

Recorder News

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MONITORING SCOTLAND'S SEAL

John Harwood

The grey seal (*Halichoerus grypus*) was the first British seal and the common, or harbour, seal (*Phoca vitulina*) are host of minor amendments to this Act. The Act obliges the

the relevant government departments on the current status of these two species. In order to be able to provide this

(SMRU) at the University of St Andrews to monitor the British describes how that monitoring is done and provides a brief summary of the current status of the two species in Scotland.



An adult female grey seal at the Isle of May.

In Scotland, grey seals breed colonially between September and December on rocky or sandy beaches. Historically these colonies were confined to remote, virtually uninhabited offshore islands, but in the last 20 years seals have started to use sites on the mainland. The white-coated pups show up clearly in aerial photographs, and this kind of photography has been used to monitor the numbers of pups born at all of the major colonies in Scotland since 1963. Initially photographs were taken using a handheld camera poked out of the window of a small aircraft, but techniques became more sophisticated in the 1970s when motorised cameras pointing vertically downwards were introduced. More recently SMRU has begun using a high resolution camera mounted on a

platform that rocks backwards and forwards to compensate for the forward motion of the aircraft. This has made it possible to use lower shutter speeds and to move from black-and-white film to colour. The resulting photographs are much easier to interpret and, in theory, it is possible to measure the length of a seal in one of these photographs to an accuracy of ± 5 cm! Some colonies are difficult to survey from the air because they are underneath steep cliffs or in caves, and these are counted on the ground whenever there is an opportunity.



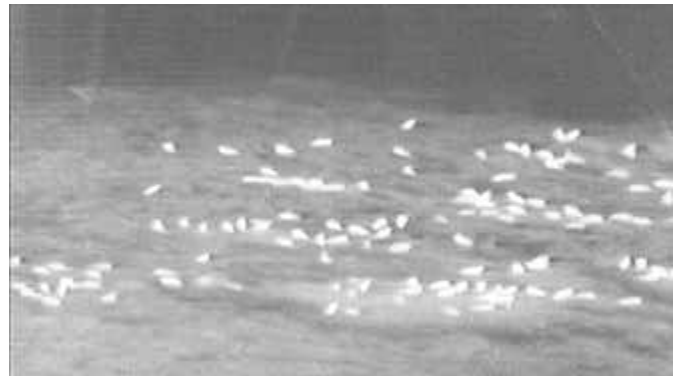
Thermal imaging camera used for surveying common seals.

During the 40 years of monitoring, the total number of pups counted has increased steadily by about 6% per year, and the number of colonies has doubled. Over the last 10 years the rate of growth at many colonies has slowed down, and there has been virtually no increase in the number of pups born at colonies in the Hebrides since 1992. However, a few colonies in Orkney are still growing rapidly.

The grey seal is confined to the North Atlantic and Baltic, and is a relatively rare species on a world scale, with a total population of around 350,000 individuals. Approximately, half of this population breeds in Europe, and Scotland – current population around 114,000 - holds the lion's share (70%) of the European population. Other important populations are in the Baltic and Iceland (around 12,000 in each). Most populations appear to be increasing.

Common seals breed on small inter-tidal rocks and sandbanks, usually in more inshore and sheltered areas than grey seals. This makes them more difficult to monitor. However, seals that are resting on sandbanks can be counted relatively easily using the same kind of aerial photographs that are used for grey seals. The situation is more difficult in areas where seals use rocks for resting, because they are very difficult to see against this background. Fortunately, they can be easily detected using a thermal imaging camera of the kind used to detect sailors who are lost overboard. SMRU has been using this kind of

camera mounted in a helicopter to survey common seals around the coast of Scotland since the late 1980s. Surveys are usually conducted in August when the seals are moulting and spend a high proportion of their time out of the water. Although it is possible to cover large areas in one survey, it is not possible to cover the entire Scottish coast in one season. Instead, different regions are monitored on a five year "rotation". Common seal numbers have not increased as rapidly as grey seals. Numbers appear to be relatively stable in the Hebrides and Orkney, but there have been increases in Shetland, Strathclyde and on the west coast. We don't have exact estimates of the total size of the common seal population, because not all members of the population are out of the water when the surveys are conducted. However, SMRU counts indicate that there are a probably a minimum of 32,000 common seals in Scotland, which is about 90% of the UK population.



