



BRISC

BIOLOGICAL RECORDING IN SCOTLAND

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However, harlequin ladybirds will unfortunately also eat many non-pest species, including the larvae of other ladybirds and the eggs and larvae of butterflies and moths. Britain has 45 native species of ladybirds (Coccinellidae) and these as well as many Lepidoptera play a key role in our ecosystem, but the harlequin has the potential seriously to affect them all.

Back in the 1990s people like the late Professor Majerus, author of the Naturalists’ Handbook no 10 *Ladybirds*, raised concerns about the harlequin’s likely arrival in Britain, and its appearance here was confirmed in 2004. Professor Majerus subsequently was interviewed on Radio 4 where some of the undesirable habits of this beetle were mentioned. So far the species seem to have only few predators in this country, and consequently it is able to multiply with alarming rapidity, potentially forming populations of thousands within a short time. These hordes may invade houses, and if people try to remove them, they are not above giving a good nip. Vacuuming them up is one way to get rid of them.

It is no wonder that their spread is being closely monitored, and the public has played a key role in monitoring the invasion through the Harlequin Ladybird Survey website, which was launched in 2005. It has since received more than 30,000 online records. To report new sightings please go to www.harlequin-survey.org/ and follow instructions.

Harlequin Ladybirds now established in Scotland

BRISC Recorder News reported back in April 2005 (no 57) on the arrival of the harlequin ladybird *Harmonia axyridis* in the UK, and subsequently of the early spread of this ladybird (October 2006; no 63). Then in 2008 adult individuals were found in Perthshire and on Orkney, having got that far in only five years. This makes it one of the fastest spreading non-native species in Europe, as well as the most invasive ladybird on Earth. Then on 8 December 2009 BBC News reported that larvae had been located near Kelvingrove Park, Glasgow, constituting the first confirmed breeding in Scotland.

The harlequin was originally introduced from Asia to North America and to continental Europe as a biological control agent, because it eats more pest insects than any other ladybird.



Harlequin ladybirds – note the great variety in colouration.
Photo from BBC News report.

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Chairman's Column

I see that I started my last Notes with a comment that I hoped you were not being too inconvenienced by the snow – well I rather suspect that a number of us have never seen the snow totally disperse, it still lies behind the dykes with us, and it certainly has impacted on what could be done outside. However, we must be heading for more spring-like weather as daylight hours are longer, the clocks have gone forward and BRISC has just held its AGM and Conference.

To my prejudiced eye the Conference was another success which provided a most enjoyable and rewarding day. I think the location worked out very well, as a number of delegates were able to make use of the rail links and it was only a short walk to the venue, which met our needs perfectly. We had four most erudite and entertaining speakers, and even though they were talking about the past, in certain cases the very distant past like 460 million years ago, it all had a direct relevance to what we are recording and analysing today. We took full advantage of a lovely afternoon for a choice of three outside excursions, which complimented the morning talks. Very many thanks to the speakers, Nigel Trewin, Richard Tipping, Catherine Smith and Russel Coope, and also to Gill Dowse for Chairing the morning talks and particularly to Andy Wakelin for his organisation of the whole day.

Before Members were allowed off for an excellent lunch we held the AGM. The Minutes of the last AGM together with the Annual Report and Accounts had been circulated and these were accepted. We re-elected three and elected two new Committee Members and we have a few volunteers who are prepared to have their arm twisted for co-opting, but we are always on the look out for new volunteers. Last June I had announced that I intended to step down as Chair but at the AGM I advised those present that I had deferred this till the 2011 AGM to ensure that a successor can have a suitable feed-in time. I was elected in 2005 and have greatly enjoyed my time as Chair and learnt a great deal about the 'recording community', but feel it needs a new impetus to take it forward.

In that context, I had asked last July for views on the direction or role for BRISC and received a number of responses that were most helpful. They certainly indicated that there was a feeling that it would be a loss if BRISC ceased to exist, as it provided, at the least, a broad umbrella for recording groups, and I hope that we will look more closely at how we can take forward this representation.

In the last Newsletter I gave a link to the NBN website for their Annual Report. I would commend their site again but this time because they are now publishing their Newsletter on line at <http://www.nbn.org.uk/News-and-Events/Biodiversity-news/Welcome-to-the-NBN-e-Newsletter.aspx> As you will realize, from these frequent allusions to southern organisations, I do feel that BRISC must not become too parochial and that we should make every effort to ensure that Scotland provides an appropriate input to the broader recording issues. Scottish Natural Heritage has strong links into the National Biodiversity Network but, quite rightly, will put forward the public sector interests rather than the private sector interests, which BRISC is able to provide. My apologies if you are already keeping a regular eye on broader recording issues throughout Britain and to be teaching any of you to suck eggs. Patrick Milne Home



