



TWIC Members' Newsletter

Autumn 2014

## TWIC Spring Conference May 2014

Natalie Harmsworth

The Wildlife Information Centre (TWIC) Spring Conference "Recording in 2014 – What's New?" was held at the Scottish Borders Council Headquarters in Newtown St Boswells on Saturday 10<sup>th</sup> May. This bi-annual conference is an opportunity for recorders from across the region to learn about different aspects of biological recording and a chance for TWIC to thank all those organisations and individuals who contribute data to the local record centre through the year. The event was again well attended, with delegates travelling from as far afield as Aberdeenshire.

See page 10 for full report.

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## Welcome

Graeme Wilson

Welcome to the first issue of Wildlife Insite, TWIC's new newsletter. We started writing it a few months ago, but it has been such a busy time at TWIC that we are only publishing now!

TWIC has grown tremendously in the past few years and this is down to a dedicated team of staff, volunteers and Directors. It is this team and support from members that has allowed TWIC to grow.

Staff are supported by the Board, currently Sarah Eno, Ian Young and Rob Briers, but there is currently space for up to four more, so please contact me if the idea of being a Director interests you. During 2014 Ian Jackson stepped down as a Director as did Alastair Sommerville, one of TWIC's original Directors and one of the main people behind TWIC's Lothian predecessors. We thank both for the time they gave to TWIC.

## Data Processing

Jackie Stewart

Biological data are immensely variable, and in part, this is what makes data processing with TWIC so interesting and enjoyable. Data are submitted in various formats – electronically – as Excel spreadsheets, email text or Word documents – or on paper – perhaps hand-written or typed, on recording forms or survey postcards, in letters or reports. There are one-off records from members of the public, and large, well-organised files containing thousands of records from Vice County Recorders and other organisations. The processing needs vary accordingly but for all, the aim is to ensure as far as possible that the data are correct, without duplicates, and presented in a suitable format before entry to our species database (Recorder 6).

The 4 Ws are a well-known reminder of what constitutes a valid biological record:

**Who** made the observation?

**What** species was observed?

**Where** was the species observed?

**When** was the species observed?

You can help us process your data more quickly and make it easier for volunteers to contribute to our work by ensuring that the information given is as clear and unambiguous as possible.

**Who are you?? Not just a name...**

A key part of any valid biological record is knowing who made the



observation. This is essential to ensure correct attribution of the record – and so that if any queries arise, we know who to ask.

So, always providing your **full name** is a good start. If you only give the initial of your first name, our Recorder database may present a helpful message such as, “There is more than one possible match for D. Duck”. Hmmmm... Donald Duck? Daisy Duck? or perhaps that nephew Dewey?? If you are well known to us, it is easy to choose the right one – but if not, it can be time consuming to work it out.

**Contact details** can help with this – and are essential if we need to check any details of a record. Ideally, we would like an **email address, phone number and postal address** – and please let us know if these need to be updated.

In addition to the above, it is useful to know if you are especially interested in a particular taxonomic group, whether you have sent us records before and whether you send your records to other organisations.

**All this information helps us ensure that if you made the record, you get the credit.**

#### **What did you see? Are you sure??**

If you are certain of the scientific name of a species, please give this in full. Abbreviations are not always obvious and can be ambiguous or take a while to work out. Giving the common name as well can be useful in data checking.

If you are not sure of the scientific name of a species, please give the standard common name if it has one. If you haven't a clue what it is, but you've never seen one before and it looks interesting, take a photo and add notes on anything that could aid identification – for example, size, habitat, behaviour.

#### **Where was it?**

Ideally we would like a grid reference and the name of the location of where you made the observation. A link to the “Grab a Grid Reference” tool is available on the TWIC website. However, if you are unable to provide a grid reference, please give a detailed description of the location, an address or post-code.

#### **When did you see it?**

A specific date in the dd/mm/yyyy format is most useful, but where this is not possible, a month and year, year, or a date range is also acceptable.

#### **Other Information**

Obviously the 4 Ws are key, but many records also include valuable extra information on, for example, abundance, growth stage, behaviour, or habitat and we strive to ensure that all information recorded is retained in the final record. Often, much of the extra information is presented as a “Comment” where the number of characters is restricted to 250, so please aim to be precise and concise.

Finally, thank you to **everyone** who sends in records. Your doing so makes the information available and useful to others in nature conservation, planning and research.

## **TWIC's Data Holdings**

*Natalie Harmsworth (with maps produced by Steve Hannah) [Figures correct as of May 2014]*

A key aim of The Wildlife Information Centre is to hold as comprehensive a record of the wildlife of the Lothians and Borders region as possible. This includes information on terrestrial, aquatic and marine wildlife. Currently, TWIC holds just over 1.3 million records for our area; approaching 881,500 records for the Scottish Borders and just over 456,500 records for the Lothians. The majority of the data TWIC holds has been collected by volunteer recorders – local groups, national recording schemes and societies – particularly the vice-county recorders who do a marvellous job of collating and verifying records for their patch. The other main sources of the data include local and national organisations, local authorities, statutory bodies, universities, consultants and members of the public. TWIC also generates records from our recording excursions, public surveys and events. TWIC has historically had good working relationships with many local recorders, but in order to achieve the comprehensive coverage that we aspire to, we need to continue to approach relevant individuals and organisations to negotiate data sharing agreements.

