



BRISC

BIOLOGICAL RECORDING IN SCOTLAND

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waterbodies, from fast flowing highland streams to lowland ponds and ditches. The Ephemeroptera Recording Scheme is currently working on a number of these species.



Upland Summer Mayfly *Ameletus inopinatus*

© Cyril Bennett

The Upland Summer Mayfly (*Ameletus inopinatus*) is the only arctic-alpine mayfly species recorded from the UK. It was first found in the UK in 1899 at the mouth of the Dall Burn where it runs into Loch Rannoch. Records received from Scottish Environment Protection Agency during 2010 revealed that this species is still present at this site over 100 years later.



Ameletus inopinatus habitat © Craig Macadam

As its name suggests, the Upland Summer Mayfly is typically found at high altitudes (over 300 metres) in clean, fast-flowing streams. **Continued on p. 3.**

WHAT IS SPECIAL ABOUT MAYFLIES IN SCOTLAND

By Craig Macadam

From crystal clear Highland lochs to fast-flowing rivers, Scotland has an abundance of high quality freshwater habitats. It is not surprising then, that Scotland is a great place to study mayflies.

Thirty-eight species are known from north of the border – nearly two-thirds of the fifty-one species that have been recorded in the UK. They can be found in all types of



Chairman's Column

First of all I should say hello to you all, I am getting settled into being the Chairman of BRISC; the first three weeks have been easy as there has been nothing to do, but that never lasts. The first committee meeting needs to be organised and Anne-Marie has been gently reminding me that my copy is due for this edition of *Recorder News*.

The Spring AGM, where I was elected, was a moderate success; the numbers were doubled to 30+ by students from Glasgow University's Zoological Society. They enjoyed the presentation from Murdo Macdonald on iSpot. Do have a look at that website. They most hospitably invited BRISC along to enjoy some cheese and wine in the Zoology museum afterwards. It was very interesting to hear their thoughts on biological recording and also what projects they were undertaking. Hopefully the ZooSoc will be BRISC members soon.

Before I say anything about myself I need to mention Patrick. As you know Patrick has stood down after five years as the Chairman. During this time he has done an excellent job of steering BRISC through some difficult times and has helped deliver some excellent projects that have really contributed to biological recording in Scotland. This will be a hard act to follow but I shall do my best.

My biological recording background started at Aigas Field Centre, where I worked as a Ranger/ Tour Guide. My knowledge of plants and animals increased hugely there and I started to get interested in dragonflies, a passion that has not diminished in the sixteen years I have been getting to know these species. Since Aigas I have worked as a Ranger, Environmental Education Officer, and for the last eleven years a Biodiversity Officer. I now work part-time for Highland Council and the rest of the time I am a self-employed consultant, trainer and guide. I live near Dingwall, in Maryburgh.

I first got involved formally in biological recording as the Vice-Chairman and then Chairman of the ill-fated CARSE LRC in Stirling in 2000. I got to know BRISC then and became a member. I ended up being co-opted onto the committee and being involved at the beginning of the Wildlife Counts and Natural Talent projects. I stood down from the committee in 2006 but was co-opted again in 2010. I was involved at the start of the BRISC e-petition, but left all of the subsequent work to Craig Macadam and others. I have been a member of the Highland Biological Recording Group for six years and the Chairman for three.

My first steps as Chairman will be to make sure that we consolidate the good things that we do, *Recorder News* being a shining star, and decide what we, as a group, want to do and, more importantly, can do. As BRISC has a limited budget and a limited amount of time available from the committee, we must be realistic in what we can set out to do. These discussions are of paramount importance. One other thing that BRISC needs to do is expand its membership, we must be representative of the biological recording community in Scotland if we seek to represent them at a strategic level. To do this we must be clear about what BRISC seeks to do and communicate this to our existing members and future members.

Away from all the committee activities, Spring is in the air. The pussy willows are coming out, the Toads have been on the march in the last few weeks and I have been spotting quite a few bumblebees on the wing. On my journey to work the Red Kites have been flying about and they have been seen most mornings for the last two weeks. Of course it has to be said that it is only a month to wait before we see the first signs of adult Odonatological life, so keep your eyes peeled for large red damselflies in early May.

I wish you all a productive season biological recording and if you have any comments or suggestions about what BRISC should be doing please do get in touch.
Jonathan Willet



Editorial

It is a real pleasure to offer a very warm welcome to Jonathan Willet as our new Chairman. Jonathan is of course already a well-kent face amongst BRISC members, as he himself has explained above, but here is wishing him the very best in his new role. In the same breath I also want to put in writing our

most profound thanks to Patrick for his very significant and generous efforts on behalf of BRISC over the past five year. Having occupied the post of chairperson myself, I can truly vouch for the fact that the duties can be quite testing and they are undoubtedly time-consuming. However, I hope this does not put Jonathan off and I trust that he will be able to rely on the concerted support of the committee to help ease the task.

As always, BRISC could seriously do with some more members, including young and energetic ones, and Jonathan made a very good case at the end of the AGM in Glasgow to the students of the University Zoological Society to join BRISC. Hopefully some of them will take him up upon this cordial invitation.

Now, that Universities no longer teach taxonomy, where better to look than to BRISC's website if anyone is in need of some training in practical taxonomy, where skill of recognising different kinds of wildlife in the field may be essential? For a start there are the many different courses run by the Field Studies Council, both south of the Border and at Kildrogan, Perthshire in Scotland.

To encourage more people to take up this kind of training, four bursaries of up to £200 were again this year offered jointly by BRISC and Glasgow Natural History Society towards any of the FSC's courses or similar professional development courses. Many more applications were received in February, all very worthy of support, which made choosing the successful recipients very difficult. In the end it was decided, in addition to the four bursaries but as a one off, to give an ex gratia donation of £100 to another two applicants.

The only condition of the bursaries is to write an article of 100-200 words, to be published by *BRISC Recorder News* and by GNHS, so we now look forward to learning what the successful applicants got out of their chosen course.

BRISC's website aims to list all ID training opportunities, field days and similar events, so if anyone is planning to organise an ID course or similar, please get in touch with Andy Wakelin, our webmaster, or any of the committee members, who will pass on the information.