Editorial

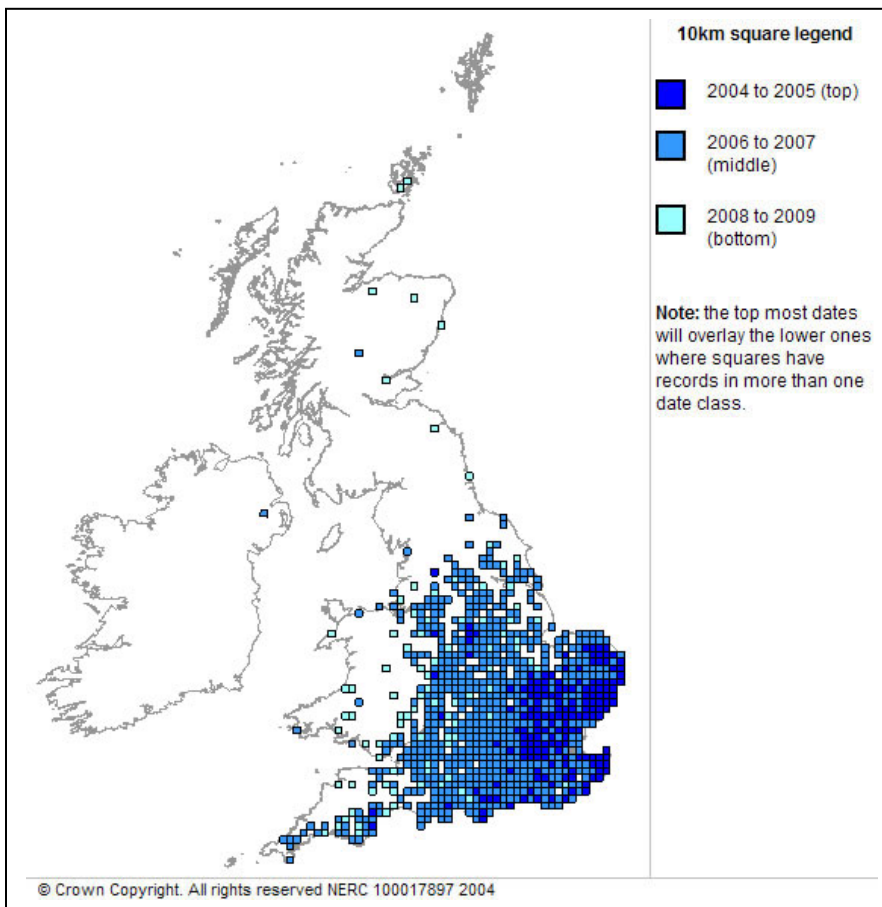
What a delight that Spring at last is now truly here in spite of the havoc that the severe winter and recent storms have wrought, the spring flowers are making a delightful show even in our exposed garden: primroses, lungworts, primulas, early tulips, hyacinths, daffodils, etc. Today we noticed the first snake-head fritillaries, and the first pussy willows decorating our small willow tree, which we have to keep on top of to stop it growing too big. There was a queen *Bombus terrestris* (buff-tailed bumblebee) on the flowering currant and a queen *Bombus pratorum* (early bumblebee) inspecting our bumblebee nest box. This nest box has sat uninhabited in our garden for a number of years but maybe this year? We shall have to wait and see.

For the biological recorder, Spring also heralds the start of many new or long-term recording efforts. If any reader is short of inspiration here are a few suggestions on top of the two surveys described in this issue. There are at least two national atlases on the go for popular taxa, the Dragonfly Atlas (for details see www.dragonflysoc.org.uk/recording) and the new Bird Atlas, which this summer concentrates on breeding records. There are still gaps in the coverage of timed tetrads, while 'roving' records are always welcome (see www.bto.org/birdatlas/). But why not try something new, such as joining the growing band of enthusiasts that make up 'trektellen', a Dutch initiative to chart visible bird migration in all of western Europe? (for details see www.trektellen.nl). Then there are butterfly transects to be done (contact Butterfly Conservation Scotland tel. 01786 447753), moths to be recorded. Extremely useful is to join the Scottish moth yahoo group for help with problem identifications or to learn what is about at any one time. It is by invitation only, so contact Heather Young at hyoungmailbox-gms@yahoo.co.uk for details, and if you own a trap do not forget to put it out for National Moth Night on 15 May. The Bumblebee Conservation Trust (see www.bumblebeeconservation.org.uk) will help with identification from photos and offers a splendid photo gallery. They are also keen to have all records of bumblebees, while Stuart Ball and Roger Morris run a yahoo group for hoverfly enthusiasts and will help with identification problems. In fact they will run courses for small groups, so if you can muster a dozen or so people, do email roger.morris@dsl.pipex.com Richard Weddle is prepared to run courses on Recorder 6, so if you are interested, email him at Richard.weddle@tiscali.co.uk

I am greatly indebted to Sydney Gauld for his excellent article on What's Special about Orkney, to Jonathan Willet for his fascinating report on the Odonata of the Small Isles. Last but not least, the bursaries offered by the Glasgow Natural History Society and BRISC were awarded in March to four lucky recipients. More about this in later issues. AMS

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The map above is taken from the Harlequin Ladybird Survey website, showing its rapid expansion. The December 2009 record from Glasgow is not yet on the map, so there may be other Scottish records in the pipeline waiting to be uploaded on the National Biodiversity Network Gateway.

The harlequin ladybird may initially look difficult to identify, for it has several different colour patterns. It is generally larger than our 7-spot ladybird and certainly much larger than the 2-spot ladybird. The Harlequin Ladybird Survey website as well as the UK ladybird website carry a number of illustrations which will help. Three of the commonest patterns are shown here below.



3 different colour-forms of the Harlequin ladybird – © the survey website



The photo on the left shows the larva, which is spikier than the larvae of our native ladybirds and is thought to make it less palatable.

To report all new sightings online, please go to www.harlequin-survey.org/ It is even possible to report sightings by mobile phone – see the survey website for details. AMS



Plantlife Scotland has recently published a set of postcards to help people identify and record some of the most commonly-seen wild flowers growing in their local area.

First Steps comprise a set of 14 postcards, providing an easy introduction to some of the common wild flowers often seen when out walking or exploring your local area. Each card focuses on one of 14 familiar habitats, from woodland or mountains to road verges and hedgerows, and shows six wild flowers that can be found in this habitat. The set of postcards is available free by contacting Plantlife Scotland on 01786 469778 or by emailing Hscotland@plantlife.org.uk

Plantlife Scotland believes that it is important to help people to know and understand about their local wild plants. Many of what used to be regarded as common plants are now not so common, due to development pressures and changes in the way land is managed. By knowing more about what is growing nearby, local people could help protect these wild flowers and the places where they grow.

The 14 habitats covered by the postcards are: broadleaved woodland, conifer woodland, arable land, heathland, meadows & grassland, marshes, mountains, walls, rocky outcrops, road verges, coasts, hedgerows, bogs, and lochs and ponds. The cards show some wild flowers that most people will already know, such as daisy, nettle and creeping thistle on the road verges postcard, but also include other, lesser-known ones such as ribwort plantain. For broadleaved woodland, for example, the card includes pictures and short descriptions of bluebell, red campion, ramsons, lesser celandine, wood anemone and wood sorrel.

First Steps is part of the Places for Plants and People project, a two year project supported by the Heritage Lottery Fund (HLF) and Scottish Natural Heritage (SNH). To promote this project a series of four guided walks based on going out and looking at wild flowers featured on the First Steps cards has been organised in locations around central Scotland this spring and summer. For more details see p.12.