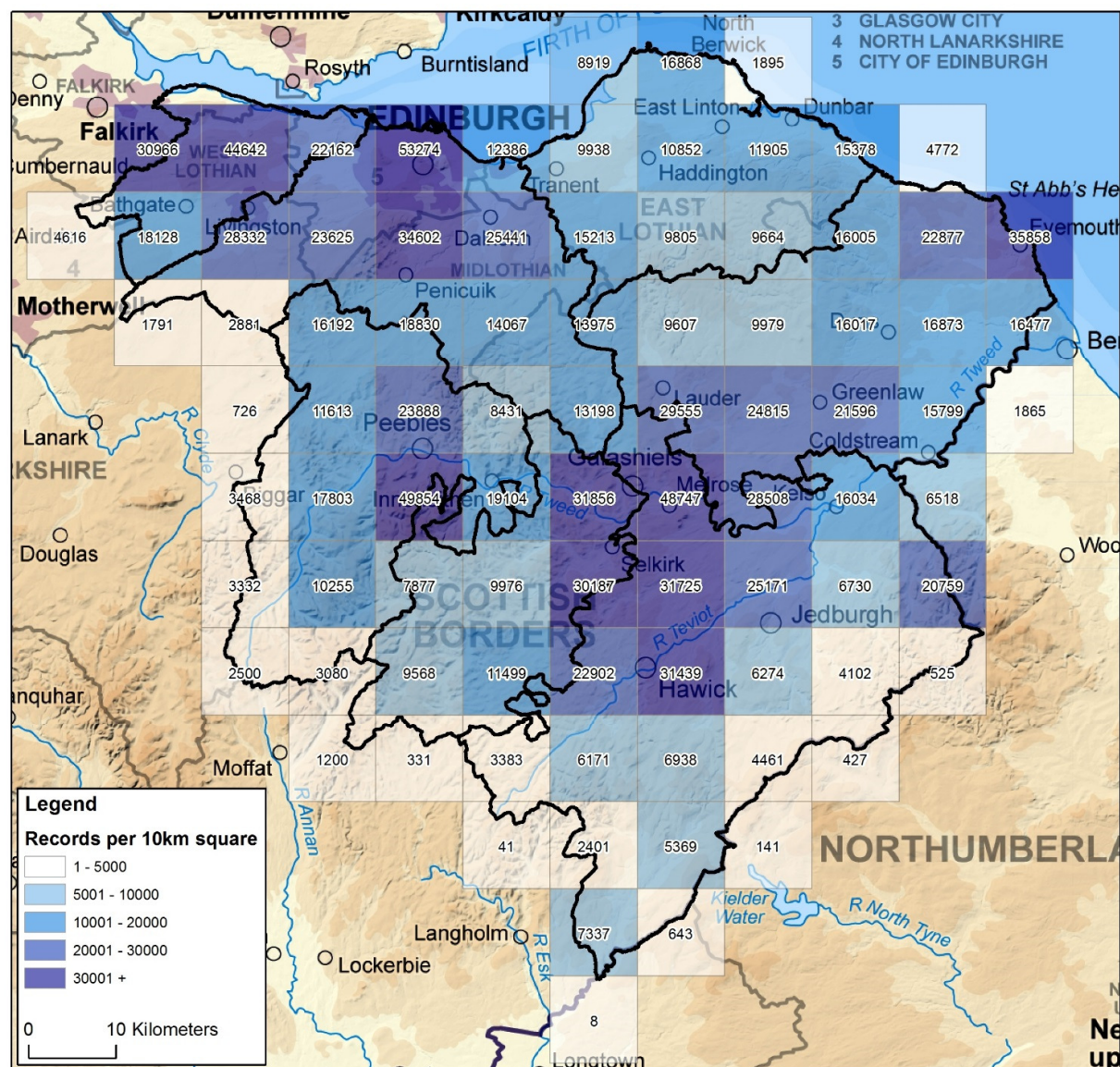
The figures presented in this article give an overview of the records currently held on TWIC's Recorder 6 database rather than all the records available for our area. For instance there are a few major datasets, and many smaller ones, that are currently being, or are awaiting processing by TWIC's Data Processors, and other datasets that we know about but are yet to obtain. Even taking into account these caveats, these data may serve to provide an insight into which areas or species groups require increased recording effort and/ or may indicate gaps in TWIC's data holdings and therefore help us prioritise the acquisition of new datasets.

#### **The spatial distribution of the data**

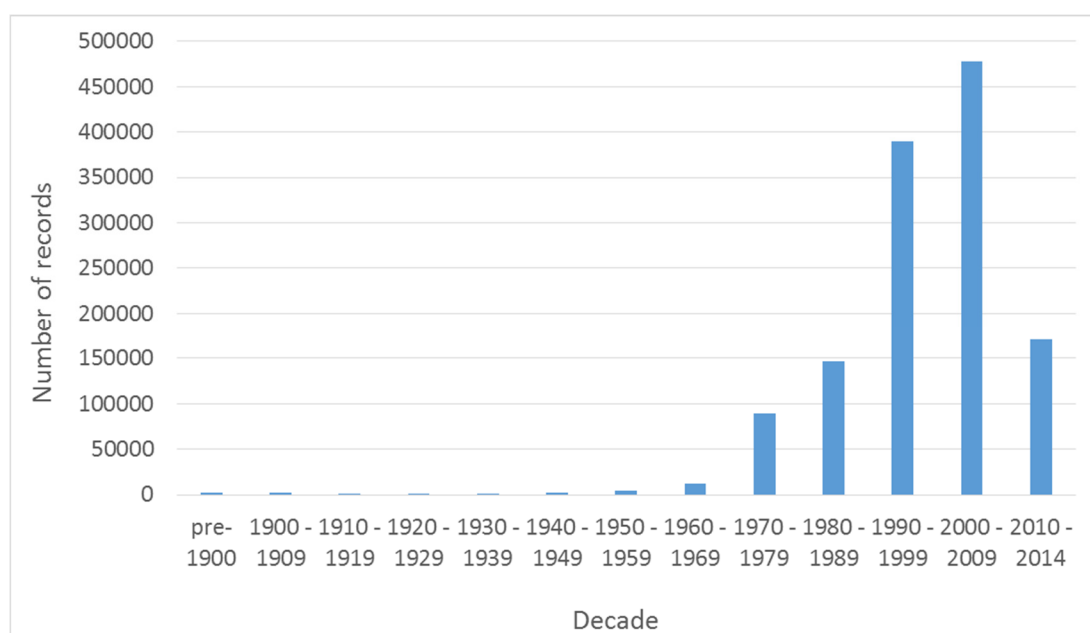
Figure 1 shows the number of records per hectad (10 km square) held on TWIC's species database. This includes records for all years, includes both presence and absence records and does not account for any duplication in the database. The darker the shade of blue, the greater number of records TWIC holds for the hectad. Some 'hotspots' are immediately recognisable where there are more than 30,000 species records per hectad. These hotspots include the 10 km squares incorporating St Abbs / Eyemouth on the Berwickshire coast, Edinburgh city and several population centres in the Scottish Borders e.g. Galashiels, Melrose, Selkirk, Hawick and Peebles. Several hectads in West Lothian also stand out as having 30,001+ records per hectad. This most likely reflects the distribution of recorders in our region and those places which recorders like to visit. The 'low lights', hectads with comparatively few records, include upland areas e.g. Lammermuirs and Moorfoots, and less-populated and inaccessible areas, such as the far south of the Scottish Borders. Hectads on the periphery of the TWIC area also appear to have relatively fewer records, but it is worth bearing in mind that only records for the TWIC area are included in the analysis, so the totals will be under-estimates for the 10 km square as a whole.