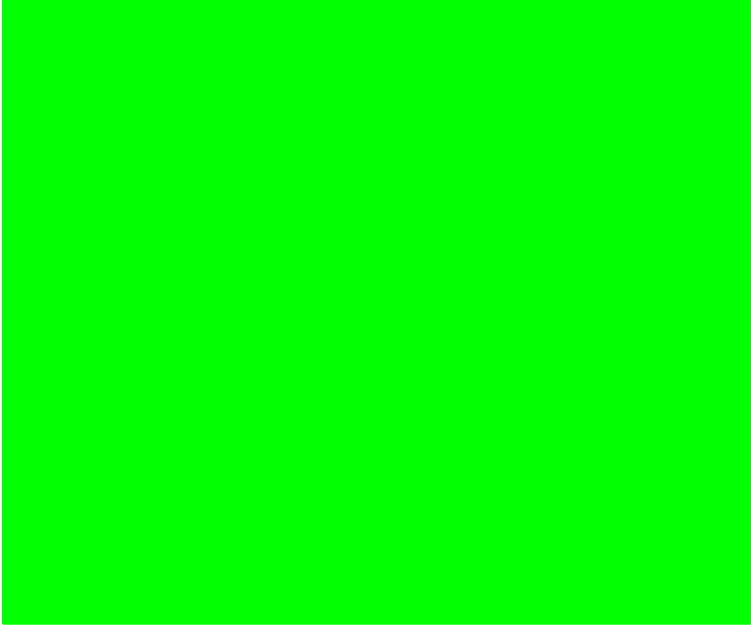
A thermal image of common seals (the white spots!) on rocks off the west coast of Scotland.

The common seal has a circumpolar distribution in the northern hemisphere. Scottish common seals are placed in the sub-species *Phoca vitulina vitulina*, which is restricted to the North-east Atlantic. Most countries use similar monitoring techniques to those developed by SMRU, so counts from other European countries are broadly comparable. Scotland holds about 35% of the world population of this sub-species, and nearly 50% of the European Union population.

NERC's advice on the status of seal populations is compiled by its Special Committee on Seals, using the monitoring information provided by SMRU. You can access that advice, which includes detailed information on numbers and trends, through the SMRU website at

<http://smub.st-and.ac.uk/scos.htm>

John Harwood
NERC Sea Mammal Research Unit and Centre for
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Gatty Marine Laboratory
University of St Andrews, Fife KY16 8LB



Recent trends in the numbers of grey seal pups born at colonies in Scotland. Values are shown in logarithms to make it easier to see the trends for each area. 7.5 is equivalent to around 2,000 pups, 8 to 3,000 pups, 9 to 8,000 and 10 to 22,000.

NOTES FROM THE CHAIR

I am delighted to announce that Alan Cameron has been appointed to the post of BRISC Development Officer. Alan started on 10 June this year and is based at our new office. Full details of the address can be found on page 12 at the end of this newsletter.

Many members will already know Alan and be aware of his extensive knowledge of biological recording issues, gained during his time with the Wildlife Trusts and the 'Linking Local Records Centres' and 'LRCs & National Biodiversity Network Gateway' projects. I very much look forward to working with Alan over the next three years and making use of his skills and energy to implement BRISC's Strategic Plan.

Alan spent much of his first two weeks in producing a detailed project programme, which was approved on 25 June at the first full meeting of the Management Team (consisting of three BRISC committee members -Lesley Brown, Paul Kirkland and myself - a representative from SNH - Jeanette Hall, and one from BTCV - David Jamieson).

The first extensive task for Alan will be to visit all Scottish LRCs, to introduce himself and also to ask how they are doing, and what are the problems they face. A report on the findings will be prepared and submitted to SNH and the NBN Trust.