The images on the postcards are also downloadable from our website at <http://www.plantlife.org.uk/uk/plantlife-scotland-get-involved.html>



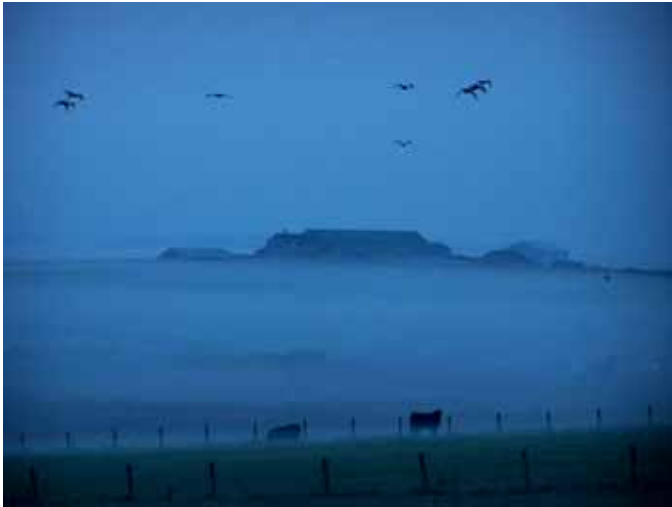
WHAT'S SPECIAL ABOUT ORKNEY

By Sydney Gauld

Introduction

For some one who has lived his whole life in Orkney, the job of defining what is special about Orkney is a daunting task, as one can become very blasé about one's surroundings. So, what follows will in part be a very personal view.

Orkney is a group of islands lying off the north-east corner of Caithness which, if you saw them for the first time from Warth Hill on the A9 just before you arrive at John o' Groats, look like a group of low whale-backed islands stretching out before you. The underlying geology is mainly sandstone with a small area of granite coming through in the Stromness area. The hills of the Mainland rise to a maximum of 268 metres, however there is one island that is not low in Orkney terms, and that is the island of Hoy. This island stands out from the rest of Orkney in that the hills rise to 479 metres. Hoy also has the world famous rock stack which is known as "The Old Man of Hoy." Close to the Old Man are the vertical sea cliffs of St John's Head which rise to 340m.



Geese coming in to feed © the author

Habitat

Agriculture in the form of beef cattle and sheep production is the predominant industry and occupies most of the low lying areas of ground. Grass is grown for summer grazing, silage for winter fodder as well as cereals. In recent years the Orkney College has been looking into bringing back some of the old cereal crops such as bere, in an effort to get farmers to grow crops that do not require such high fertiliser inputs as, for example, the most commonly grown crop, barley. The areas that are not used for agriculture are, on the whole, open heather moorland extending onto the hill tops. An interesting feature of valleys and gullies on the moorland is that they are generally made up of treeless woodland vegetation such as greater wood rush *Luzula sylvatica* and primrose *Primula vulgaris*. In the low lying parts of the islands, lochs and marshy areas are found, the marshy areas dominated by yellow flag *Iris pseudacorus*, *Juncus* sp. and marsh-marigold *Caltha palustris*. The lochs host large numbers of wintering wildfowl.

A relatively large area of Orkney is designated for its natural heritage value and/or is managed as wildlife reserves, the

largest area being covered by statutory designations such as Site of Special Scientific Interest (SSSI), Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar. Both the Royal Society for the Protection of Birds (RSPB) and Scottish Wildlife Trust (SWT) manage a number of reserves. A Local Nature Reserve at Mull Head is managed by Orkney Islands Council, and over 250 locally designated sites known as Sites of Local Nature Conservation Importance are also listed in the Orkney Local Plan (2004).

What's Special

Indeed what is special? Is a squabbling starling less special than the sea eagle *Haliaeetus albicilla*, which has been described as a flying barn door and has been seen in Orkney on a few occasions? Putting aside the notion that all nature is special, there are many interesting things to look at in Orkney.

Plants

The one plant that comes to mind when you think about Orkney is the Scottish primrose *Primula scotica*, this small plant's world distribution being Orkney, Sutherland and Caithness. This is a lovely little plant to see, being found on the maritime heaths on the south and west facing coast. Oysterplant *Mertensia maritima* is found at the top of many beaches on the east side of Orkney, though its abundance can vary depending on how bad easterly winter gales are. Moving from sea level to the top of the hills on Hoy, we find alpine bearberry *Arctostaphylos alpinus* showing off its red leaves in the autumn.



Primula scotica © SNH

Birds

Orkney has many seabird breeding cliffs where you will find razorbill *Alca torda*, guillemot *Uria aalge*, kittiwake *Rissa tridactyla*, and shag *Phalacrocorax aristotelis*. And, where land at the top of the cliffs is suitable, you can find puffin *Fratercula arctica*. As has been noted in the last decade, there has been a very noticeable drop in the numbers of some of these bird species on the breeding ledges. This means that now when you approach an area of breeding cliff there is a marked difference to the experience you would have had when almost all the available ledges were occupied. In those years the smell, then the noise from the colonies as you approached the cliff edge was an amazing sensory experience.

Now the smell is less, the noise is not so over-powering, and many a vacant ledge can be seen. Only time will tell whether these much lower numbers are going to be the norm or whether they will rise once more.

On Sule Stack there is a gannet *Sula bassana* colony numbering some 5000 pairs. Unfortunately, due to the fact that Sule Stack lies some 40 miles out into the Atlantic, there is little chance of enjoying this sight with-out taking a long boat trip. However, in the last few years a small number of gannets have started to nest at the Noup Head on Westray, giving much easier viewing; this colony now numbering 500 pairs.



Hen Harrier chicks © E R Meek RSPB

If we move inland from the coast you come across one of Orkney's iconic birds, hen harrier *Circus cyaneus*, which breeds on the moorland. The hen harrier's status in Orkney became evident from studies carried out by Eddy Balfour between the mid-1950s and the late 1960s, work which made this the longest running study of a raptor species in the world. The Hen Harrier went through a bad patch in the 1990s when their numbers dropped quite considerably, but now they seem to be recovering. Another bird that catches people's attention if they are walking out on the hills and moors is the great skua *Stercorarius skua*, locally known as the bonxie. Orkney has some 2000 breeding pairs of this species, making up 12.5% of the world population.