#### **The temporal distribution of the data**

Figure 2 shows the number of records for each decade since 1900 held by TWIC. Pre-1900 records are shown as a single date class. The graph reflects the date when the organism was recorded, rather than the date the record was entered into the database. It is worth noting that the final date class “2010 – 2014” only represents a half decade of recording effort, so is not comparable to the other date classes. Overall, it is possible to observe an increase in the number of records made in each decade since the 1970s. The majority of the data (98%) were recorded from 1970 – 2014, with the largest proportion coming from the decades 1990 – 1999 and 2000 – 2009 (30% and 37% of the total records respectively). Therefore, in order to equal the last decade (2000 – 2009), TWIC will have to input over 300,000 post-2010 records before the end of 2019, which equates to about 55,000 records per year between now and then.



**Figure 1.** Number of species records per 10 km square (hectad) held on TWIC's database of species records. The vice-county boundaries are shown. Contains Ordnance Survey data © Crown copyright and database right 2014.



**Figure 2.** Number of species records held by TWIC pre-1900 and for each decade since 1900. \* Note that the final date class (2010 – 2014) is only a part-decade. Both presence and absence records are included.

### The number of records per taxonomic group

The next question to address is which taxa are particularly well-represented in the database and which are poorly represented and perhaps justify further attention, either through increased recording effort or through efforts from TWIC to acquire relevant datasets. Figure 3 shows that vascular plants, birds and insects comprise the bulk of the records, together representing 87% of the records TWIC holds. Of the insect data, 57% are moth records, with the next best recorded group being beetles and butterflies respectively (each representing about 12% of the insect records) (Fig. 4). Dragonflies (Odonata) appear not to be so well-recorded in our area, despite the adults being attractive and there being a manageable number of species to get to grips with. The least well recorded groups include fleas, springtails and diatoms, all with fewer than 10 records for the entire TWIC area. These groups are included in the “other category” in Figure 3. The entoproct, silverfish (*Thysanura*), stylops (*Strepsiptera*) and protozoan are all noteworthy in that TWIC holds only a single record for each of these groups! (Again, these species are included in the “other category” in Figure 3). In considering these data, one has to wonder which groups occur in the TWIC area, but are as yet unrecorded. Perhaps, this is a topic for a future newsletter article.

Other comparisons between records for different taxonomic groups could be drawn, but owing to differences in the number of species available to record and ease of detection, which may be linked to organism size and visibility (some species are nocturnal for example), I do not want to make too many sweeping statements. It is however clear that there are biases in which species are the focus of recording and that some groups are still only recorded by a few specialists. However, the efforts of a dedicated individual can have a noticeable impact on the knowledge of a group. The fact that the Barkfly (*Psocoptera*) group is at all visible on the pie chart (Fig. 4) is almost entirely down to the efforts of the late Bob Saville, who set up the National Barkly Recording Scheme and managed the local biological record centre for many years. Perhaps TWIC should consider setting up a vacancies page on our website for groups with no local expert?

### How you can help

**Submit your records** to TWIC or the relevant national recording scheme or society. Records for all taxa, including common species are welcome. Do not assume something is already known! See the [Contributing data](#) section of the TWIC website for details and a basic recording form.

Approach your vice-county recorder or national recording scheme organiser (if there is one) to find out where the gaps in species recording are and **visit under-recorded squares**. If you do not know who the relevant contact is, please [get in touch](#). Your local recorder will also be able to tell you other priorities for recording (e.g. BAP species). Note that some information is available online, e.g. Butterfly Conservation has produced distribution maps for butterfly species found in East Scotland – see their [website](#) for details.