Another task will be to try and activate BRISC's subgroups. These groups were set up originally to allow members a more personal involvement by providing a forum where people could share common interests, but sadly not much activity has taken place so far. It is hoped to put some more

wind into groups' sails, and ideas from readers of how to do this would be most welcome.

On the Committee front, I am very pleased to say that Ann McKillop, Senior Ranger at Chatelherault and contact for South Lanarkshire LRC, has been co-opted to BRISC's Committee. At the last AGM it became apparent that the west of Scotland was not represented at all on the Committee. This state of affairs was obviously most unsatisfactory and had to be rectified. Ann was approached and has happily agreed to serve.

May was a busy month. In one week we had the National Biodiversity Network seminar entitled 'Biological Recording in Scotland', organised by Trevor James, National Schemes and Societies Project Officer, and hosted by SNH at Battleby; the interviews for the post of our new development officer; and two excellent and encouraging days on *Recorder 2002* with Stuart Ball, at CARSE in Stirling and at NESBReC in Aberdeen. A brief report of the Battleby seminar can be found elsewhere in this newsletter, while the full report is available for downloading from the NBN website at www.nbn.org.uk/meetings More information on the long awaited new release of what will become *Recorder 2002* can be found under the IT section below.

Readers will remember that in the April 02 issue of *BRISC Recorder News* (No 45), Brian Thomson wrote an article updating us on the project to create a nature reserve at Broadwood, Cumbernauld, in memory of Bill Brackenridge, who was so tragically killed in a car accident in November 2000. On 21 June this year, North Lanarkshire Greening Unit held an Open Day, consisting of a sit-down meal at the Broadwood Stadium, followed by a visit to the site. Bill's brother and members of his family

were present, as were several BRISC members. Brian spoke warmly about Bill and his huge input into conservation projects in Scotland, and we were treated among other things to a show of Bill's own very high quality colour slides, both of wildlife, especially birds, and scenery from Scotland as well as from his many foreign travels. Rain held off while we were taken to see the work on the nature reserve so far: 17 ponds of varying sizes have been dug to encourage insect and pond life in general, more dog and marsh violets have been introduced to encourage re-colonisation of the Small Pearl-bordered Fritillary, which was wiped out by insensitive developments in the early 1990s, while native trees and scrub were planted in appropriate places. Brian invited ideas for how to enhance the site further and a Sand Martin pipe wall may be introduced. Bill would have been so pleased. Two large explanatory boards are to be erected as part of the memorial.

Thank you to all of you who have remembered to renew your membership, and especially to all who filled in bankers orders. Please could I remind everyone who has not renewed yet to do so a.s.a.p. It is an enormous help to us. If you have lost the details, you can request another one either from Lesley Brown, our membership Secretary c/o CARSE, Smith Museum, Dumbarton Road, Stirling FK8 2RQ, or you can find a membership form on our website at www.brisc.org.uk

Anne-Marie Smout

THE FREE GIFT: ANOTHER USE!

The handy little grid reference reader provided with the last issue of BRISC Recorder News is most welcome. Many years ago I bought a similar gadget measuring about 12 cm square from the British Geological Survey with three scales including 1:63 360, as well as the 1:50 000 and 1:25 000 provided on the BRISC reader. However, because it is designed to be used in a slightly different way, the BGS reader does not have gridded squares and so can't be used for rough measuring areas, such as water bodies, which can be done with the BRISC reader. Simply place the latter over a loch and count, first, the number of whole squares, and then estimate a total for the number of partial squares. Add the two together and the result is the area of the loch in hectares. Admittedly, having just one km square at the two scales is not as convenient as the overlay which the late Brian Brookes gave me. This has about 10 one km squares at 1:50 000 scale and three at 1:25 000 scale. This is better because, for all but very large lochs, Brian's overlay allows counting up the number of squares for areas much bigger than one km square, without having to move the overlay to an adjoining square.

As a postscript, I learnt about rough measuring areas with a gridded overlay some thirty years ago when attending an aerial photography course organised by the old Nature Conservancy. After buying the BGS gadget I wrote to the makers, Blundell Harding Ltd of Weymouth, to enquire if they also made a gridded overlay for measuring areas. The

reply was negative so it is splendid that BRISC has now provided just such a tool.