We have a Scottish Election on 5 May. This provides for another great opportunity to quiz the prospective MSP candidates on their commitment to nature conservation – how far up (or down) in their list of priorities will come the natural environment?

14 June is Deadline for the July 2011 issue.

Please send all material to the editor, preferably in electronic format. For email and postal address see below

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It is thought that it is restricted to these upland sites by water temperature and that a rise in temperature in upland streams might cause the range of this species to contract. In 2010 Louis Kitchen (Riverfly Partnership), Willie Yeomans (Clyde River Foundation) and Craig Macadam (Ephemeroptera Recording Scheme) were fortunate to receive the Freshwater Biological Association's Hugh Carey Gilson Award for their project 'Is the Upland Summer Mayfly (*Ameletus inopinatus*) in hot water?'. Throughout 2010 we have been investigating whether there have been changes in the flight period and distribution of this species, and trying to establish the temperature tolerances of the larvae.



March Brown *Rhithrogena germanica* © Craig Macadam

The March Brown (*Rhithrogena germanica*) is one of the first species in the year to appear as an adult. It emerges en-masse from selected rivers in early April and then spends up to four days resting as a subimago - the longest subimaginal stage of any mayfly - before moulting and mating. Despite the mass appearance of this fly on some rivers it was not until 1931 that this species was added to the British list. On a visit to the River Tweed at Innerleithen, Martin Mosely discovered that the fly that anglers called the March brown was in fact *Ecdyonurus venosus*, and that the River Tweed 'March Brown' was *Rhithrogena germanica*.

Nowadays, *R. germanica* is in decline across Europe and the Tweed population is probably one of the last major populations in the world. If you are in the Scottish Borders in mid-April it is well worth visiting the River Tweed to see if you can see one of the great natural spectacles of Scotland.

The Ephemeroptera Recording Scheme would like to find out more about the distribution of this species in the UK, so it is asking people to report sightings of March Brown hatches. A postcard has been produced to help with identifying this species and also to allow you to send in your records.

It is thought that the flight periods of adult mayflies are changing, perhaps as a result of climate change. To provide evidence of these changes the Ephemeroptera Recording Scheme would like to receive specimens of adult mayflies from across the British Isles.

It is really easy for people to get involved. First look for adult mayflies on bankside vegetation or in swarms beside the water. Try to collect one or two specimens and put them into a small watertight tube. When you get home place the tube in the freezer compartment of your fridge for 5-10 minutes. This is considered a humane method to kill the insect, but please do not leave them in too long as they will fall to bits! Next, fill the tube with either neat vodka (yes, really), or a 75% solution of isopropyl alcohol (available from some pharmacies). This will preserve the specimens until they can be identified.

Write in pencil on a small slip of paper, where (the grid reference or postcode of the location) and when (the time and date) you caught the specimens along with your name. Put this slip in the tube with the specimens (the alcohol will have no effect on either the paper or the writing in pencil). Please do not stick the label on the tube as these often just fall off.

Drop the tube in the post to the recording scheme at the address below, together with your name and address, along with any other notes of interest on the capture.

Ephemeroptera Recording Scheme
c/o Craig Macadam
Bradán Aquasurveys Ltd.
PO Box 21659
LARBERT FK5 4WX

You can expect many different species of adult mayfly to be on the wing all through the year – Large Dark Olives (*Baetis rhodani*) have been recorded in every month and there is even a record of the True Mayfly (*Ephemera danica*) from early January!



Yellow May Dun survey

The final survey that BRISC members can assist with concerns the Yellow May Dun (*Heptagenia sulphurea*). This bright yellow mayfly emerges, as its name suggests, in May, however individuals also emerge throughout the summer until September. There is anecdotal evidence that the number of individuals emerging in May is reducing and the 'summer' emergers are growing in number. We would like people to report when and where they see this species. We will be distributing a recording postcard in early 2011.

However you can also report you sightings at www.brc.ac.uk/mayfly/recording.php.

If you would like more information about recording mayflies please visit www.ephemeroptera.org.uk or email info@ephemeroptera.org.uk

HUNTING SOLDIERS!

By Simon Hayhow

I vividly remember finding my first soldierfly. I was 'getting into' hoverflies using the dipterists' technique of sweeping when there in the net was this exquisite, almost unreal, little black and yellow fly with clearly defined markings, a very round head and no hairs. I did not know what it was until I took it into my local museum, where the curator was an entomologist. He was quite excited and helped me name it as *Oxycera rara*, the Four-barred Major. I was hooked.



Oxycera rara © Trevor & Dilys Pendleton

Why the name soldierflies? I remember a little girl looking at my box of neatly pinned and arranged specimens and asking if it was because they were "in formation"? Well, there is a military connection but it probably has more to do with their brightly-coloured 'uniforms' – black with coloured bars in many cases. The largest and most conspicuous are also black and yellow in the family *Stratiomys*, which is the Latin for 'soldier fly'.

There are forty-seven confirmed species of 'strats', as they are affectionately known, in Britain, making it the largest family of the 'Larger Brachycera' and quite a few of these can be found in Scotland. All six species of *Beris*, the Gems, can be found in Scotland. Amongst the genus *Oxycera*, the Soldiers, *dives* is a northern species found in the Southern Uplands and Central Highlands, *morrisii*, *pardalina*, *pygmaea* and *trilineata* are mostly found in the south of Scotland and often along the milder coast. *Nemotelus niginus* and *uliginosus*, the Snouts, are black and white and also coastal. The large and stunning *Stratiomys chamaeleon*, or Clubbed General, is only known from one locality in Easter Ross. The tiny *Zabrachia tenella*, the Pine Black, is best found as larvae under the bark of pines. It may be worth checking them for other continental species. The Black Colonel, *Odontomia tigrina*, is a real rarity north of the Border and the only all-black, medium-sized species. Another *Odontomia*, known as *Odontomia*

species B, is only known from a single larva found in June 1984 on the north Aberdeenshire coast. Its identity is still a mystery so there are plenty of discoveries still to be made.