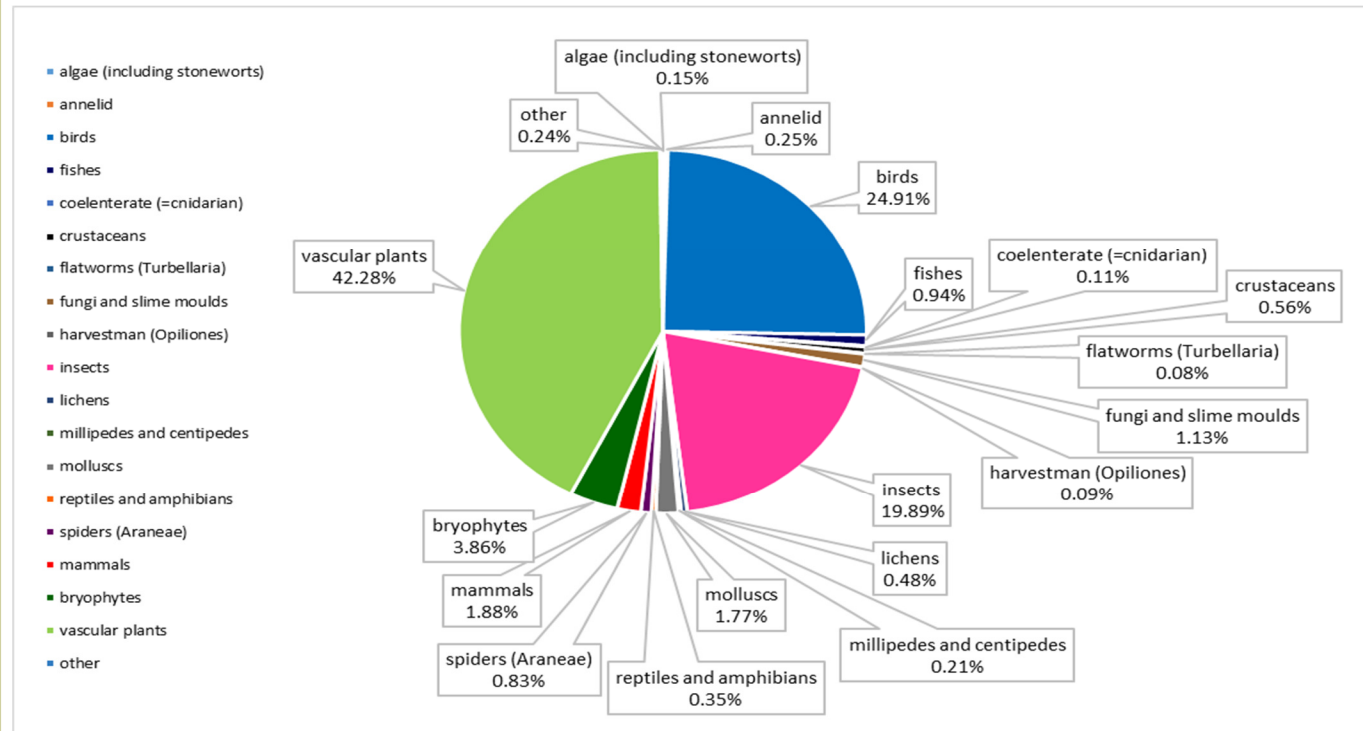
When recording **rare/ scarce or protected species**, please assign a minimum of a 6-figure (100 m square) grid reference to your records. This allows rarities to be re-found in the future and also means that the data can be used more effectively by planners and conservationists because the locality of the species or protected feature can be determined in relation to the site.

Attend TWIC recording excursions to proposed Local Biodiversity Sites (pLBS) to help generate data for **sites of local conservation importance**. For details visit the [Recording events](#) page of the TWIC website.

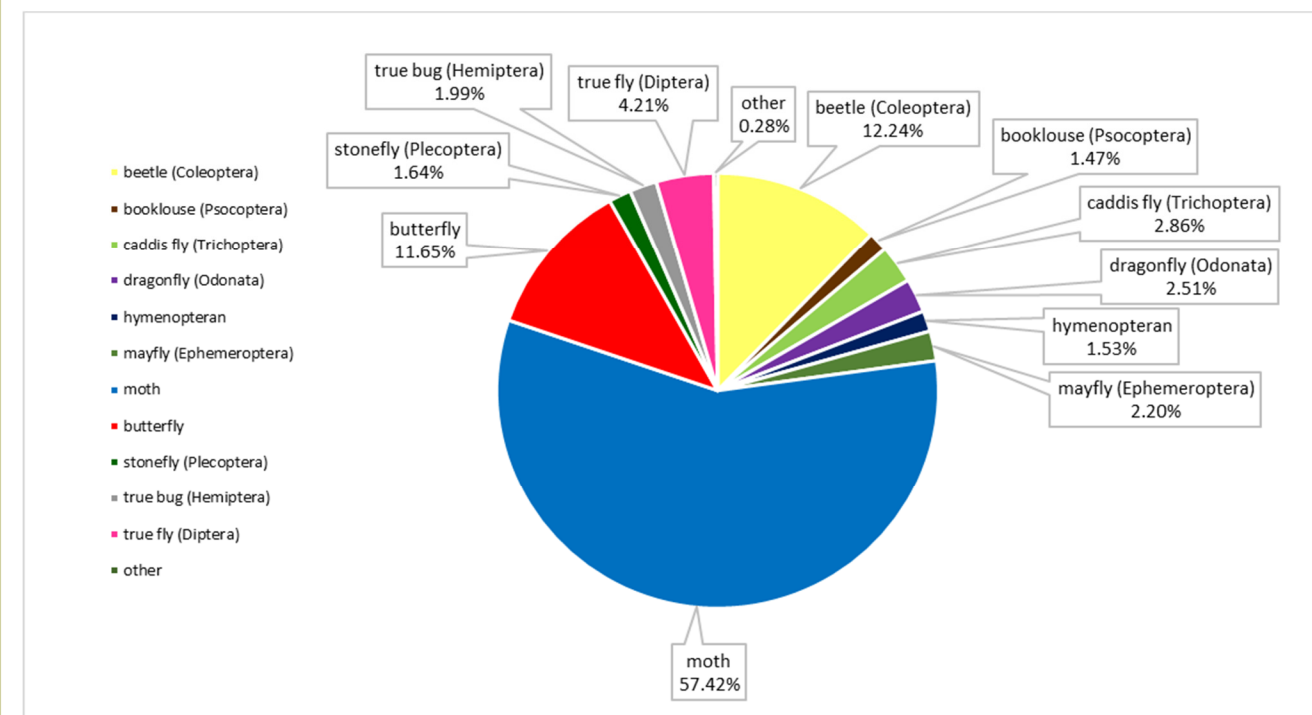
**Contribute records to the TWIC public surveys** e.g. the [Hedgehog](#) or [Record a Raptor](#) surveys and encourage others to do so. These surveys help attract interest in recording amongst the general public and can also serve to plug gaps in TWIC's data holdings.