Thomas Huxley

NEWS FROM THE BSBI

Alex Lockton

It was interesting to read in a recent BRISC newsletter a position statement from the BTO on sharing data. The answer seemed to be "no," but I think that actually this conclusion is the right one for ornithology and for local records centres. Bird recording is so different to the recording of other species that it really does need an entirely separate system to operate under; and bird data could easily swamp LRCs with data that are difficult to interpret.

The opposite end of the spectrum is plant recording. While birds, generally, do not stay still for more than a few seconds, many plants are known to remain in precisely the same place for hundreds, even thousands, of years. Most other groups come somewhere in between, being generally loyal to sites, but often being mobile within them.

The fact that most plants, and especially the important ancient habitat indicators, stay still means that we need very different methods by which to record them. To give you an analogy, imagine you wanted to estimate the number of potential customers for a new restaurant: you would conduct a statistical sample of the people within the catchment area. Restaurant customers are mobile. But imagine that you wanted to know how many people live in a borough: you wouldn't sample them, you would visit every house and conduct a census. Residents, by and large, stay still.

In recent years botanists have been experimenting with new ways of surveying for plants. Part of this is a result of pressure from government agencies to provide them with scientifically valid data on which to base conservation decisions, but it would be happening anyway as computers now give us the capability to manage the information. Tim Rich has been a leader in this field, with projects such as the BSBI Monitoring Scheme and the Flora of Ashdown Forest, and more recently the Centre for Ecology and Hydrology has been carrying out with us analysis of the *New Atlas* data.

Things turn out to be not at all as one might expect. You certainly cannot just take bird recording techniques and adapt them for plants. What is needed, it seems, is not so much a more systematic type of survey as a more sophisticated type of analysis. Naturally more effort is spent on recording rare species than common ones, but this extra effort can be allowed for in the analysis. Similarly, difficult plants tend to be overlooked, and again this can be compensated for. It turns out that trends can easily be detected by using our traditional Atlas system of recording. Personally, I doubt if anyone will be able to devise a better system of recording than the good old square-bashing scheme invented by Max Walters and Franklyn Perring in

the 1950s, soon after the Ordnance Survey grid was first released.

However, there is more to ecology than detecting trends. For instance, one of the “discoveries” of the *New Atlas* is that arable weed populations in Scotland have crashed since the last Atlas in 1962. A combination of intensification of agriculture in the lowlands, together with abandonment of subsistence farming in favour of importing fruit and vegetables seems to have decimated arable weeds. Useful information, but hardly surprising. The best that can be said of it is that this is real data to prove what many people already knew. But it doesn't enable us to do anything about it, or even provide us with a justification to do anything. The only thing it does do is provide us with a whole series of further questions that need answering.

Understanding the history and ecology of rare and declining species is currently a fascinating part of botanical research. One of the BSBI's initiatives on this is the Threatened Plants Database, which we believe is one of the most detailed and accurate biological recording systems in existence. Through it we can research many aspects of botany and ecology, and often completely revise the way rare species are viewed.

One way the TPDB can improve upon existing systems is in the geographical accuracy of the data. Until recently most systems worked on 10km squares – that is how all the national Atlases are prepared. County Floras tend to work on 5km or 2km squares, but many counties do not have up-to-date Floras, and some do not have one at all. The TPDB project aims to have at least 1km accuracy for all records in all areas: a 10,000-fold increase in detail over the *New Atlas*. The results of this can be spectacular. One example of this is the national distribution map of Pennyroyal, *Mentha pulegium*. Until recently, it was widely assumed that this was a *bona fide* native plant of grasslands, and there is even a Biodiversity Action Plan to conserve it. It is considered an extinct native of Scotland. However, when we plotted the map at a fine scale of resolution, a strange phenomenon leaped out at us. It was a map of Roman Roads! This conclusion is so obvious that we could show the map to archaeologists and they would instantly recognise it, without being told what we were actually displaying.