Deadline for the July issue of *Recorder News* is mid-June 2010. All material in electronic form to the editor at anne-marie@smout.org



Bonxie © the author

Another bird that you can occasionally come across breeding out on the moors is golden plover *Pluvialis apricaria*. A species that is very common is the curlew *Numenius arquata*, which can be found breeding out on the moorland and also on agricultural land. Curlew can be seen in large flocks during the non-breeding season all over Orkney. Whimbrel *Numenius phaeopus* also breeds here in small numbers. On the agricultural land breeding lapwing *Vanellus vanellus* and oystercatcher *Haematopus ostralegus* are common.

It is not until winter that you really start to take note of the smaller birds, when they arrive during their annual migration. redwing *Turdus iliacus* and fieldfare *Turdus pilaris* can turn up in large numbers some years but in other years you are hard pushed to find them at all. In one of those years when there are many redwing and fieldfare around, and you are lucky enough to live next to a stand of trees, you may see large flocks coming in to roost as the light fades.

During migration anything could turn up. The more regularly seen include common redstart *Phoenicurus phoenicurus*, blackcap *Sylvia atricapilla*, chiffchaff *Phylloscopus collybita*, spotted flycatcher *Muscicapa striata*, and crossbill *Loxia curvirostra*. With the autumn migration come the waders and ducks that spend the winter here on the lochs and wide sandy beaches. Flocks of golden plover, knot *Calidris canutus*, purple sandpiper *Calidris maritima* and bar-tailed godwit *Limosa lapponica* can all be seen feeding out on the flat exposed sandy bays or on the surrounding agricultural fields. Wintering duck species include eider *Somateria mollissima*, long-tailed duck *Clangula hyemalis*, common scoter *Melanitta nigra* and velvet scoter *Melanitta fusca*. Amongst these the occasional surf scoter *Melanitta perspicillata* can be found further out at sea. Pochard *Aythya ferina*, tufted duck *Aythya fuligula* and scaup *Aythya marila* are commonly seen on the lochs.

Marine

The seas around Orkney support wealth of wild life, and if you are lucky enough to be on a ferry on the right day you may see a large pod of harbour porpoises *Phocoena phocoena*. These are most commonly seen in and around Scapa Flow, the Pentland Firth and North Sea to the east of Orkney. You may also see a large pod of killer whales *Orcinus orca* or perhaps the more accurately named "whale

killer” in a feeding melee. But more often than not only individuals are seen. Another regular visitor to Orkney waters are basking sharks *Cetorhinus maximus* with their distinctive nose, dorsal and tail fin seen gliding along the surface. We have both common seals *Phoca vitulina* and grey seals *Halichoerus grypus*, the grey seals being most commonly seen hauled out on rocks and beaches round the coast. Common seals, badly named as they, are not so common as the grey seal and can occasionally be found swimming around one or other of the harbours. As I write this article there has also been a very uncommon sighting of a bearded seal *Erignathus barbatus* in the Wide Firth to the north west of Kirkwall. Its normal stomping ground is up in the High Arctic.

There are some very good beaches for shells, one of them being at the Brough of Birsay. Some of the more interesting shells that can be found there include common keyhole limpet *Diodora graeca*, common tortoiseshell limpet *Tectura tessulata*, blue-rayed limpet *Helcion pellucidum*, slit limpet *Emarginula fissure* and two others that are not limpets - poached egg shell *Simnia patula* and spotted cowrie *Trivia monacha*. Elsewhere, in the right habitats, Faroe sunset shell *Gori fervensis* and common pelican’s foot *Aporrhais pespelecani* can be found.



Faroe Sunset Shell © Iain Ashman

There is also a great wealth of fish and other marine life that I have not touched on in this article.

Mammals

Orkney has no large land mammals e.g. deer, nor ground predators such as foxes, weasels or stoats which is good news for ground nesting birds, but the birds don’t have it all their way, as we do have hedgehogs *Erinaceus europaeus*. The largest land mammals we have are the mountain hare *Lepus timidus* and European otter *Lutra lutra*. In Orkney the mountain hare is found only on the island of Hoy. Otter is not as common in Orkney as, for example, on Shetland and is not frequently seen. Signs of their presence, in the form of spraint, can be the only clue that they are about. However, there are certain locations where you are more likely to see them than others. We must not forget the Orkney vole *Microtus arvalis orcadensis*. How this unique little creature came to be in Orkney is a story on its own, which we will not go into here. The Orkney vole plays a very important part in

the food chain of several birds of prey, notably the hen harrier and also short-eared owl *Asio flammeus*.

Insects

I could really go to town on Lepidoptera, being the local county recorder for that group. However, I will keep it brief. The Orkney list stands at just over 480 species, of which approximately 90 are regarded as either vagrant or migrant.

Out of the sixteen species of butterflies recorded, only seven can be regarded as resident. These are green-veined white *Pieris napi*, large white *Pieris brassicae*, meadow brown *Maniola jurtina*, large heath *Coenonympha tullia scotica*, small tortoiseshell *Aglais urticae scotica*, dark green fritillary *Argynnis aglaja* and common blue *Polyommatus icarus*. The peacock *Inachis io* has probably been breeding on and off for the last ten years, but has not yet established itself fully as a resident.

The dark-green fritillary is now found at only one location on Orkney, the Bu Sands, Burray. Once found throughout the Orkney mainland and South Isles, it was devastated during a particularly bad winter, and has not yet recovered.



Ingrailed Clay © the author

Our ingrailed clays *Diarsia mendica* have a lovely rich ‘prussian red’ to ‘cameo-brown’ ground colour which makes them stand out from the light colour morph of this moth which is found in the south of Great Britain. The Orkney form of the wood tiger *Parasemia plantaginis insularum* is distinctive in that the edges of the cell and sub marginal spots are so extended, and the ground colour of the latter so dark, that the males could be mistaken as female.