If you are a vice-county recorder or national recorder approach TWIC about **data sharing**. Records that are submitted to TWIC are made available to others for conservation. At the same time, TWIC can feed data

into other recording schemes and societies for their purposes.



**Figure 3.** The total number of species records per taxonomic group held in TWIC's species database. The group called 'other' includes: springtail (Collembola), horseshoe worm (Phoronida), peanut worm (Sipuncula), priapulid, entoproct, diatom, comb jelly (Ctenophora), ribbon worm (Nemertinea), sea spider (Pycnogonida), bacteria, protozoan, roundworm (Nematoda), hairworm (Nematomorpha), sponge (Porifera), false scorpion (Pseudoscorpiones), tunicate (Urochordata), chromist, echinoderm, acarine (Acari) and bryozoan.



**Figure 4.** The total number of species records per insect group held in TWIC's species database. The 'other' category includes: alderfly (Megaloptera), bristletail (Archaeognatha), earwig (Dermaptera), flea (Siphonaptera), lacewing (Neuroptera), orthopteran, scorpion fly (Mecoptera), silverfish (Thysanura) and stylops (Strepsiptera).

## The Scottish Biodiversity Information Forum (SBIF)

Christine Johnston

Since March 2013 TWIC has been host to the Co-ordinator of the Scottish Biodiversity Information Forum (SBIF), a part-time role that is currently funded by Scottish Natural Heritage (SNH) and Biological Recording in Scotland (BRISC). The Co-ordinator supports the work of the SBIF by providing administrative help, as well as research and development support.

The SBIF was established in June 2012 following an e-petition to the Scottish Parliament in 2008 that called for the development of an integrated approach to the collection, analysis and sharing of biological data in Scotland. The Forum is seeking to ensure that biodiversity benefits by improving the flow of biological information between organisations and individuals that collect data, and users of that data.

During 2013 the SBIF published its first Action Plan, which contains seven actions. These actions are seeking to address some of the issues that inhibit the flow of biodiversity data in Scotland and their delivery is being led by SBIF supporters.

**Action 1** of the plan was to finalise a vision statement for the Forum; this vision statement is guiding the work of the Forum:

*High quality species and habitat data will be collected and managed through a sustainable, co-ordinated and integrated local and national framework of organisations, partnerships and initiatives. These data will be available to ensure that Scotland's biodiversity, ecosystems and people benefit.*

The rest of the actions in the Action Plan are:

**Action 2:** Pilot a model data pathway

**Action 3:** Survey the data needs of the SBIF community

**Action 4:** Prepare and promote statements of best practice on data sharing

**Action 5:** Produce and promote standardised data collection and sharing protocols

**Action 6:** Compile and disseminate case studies that illustrate good practice and the value of data gathering and sharing for conservation and management in Scotland

**Action 7:** Encourage LRCs to carry out a gap analysis on their data holdings and to identify if data available through the NBN Gateway can fill the gaps

Successful delivery of the actions will depend on input from the wider biodiversity community and over the next few months we will be looking at the best way to involve as many people as possible in this process. Two actions where we will be looking for input are Actions 2 and 3:

**Action 2**, piloting a model data pathway, is to be developed in collaboration with the NBN Trust. As understanding and improving the routes by which data are made available and accessed is seen as fundamental to mobilising more data, it is intended that we should examine the elements of the data pathway to identify whether they work and whether they meet the needs of data sharers and users. We will need volunteers to assist with this action, but the exact process by which this action will be taken forward is still to be scoped out.

For **Action 3**, surveying the data needs of the SBIF community, a questionnaire is currently being written and will be circulated to SBIF supporters to complete. It is important that we reach all sectors of the data community with this questionnaire so that all data needs are understood.

Requests to get involved in the actions will go out through the SBIF mailing list so if you would like to be kept in-

formed please make sure we have your contact details.

For more information about the Forum refer to our web pages, which contain information on the background to the Forum, sections about the different sectors of the data community, and a list of resources that might be of interest to the biodiversity data community. The link is: [www.sbif.org.uk](http://www.sbif.org.uk)

You can contact me directly at the TWIC office by phone (01875 825968), by email ([coordinator@sbif.org.uk](mailto:coordinator@sbif.org.uk)) or on Twitter (@SB\_Info\_Forum), and I am generally in the office full-time as I also work part-time as one of TWIC's Data Processors.

## TWIC's 2014 Wildlife Survey



Buzzard (*Buteo buteo*)



Kestrel (*Falco tinnunculus*)



Red Kite (*Milvus milvus*)

Have you seen a Red Kite, a Kestrel or a Buzzard in the Lothian and Borders?  
If so, please let us know!

Send an e-mail to [recordaraptor@wildlifeinformation.co.uk](mailto:recordaraptor@wildlifeinformation.co.uk) to tell us about your sighting, or visit our website at [www.wildlifeinformation.co.uk](http://www.wildlifeinformation.co.uk) to submit your record online and to find more information about the survey.

In order to protect our wildlife we need to know where it is – help protect your local raptors by keeping an eye out for them and participating in the 'Record a Raptor' survey!

Images & Red Kite silhouette: Dean Bricknell Photography ([www.deanbricknellphotography.com](http://www.deanbricknellphotography.com))  
Buzzard and Kestrel silhouettes: Edinburgh Hawkwatch ([www.edinburghhawkwatch.org.uk](http://www.edinburghhawkwatch.org.uk))

## TWIC Spring 2014 Conference Report

Natalie Harmsworth

Continued from front page

**Barbara Sumner, Botanical Society of Britain and Ireland (BSBI) Midlothian Recorder**, spoke first on the Scarce, Rare & Extinct Plants of Midlothian (VC 83). Founded in 1836, the BSBI is the leading scientific society in Britain and Ireland for the study of plant distribution and taxonomy. A major focus of the society is recording



Herb Paris (*Paris quadrifolia*) is rare in Midlothian vice-county.