The Roman Roads theory is extremely useful in a variety of ways. For a start it helps to explain the occurrence of Pennyroyal at certain sites, including its only recorded location in Berwickshire. Michael Braithwaite, the recorder for Berwickshire, has researched the archaeology of the Causewaybank area, and found that it was indeed an ancient highway constructed through a marshland, and later destroyed to keep marauding Scots out of England. “Roman Road,” it turns out, is perhaps a bit of an over-simplification, but ancient highways do turn out to have been the most probable mechanism for the dispersal of this species.

However, we still do not fully understand the ecology of this plant. If it was dispersed by traffic along unmetalled

roads, does that make it an archaeophyte – an ancient introduction associated with human activity – or could it perhaps also have a native ecology? That is a question that we cannot answer from existing data, because it is not dependent on the location of the plant alone. We need phytosociological data such as NVC quadrats to answer questions like that. I have a suspicion that it could occur in the NVC community OV35, which would probably justify its native status in some sites.

I am afraid I cannot give you the next episode of this story until the work has been completed. There are geneticists and ecologists working on it right now, and their results will all be compiled onto the TPDB where they can be made available to anyone who has a use them. We try to not have a monopolistic approach, and would prefer to work cooperatively with anyone who manages botanical data. I hope the saga of *Mentha pulegium* illustrates the need for national and local projects to work together. We cannot reasonably hope to research such issues as archaeology over every county in Britain and Ireland, whilst a local recorder could not spot a distribution pattern on the basis of a single dot. In addition to that, we have an ongoing need to collect large amounts of highly detailed phytosociological and monitoring data in the next stage of investigation into these species. The only way forward that I can see is for botanists everywhere to cooperate, to their mutual benefit.

Current research projects by the BSBI include a phytosociological survey into arable weeds and many other “TPDB species.” Despite the crash in arable in Scotland, we do know that there are some important communities still present, especially in the borders region and in Orkney, where Purple Ramping-fumitory, *Fumaria purpurea*, occurs. This rare species is an arable weed only in Scotland – in England it tends to occur in hedges, and in Wales it is a casual. Pillwort, *Pilularia globulifera*, and Marsh Clubmoss, *Lycopodiella inundata*, are other species where we believe Scottish populations may be more significant than has previously been recognised. Pillwort may be another OV35 plant, but no-one has yet been able to describe the ecology of Marsh Clubmoss north of the border.

For more details about BSBI projects, keep an eye on www.bsbi.org.uk, and for up-to-date news on the arable weeds survey and the TPDB project, visit www.whildassociates.co.uk. A sample of the Threatened Plants Database can be viewed at www.tpdb.org. Members can contact me through any of those web sites, and you can even submit records.

Alex Lockton,
BSBI Coordinator

**BRISC Recorder News - Deadline
for next issue is 16 September 2002**

All material, preferably in electronic format, to
Anne-Marie Smout, Chesterhill, Shore Road,
Anstruther, Fife KY10 3DZ, Tel 01333 310330
email amsmout@aol.com

CHOOSE YOUR COUNTY FLOWER

One of the lessons from Local Biodiversity Action Plans (LBAPs) is that biodiversity is not just some abstruse, scientific concept. Local biodiversity also contributes strongly to a sense of local identity, and LBAPs are about celebrating and cherishing that identity.

Now Plantlife – the Wild Plant Conservation Charity - is taking this idea a stage further with an exciting new project called *County Flowers*, launched to celebrate the Queen's Golden Jubilee. People around the country are being invited to vote for the flower, which best represents the 'sense of place' of the county where they live, and for all the counties they visit during 2002. In Scotland, we're interpreting counties as the pre-1974 shires, because we think these still have the strongest local resonance, but we have also made sure that the Western Isles, Glasgow and Edinburgh have their own identities! By encouraging people to vote for flowers in the counties they visit, we hope to encourage them to visit the countryside again, post foot-and-mouth, and thus support the rural economy.

To help stimulate ideas, we have put together a few suggestions for each shire on our website – but these are just suggestions, and *any* plant can be voted for. Already new ideas are emerging, like Broom for Glasgow, as recorded in the name Broomieknowe, and we want to encourage many more. Voting is available on-line at our website at www.plantlife.org.uk. Simply log on, follow the *County Flowers* link, and you will find a simple form to cast your vote(s) before 1st December, and the final selections will be announced early in 2003.

