

NBRC Newsletter 09

December 2014

NBRC News

The NBN Data Capture Initiative

Sometimes you gradually bring long-matured plans to fruition. On other occasions you postpone some of what you were about to do and seize on windfall opportunities that might open up new possibilities. As a result of various English record centres and other bodies responding to the National Biodiversity Network Trust's call to identify historical datasets that they would like to digitise and share via the NBN Gateway, NBRC and those others are either in receipt of or looking forward to receiving money from the Cabinet Office's Release of Data Fund.

Our local recorders will recall a summertime request to identify – at very short notice - yet to be digitised sets of records in notebooks, in shoeboxes under beds or other paper-based archives. Bird records – lots of bird records, beetle notes and butterfly recording cards – were what was identified locally. An estimated 250,000+ records in fact and more than half of what was identified by all those who responded to the NBNT. The Cabinet Office welcomed the bid and we were eventually told that we would be receiving funds for part of the bird data with the expectation that a larger sum would be made available (if the various stage 1 projects went well) to cover further work. Nothing ever goes smoothly though, so a number of hold ups meant that it was almost 3 months from when we were told we would be receiving funds to being in a position to employ anyone to carry out the work. In addition to extending James Skinner's hours and having him and four others focus on data entry until Christmas, we should be in a position to complete work on this first set early in the New Year, by which time we should know if we have further funds to support additional data entry. Our thanks to everyone who has supported us in this work and to Rachel Stroud at the NBN Trust.



Brimstone Moth (*Opisthograptis luteolata*) - Uncommon white form of the species recorded at Irchester Country Park on 22nd August 2014 by Derek Larkin. Derek is doing a 10 year study to record the moths at Irchester.

Roll on the New Year...

As Christmas looms and NBRC's eighth year draws to a close, we can look ahead to what we'll be doing in 2015.

Depending on how things turn out, what might well be our most significant endeavour is our proposed WILDside project. Amongst other goals, this would help to raise the profile of biological recording and why it is important in guiding sustainable development and halting biodiversity loss – particularly in a county that has been transformed to the extent that Northamptonshire has. The main goals would be (1) to fill information gaps relating to priority species and key taxon groups across the county, focusing on reserves, parks and local wildlife sites and, most importantly, (2) to work closely with existing recorders to encourage, train and mentor a new cohort of recorders, who would be able to enthuse and help others in turn.

We're planning to submit a bid in support of the proposals the Heritage Lottery Fund's Our Heritage scheme (Ideally by December 24th in order for this to be considered in February so that we might start in Spring 2015). Steve is currently working on this and pulling together information from the questionnaires which various recorders and others completed in October (Thank you, if you were one of these. We are very grateful for this). Apart from drawing individual ideas together into a cohesive

whole, he'll also be looking for a small number of letters of support and sources of match funding. If you have any suggestions on the latter score we'll be pleased to know – it would be useful to build relationships with local funders, and this seems a good place to start.

As well as encouraging future recording and digitising records from the previous century (via the NBN Data Capture Initiative), we'll also be seeking to validate records from recent years (focusing initially on Dragonflies, True flies, Birds and Bryophytes). As existing datasets for these and other taxonomic groups are incorporated into our Recorder database, we'll then be in a position to handle updates more speedily.

To help with this, a New Year re-organisation of the NBRC office should enable us to accommodate additional volunteers who might be able to give occasional help with checking records, whether working at Lings or from home. If you or someone you know might be available to assist with this work, we'll be only too pleased to accommodate you.

NBRC is hoping to pass the 1 million records mark for 2016, which will be the Centre's tenth anniversary. Digitising these historical records and processing those we currently hold on spreadsheets would help considerably towards achieving this goal.

2014 Bioblitz at Halse Copse North and South

Results so far.....

This year NBRC held its annual BioBlitz event at Halse Copse and meadows, Greatworth, near Brackley over a week-end in May. We were lucky with the weather, which was very warm on both days and we'd like to thank everyone who participated and contributed to this very successful event.

The results are in! Well most of them are and hopefully the rest will be received soon.