Stratiomys potamida © Chris Raper - Another large strat which may be recorded in marshes south of the Forth

Lowland areas are the most productive for fieldwork, especially where there are calcareous seepages, springs and streams or coastal marshes as many of the larvae are aquatic. Uplands and moorlands are fairly poor because of the climate and the lack of base-rich conditions but some species are proving more widespread than previously thought. If you are intending to target this group then an O.S. map will be invaluable in locating springs, seepages and marshes, ideally in conjunction with a local geological map. Help from local botanists may help to find calcareous plants and hence the right conditions for strats.



Stratiomys potamida © Chris Raper

Whilst the dipterists' sweep net will always be the most effective way of finding adults, Soldierflies may be observed visiting flowers, especially Umbellifers, or observed sitting on leaves and foliage. Searching warm sheltered spots with Willows and other shrubs around a base-rich marsh should be productive and sometimes an isolated bush may be a good place to target. Males will hover and can sometimes be observed swarming but more observations of such behaviour are needed. Searching for larvae is often a more reliable and effective method of proving absence and will give a better feel for habitat requirements but this is not for everyone.

Where do you start if you are interested in finding some strats? Firstly, start by buying the excellent book *Soldierflies and their Allies* by Stubbs & Drake. This has some nice plates, and we hope to add distribution maps to the species accounts. Next is to look in the garden where you may find the small metallic-green *Microchrysa* species, the Black Gem *cyaneiventris*, Green Gem *flavicornis* and Black-horned Gem *polita*, around compost bins or rotting grass heaps. The medium-sized Broad Centurion *Chloromyia formos*, with its blue-green thorax and bronze abdomen in the male, is widespread and often found in parks and gardens. You can then start searching out the more unusual species. Some species can be identified quite easily and some even in the field unlike many flies, which need minute examination of hairs or genitalia. Whatever you find, please report any sightings or interesting observations to the Larger Brachycera Recording Scheme (part of Dipterists' Forum) and I will be happy to help with identifications. Happy hunting!

Simon Hayhow
Organiser, Larger Brachycera Recording Scheme
simon.hayhow@btinternet.com

NEW SURVEYS LAUNCHED

The Hunt Begins for the 'Fab Four' Oil Beetles

The general public is asked to help with the first ever nationwide survey to map the location of the threatened and beautiful Oil Beetles.

The survey for Oil Beetles was launched on 25 March 2011 by Buglife and the National Trust, in partnership with Natural England and Oxford University Museum of Natural History

There are four Oil Beetle species found in the UK: the Black Oil Beetle (*Meloe proscarabaeus*), Violet Oil Beetle (*Meloe violaceus*), Rugged Oil Beetle (*Meloe rugosus*) and Short-Necked Oil Beetle (*Meloe brevicollis*).



Left
Black Oil Beetle
(*Meloe proscarabaeus*)
© D Nesbitt

Found from March to June in meadows and coastal grassland throughout Britain



Left
Rugged Oil Beetle
(*Meloe rugosus*)
© John Walters

Rare, found from September to April on chalk and sandy soils and on the coast in central and southern England



Left
Violet Oil Beetle (*Meloe violaceus*) © John Walters

Found in March to June in meadows and woodlands in eastern and northern Britain.

All photos from Buglife's website with permission



Left
Short-necked Oil Beetle
(*Meloe brevicollis*)
© John Walter

Very rare, found from March to June. Prefers heaths and dunes with sandy soils. Most recently recorded in South West England, South East Ireland and western Scotland.

Oil Beetles are normally found between late March and June. They inhabit wildflower-rich grasslands, heath-land, moors and coastal areas such as cliff tops and, although they are commonest in the south-west of England, they also occur in Scotland. However, the number of Oil Beetle species found in the UK has halved in the last 100 years and the purpose of this survey is to help establish the whereabouts of the remaining four species as well as to boost efforts to secure their future.

Oil Beetles have suffered by the disappearance of many flower-rich meadows, which is their preferred habitat, and also by a drastic reduction in populations of wild bees - which the beetles depend upon to complete their life cycles.

Oil Beetles are nest parasites of solitary mining bees. The female oil beetles dig nest borrows in the ground, where they lay hundreds of eggs. Once hatched, the active louse-like larvae climb up onto flowers where they lay in wait for a suitable bee. Their hooked feet enable them to cling onto the unsuspecting bee that is intent on collecting pollen for its own nest. Once in the bee's nest the larva disembarks and continues to develop by feeding on the bee's eggs and any store of pollen and nectar, until as an adult beetle it is ready to emerge, mate and repeat the life cycle.

For how to take part and for a free down-loadable oil beetle identification guide visit Buglife's website at www.buglife.org.uk and follow links to [Oil Beetle Hunt](#) web pages, where there is also more information about these interesting beetles. It is possible to submit photos and record sightings on-line.

See also the article on Buglife Scotland's website elsewhere in this issue of *Recorder News*, and the oil beetle article on the BBC's "Earth News" website at

Hedgehog Survey in the Lothians and Scottish Borders

The Wildlife Information Centre (TWIC) is launching a Hedgehog survey across the Lothians and the Scottish Borders as from 1 April 2011. TWIC's database holds surprisingly few records of these mammals, and the general public is therefore asked to submit any sightings they may have in order to develop a clearer picture of status of Hedgehogs. This will also help with monitoring that status in the future.

The UK Hedgehog population has shown a significant decline in recent years, with a drop of up to 25% between 2001-2004 in certain places. Intensive farming is believed to be a major factor, enlargement of fields and removal of hedgerows leading to the loss of nesting sites. Pesticides use on farmland and in gardens can also kill the invertebrates that Hedgehogs feed on, thus depriving them of their stable diet, and even poisoning them.

All records to be submitted to

The Wildlife Information Centre,
Caretakers Cottage, Vogrie Country Park,
Nr. Gorebridge, Midlothian, EH23 4NH;
Tel. 01875 825968
email info@wildlifeinformation.co.uk



Hedgehog © Bryan T Wormly Photography 2009

For more information, and other aspects of TWIC see their website at www.wildlifeinformation.co.uk

ERRATA

[*The following is a correction to the article on "What's Special about Odonata in Scotland" by Jonathan Willet in BRISC Recorder News No 79 (October 2010) ed]*

Thirty-two species of Odonata have been recorded in Scotland. Of these there are twenty-two species of Odonata that breed in Scotland, nine are widespread in lowland Scotland and another thirteen with restricted distributions. Another six that are suspected to either breed here or whose

breeding range is moving north and four that are either migrants or vagrants from continental Europe.