Orkney is one of the last remaining strongholds of the great yellow bumblebee *Bombus distinguendus* a species that, in recent years, has experienced a marked decline in its distribution throughout the United Kingdom. In recognition of its conservation status, it is listed by Scottish Natural Heritage in its Species Action Framework, which sets out a strategic approach to species management in Scotland. In 2008 a national project was established to develop a programme of actions to realise the objectives of the Biodiversity Action Plan. The actions being undertaken in the Orkney area include the recruitment and training of

volunteers to record distribution data and events to raise public awareness of the species.

An additional local project is underway to establish a sustainable supply of wildflower seed from a number of plant species sourced within Orkney, initially focussing on species which represent important sources of nectar for the great yellow bumblebee. The establishment of a reliable supply of wildflower seed of local provenance should allow us to realise significant levels of habitat enhancement for this species throughout the islands, whilst additionally helping conserve the genetic diversity of Orkney's wildflower species.



Great Yellow Bumblebee *Bombus distinguendus*
@ John Crosley

Biological Recording

Orkney has a long history of biological recording and study, most notably in the last 200 years. Historically, Col. Henry Halcro-Johnstone recorded vascular plants, Robert Rendell studied and recorded marine shells, and J.W.H Trail studied marine algae, to name but a few. A more concerted effort to study and record the natural environment came about with the formation of the Orkney Field Club in 1959. The club encouraged individuals to adopt a group of taxa to study and record even if they knew relatively little about that group to begin with. This encouragement to take an interest in the environment, especially with the younger members of the OFC, led some of them to go on into various environmentally based jobs in later life.

The club held and still holds field meetings at locations all over Orkney, as well as evening talks by various speakers not only on local subjects of interest, but also on subjects and locations further afield than Orkney. The club started to produce its "Orkney Field Club Bulletin" in 1961. This bulletin was a means of communicating with the members forth coming events and also a means of publishing short articles. The club also started to hold study weekends or days, where an expert was on hand to teach people more about a specific subject.

In the early years of recording everything was written down on paper, then with the coming of the computer things began to change. There was a better and a more efficient way to handle biological records, in theory! Moves to establish a

Records Centre set up started in 1989, initially intended to be a card-based storage system. Moves to obtain a computer began in 1993, (and after much negotiation with various parties) a computer was obtained along with the DOS version of recorder "Recorder 3" (do I hear some folk saying "I wish we still had it"?).

The next step was to move the Records Centre into an office and have it staffed. This came about in 1999 as part of Orkney Islands Council and today it is located in the Orkney Library & Archive building, under the name "Orkney Biodiversity Records Centre". The centre receives records for a wide range of groups, the largest contributors being the expected birds, plants, moths and butterflies. Encouragement is actively given for as many other groups as possible to be recorded in a systematic way as described above. The centre also runs courses to add in this process.



Nowt Bield, Hoy © the author

This has been a very brief and personal look at what comes to my mind on what makes Orkney special. On reading through what I have written, I can think of more and more that could be added. And indeed there are scores of books on Orkney's natural history. If nothing else, if you have never been to Orkney, I hope that this will make you think about coming and seeing it for yourself.

Dragonflies of the Small Isles Survey.

Jonathan Willet visited the Small Isles off the west coast of Scotland two years running (2008 and 2009) to carry out a survey of the different islands of the Odonata population and bring existing data up to date

Eigg

In July 2008 five days were spent on Eigg and just about all of the island (it is only 9x6km) was walked over and suitable sites surveyed. The weather was dry, but on the whole cloudy so there were not many adults seen on the wing.

Of the nine species that had been recorded as adults on the island, breeding was confirmed for all of them over the five days of surveying. Suitable habitat for keeled skimmer *Orthetrum coerulescens*, azure hawkler *Aeshna caerulea* and northern emerald *Somatochlora arctica* was found in a relatively small area, but none were seen. The Scottish Wildlife Trust Warden on the island, John Chester, told me he had seen a bright blue dragonfly (keeled skimmer?) at this suitable habitat several years ago but not since. Although there seemed some suitable burns for beautiful demoiselle *Calopteryx virgo* no-one on the island said they has seen one.

This observation plus my surveying got me wondering about how the size of the islands and distance to the mainland affects their Odonata fauna. This may lead on to further investigations by myself when this work has finished. An usual find was that some of the larval common hawkler *Aeshna juncea* were all black with no sign of the longitudinal striping on the abdomen that I had previously always found on them. Looking at the sizes of the larvae of this species I estimated that they had a three-year life cycle, the most commonly captured larval sizes were c.1cm, 2.5cm and 4cm.

Two days of field trips were run with five people attending the Saturday meeting, when common darter *Sympetrum striolatum* were seen on the wing and golden-ringed dragonfly *Cordulegaster boltonii* larvae were found. On the Sunday 16 people came along to have a look at the Giant's Footstep loch. It was a little overcast but some damselflies and assorted Odonata larvae were found. The attendance was the highest ever on one of my British Dragonfly Society field trips and represented nearly a quarter of the island's population. I got lots of positive feedback from the walk. I gave two field guides, Brooks and Smallshire & Swash, to the community and they now reside in the library.

Whilst on the island I met with Ben Cormack, the local artist/designer, who is working on the images for the leaflet and its design. The first drafts of the images will be produced at the end of October, with a launch date of the leaflet sometime in November 2009, possibly at the BDS Conference in Edinburgh.

In total 67 species records were collected from 22 different locations on the island. This data has still to be mobilised to the Highland Biological Recording Group's database, where it is then passed on the Scottish Recorder.

Rum

The original project planned to spend three days on Rum mobilising the data in the Odonata file that I was told exists in

the Reserve Office. A month before I was due to go to Rum I called the Reserve Office to ask about its availability, then after three week I rang back and found out that the Reserve staff suspected it had been archived but did not know its whereabouts. It is likely to be at the Scottish Natural Heritage HQ Great Glen House in Inverness, so accessing the records will be straightforward and inexpensive, as I stay only fifteen miles away.

