to a database held on Recorder 6 software.** This is specialist recording software developed for the Joint Nature Conservancy Council, who ensure that aspects such as taxonomy are up to date. Recorder not only allows storage of the data, but enables it to be queried in many ways. At this stage NBIS staff perform yet more checks of the data to ensure there are no problems such as wrongly located records.

## Geographical Information System (GIS) mapping

**Records are transferred to the GIS from Recorder 6.** NBIS use both ArcGIS and MapInfo software for mapping work. A GIS is a piece of software that allows data to be represented spatially. For instance aerial photographs or points representing species sightings can be held in layers which can be superimposed to build up representations of the environment. In this way maps can be produced showing the link between soil type, aspect and particular plant species. Perhaps more importantly, the software can be used to calculate links between information held in the different layers.



### Map showing sites of conservation interest within a 2km radius.

This coupled with a list of species of conservation concern is supplied in response to development control enquiries from ecological consultants and planning officers.

## Species mapping

**The records held by NBIS are used in the GIS for a number of purposes,** from simple distribution maps to complex calculations used for identifying potential habitat creation sites.

The distribution maps are used in documents such as Biodiversity Action Plans (BAP) to give a picture of the status of a particular species in Norfolk. They can also be used in combination to assist in the development control process. For example, NBIS uses a list of species of conservation concern, extracted from the county dataset using Recorder, to answer enquiries from ecological consultants and planning officers. This can produce a list of species in conjunction with a map of any sites of conservation interest within a specified distance of a development.

## Habitat mapping

**Suites of species records can also be used in habitat mapping, another important aspect of the work of NBIS.** By combining indicative species potential sites can be identified for a particular habitat. Aerial photography, Ordnance Survey mapping and other data sources can then be used to produce habitat maps. NBIS uses the criteria developed by Natural England for their habitat inventories when mapping BAP habitats. This ensures that the data is of a good standard and allows the mapping to feed into national datasets.

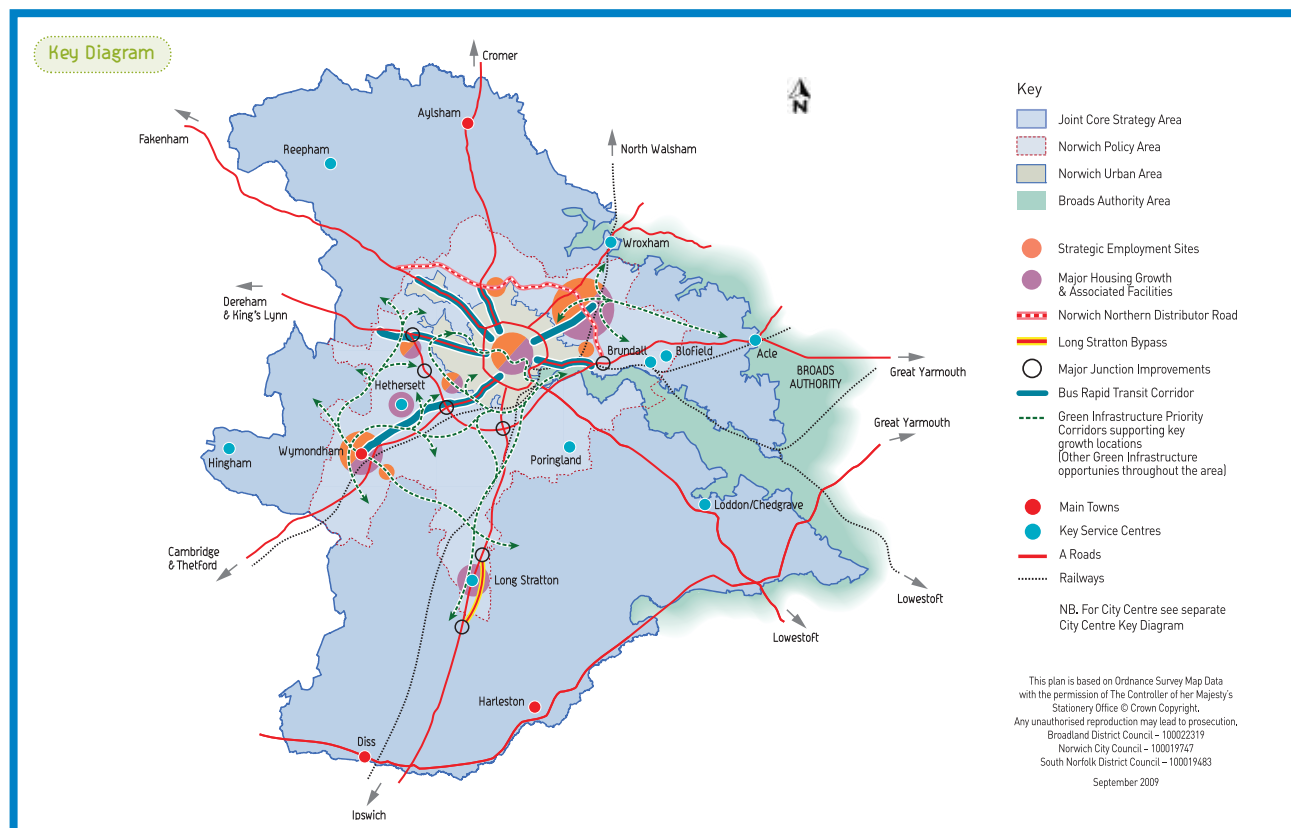
## Opportunity mapping

**Once the habitats and landuse of an area have been mapped they can be used in a number of ways.** For example, they can be used in the BAP process to show the amount of a particular habitat in the county and, when repeated on a regular basis, to monitor change. These maps can also form the basis of ecological network mapping or to identify opportunities for habitat creation.

## Case study

**Recent work by NBIS on the Norwich Green Infrastructure (GI) Development Plan sought opportunities for habitat creation.** The Greater Norwich area has been identified as a growth point with over 20000 new homes planned. Government policy determines that new development should be supported by the creation of high quality green infrastructure. In practice this should comprise a network of 'green' spaces and inter-connecting 'green' corridors in urban areas and their surrounds, which stretch out into the wider countryside. Mapping undertaken by NBIS produced a map that outlined BAP and other habitats and landuse within the Greater Norwich area.

A series of criteria such as distance from designated sites and existing habitats and proximity to development areas were then used in the GIS to identify potential sites for creation of new 'green' space. Those areas of highest potential were then used to develop 'priority areas' linking Norwich to other areas of development to the south, and the Broads to the North.



Documents such as the GI Development Plan in turn form the evidence base for strategic plans. The priority areas identified were used to inform the Greater Norwich Joint Core Strategy appearing both as maps in the supporting evidence, and in the key diagram. This diagram forms the heart of the document and is the basis for the strategy governing development in the Greater Norwich area over the coming years. It is important that documents such as this are built on robust evidence and the methods and processes used by NBIS are designed to ensure this.