In the article on "What's Special about Odonata in Scotland" one species was omitted, the Keeled Skimmer *Orthetrum coerulescens*. It is one of the thirteen breeding species with a restricted range.

If you see this publication and feel tempted to join BRISC and support our work, you can down-load a membership form from our website at www.brisc.org.uk or request a form from Duncan Davidson, BRISC membership secretary.
Individual membership is only £15 p.a.
Corporate membership is £30 p.a.

BOB SAVILLE AWARD

A new annual award has been created by The Wildlife Information Centre (TWIC) in memory of Bob Saville, who was the key staff member of the centre since its foundation in 2002 until his untimely death in 2010, and whose enthusiasm and determination on behalf of biological recording is a lesson to use all.

The award is for special individual contributions to the recording of wildlife in the Scottish Borders and the Lothians, and to encourage others, like Bob, to find out more about the wildlife of south-east Scotland and to pass that knowledge onto others.



Dr Adrian Sumner (left) receives the Bob Saville Award from The Wildlife Information Centre chair Dr Alastair Sommerville.

The perpetual award – a silver quach – was this year awarded to Dr Adrian T Sumner, for virtually single-handed putting the slugs and snails of Scotland on the map. This has been achieved by an astonishing amount of recording in woods, fields and waterways for shelled and un-shelled creatures which can be as small as 1mm across. Adrian has also spread his enthusiasm by teaching others about molluscs through formal and informal courses and by organizing and leading field trips.

On receiving the award, Adrian said "It is a great honour to be given this recognition and the award itself is a very fitting

memorial to Bob. I really hope that it will be a stimulus to biological recording in future”.



Bob Saville (1952-2010) engaged in his favourite pastime

BRISC AGM for 2010

Graham Kerr Building, The University of Glasgow
Thursday 10th March 2011, 6.00pm

1. Apologies for absence

Apologies:

Claire Seymour, Samantha Ranscombe, David Ashford, Andy Wakelin, Craig Macadam, Mark Simmons.

Present:

Glenn Roberts, Louisa Maddison, Anne-Marie Smout, Tom Gray, Bidy Gray, Peter Slater, Gill Dowse, Richard Weddle, Richard Sutcliffe, Duncan Davidson, David Lampard, Mike Beard, Murdo Macdonald, Jonathan Willet, Patrick Milne Home.

2. Minutes of AGM from 27 March 2010 at Montrose

Richard Weddle was not present at this meeting and was added to the apologies list.

Minutes of the 2009 AGM were therefore seconded by Gill Dowse.

Otherwise the minutes were accepted:

Proposer: Gill Dowse

Secunder: Peter Slater

3. Chairman's report for 2010

The details of the report can be found in the 2010 Annual Report. The Chair would like to especially note the positive reaction BRISC has had to the e-petition, which is awaiting final response. Thanks were given to all who worked toward this in terms of meeting attendance and the good outcome thus far.

4. Annual accounts, Treasurer's report and membership for 2010

Reports of accounts and membership can be found in the 2010 Annual Report. Duncan Davidson would like to encourage members to sign up by Direct Debit if they have not done so already. Jonathan Willet questioned the increased cost of newsletter production, which is due to printing in colour. Comments were made saying this was an improvement over the previous black and white editions and that this improvement was worth the extra cost.

Accounts and membership reports were accepted:

Proposer: Richard Weddle

Secunder: Jonathan Willet

5. Election of new Chairman

Election of Jonathan Willet as Chair of BRISC:

Proposer: Patrick Milne Home

Secunder: Duncan Davidson

Patrick has enjoyed his past 5 years as Chair of BRISC and hopes to remain involved with the organisation. He is handing over to a very competent new chair. Jonathan thanked Patrick on behalf of BRISC for all his hard work; he has organised and steered us toward huge achievements. Two presentations were made to the retiring Chairman.

6. Election of Honorary Officers and Council for 2011/12

Murdo Macdonald and Mark Simmons wish to step down from the BRISC committee. Thanks were given for their hard work over their years from all at BRISC and best wishes to them both.

All other posts and committee members remain.

Proposer: Peter Slater

Secunder: David Lampard

7. AOCB

The NFBR conference on “The Future of Biological Recording in Britain” will be held in Bristol on 7&8 April 2011. Any member wishing to represent BRISC at this event would be most welcome and would be reimbursed for expenses. Get in touch with any committee member for more information.

http://www.nfbr.org.uk/wiki/images/f/f1/NFBR_Conf_2011.pdf

The Chair thanked all for attending, especially those who helped with organising the evening.

The meeting closed at 18.29

This following is a report of Murdo Macdonalds talk on iSpot, which followed the AGM.¹ Murdo is the monitor for iSpot in Scotland. This was joint event with Glasgow University Zoological Society,

iSpot was launched by the Open University in June 2009 and consists of a website [www.ispot.org.uk], which aims to use both experts and the general public to provide a helping hand with all kinds of wildlife identification queries, as well as encouraging people to get involved in wildlife observation and to improve their knowledge and skills. The way it works is through digital photography. Photographs of

¹ See also Murdo Macdonald's article on iSpot in *BRISC Recorder News* No 80 (January 2011)

wildlife are posted on the iSpot website for anyone else to look at and hopefully to come up with an identification as well as helpful comments. Murdo stressed that comments are particularly valuable, such as why something is what it is rather than something else, which may be very similar, or what is particularly relevant from a Scottish perspective. To post a photo you first have to register, which is easy and free of charge, and you can visit the website as often as you like. Murdo said that at the time of his talk there were ca 9,100 registered users and 37,500 posted observations. Interestingly two pictures of the yellow caterpillar of a very rare sawfly *Cimbex luteus* have been posted to iSpot - one from East Anglia, and the other from Ardersier near Inverness, and both from children.



Cimbex luteus – image from the iSpot website
<http://www.ispot.org.uk/user/5726>.

This species has only got five dots on the NBN Gateway distribution map and has not been recorded for years up till now. A picture of the Knopper Gall (on acorns), recorded in N Scotland for the first time in 2010, was posted from a new site in Aberdeenshire². A bee-fly new to Britain was identified from a picture on the site, and later featured on the Radio 4 programme ‘Saving Species’.