So far we have received an impressive 1128 observations comprising 550 different species. Prior to the event, only 170 different species had

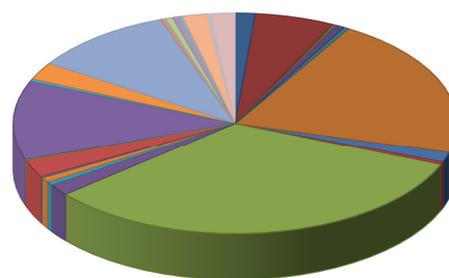
been recorded within the survey boundaries. These extra records will help to provide important information about the biodiversity of the area.



Bugle (*Ajuga reptans*) in the meadow at Halse Copse North

The number of different species within each taxon group received so far is indicated in the chart below. The group with the highest number of species recorded were beetles with 180, followed by flowering plants with 114 species recorded. After a very poor year last year at Fawsley Park with only eight species recorded, this year 64 species of moth were seen closely followed by true flies with 57 species recorded.

Number of species per taxon group



We clearly had a bumper year for beetle records, with the most frequently recorded being the malachite beetle, *Malachius bipustulatus* and the

rove beetle *Tachyporus obtusus*. After the 7-spot ladybird was noticeably absent in last years' observations, it's good to see it back to being one of the most frequently recorded beetles. We also received records for the 14-spot, 16-spot, 22-spot, kidney spot and of course, the harlequin ladybird. Amongst the beetle lists, one Notable A (*Uleiota planata*) and four Notable B species had been recorded: Hedobia (Ptinomorphus) imperialis, Anthracus consputus, Diplapion stolidum and Sitona (Sitona) macularius

For mammals, traps set out over the week-end managed to attract common shrews, bank voles and wood mice, whilst brown hares were spotted near Halse Copse South. Common and Soprano pipistrelles, Noctule and Daubenton bats were recorded along the bat transect that was undertaken on the Saturday evening.

One of our regular volunteer recorders was pleased to find four ant species, including the Brown Ant (*Lasius brunneus*), a Nationally Notable A species. This species is described as being almost exclusively found nesting in old trees or timber and the workers are rarely seen away from the host tree or even its surface.

Out of the 32 species of bird that were recorded four are red listed species and six are amber listed. These included the; Cuckoo, Yellowhammer, Marsh Tit, Song Thrush, Willow Warbler, Kestrel and Green Woodpecker. The most frequently recorded bird was the Robin.

This years' Bioblitz event was a very successful event with the results so far, showing a good range of different species being recorded. The list is not yet complete and our sixth annual Bioblitz has the potential to provide the highest number of records.



Rhinoceros beetle (*Sinodendron cylindricum*) spotted wandering around the north copse woodland by James Skinner. Photo by Nathalie Hueber.

Road Verge Surveys

Looking for changes in condition

Where biodiversity information exists and is made available (preferably with meta-data about how it was collected), it provides the means to compare different areas, habitats or species occurrences within the same time frame or to compare snapshots in time. Knowledge of different species' preferences/tolerances can help explain the differences and highlight the causes. This is a brief illustration of how.



NBRC Staff (Steve Whitbread and James Skinner) surveying

In common with many other counties, Northamptonshire operates a scheme to protect and manage valuable road verges, with around 30 across the county. Such verges can have a high value for wildlife. They featured in the original Northamptonshire BAP and are included within several actions in the current edition.

NBRC undertook surveys of three Protected Wildflower Verges (Grendon, Eason Maudit and Tiffield) in June-July 2014 to establish if there were any significant changes to their condition since the previous surveys carried out in 2005. We deliberately chose to follow the whole site survey methodology that had been used previously – i.e. recording all vascular plant species observed in the verges and adjoining hedges, and estimating their relative abundance on the DAFOR scale rather than employing quadrats. Although our results may mask variation within the sites where there were areas that were clearly wetter, more shaded or more diverse than others, our intention was to trial different methods for interpreting information from a small number of sites rather than to demonstrate or