We have written to all the LBAP Officers to encourage them to 'adopt' *County Flowers* as a local project. We hope other partners in the Scottish Biodiversity Forum will also want to promote the *County Flowers* initiative. In particular, we'd appreciate links from your websites to the *County Flowers* website. For further information, please contact my colleague Ben Thomas on **020 7808 0117** (e-mail: ben.thomas@plantlife.org.uk).

News releases during the year will record how voting is progressing, and I will report back in a later issue of *The Forum*. Meanwhile, we hope all readers will get busy casting their votes – and help us spread the word, to make sure that *County Flowers* catches the imagination of people throughout Scotland.

Michael Scott
(Co-ordinator, Plantlife Scotland)

[This article was first published in the newsletter produced by the Scottish Biodiversity Forum (see also under the IT Corner of how to obtain a copy). A link from BRISC's website to County Flowers website has now been established, so do exercise your vote – AMS]

NATIONAL MOTH NIGHT 2002

National moth night is becoming a memorable event for our household. This is the fourth year it has been held, although we have only taken part in the last three years, and 2002 was

also the year when we caught the most moths. National moth night moves around the season to allow for different species to be recorded. The first year we took part the date was late September, when the weather was awful and we recorded nothing at all. Last year it was 11 August, when we had a reasonable haul, while this year it took place on Saturday 15 June, and what an exciting catch we had, thanks to the Richardson trap we put out overnight. 82 individuals of 28 species, including Lesser Elephant Hawkmoth, Poplar Hawkmoth, a Marbled Coronet (new for our garden list), 2 Small Bordered Brindle (a speciality of ours), 22 Rustic Shoulder-knot, a Map-winged Swift, a Spectacle, a Cabbage Moth (much prettier than the name suggests), 2 Small Angleshades, 22 Rustic Shoulder-knots and lots more. This may not seem very impressive compared to the numbers they catch in the south of England, but we were pleased.

The event is advertised in the excellent journal *Atropos* (available from Mark Tunmore, 36 Tinker Lane, Meltham, Halmfirth, West Yorkshire, HD9 4EX and costs £18 p.a. for three issues) and recording forms can be downloaded or submitted electronically from the websites www.atroposuk.co.uk and www.insectline.co.uk

Anne-Marie Smout

AN ENVIRONMENTAL RECORDS CENTRE FOR DUMFRIES AND GALLOWAY

I am informed that the Solway Heritage Trust has agreed to 'parent' the Dumfries and Galloway base of the planned South of Scotland Environmental Records Centre. It has long been a concern of BRISC that no active LRC existed in this biologically rich and very important part of Scotland, so it is very good news and we look forward to seeing the centre becoming established.

AMS

POSTCARD and other SURVEY OF BUTTERFLIES

East of Scotland Branch of the Butterfly Conservation are running a postcard survey this year in the Edinburgh area for Common Blue and 6-spot Burnet, as part of the local Biodiversity Action Plan. This survey is to promote recording, raise awareness of butterflies, moths and insects and promote the conservation of semi-natural grasslands. The post cards can be obtained from

Richard Buckland, Branch Organiser, East of Scotland,

Tel: 0131 332 2471 (day) or 0131 332 0615 (eve)

Email: Richard.Buckland@hgu.mrc.ac.uk

Butterfly Conservation has also produced a full-colour garden butterfly and moth ID and monitoring pack which is available FREE (one pack per household) from

Garden Butterflies Count,

PO Box 232,

MELKSHAM,
Wiltshire SN12 7SB
or email info@butterfly-conservation.org

Hurry while stocks last!

Paul Kirkland,
Butterfly Conservation (Scotland)

REPORT OF THE NBN NATIONAL SCHEMES AND SOCIETIES SEMINAR – At Battleby 20 May 2002

Twenty-seven delegates attended this seminar, aimed at exploring what is needed for enhancing the role of volunteers and others in their work of biological recording, specifically in Scotland.