Individuals who help with the identification may acquire a ‘reputation’, which is a way of reinforcing improvement in skills. National recording schemes and societies may display a badge with a link to the appropriate website.

Survey packs are available for download, and keys are being developed.

The iSpot initiative is associated with the Open University S159 Neighbourhood Nature course, an undergraduate course in science, for which see the OU Website at <http://www3.open.ac.uk/study/undergraduate/course/s159.htm>. And it has enjoyed a good deal of publicity, e.g. on BBC’s Springwatch and Saving Species (Radio 4).

Murdo’s talk was followed by a lively social get-together with wine and cheese, where BRISC members took the opportunity of meeting some of the students and other members of the Glasgow University Zoological Society. Many thanks to Richard Weddle for organizing this event.

² See also ‘The spread of Knopper Gall wasps into the Clyde area’ by Norman & Pearl Tait, *BRISC Recorder News* No 62 (July 2006)



More about websites.

If you have not visited Buglife Scotland’s website recently, then it is high time you did. Buglife set up a Scottish branch back in February 2007, and made a brilliant choice of putting Craig Macadam in charge (Craig is also a BRISC committee member). The office is based in Stirling at the British Trust for Conservation Volunteers’s premises in Balallan House, Allan Park, which it shares also with Butterfly Conservation Scotland.

The first milestone for Buglife Scotland was the launch of *A Strategy for Scottish Invertebrate Conservation* in January 2009, an event also covered in *BRISC Recorder News* No 74 (July 2009). Since then Buglife Scotland has grown apace and a second-in-command has been appointed with Chris Catherine as Assistance Conservation Officer. The Strategy can be studied and downloaded from their website at <http://www.buglife.org.uk/AboutBuglife/Buglife+Scotland>

The ‘Action for Scottish Invertebrates’ project is now working to implement the Strategy. This project is grant-aided by Scottish Natural Heritage and delivered on behalf of the Initiative for Scottish Invertebrates (ISI) by Buglife, and more about this initiative can be found on the website.

Last year a free, twice yearly, electronic newsletter was launched and these are available for down-loading from the website, and obtain interesting items of news and discoveries, including a new water beetle for Scotland.

But this is only the beginning. Once inside the Scottish website there is a huge amount of information available. You can learn about why invertebrates are important for the environment and for the Scottish economy. There is a list of special species in Scotland: marsh fritillary, pink hoverfly, pond mud snail, aspen hoverfly, freshwater pearl mussel, and others. Each species has its own page with a description, a photograph, and what is being done to help its conservation. This is followed by a useful explanation of the difference between parasites and parasitoids.

Then next web-pages deal with some special habitats: i.e. boreal forest; fresh water; mountains; peatland. Again each habitat has a brief description, photographs and comments on conservation.

Under the heading ‘Saving sites’, four Scottish Invertebrate Habitat Management Advice Documents are freely available for landowners and managers, focusing on cereal field margins, coastal vegetated shingle, blanket bog, and lowland raised bog, as well as information about any available grants or subsidies. All published 2010.

This is followed by Scottish Species Checklist which is very impressive and extremely useful, with links to so far fifteen groups in the ‘Scottish Invertebrate Species Knowledge Dossier’. This dossier provides information on how many species occur in the UK; in Scotland; expert contact; a list of all Scottish species starting with any of conservation concern and what list they appear on; distribution and status; recommended ID guides.. Brilliant. Do take a look. ed

Gateway News

Are you in a biological recording ‘hotspot’? Find out with the New Interactive Mapper!

In April, the NBN launched an exciting new feature that lets you explore Gateway data in a more flexible and dynamic way. With GIS-style layer controls, the New Interactive Mapper lets you display any selection of species, habitats and site boundaries on a choice of map or satellite imagery backdrops. You can even create species richness ‘hotspot’ maps filtered by designation or dataset, and because it is interactive you can click on the map to see the ‘details behind the dots’ – who, what, where, when. Other features to be introduced in future versions include the ability to create ‘coincidence maps’ of two or more species, such as a predator and prey, host and parasite, or an invasive and native species. As with all Gateway features, the New Interactive Mapper will be upgraded in response to user feedback - so go online, try it out and tell us what you think!

The Changing Flora of Glasgow 1982-2000

You can now find information on the flora of post-industrial Glasgow on the Gateway, thanks to a fascinating dataset supplied by BSBI in January. The Changing Flora of Glasgow dataset comprises over 85,500 records of over 1,300 species of vascular plants growing wild in Glasgow, which were used in the compilation of *The Changing Flora of Glasgow* (Dickson, MacPherson & Watson, 2000). The records were gathered to provide a description of the local flora for both scientific and conservation purposes by the Botany Department of Glasgow University, Glasgow Natural History Society and BSBI vice-county recorders. The main field recording period was 1984 - 1991, but some earlier and later records are included. This high quality dataset has been carefully validated and verified, and over 2,200 herbarium voucher specimens from the field work are held at the Glasgow Art Gallery & Museum, Kelvingrove. The digitisation and mobilisation of this dataset was made possible thanks to grant funding from Scottish Natural Heritage for the BSBI Scottish Computerisation Project.

NBN News

Completion of NBN/Defra contract, 2008-2011

In February 2011, the NBN successfully completed a 3-year contract with Defra. This contract enabled the NBN Trust and partners to carry out important work under four strategic themes:

- ‘Developing and extending use of the NBN’ – achievements under this theme included a series of seminars to engage and inform current and potential data users and the creation of an agri-environment screening tool which was successfully trialled in England and is now being developed for use in Scotland with funding from SNH.
- ‘Data provision, management and coordination’ – work under this theme resulted in the mobilisation to the Gateway of significant datasets including the BTO’s three historic bird atlases, the British Lichen Society’s Scottish dataset and churchyard lichens dataset and data from Local Records Centres throughout the UK.
- ‘The Gateway’ – improvements to the Gateway included the addition of habitat data and species designations, while staff capacity was increased to provide support for Gateway users.
- ‘Public engagement’ – highlights included production of the *Darwin Guide to Recording Wildlife*, launching the RISC (Recording Invasive Species Counts) Project and attendance at the Royal Society Summer Exhibition.