Photo: Natalie Harmsworth.

and mapping the distribution of vascular plants in Britain and Ireland, for the production of periodic Atlases. The next Atlas is due for completion in the early 2020s. The society also undertakes project work, such as the Scarce Plants Project and Rare Plant Registers. The BSBI aims to produce a Rare Plant Register (RPR) for every vice-county of the British Isles. The purpose of the RPR is to provide information on the occurrence of the rarest plants in the vice-county. The vice-county of Midlothian encompasses most of Midlothian, about fifty percent of West Lothian and the City of Edinburgh Council areas, as well as a chunk of the Scottish Borders and East Lothian Local Authority areas. Barbara outlined the criteria for inclusion in the RPR and gave examples of species that fall into each of the three categories (Scarce, Rare and Extinct). Importantly, only native plants or plants introduced prior to AD 1500 that are self-sown are included in the register. Currently, 300 – 400 species are listed as scarce or rare in the Midlothian vascular plant flora, with a further 100 – 200 species considered extinct. The register is a culmination of many months of work by Barbara and would not have been possible without the many individuals, particularly current and previous Midlothian (VC 83) Recorders, who submitted records over the years. The RPR is a valuable resource to conservationists and planners and will also be of interest to the keen amateur naturalist. To view the RPR see [www.bsbi.org.uk/rare\\_plants.html](http://www.bsbi.org.uk/rare_plants.html). For further information on the work of the BSBI visit their website, [www.bsbi.org.uk/](http://www.bsbi.org.uk/), and like them on their Facebook page, [www.facebook.com/BSBI2011](http://www.facebook.com/BSBI2011).

**Louise Christensen**, intern at TWIC and PhD student at the University of Aberdeen, introduced TWIC's Record a Raptor survey. Three raptors have been chosen for this survey: Buzzard, Kestrel and Red Kite. Birds of prey are important components of healthy, functioning ecosystems. However, despite their ecological importance, raptors are often involved in wildlife conflicts and are subjected to wildlife persecution. Buzzards are currently the most common bird of prey in Scotland. However, 20 years ago they were quite rare. In contrast, Kestrels used to be widespread in the Lothians and Borders, but have recently declined in numbers. A 57% decline in Scottish Kestrel populations has been reported by the British Trust for Ornithology (*Breeding Bird Survey*) since the mid-90s. Red Kites went extinct as a breeding species in Scotland in the late 19<sup>th</sup> century. Since then, Red Kites have been reintroduced into several areas in Scotland and England during the 1980s, and populations have slowly begun expanding. Although Red Kites are currently a rare sight in the Lothians and Scot-



The front of the Red Kite postcard.  
Photo: Dean Bricknell Photography,  
[www.deanbricknellphotography.com](http://www.deanbricknellphotography.com)

tish Borders, they could potentially establish here in the not too distant future, so it is worth keeping an eye-out for soaring birds with distinctive forked tails. It is hoped that this survey will promote a wider appreciation of raptors in the general public as well as providing valuable information on their current distribution. To take part in this survey, submit your sighting online at [www.wildlifeinformation.co.uk/raptor\\_sightings.php](http://www.wildlifeinformation.co.uk/raptor_sightings.php) or return one of the survey postcards to TWIC. If you are able to take a photograph of any suspected Red Kite sightings and email it to [recordaraptor@wildlifeinformation.co.uk](mailto:recordaraptor@wildlifeinformation.co.uk), TWIC will be able to confirm your sighting. All records will be shared with the Lothian and Borders Raptor Study Group, Scottish Ornithologists Club (SOC) and Forestry Commission Scotland.

After the break, **Christine Tansey**, PhD student at the University of Edinburgh, gave a presentation on the Track a Tree project, a project supported by the Woodland Trust. The project aims to record the progress of spring in UK woodlands. Rather than simply recording what is present, the study collects information on seasonal biological events and the timing of those events in relation to variations in weather and climate. Spring phenological events



Hazel (*Corylus avellana*) flower and catkins.  
Photo: John Harmsworth.

include tree budburst, trees coming into leaf and the flowering of woodland ground flora. Phenology has a long history and is important for seasonally dependant activities such as agriculture. Phenology is influenced by environmental variables, such as temperature. With global warming, there may be a shift in phenological events that are cued by temperature. If species respond differently, interacting species may be affected. Recording phenology across large spatial scales can help tell us how the seasonal timings of woodlands might change under global warming. The UK Phenology Network was established in 1998 as a citizen science project to collect information on spring and autumn events.

Analysis of the UK Phenology Network data revealed a number of design weaknesses. The Track a Tree project attempts to address these weaknesses by providing a measure of recorder effort (repeat visits), collecting data on individual trees over time and collecting data on woodland communities and environmental variables.

Following the pilot study in 2013, the Track a Tree study was launched earlier this year. Christine intends to use the data generated from this project to answer two key questions: 1. Is the order of spring the same everywhere? 2. How much can individual trees vary their spring timing? In order to answer these questions, volunteers are needed across the UK to record observations of woodland trees and flowering plants during successive springs. Early results from the project neatly demonstrate the onset of spring across the UK. For further information on the project, including how to get involved in Track a Tree 2015, visit the Track a Tree website, <http://trackatree.bio.ed.ac.uk/> and like their Facebook page.