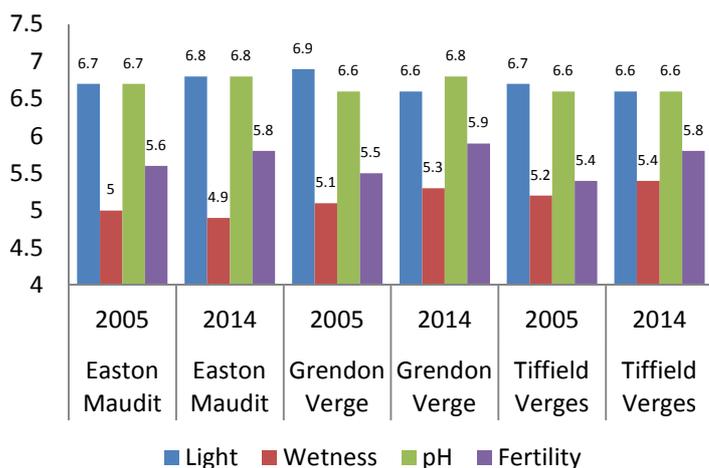
explain change with the limited time we had available.

The plant lists from 2014 and earlier surveys in 2005 were entered into MAVIS (Modular Analysis of Vegetation Information System) a software program created at the Centre for Ecology and Hydrology for analysing data against different types of vegetation classifications developed for Great Britain. For our purposes, MAVIS was used to obtain Countryside Vegetation System (CVS) classifications and Ellenberg Indicator Values for each data set.

		CVS code	CVS description	Spp Total	Unique spp.
Easton Maudit	2005	26	Tall grassland/scrub	54	20
	2014	13	Lowland mesotrophic roadsides	55	21
Grendon	2005	37	Diverse mesotrophic grassland/scrub	63	24
	2014	26	Tall grassland /scrub	66	27
Tiffield	2005	37	Diverse mesotrophic grassland/scrub	85	23
	2014	26	Tall grassland /scrub	86	26

It's worth noting that whilst there was little difference in the number of species recorded at each site, with Tiffield apparently much richer than Easton Maudit, 20 to 30 species were uniquely recorded during either 2005 or 2014. 146 species occurred across the six samples with just 11 of these omnipresent.

MAVIS calculates mean Ellenberg Indicator Values for a sample or plot (Combined Ellenberg score for each species/number of species recorded as present), as shown in the graph below.



Heinz Ellenberg published lists of species in the European flora and attached scores (1-10) to each, conveying the optimum position typically occupied by that species along a number of different environmental gradients, e.g.

- Fertility (low scores = low fertility)
- pH (low scores = low pH)
- Wetness (low scores = drier conditions)
- Light (low scores = more shade tolerant)

The values used in Countryside Vegetation MAVIS were re-calibrated for British condition (by Mark Hill et al). Thus, a simple species list can provide a lot of information about a site and the causes of observed vegetational change.

Scores are then computed for individual plots to provide a mean value as follow: $\text{scores} = \frac{\text{Sum } E}{n}$

E = Ellenberg score for each species
n = number of species in the plot

As well as highlighting the differences and similarities between sites, our analysis indicates differences in the condition of sites in 2005 and 2014. The greatest difference was observed at Grendon Verge. The Ellenberg Values show that at that this site, there has been an increase of 0.3 for shade tolerant plants, a 0.2 increase in the soil moisture level, a 0.2 increase in the pH level to a more neutral level and a 0.4 increase in soil fertility.

Our data suggests higher levels of fertility in 2014 which might be linked to decline in the value of the habitat. A continued increase in soil fertility levels may lead to the establishment of more competitive ruderal species. Certainly, it would seem worth surveying a larger number of sites in more detail, and reviewing the data collected by others in the interim. That should be an interesting study to inform future management efforts. In the meantime, we'll look at what the individual species tell us about the condition of our 3 sites.

Ceratodon conicus

a red data book 'endangered' species

Ceratodon purpureus is one of the commonest British mosses, sometimes carpeting large areas of heathland; it's been given an English name "Redshank" because of the red setae [capsule stems] which are often present in abundance.

In contrast, the closely related *Ceratodon conicus* is rare, in fact some people considered it to be extinct

– along with the soil-capped walls which were its favoured habitat. It was never common; there have been about 70 records, mostly in the south midlands. The great Victorian bryologist H.N. Dixon, who lived in Northampton, recorded it in several places locally – Duston (1884), Kingsthorpe (1885), Dallington (1893). More recently the botanist E.W. Jones recorded it in his Oxfordshire garden, in 1990.