Did you know...?

You can comment on records on the Gateway?

Have you ever thought that a record on the Gateway doesn’t look right? A species recorded outside of its known geographic range or in the wrong habitat? You can help data providers improve the quality of their datasets by commenting on these records. Use the interactive map to select the record in question - you can comment on several records in one go if you want - then label the record as ‘correct’, ‘incorrect’ or ‘dubious’ by selecting from the dropdown list and type a short reason in the text box. Your comment will be sent to the data provider and will immediately be visible to other Gateway users who look at that record. With over 250,000 hits per month, the Gateway provides an unparalleled opportunity for the peer review of records by an expert community. So go ahead – have your say!

PS: you need to be logged in to use the commenting facility...see below.

You get more out of the Gateway if you have a user ID?

The Gateway has over 8,000 registered users, yet the majority of ‘hits’ on the Gateway are from users who have not logged in. It is free, quick and easy to create a user ID: just click on ‘register’ in the top right hand corner of the screen to set up a username and password, then use them to log in next time you visit the Gateway. Registered users can apply for better access to datasets, comment on records, use the forums, join organisations and more...what are you waiting for?

In Practice

NBN Record Cleaner

Do you have a large digital dataset to verify? Help is at hand! NBN Record Cleaner is a standalone tool which checks datasets and automatically highlights any records of species outside their known geographic or temporal range, as well as records of species which are inherently difficult to identify. NBN Record Cleaner is compatible with data held in a wide range of formats from Excel spreadsheets to Recorder databases. The tool will be available to download from the NBN website with verification rules for birds, butterflies and moths, vascular plants, marine species and hoverflies. We hope to develop rules for other taxa in future, and we can supply a tool to enable you to create your own rules.

Please note – despite the name, this tool does not ‘clean’ your dataset by removing or correcting records. It merely highlights interesting records, the rest is up you.

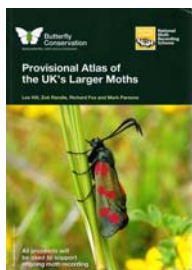
Thanks to the BTO, BSBI, Butterfly Conservation and the Marine Biological Association for developing verification rules for Record Cleaner.

Ponds on the Map

Pond Conservation used NBN web services to develop a tool to help create new ponds under their Million Ponds project. The BAP Species Map draws information on the distribution of over 80 pond-associated BAP species from the NBN Gateway and places it in context with information on the species’ habitat requirements. The web tool was originally developed with funding from the Aggregates Levy Sustainability Fund to help the minerals industry create ponds for BAP plants and animals, but can be used by anyone to find out which pond-associated BAP species live in their area and to create or conserve suitable pond habitats for them.

<http://www.pondconservation.org.uk/millionponds/bapspeciesmap>

BOOK REVIEWS



Hill, L., Randle, Z., Fox, R. & Parsons, M. (2010) *Provisional Atlas of the UK's Larger Moths*. Butterfly Conservation, Wareham, Dorset. ISBN 978-0-9562216-4-3. Sbk £20 plus £5 p&p.

This atlas is the culmination of a massive four-year project, funded by National Lottery money, to map the current distributions of every macro-moth occurring in Britain as a resident or migrant. Over 11 million records were received and processed by the small professional Moths Count team, covering every vice-county in Britain and Northern Ireland and indeed almost every 10km square. Thousands of observers contributed, and where possible records from the BRC scheme, the Rothamsted Insect Survey and local record centres have been incorporated too. All records were routed via the appropriate county moth recorder (CMR), who had the final say as to whether a record was accepted.

By and large this system worked very well, particularly in Scotland, despite many Scottish vice-counties lacking a CMR when the scheme began. Suitable candidates were found and persuaded to take on the role with the promise of support if needed. They did an excellent job. Judging by the coverage further south, nearly all English and Welsh CMRs cooperated, though one suspects the Moths Count team needed considerable tact and diplomacy in a few cases. The few poorly covered areas include Cornwall, Lincolnshire, Caernarvon and the Lake District.

Because such a vast amount of data was involved, records could only be accepted electronically. Ironically, this proved to be a disadvantage for counties such as Sussex and Aberdeenshire that were at the forefront of moth recording only ten or twenty years ago – their card index systems were unsuited to the digital age and the backlog of uncomputerised records was daunting. In a way, those VCs like East Ross that started their database almost from scratch were at an advantage.

Inevitably there were hitches and glitches. In north-east Scotland we discovered that the local records centre, North-East Scotland Biological Records Centre (NESBREc), had not been using the Watsonian vice-counties, but modern administrative regions instead. When records were converted back, some were credited to the wrong VC; others vanished altogether if too near a boundary for the software to allocate with confidence. The famous Rothamsted database proved to be surprisingly flawed, either because unlikely identifications had not been queried for fear of upsetting volunteer recorders, or because the code number for a species had been unwittingly transposed when entering the data. The latter shows the dangers of assuming that a moth is too distinctive to misidentify, or the observer too experienced to make an error – none of us is immune to clerical slips, particularly those of others. However, the BRC records seemed much more reliable. Finally, there was the pressure of time – the atlas had to be produced before the funding deadline.

The result has surely exceeded all expectations. With high-quality paper and printing, the A4 format allows generous space for the two maps per page. Records from 2000 onwards are shown as black dots, earlier ones as open circles. In all, 862 species have been mapped, though perhaps this total could have been reduced by excluding more of the very scarce migrants, chance introductions and species found only in the Channel Islands – biogeographically part of France in any case. It seems extravagant to waste a map on Common Forest Looper (from New Zealand) for its single dot in Cornwall, or the lone dot for Grouville Dart in Jersey. There are about 45 such instances.

The maps are presented without any text at all. Generally this does not matter, because they tell their own story. We can interpret them for ourselves. Sometimes, though, it would help to know whether isolated dots way beyond a species' main range are cast-iron records, or dubious ones that somehow escaped the final vetting process. (I estimate that 90% of dodgy Scottish records were removed.) If correct, do they represent one-off strays, or known breeding colonies? Does an absence of recent records from an area signify a decline (Least Minor lost from Northumberland?), or merely lack of fieldwork? The maps alone cannot tell us that. And without prior knowledge we cannot appreciate the dramatic range expansions that have seen previously southern species like Buff Footman and Pale Pinion colonise Scotland, and Satin Beauty reach Caithness when Perthshire was its northern limit little more than a decade ago.