I made the decision still to travel to Rum, even though there was no paper data to mobilise, as the weather forecast was good and there would be the possibility of seeing some adult Odonata still on the wing. I spent three days visiting all four of the 10km squares covered by Rum and surveying the ponds I came across for larvae, and also identifying the best places to return to for adult surveying in the summer months of 2009. Unfortunately, although dry the weather was not sunny, so only two adult common hawkler were seen on the wing. In the sunny days before my arrival black darter *Sympetrum danae* had been seen on the wing.



Recently emerged Common Hawker © the author

Breeding was confirmed for six species. 29 ponds, pools or lochans were visited. Odonata were found in 20 of them. 84 individual species records were obtained, 25 of these were sent to me from Norman Moore, who visited Rum on 1983.

Though nothing rare was found, suitable habitat was identified for northern emerald, keeled skimmer, beautiful demoiselle and azure hawkler. These sites will be investigated further next year, in sunshine hopefully.

This visit was useful recce for next year, as I will take my bike and investigate the ponds that are on the other side of the island but close to the road. The west side of the island, which I did not visit this year, is where the greatest number of species (12) have been recorded according to information on the National Biodiversity Network.

This data has been mobilised to the Highland Biological Recording Group's database where it is then passed on the Scottish Recorder. I will continue to chase up SNH to obtain access to the Rum's Odonata site file and mobilise the records there.

Jonathan Willet. October 2008.

Field Visit to Rum, June 2009

Rum covers 10,463ha and as expected has the most dragonfly and damselfly species found on it. In total twelve Odonata species have been recorded there, according to the National Biodiversity Network database.

The island was visited for a second time in early June 2009. Six days were spent in the field and the weather was consistently good, being sunny and warm with only part of one day having significant cloud, high winds and some rain.

The field trip went very well with three islanders and one visitor coming along to explore Glen Shellesdar in the middle of the island just north the Harris/Kilmory junction. The number was just right because we could just fit everyone into the Landrover. The sun shone and we explored two lochans, both of whose water levels were very low due to the extremely dry spell of weather the west had been having that



Large Red Damselfly © the author

spring. Three species were found at the first pond, four-spotted chaser *Libellula quadrimaculata*, common blue damselfly *Enallagma cyathigerum* and large red damselfly *Pyrhosoma nymphula*. One unusual sighting was a large dead eel in the water. Presumably it had been killed and dropped by a grey heron

The second lochan had a few more species, five in total. The new species were common hawkler and emerald damselfly *Lestes sponsa*. There were no other species on display until we headed back to the Landrover and saw a golden-ringed dragonfly hawking around the heather by the path. It settled and we managed to get excellent views of it.

A talk was given in the community hall and four people attended. If the weather had not been so pleasant that evening then perhaps more people would have been there. The talk was well advertised round the island with posters and by the ranger. Identification guides were given to the ranger for his visitor centre.

Overall nine species of Odonata were found to breed on Rum during the visit. The breakdown of the various 10km squares is as follows.

- NG30 – 8 species.
- NM29 – A’Bhrideanach. Very small area, no suitable habitat. 0 species.
- NM39 – 9 species.
- NG40 – 6 species.
- NM49 (not all area covered) – 6 species.

The nine species found were common blue damselfly, large red damselfly, blue-tailed damselfly *Ischnura elegans*, emerald damselfly, common hawkler, golden-ringed dragonfly, four-spotted chaser, black darter and common darter.

Three species not found are the rarest and as it turns out have the fewest records and oldest dates of when last recorded: Rum has the most westerly records of northern emerald (= with Skye) and azure hawkler. But the last dates when they were recorded were 1940 and 1983 respectively. Both species only have five records each. The keeled skimmer has only one record and it is from 1986. The lack of records does call into question if these three are breeding species on the island. However, I suspect that they are, and a trip in late June or early July is required, when the adults will be at their peak abundance. The south east end of the island at Dibdil has not been visited and that again is another target for survey in the coming year(s).

The reserve dragonfly file may have more records than this but it could not be located in the two years I have been asking about it and is presumed lost.

Field Visit to Muck. June 2009

Muck covers 559ha and had records of three Odonata species on the NBN. It is the smallest of the Small Isles and looking at the map it showed the least wetland habitat, as it has been intensively managed for over 100 years.

I had two days on the island in late June and the weather was perfect. Of all the days out surveying these were the warmest, being in the mid-20s. Even though the island is not very big it extends across four 10km squares, just like Rum. Two of the 10km squares were small with very little standing water.

- NM38 (no visit to Eilean nan Each) – 1 species. 10ha, one wetland.
- NM37 – 2 species. 80ha no standing water.
- NM48 – 6 species.
- NM47 – 7 species.



Northern Emerald Dragonfly © the author

Overall there were seven species for which evidence of breeding was found and one species where only an adult was

seen. The single adult, northern emerald dragonfly, was the single greatest surprise of all the island visits (apart from the fact that it hardly rained). There seemed to be no suitable breeding habitat, but an immature male (one or two days old) was seen on top of some bracken, so I presume that it had emerged nearby as there had been no strong winds to blow it to the island from the mainland in the previous week. So the visit ended with a real mystery.



Full 'fronsall' of the Northern Emerald Dragonfly © the author

There was also mention that some of the schoolchildren had seen a blue damselfly, near the school pond. This sighting was unconfirmed but plausible, so Muck may have nine species, as many as Rum.

Due to the short time available for surveying there was no time for a field trip but there was a slide talk and ten people attended, a third of the population, and they were all very enthusiastic and asked a great many questions. The identification books were given to the school to put in their library.

Much of the wetland on this island has been drained, and it would really benefit from some drain blocking to restore these wetlands for all manner of wildlife. Currently these drained wetlands are not used by stock because they are still too wet, so restoring them would not mean a loss of good ground. There was a large, new pond built at Balblair, and even though it was only a year old it had six species recorded. Any suitable habitat on the island will get colonised quickly.

Canna

Unfortunately I did not have time to visit Canna as I just did not have enough free time that matched the ferry times and flight period of the Odonata there. I had visited once before in 2000, when I did see large red damselflies and common hawkers. I would suspect eight or nine species to be found there. Currently the NBN shows seven species of Odonata recorded on the island.

Conclusion

As ever, more field work is required to get a full knowledge of the species and their distribution on the islands, but I am pleased with the results I have collected and feel that I have good data on the common species on the islands. Nine seems to be the baseline for common species, except on Muck where they do not seem to have golden-ringed dragonflies.