Early this year John Minney took me to Pitsford Quarry, and together we searched the site for bryophytes. A flat area next to the access road is being colonised, and there we found a small moss which was unfamiliar. The leaves were right for *Ceratodon conicus* (see pictures) but there were no capsules – essential for certain identification.



Ceratodon conicus leaves (left) contract abruptly into an excurrent midrib whilst *Ceratodon purpureus* leaves (right) taper gradually and the midrib ends at the tip.

In 2010 Peter Martin found an interesting moss on a brownfield site in Bristol; vegetative characters suggested *Ceratodon conicus*, but he couldn't find capsules. However DNA analysis at the Royal Botanic Garden Edinburgh suggested that it is a species distinct from *Ceratodon purpureus* (Field Bryology Vol.111, May 2014). Our material looked almost identical to Pete's.

John and I returned to the quarry to search for capsules. At first we failed even to re-find the moss! So we dutifully settled down to record quadrats for the bryophyte ecology project. On hands and knees, we saw our *Ceratodon* ... and in the third quadrat, there were fruiting plants. We had our capsules.

The capsules seemed to have the right structure, see pictures below -- although microscopic examination was necessary. They were sent to Tom Blockeel, the British Bryological Society's Recorder for Mosses, and after meticulous examination he pronounced that we had the first fully confirmed record of *Ceratodon conicus* in the UK for many years. The vegetative characters are identical to those of Peter Martin's material, and at the time of writing we are awaiting DNA analysis

which we expect to confirm that the two are the same species.

Rachel Carter



Capsules of *Ceratodon conicus* (left), erect and without any bulge at the base where the capsule joins the seta. *Ceratodon purpureus* capsules (right) – held at an angle, and with a small knob at the base.

Diptera sightings

This year during The Ecology Groups Hoverwatch project surveys at Old Sulehay Forest we recorded 45 hoverfly species, including one new one *Epistrophe nitidicollis*. For the first time, the recent arrival to Northants, *Rhingia rostrata* outnumbered the usually abundant *R. campestris*. This increase in numbers has been anecdotally noted in a number of areas in the Midlands, although no explanation has been forthcoming. Possibly a mild winter and warm summer have favoured this species as it was largely confined to the south and west prior to its recent range expansion.

The Diptera Group visit to Abington Meadows in late August produced the rare snail-killing fly (Sciomyzidae) *Sciomyza simplex*. I was so surprised at finding it, albeit in perfect habitat, that I sent photos and description to Iain McLean, who runs the national Sciomyzid recording scheme. He confirmed the identification. He said he had never found a specimen himself. It was swept from a wet area with tall sedges and rushes.

A number of records have come from new tetrads in the county and from some new recorders, who have sent me good photos of some species. Many flies cannot be identified from photos but some can be done reliably and it is a good way of picking up miscellaneous sightings. In particular, a large horsefly (Tabanidae) at Summer Leys in the summer attracted the attention of some bird photographers. One sent me a photo of a female

and the next day someone else sent a photo of a male. Both were of the medium-sized horsefly *Tabanus autumnalis*, the Marsh Horsefly. These turned out to be the third and fourth records for the county according to the national recording scheme. A couple of weeks later I found two females near Yardley Hastings sand pit so it seems to have been a good year for this species.



Tabanus autumnalis

Another photo sent to me by a non-dipterist was of the scarce (at least locally) crane fly *Dictenidia bimaculata*, Twin-mark Comb-horn Crane fly, found at Glapthorn Cow Pastures. I found a close relative, *Ctenophora pectinicornis*, Orange-sided Comb-horn, at Stoke Wood. These crane flies are associated with rotting wood, typically in ancient woodlands and parklands. They are rarely recorded due to several factors. They are fairly scarce, they look a lot like large ichneumons, so may be overlooked, and they often live high up in the canopy. The group was featured in the June 2014 British Wildlife magazine so I am hoping that might encourage some more reporting.