Butterfly Conservation's last major publication on moths was *The state of Britain's larger moths* in 2006, examining 35 years of Rothamsted light-trap data and drawing some alarming conclusions from the results. According to the statistical analysis, no fewer than 75 species of our commoner moths showed population declines of at least 70% over this period, and for fifteen of these the decline was over 90%, putting them in the Endangered category if certain IUCN criteria (more appropriate to animals and birds) were applied. Top of the list was Dusky Thorn, with a calculated decline of 98%. This mystified observers, as nobody had noticed. Fortunately the present atlas map suggests it is thriving, except perhaps in Cambridgeshire. The only species of the fifteen in the Endangered category where the atlas map (and general opinion) does support a major decline is V-Moth, associated with currant and gooseberry bushes in gardens and allotments. Of its 504 dots, 422 (84%) are pre-2000. Nor do the atlas maps for the species classed as Vulnerable give much cause for panic. Populations of our commoner moths have always fluctuated. At worst, the maps suggest not all is well in central southern England - hardly surprising given modern intensive farming methods - but this problem should be targeted specifically.

Nevertheless, the atlas shows that some moths not previously considered threatened are far more scarce and local than we realised. There are only ten post-2000 dots for Heath Rivulet, 8 of them in Scotland. This is fewer than for many of our Red Data Book species, which appear to be stable, apart from Small Dark Yellow Underwing. Thyme Pug is very sparsely spread, and Small Chocolate-tip seems to have

been lost from large parts of its former range throughout Britain, having just five recent dots in Scotland. Let us hope we will now concentrate our conservation efforts on moths such as these, which seem genuinely vulnerable rather than statistical anomalies.

From a Scottish viewpoint, the maps hold much interest. Quite a few species show discontinuous distributions in Britain, having a population in the Highlands that is well separated from the rest of their British range. Examples include Poplar Lutestring, Orange Underwing, Peacock Moth and Silvery Arches. And why are some species either eastern or western in Scotland, yet south of the Border they show no divide? Drinker is a prime example. There are many such conundrums. Several species are virtually confined to the Great Glen, even being absent from similar habitat on Speyside: Satin Lutestring and Banded Tooth-striped for example. Look how Lime-speck Pug thrives on the machair of the Outer Hebrides, but is absent from the Inner Isles. Shetland and Orkney attract migrant moths as well as birds, almost monopolising Scottish records of Blood-vein and with two-thirds of our dots for Bedstraw Hawk-moth. Fascinating!

Why buy this atlas when the maps are available free online? Well, nothing beats a hard copy, which can then be annotated – mine already has arrows and question-marks on various pages. Also, this atlas freezes distributions at a moment in time, whereas the online maps will be continually updated. It's well worth buying a copy. The Moths Count team have done a brilliant job, particularly Zoe and Les. Never has Lottery money been better spent! What's more, we now have a properly organised moth recording system in Scotland, which will be a lasting legacy.

Roy Leverton



Owen, Jennifer. (2010). *Wildlife of a garden: a thirty-year study*. Royal Horticultural Society. 261 pp. ISBN 9781907057120, Hbk £30.

Since the appearance in 1991 of Jennifer Owen's *The ecology of a garden: the first fifteen years*, published by Cambridge University Press, her suburban garden in Leicester has been much cited to demonstrate the potential richness of gardens for wildlife. This update covers the full thirty years of her project from 1972 to 2001. The total of 2673 species identified sounds impressive, and does indeed reflect a prodigious amount of painstaking recording and collecting; and organisation of a team of specialists to identify her catch. But she makes clear that this is but a sample of what is there, since many groups were not recorded or were clearly under-recorded. The author emphasises that hers is a fairly typical suburban garden – it is not a 'wildlife garden' in the sense of trying to create natural habitats within the garden, but is a garden typically dominated by non-native plants, which attracts and supports wildlife simply by not using herbicides and pesticides. As she says 'There are no pests in my garden, because everything in it is a source of interest and enjoyment'.

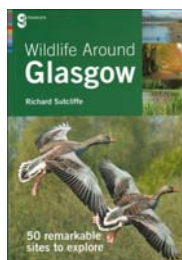
Almost 2000 of the species recorded were insects. This reflects the dominance of insects in most habitats, but since

the majority of these were caught in a Malaise trap or by light trapping it is difficult to know which were residents actually contributing to the ecology of the garden. However the trapping was augmented by rearing caterpillars, pitfall trapping of ground invertebrates and much direct observation of animals at work in the garden.

The bulk of the book treats each group in turn – moths, hoverflies (her special interest), beetles, 'other invertebrates' etc. – discussing their role in the garden, seasonal fluctuations and overall trends during the 30 years, based on the 'constant effort' use of the Malaise trap and, for a lesser time, light traps. The overall trend was downward for butterflies, macro-moths, hoverflies, social bees and wasps and ladybirds, but with much annual fluctuation. Many potentially high-diversity groups were not recorded, e.g. microfungi, lichens, springtails, mites. However one very species-rich group was included, namely the ichneumon wasps. These were frequent in the Malaise trap; they were collected on only three years but were comprehensively identified (by Henry Townes) resulting in an impressive 529 species. For most groups all species identified are listed but for the ichneumons only 29 are included, the other having been listed in the 1991 volume.

Final chapters deal with the garden habitats, especially the lawn, food-webs, conservation and 'changes and trends'. Although native plants account for only about 40% of the 410 species of plants in the garden, the proportion of natives amongst the animals is certainly very much greater, emphasising the valuable role played by predominantly exotic gardens in providing habitat for native species. With copious illustrations and informative text, and with the statistical lists discretely placed in boxes, this is much more than an update of the 1991 book, and at a much more reasonable price should appeal to gardeners and wildlife recorders alike.

Gordon Corbet



Sutcliffe, Richard, ed. (2010) *Wildlife Around Glasgow: 50 remarkable wildlife sites to explore*. Glasgow Museums. ISBN 978-0-902752-96-2. Sbk £9.99.