The session was chaired by Michael Scott, Deputy Chairman of Scottish Natural Heritage, who welcomed attendees and set the scene for the day's discussions. With SNH's broad interest in the use of biodiversity information, and its recognition of the role of both Local Records Centres and the voluntary network in gathering those records, he was especially enthusiastic about the opportunity this seminar gave to develop of biological recording in Scotland.

Speakers were Anne-Marie Smout (BRISC) who, starting with the historical background to recording in Scotland, outlined the present complex state of affairs and proposed a seven point regional framework for biological recording in Scotland, including a charter for volunteer recorders. Alan McKirdy (SNH) followed with 'The need for biological information by the statutory agencies' and among many other things stressed the need for SNH to mobilise their own data, and the importance SNH attached to a working network of LRCs. Ross Spalding (Fife Nature) gave an impressive presentation on managing biological information in Scotland, with special regard to voluntary bodies and LRCs using practical examples from Fife. Graham Rotheray (Royal Museums of Scotland) talked fascinatingly on the work of specialists in recording, which threw up many unexpected results, using saproxylic diptera in Scottish woodlands as examples. Last speaker was Jeff Watson (SNH/NBNTrust), who outlined what the NBN is and what it can/will deliver, and showed some simple examples of using the NBN Gateway. He stressed the conservation agencies' strong support for the NBN as the way forward.

The afternoon was given over to three 'break-out groups', which discussed and reported back on their themes: developing volunteer capacity, mobilising information, and priorities for future action.

Michael Scott rounded off the day with a summary, highlighting the key points which had emerged from the three groups. Amongst these was the need to include in the Environmental Strategy which the Scottish Biodiversity Forum has been charged with developing, the training of volunteers in the form of a supporting administrator and finding expenses for the volunteer trainers. He also

emphasised SNH's ongoing commitment to the recording process, such as developing support for LRCs, though resource problems had to be tackled. BRISC's important role in all this was also acknowledged. A full report is available on the NBN website at www.nbn.org.uk/meetings

AMS

THE GLASGOW NATURAL HISTORY SOCIETY THE BLODWEN LLOYD-BINNS BEQUEST:

GRANTS

As a result of a generous bequest made by the late Professor Blodwen Lloyd-Binns in 1992, funds are available to individuals and groups who make application for assistance in carrying out projects of natural history interest.

The Bequest Committee normally meets four times each year (March, June, September and December) and applicants are advised to submit their applications (5 copies) in good time to the Society's secretary. The application form is available from the Society's web-site.

Where the Committee has to decide between the merits of competing applications, preference is given to Society members over non-members, to local over distant projects, and to projects likely to generate future publication (either in the Society's journal, the *Glasgow Naturalist* or elsewhere).

Full details and application form are available on the Society's website www.gnhs.freeuk.com/grants'.

PRIZE

The Professor Blodwen Lloyd-Binns prize may be awarded annually for papers submitted for publication in the *Glasgow Naturalist*. The subject area is the natural history of Scotland. The intention of the prize is to encourage work by younger scientists – "younger" in the sense of new to scientific writing. Submitted work considered for the prize by the Bequest Committee will therefore be amongst the first three scientific papers that the writer has submitted for publication.

IT CORNER

'THE FORUM' Newsletter for Scotland's Biodiversity

This newsletter is published electronically by the Scottish Biodiversity Forum and the second issue appeared in May 2002 covering a wide range of issues and news items regarding Scotland's biodiversity. To be included on the e-mailing list contact

Sarah Hockness,
Scottish Biodiversity Project Officer
Tel 0131 244 6328
email sarah.hocknell@Scotland.gsi.gov.uk

BINES (Biodiversity In North-East Scotland)

This newsletter is also produced electronically and issue No 21 is dated March 2002. It now appears three times a year. To get on the email list contact

Ian Francis
RSPB
10 Albyn Terrace
Aberdeen AB10 1YP
Tel 01224 624824
email Ian.Francis@rspb.org.uk