During the open mike session, **Katherine White** spoke on behalf of Edinburgh Natural History Society (ENHS), a small friendly group with an emphasis on enjoying all branches of natural history. The group would welcome new members. A list of forthcoming excursions and indoor meetings are published on their website, [www.edinburghnaturalhistorysociety.org.uk/index.html](http://www.edinburghnaturalhistorysociety.org.uk/index.html). **Natalie Harmsworth**, Lothians and Borders Mammal Group (LaBMaG), advertised the forthcoming small mammal trapping sessions and said the group had 10 hedgehog tunnels to lend to volunteers. For further information on the group, visit their Facebook page or email [lab-mammalgroup@gmail.com](mailto:lab-mammalgroup@gmail.com) to be put on the email list. Natalie is also the Records Ecologist for TWIC and announced that a plant surveying and identification workshop was planned for Saturday 7<sup>th</sup> June at Vogrie Country Park and would be led by Plantlife expert, Davie Black. The 2014 TWIC excursion programme and other events will be published on the TWIC website, [www.wildlifeinformation.co.uk/index.php](http://www.wildlifeinformation.co.uk/index.php). **David Long**, Trustee for Borders Forest Trust (BFT), and **Reuben Singleton** said that the 2000 ha Talla and Gameshope estate in the Scot-

tish Borders had been acquired by BFT and would be managed for conservation. Recorders are encouraged to visit the site in order to generate baseline data prior to changes in grazing management. A number of sites within the Talla area are listed by Scottish Borders Council as proposed Local Biodiversity Sites (pLBS), so additional records for these sites would also be valuable. For further information, contact Nicola Hunt, Woodland Habitats Projects Manager at BFT (email: [nic@bordersforesttrust.org](mailto:nic@bordersforesttrust.org)).

The first speaker after lunch was **James Stead**, Froglife's Scottish Dragon Finder Project Officer. James' presentation covered the Scottish Dragon Finder project. Froglife was established in 1989 and is a national amphibian and reptile conservation charity based in Peterborough, with offices in London and Glasgow. The Scottish Dragon Finder project is a 4.5 year Scotland-wide project funded by the Heritage Lottery Fund. The project aims to conserve reptiles and amphibians through on-the-ground conservation work, education and awareness raising. The project is divided into a number of smaller projects. The first of these, Dragon Tails, is aimed at schools and youth groups. School sessions introduce children to amphibians and reptiles and educate them away from the negative image of the species. A script-writing competition based on amphibians and reptiles aims to engage youth groups across the region and educate other youngsters about the species. Dragons in your Gardens is a partnership project with Trellis Scotland. Workshops on wildlife gardening will be held across Scotland as well as a smaller number of 'train the trainers' events. Dragons on the Move will involve a number of outdoor roadshows (pond dipping and searching for reptile refugia), indoor crafting activities and activities with swimming clubs. Dragons on the Hills attempts to address the under-recording of amphibians and reptiles in the Scottish uplands, by engaging outdoor enthusiasts such as hill walkers who spend time in upland habitats. 9 workshops are planned, 2 in the Lothians and Borders area. The Dragon Finder project will also deliver habitat creation, restoration and/or enhancement of 63 reptile and amphibian habitats across 24 sites in Scotland and will provide training for volunteers. Froglife are offering two 18-month paid traineeships, which will be delivered through The Conservation Volunteers. To engage younger people to get involved in amphibian and reptile recording, Froglife have launched a free Dragon Finder app (supported by iPhone, Android, Blackberry and Symbian phones). Records can also be submitted online at <http://dfm.froglife.org/1261/794/> or by email to [James.Stead@froglife.org](mailto:James.Stead@froglife.org). If you see any dead or sick amphibians and reptiles in your garden, Froglife request that you report them to the Garden Wildlife Health website through the Dragon Finder app.



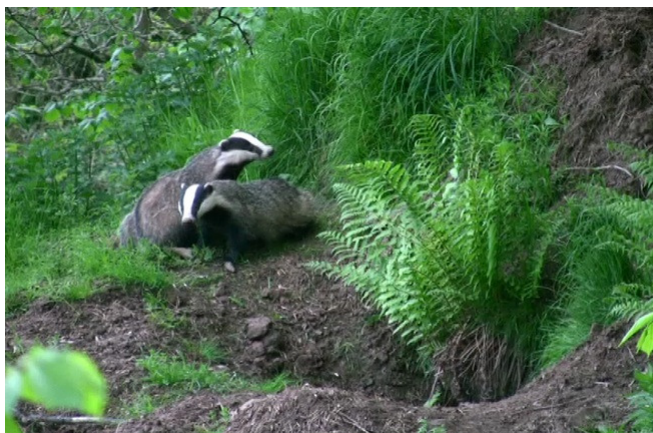
Common Toads (*Bufo bufo*).  
Photo: Rebecca Brassey.

**Daniele Muir**, Scotland Officer for the British Dragonfly Society (BDS), spoke on the topic of Dragonfly Recording and Conservation in Scotland. The BDS was founded in 1983 and seeks to raise awareness of dragonflies and their conservation. Recording is a key component of the work of BDS as it is the records that help us understand the importance of sites and provide the basis for conservation action. Daniele outlined the life-cycle of a dragonfly, which is a three-stage life cycle from egg to larva to adult. The majority of the life-cycle is spent as larvae. Dragonflies are divided into two sub-orders, damselflies (Zygoptera) and dragonflies (Anisoptera). In general, damselflies hold their wings together at rest, have eyes positioned on either side of the head like a hammer, are small (about the length of a matchstick) and have a weak flight. In contrast, dragonflies are larger (about the length of a cigar), have a