Dictenidia bimaculata

Pitsford Water nature Reserve's moth traps provide an interesting assortment of flies in the by-catch. I collect these and try to identify them, although some are too mangled or of obscure families that I cannot identify. On 13th October the catch included a fruit fly (Drosophilidae), which is one of the groups for which I do not have a key. However, this fly had a distinctive black spot near the end of its wing so I attempted to find it on the internet. I fairly quickly found a possible match in the spot winged fruit fly *Drosophila suzukii*. I confirmed the identification with Peter Chandler, a national expert. This fly is an introduced species which is a major pest of soft fruit crops in various parts of the world. It had been predicted to occur in Britain and, in August 2012, it was found at the Malling horticultural research station in Kent. A few other records have cropped up since but this is the first record for the Midlands as far as I can tell. The fly will be featured in the next edition of Dipterists Digest (due December 2014), where identification details and records of its occurrence will be published.

John Showers.

Champions of the Flyway

On 1st April this year I was fortunate to take part in the inaugural Champions of the Flyway bird race, a major new international event which will be staged annually in Eilat, Israel – home of one of the world's most desirable birding destinations and famous migration spectacles.

Thirteen teams raced in the international section of the event, including The Birdwatch-BirdGuides Roadrunners, comprising Ian Lycett, Dominic Mitchell, Morten Bentzon Hansen and myself, attempting to find, identify and log as many species as possible in an intense 24 hour contest to win the coveted title 'Champions of the Flyway'.

While the racing might be light-hearted, our goal was serious - to raise conservation funding through sponsorship and donations that will help the BirdLife International Partnership tackle the illegal killing of birds in southern and eastern Europe.

Although the event commenced and finished in Eilat, it covered a well-defined 'field of play' extending north-west to Nizzana in the western Negev Desert on the Egyptian border and north-east along the Jordanian border in the Arava Valley. While the habitat was principally desert, we

were able to visit some arable and wetland areas to help boost the diversity and numbers of the species recorded on the day.

We accumulated a respectable 132 species between 03.00 and 20.00, the first of which was a pre-dawn Scops Owl and the last being three Lichtenstein's Sandgrouse, which came in at dusk to drink at a small pool a few kilometres north of Eilat. As well as seeing most of the local desert species we caught up with some more unusual migrants, including Caspian Plover and Black Bush Robin.

Despite our best efforts, hacking around in the searing heat, we did not win the title but we were one of the strongest performing fundraisers, achieving £2640 of our £3000 target. In all, the event raised some £36,000 for conservation and I would like to thank all who donated generously to the cause.

Mike Alibone



Birdwatch-BirdGuides Roadrunners team – from left to right: Mike Alibone, Dominic Mitchell, Morten Bentzon Hansen and Ian Lycett.

Useful resources...

Amidst all his work and voluntary roles, Martin Harvey (part-time Open University Research Assistant focusing on the iSpot project, Consultant in entomology and biological recording, Visiting Lecturer for the Biological Recording MSc at Manchester Metropolitan University, NFBR newsletter editor and Associate Tutor for the Field Studies Council), provides links to some hugely useful resources from Wildlife Training Workshops to entomological keys at:

<https://sites.google.com/site/kitenetter/Home>.

Martin recently wrote a free 30 page Surveying Wildlife in the Chilterns handbook including a lot of useful information on survey techniques and

creating wildlife records. The handbook also signposts a lot of useful websites which provide in-depth information on surveying plants or animals, either locally or as part of a national scheme:

<http://www.chilternsaonb.org/news/187/19/New-guide-to-surveying-wildlife.html>

Latest Bird Report

The latest Northants Bird Report covering 2013 (Fieldfare cover) has been received from the printers. It has the usual features, a Ringing Report from Pitsford Reservoir, an updated list of species recorded in the County, an account of the Hume's Warbler at Kelmarsh, a new County bird and is packed with illustrations and photos.

The price is £7.50 or £8.80 by post from Robert Bullock - 81 Cavendish Drive, Northampton NN3 3HL. If you require more than one copy then the extra cost for posting is an extra 20p per copy. Cheques should be made payable to 'Northants Bird Report.'

The Report will also be available at Oundle Bookshop later. They may charge more than £7.50.

Only a limited number of Reports have been printed this year so don't miss out.

Bob Bullock

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Thank you for your contributions

Nathalie Hueber