Getting evidence of presence or breeding of the three rarer species on Rum will be hard as it is such a big island, and there is seldom likely to be a period of good weather at the right time of year coinciding with a visit of a dragonfly recorder, but you never know. I shall certainly return to all of the islands, but first on the list is Canna.

Jonathan Willet. February 2010.

BOOK REVIEWS

Cope, T. & Gray, A. (2009) *Grasses of the British Isles, BSBI Handbook No. 13. Botanical Society of the British Isles, London. 612pp. ISBN 978-0-901158-420 Softbk £19.99 and ISBN 978-0-901158-413 Hardbk £24.99. (10% discount to BSBI members)*

At least three generations of botanists must have been brought up using Charles Hubbard's *Grasses* (Hubbard, 1954, 1968 & 1984) as the definitive text on grasses. So it is no surprise that there has been much interest in the botanical community in the publication of this new title which will supplement, if not replace, our well worn Hubbards.

Whilst undertaking this review it has been hard not to draw comparisons with Hubbard. The first thing that a reader will notice is that even the soft back version of *Grasses of the British Isles* is considerably heavier. This is largely due to the much greater number of taxa included – 220 as opposed to 158 in the older title. The new title includes 113 Natives, 10 Archeophytes, 50 Neophytes and 47 Casuals. The difference is due to the greater number of Neophytes and the large number of Casuals, which were generally not included by Hubbard.

The other reason the new title is heavier is its tiered key, which begins with a key to tribes and is followed by a description of those tribes and keys to genera. This in turn is followed by descriptions and keys to the species for each genus. This is quite different from the single but enormous key in Hubbard. This will take a bit of getting used to but does have the advantage that one will normally discover an incorrect key decision well before reaching the species account.

I suppose to mitigate these factors, the authors have adopted a guiding principal of parsimony. Thus the information in the tribe account is not necessarily repeated in the genus account and that in the genus account is not repeated in the species account. This does mean you cannot always just read the species accounts in isolation, and the user does have to move about the book much more. Likewise only those parts of the grass spikelets which are of diagnostic value have been included in the excellent original line drawings by Margaret Tebbs.

Similarly no distribution maps are included – only the *New Atlas* page number at the top of each species account. I think this is quite regrettable. Reduced size maps such as those included in recently published – and excellent – *Mosses and Liverworts of Britain and Ireland* (BBS, 2010) could have been incorporated without adding many more pages, given the amount of white space.

Generally all these editorial decisions have led to the publication of a very cleanly laid out and illustrated book. Unfortunately each species account does not fit neatly onto one side with the accompanying illustration facing as in the case of Hubbard. But this is understandable given the amount of additional information the book includes.

Each excellent species account includes succinct paragraphs covering description; distribution and habitat; biology and ecology; status and wider distribution, and finally any additional information. These later paragraphs often contain the most interesting details such as reasons for taxonomic changes. Such as the renaming of *Alopecurus borealis* as *A. ovatus*, and the downgrading of *Poa humilis* or *P. subcaerulea* to subspecific rank, *Poa pratensis subsp. irrigata* and the treatment of *Anisantha*, *Bromopsis* and *Ceratochloa* as sections of *Bromus*. Perhaps the most upsetting of all such changes (botanists are easily upset on such matters) is the demise of *Hierochloa odorata*, which is now known as *Anthoxanthum nitens* – when it does not even look like a Vernal-grass and loses its specific epithet.

Once readers become familiar with its key structure and lay out it ought to become relatively easy to use in the field. Generally the descriptions only rely on the use of field equipment, such as a x10 lens and a rule. The glossary is reasonably comprehensive, but it is less so on ecological terms which are mostly described, to be fair, in the introduction. Nevertheless the glossary could usefully be extended to include many specialist terms used in the volume, to save cross-referencing and referring to an ecological dictionary. The black-edged glossary in the *New Flora of the British Isles* (Stace, 1997) is a brilliant idea and makes finding the glossary much easier and should, I believe, be adopted as standard practice in BSBI handbooks. Perhaps a more serious omission relates to the absence of a vegetative key – which was included in one of the many closing chapters in Hubbard.

To conclude, this is a worthy successor to Hubbard as *the* standard text on the Grasses of the British Isles, which everyone interested in grasses should read and use!

Jim McIntosh
BSBI Scottish Officer

McCafferty, D.J. (ed.). (2009). Machair conservation: successes and challenges. Glasgow Naturalist 25, supplement, 89 pp. This volume can also be read on-line at www.gnhs.org.uk/publications.html and hard copies can be ordered at info@glasgownaturalhistory.org.uk. Hard copies cost £11.50 + £1.50 p+p; £8 to members

This supplement documents a conference organised by the Glasgow Natural History Society and held in Glasgow in December 2008 in collaboration with the RSPB and the Aculeate Conservation Group. The scope however goes well beyond birds and bees, covering many aspects of the history, biodiversity, ecology, use and management of machair. There are 13 longer papers followed by 12 shorter ones, some of the latter based on posters presented at the conference, and involving about 46 authors altogether. Encouragingly the first paper, by John Love, starts with his definition of machair: ‘a mosaic of different habitats – beach, sand dunes, dune slacks,

pasture, marshes, ditches and lochs’; no mention of arable. A later paper by Stewart Angus (SNH) begins ‘Machair is a complex habitat and also a complex of habitats’, and goes on to concentrate on ‘the cultivated machair plain and its associated fallows’.

Perhaps at one time most machair involved an element of cultivation, usually intermittent, alternating with grazing. However out of 37 machair sites with SSSI designation, extending from Kintyre through the Hebrides to Orkney and Shetland, arable machair is now virtually confined to the Uists (and some adjacent small islands) and all of these are in ‘unfavourable condition’ according to the latest site condition monitoring, mainly through input of fertiliser and deeper ploughing. On the other hand the cereals grown are mainly ‘landraces’ that are themselves ‘rare breeds’ amongst arable crops, almost extinct elsewhere: small oat, bere and rye.