strong and purposeful flight, hold their wings out from their body when at rest and have eyes that meet in the centre. Currently, much of the focus of the Scotland Officer's work is on 'hot spots' and 'key sites'. 'Hot spots' have been selected to focus dragonfly activities. These sites have local population centres nearby, good access and good dragonfly populations. Training sessions for volunteers and 'train the trainer' events are planned at these hot spots. 'Key sites' hold important dragonfly species and are a focus for management. An example are sites holding important populations of the Red data book species, Northern Damselfly, in the Scottish Highlands. The first BDS conference was in April in Perth and was well attended. BDS have also published a new leaflet in order to encourage the public to get involved in dragonfly recording. This attractive leaflet includes illustration of some distinctive species, identification tips and a recording sheet. DragonflyWatch is the current recording initiative of BDS and has three tiers: dragonfly spot (casual sightings), complete site lists and systematic recording at key sites. The main outputs of recording are the production of Atlases and phenology data, evidence of population changes and breeding, site monitoring and site evaluation. The new Atlas of Dragonflies in Britain and Ireland will be available from the end of May 2014. Further information on this and all of the activities of BDS, including how to submit records, can be found on the BDS website, [www.british-dragonflies.org.uk/home](http://www.british-dragonflies.org.uk/home).

The final speaker of the day, **Chris Sydes** (Lothian and Borders Badger Group) covered the use of trail cameras (cams) and demonstrated their utility using his own footage. Trail cams originated in America and were used to detect large mammals such as bears. They are designed to allow you to get very close to wildlife without disturbing it. The camera is watching 24/7 and captures activity when it occurs. Trail cams are particularly useful for studying large mammals. Chris principally uses cameras at Badger setts. Trail cam footage gives you data such as counts of adults and cubs and provides useful information on behaviour. With experience, it is possible to identify individuals and interactions between



Badgers (*Meles meles*).  
Photo: Chris Sydes.

individuals. Trail cams have limitations, e.g. they cannot pick up fast moving animals, so they are not useful for all species. For instance, Chris detected a single Stoat from his footage from 3 cameras running constantly for a year. Despite this, it is possible to capture unusual sightings with trail cams, e.g. Fallow deer. Chris provided advice on the different models available on the market and battery and memory card requirements. Trail cams have to be supported by a tree (or similar). It is important to think about camera viewpoint, since an animal can easily move out of shot before the cam awakes. Vegetation will trigger a cam in wind, resulting in null records. It is possible to use cameras at night using infra-red footage. Photographs from trail cams are now high quality. Null records from photos are also easily assessed, but there is a high proportion of null records. Films last up to 1 minute and are now available in High Definition (HD). An advantage of films over photos is that they can result in fewer null records and are sometimes more readily understood. However, they have the disadvantage of being much more time-consuming to process. When setting out a trail cam in the field, permission of the landowner should be sought. It is also important to be aware of the legislation when using trail cams. For instance, a licence is needed if you want to put a trail cam on a Schedule 1 bird's nest, such as a Barn Owl. There is always the possibility of theft of the trail cam. However, the discovery of cameras is slim and there are casings available to increase security. Chris encouraged recorders to use trail cams in the countryside, not just the confines of their back garden!

## Wildlife App Reviews

*Steve Hannah*

Smartphones and tablets have taken an increasingly prominent role in our daily lives over the last couple of years. With apps being made for almost every purpose imaginable, it was only a matter of time until some were created for the purpose of wildlife recording. Although still relatively few in number, it is a growing field. Most recording apps available are still for a particular recording scheme or species group; very few general recording apps exist at present. All of them however have taken advantage of the fact that the majority of devices come equipped with a GPS receiver, allowing for accurate location measurements anywhere on the planet, which is an invaluable feature for any recorder. I've decided to take a look at two of these apps and evaluate their features. Both of these apps are available on iOS and Android.

**Record Wildlife:** One of the few general recording apps available. It is a very simple app. List the species name, abundance, any comments and it adds all this to an automatically obtained grid reference and you're done. Repeat as necessary. One of the nice touches it has is that it allows for photographs taken as part of the record and stored on your device for later extraction. The extraction process itself is relatively simple, if a little long winded. Select the observations you want to export and it sets up an email containing a csv file of your observations and all the relevant photographs to send to whoever you like. The only downside to this app is the lack of a species list. While this does offer a level of flexibility in recording rare and unusual species, it would be helpful to have a list of common species to select from for faster recording.

**BirdTrack:** This app is from British Trust for Ornithology (BTO) and as you might suspect is restricted to bird recording. Unlike Record Wildlife, this app does come with a species list using common names only (typing in *Buteo buteo*, for example, gets you nowhere). The app allows you to either add casual records one at a time, or to compile a site list. The latter stores your location and allows you to simply add species in until you're done. Useful if you were recording a particular site or grid square. The app also allows you to store sites, so if you record the same site regularly, you don't need to enter the same information in time and time again. The app also allows you to upload records directly to Birdtrack online using an existing login, thus saving a lot of time exporting files to send on elsewhere and automatically logs them as your records on Birdtrack. The app also has some other nifty features such as looking at what species other people have recorded recently, what sites have proven popular, what lists you've recorded overall and what your recording targets are. The design may be a little bland but overall it's a solid app that's simple to use and extremely functional.



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### Volunteers:

*During 2014 TWIC has had many volunteers in the office. Thanks to-*

<i>Katie Ford</i>	<i>Karen Gazley</i>	<i>Katherine White</i>
<i>Mellissa Craig</i>	<i>Robert Wright</i>	<i>Jenny Downie</i>
<i>Angela McIntyre</i>	<i>Alison Mole</i>	<i>Jamie Donaldson</i>
<i>Yvonne Arnsdorf</i>	<i>Ross MacKenzie</i>	

*Natasha Tweedie (Natasha also designed the front title of Wildlife Insite)*

*Rachel Wilson (Thanks to Rachel for editing the newsletter)*

*As well as in the office we have so many volunteers taking part in excursions throughout the year and also out in the field carrying out Phase 1 surveys that we would run out of space if we tried to name them all (and worse may miss someone off!) So thank you to all that help to run our excursions and those that come along and help us gather all the biodiversity data we can.*

### Directors:

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