From Glasgow Museum's on-line shop at www.glasgowlife.org.uk/museums

The fifty remarkable sites extend from the National Nature Reserves of Flanders Moss and Loch Lomond at the mouth of the River Endrick in the north to the Scottish Wildlife Trust's Falls of Clyde Reserve in the south, from Lunderston Bay beach in the west to Palacerigg Country Park, Cumbernauld, in the east. Maps in the second part of the book group the sites geographically according to points of the compass, though ownership and management of each site varies from local authorities to conservation bodies.

The book consists essentially of two parts, the first largely being in the form of an introductory chapter of over forty pages, jointly written by Richard Sutcliffe and Tim Yeo, which sets the scene as to how the area evolved geologically, the subsequent effect of climatic factors, including the Ice Ages, and more recently by its historical industrial evolution.

This section terminates with in an account of *Waterways and Waterbodies*, followed by a chapter on *Access to the Forth & Clyde Canal for Leisure*, where I was pleased to find an illustration of the Great Pond Snail((*Limnaea stagnalis*) as still extant, having known of its presence more specifically there in the third-last western lock as a Glasgow undergraduate in the nineteen-fifties!

The remaining bulk of the book lists the *Fifty remarkable wildlife sites to explore*, each allocated two pages, each written by individuals who have an intimate knowledge of each site and are well illustrated by photographs of relevant organisms and listing the more interesting and important species of plants and animals to be seen or sought in these localities.

As one would expect in such an extensive area, individual sites are very variable, some formally planted such as Glasgow Botanic Gardens and nearby Kelvingrove Park within the city itself, contrasting with more natural sites such as the raised bog of Flanders Moss.

Geology has not been ignored and I was happy to be reminded of high points such as Dumbarton Rock, Fossil Grove with its *Lepidodendron* stumps, and Blairskaith Quarry with its marine fossils.

Usefully, each listed site-information contains a six figure Ordnance Survey grid reference and even offers advice on how to get to the scene by public transport, and of course throughout the descriptions there are gems of knowledge to be discovered, such as of the illustration of the sawfly *Nematis cadderensis*, which takes its name from the Cadder Wilderness site, and I shall be tempted to discover the ancient Cadzow oaks and wild white cattle of Chatelherault Country Park, access to which was forbidden to me in childhood and youth by Menshevik landowners of that time. I shall keep a copy of this text on my bookshelf ready for examination anytime I revisit that “no mean city” which Glasgow is.

Tom Gray

Some Training Opportunities and field days Spring 2011.

Keen on Butterflies and Moths? Butterfly Conservation Scotland's three branches all offer a full programme of field days/ training opportunities this summer, starting in April.

BC Members will already have been notified in the 'Spring 2011' electronic Newsletter, but if you have not yet joined, to find out what is on offer please contact the Butterfly Conservation Scotland Tel: 01786 447753 email scotland@butterfly-conservation.org

Sunday 8 May 10.00 – 16.00 - Habitat Survey workshop at Harestanes Countryside Visitor Centre. The Scottish Borders Habitat Dataset (SBHD), derived from recently flown aerial photographs, is now complete but needs ground-truthing to check and possibly improve the quality. TWIC is looking for volunteers to help with this process by comparing the SBHD habitats allocated to their local patch with what is on the ground, or by checking other sites elsewhere on behalf

of TWIC. The workshop is designed to give participants an understanding of what is needed and to provide the basic skills to interpret Phase 1 habitat survey data, and use aerial photographs and maps to review the habitats on a site.

This one day course is an excellent refresher for those who already have had experience of carrying out Phase 1 habitat surveys, but it will also suit anyone who has no previous experience but would like to learn the basics.

The course will involve both indoor and outdoor work, using Harestanes as an example to look at the Phase 1 habitat data. The trainers for this day are Dr Alastair Sommerville and Imogen German. Please bring outdoor shoes or wellies, waterproofs (just in case) and a packed lunch.

Saturday 14th May – Deeside Pearl-bordered Fritillary Survey, Burn O'Vat Visitor Centre. There are a number of colonies of Pearl-bordered Fritillary in Deeside, mainly at well known and regularly visited locations. The aim of this day, however, is to survey suitable habitat between these locations to help determine the true distribution of the butterfly. Meet at 10am at SNH's Burn O'Vat visitor centre (NO429996) which lies just a mile off the A93 between Aboyne and Ballater. After a brief introduction and a visit to a nearby colony we will split into small groups and survey new sites in the Aboyne/Ballater area. Further details from Helen Rowe: Tel: 013398 80868 Mobile: 07787 583976 Email: Helen.Rowe@aberdeenshire.gov.uk or Tom Prescott: Tel: 01540 661469, Mobile: 07979 785665, Email: tprescott@butterfly-conservation.org

NB: - In the unlikely event of inclement weather the event may be postponed to the following Saturday (21st)!

Saturday 28 May. A Pseudoscorpion identification workshop at the David Livingstone Centre, Blantyre. There are 27 species of pseudoscorpions known in the UK, with 13 known to occur in Scotland. They and can be found nearly everywhere on land, from the soil to bird nests, but are very poorly recorded. The workshop will provide an introduction to field sampling methods and lab identification and will be led by Gerald Legg. Cost £15.00 per person, and all participants will receive a copy of the pseudoscorpion synopsis by Gerald Legg and Richard Jones. Places are limited. To book contact Chris Cathrine by e-mail (chris.cathrine@buglife.org.uk) or phone (01786 447 504).

This workshop is part of a series of Under-recorded Species Groups Workshops, which contribute towards the implementation of the 'Strategy for Scottish Invertebrate Conservation', and are part of the 'Action for Scottish Invertebrates' project. This project is grant-aided by Scottish Natural Heritage and delivered on behalf of the Initiative for Scottish Invertebrates (ISI) by Buglife – The Invertebrate Conservation Trust.

Sunday 29 May. A mini bioblitz at Broughty Ferry LNR. There will probably be a moth trapping/bat detecting event on the evening of the 28th. All help gratefully received. Please contact David Lampard on Tel: 01382 432384 or email david.lampard@dundeecity.gov.uk