Machair is of course renowned for its floral displays, but John Love points out that although it may contain up to 150 species (presumably of vascular plants although this is not clear) this compares with 400 – 500 species in dune pasture in the east of Scotland. The machair plants however include some specials such as Irish lady’s tresses and lesser butterfly orchids.

Dealing with the invertebrates David McCracken starts by saying ‘Machair systems are not particularly rich in invertebrate species but do contain a much more diverse range of invertebrates than would normally be expected from what is generally thought of as a dry grassland habitat’. (But can any habitat in the western highlands or islands possibly be dry?) However as with the plants there are species of particular interest, especially the great yellow bumblebee *Bombus distinguendus*, now almost confined to machair sites although once widespread in Britain; and the northern colletes bee, *Colletes floralis*, a species that has always been very localised, in the north and west. The bumblebee has attracted a lot of attention and figures largely in this publication. It is a long-tongued bee, very dependant upon species-rich grassland especially with an abundance of red clover and other legumes, a habitat that has declined drastically elsewhere.

Clearly management of the machair is as complex as its ecology, including some conflicting requirements: Irish lady’s tresses needs summer grazing; corncrakes need a long break from grazing. There are several maps showing past and present distribution of the key species such as corncrake and great yellow bumblebee, and one showing the distribution of machair sites in Scotland, although the reproduction is sometimes too poor to distinguish symbols from convoluted coastlines. Another small quibble is the high frequency of misspelt scientific names in several of the contributions. However this will remain a valuable source on a valuable habitat (or suite of habitats – take your pick).

Gordon Corbet.

EVENTS and FIELD TRIPS



Habitats are home: celebrating International Year of Biodiversity in South Lanarkshire.

A South Lanarkshire Local Biodiversity Partnership (SLBP) and Community Planning Partnership Conference.

Where: Rutherglen Town Hall

When: 23 April 2010

2010 marks the UN's International Year of Biodiversity (IYB), with its aims of increasing awareness, reducing the loss of biodiversity and celebrating success stories. In the UK a series of events will run throughout the year, including the celebration of International Day for Biological Diversity on 22 May.

It is an important time to talk about biodiversity. 2010 marks a key point in the global fight to conserve biodiversity. It is the year by which the UN aims significantly to have reduced the rate of biodiversity loss and by which the European Union wishes to have completely halted biodiversity decline.

The South Lanarkshire Biodiversity Partnership also wish to mark IYB by holding a conference which illustrates and celebrates the vital role biodiversity plays in every persons life.

The conference will take the form of a morning of talks followed by an afternoon workshop or site visit. There will also be the opportunity for local organisations to display posters and have stalls which outline the work and projects they have underway in South Lanarkshire.

There will be a strong focus on ecosystem services and what biodiversity delivers for the people of South Lanarkshire. We are keen to emphasise the good work that is undertaken in South Lanarkshire and to identify areas/themes which can be built upon or require some work to be initiated.

We hope to attract a wide range of participants, particularly small NGOs which deliver biodiversity work across the area, community groups with a biodiversity interest and business/agricultural interest groups which rely upon ecosystem services to deliver their service. Representatives from Biodiversity Partnership organisations who are unable to attend regular LBAP meetings are also encouraged to come along, as are representatives from a range of South Lanarkshire Council departments.

The conference will provide a good opportunity to celebrate success stories, promote ongoing projects and network with other individuals and organisations who are involved in conservation work across South Lanarkshire.

For further details please contact:

Siân Williams, Biodiversity Officer

South Lanarkshire Biodiversity Partnership
Countryside and Greenspace Service,
Community Resources, South Lanarkshire Council,
Chatelherault Country Park
Carlisle Road, Hamilton, ML3 7UE
Tel: 01698 426213 or 01698 543419 (direct)

Several other **Bioblitz** are staged to celebrate International Year of Biodiversity:

22 May – The Cairngorm Big BioBuzz Day. Contact Stephen Corcoran, Cairngorm's Biodiversity Officer on 01479 870528 or email stephencorcoran@cairngorms.co.uk

30 May In Dundee a Mini BioBlitz at Trotty ponds LNR – contact David Lampard, McMannus Collection Unit, on 01382 432384 or email david.lampard@dundee.gov.uk

In May and June Three Bioblitz will be held on separate weekends in Fife. For details contact Gary Sinclair, Fife Biodiversity Coordinator, mobile 07534 227163 or email Gary.Sinclair@fifecountryside.co.uk

15 May - National Moth Night in co-operation with the Bat Conservation Trust. For details of how to take part go to www.nationalmothnight

Plantlife Scotland Guided Walks. As part of the First Step (see p.3) four guided walks will be taking place this summer:

- Castle Semple Country Park, Lochwinnoch on Sunday 16 May, at 2.00 pm
- Macrosty Park, Crieff on Sunday 30 May from 12.00-4.00pm as part of Perth & Kinross Council's Biodiversity in the Park event.
- Aberfoyle on Sunday 24 June at 2.00pm.
- Greenhead Moss, near Wishaw, on Saturday 17 July from 11.00am-3.00pm as part of the Greenhead Moss Community Nature Reserve Eco-day.

British Dragonfly Society Field Trips (free events).

- 6 June – Loch Leven NNR. Odonata larval identification training day. 10am to 4pm. Contact the reserve office for more details, tel. 01577 864439.
- 12/13 June – Morven. Field Trips to look for Beautiful Demoiselle, Keeled Skimmer and Azure Hawker.
- 26/27 June – Loch Achall, Rhidorroch by Ullapool. Field trips to an under-recorded area. Call Lindsey Duncan on 01854 613 904 to book.
- 10/11 July – Applecross. Field trips to an under-recorded area.

For more information about these field trips go to <http://www.dragonflysoc.org.uk/home.html> and look at the diary.

Other Dragonfly Training events.

23-26 June – Kindrogan Field Centre. Two-day Odonata identification training course, then a one-day field visit to look for rarities around Loch Rannoch. See <http://www.field-studies-council.org/kindrogan> for more information.

18 June A seminar on data flows and data access across the NBN, to be held jointly between the NBN Trust and National Federation for Biological Recording at the Angela Marmont Centre at the NHM, London. Details to be finalised.