[Electronically produced newsletters are becoming increasingly popular. This way of publishing has a number of advantages: it is an easy and cheap way to reach large numbers of people, it helps to keep subscriptions down as there is no expensive printing cost or postage involved, no time-consuming fiddling with envelopes and address labels, colour can be included and printed out depending on the recipient's choice and hardware, and extra copies can be produced at no further cost. The downside is that not everyone wants to spend a lot of time downloading and printing out large chunks of text and graphics, and of course not everyone has access to computers, albeit this is probably less true among the recording community than in any other sphere of life. BRISC would be interested in readers' reaction to this development. AMS]

NATIONAL BIODIVERSITY NETWORK

R2002 Newsletter and Release

As mentioned under 'Notes from the Chair', the new release of what is to become *Recorder 2002* is now expected in August this year. A newsletter dated May 2002 on the NBN website [www.ukbiodiversity.net/downloads] (the old www.nbn.org takes you there anyway) has details about its release and what it will contain. Two resellers, Alex Lockton and Mike Thurner, have withdrawn. but some way of providing replacement support is under way.

Not only will *R2002* fix a number of the problems people have been experiencing with the software, it will also include the several new lists for the species dictionary, such as BSBI Vascular plant list, RSPB bird list, and all Red Data Book and national reviews published by the JNCC. There is a new procedure for passing data on to others, which automatically keeps a track of when data was last sent to a particular recipient and will forward only new data at pre-determined time-scales (ideal for forwarding data between LRCs and National Schemes and Societies and also between satellite users and parent databases); the possibility of attaching OS map tiles from a set of CDs (for personal use only!) at practically no cost, and much more. The NBN is conscious that central support for users has been less than satisfactory and plan to put a number of rectifying actions in

place. Among other things they will monitor much more closely the FAQ (frequently asked questions) page on the *R2002* website and provide answers twice weekly. This website will also keep users in touch with what add-ons are being produced for downloading.

Stuart Ball, when he came up for the two days which BRISC organised for Scottish Recorder users in May, told us about many of the stream-lining and useful developments which are currently under way. So watch this space. The CD with the new *R2002* will be sent (free) first to existing users and later be available to new users (November 2002).

NBN Gateway Update

The NBN Gateway version 2 is now in operation and when you try to access the Gateway by typing the usual www.searchnbn.net this will automatically bring up the new site. The new website is more powerful but if people have set up automatic links with the old website, these will need to be changed.

The control of access is quite different. Owners now have control of access to their datasets and can opt for open public access, or restricted access where all users have to register with the data owner.

The content is also expanding, though taxonomic coverage is very uneven, because it depends on data owners /custodians making data available on the Gateway.

Contact for the Gateway project is Jonathan Cooper, EIC and NBN Gateway team, Centre for Ecolog and Hydrology, Monks Wood, Abbots Ripton, Huntingdon, Cambs, PE28 2LS. Tel 01487-772404 email jcoop@ceh.ac.uk

Butterflies Join the Internet Generation

The world's largest data set of butterfly distribution records went online on 7 May 2002. The findings of the Millennium Atlas survey are now freely available to all on the World Wide Web through the NBN Gateway at www.searchnbn.net. This has been made possible through the combined efforts of Butterfly Conservation, the Biological Records Centre at Monks Wood and the National Biodiversity Network.

[The above information was included in a press release received by BRISC last month. Do take a look on the Gateway. AMS]

OTHER WEBSITES OF INTEREST:

The movement of birds have inspired some imaginative new websites, which are well worth checking out:

BTO's Migration Watch Website

This site is accessed via the BTO's main site [www.bto.org] and charts on a map of Britain and Ireland all records submitted to the scheme of a series of migrant species, week by week, from February onwards (at the time of writing 19 weeks). There are not a lot of data for

some of the species, but for others, such as Common Sandpiper and Sand Martin, their northward movement during the period becomes beautifully illustrated. The search can be limited to a particular geographical area if desired. People are encouraged to take part in this fun exercise by registering and submitting their own records from a chosen site (it can be your garden or anywhere), which is visited regularly.

Brent Geese Reaching Home

The Wetland and Wildfowl Trust have developed a different website accessible at www.wt.org.uk/brent which shows the migration route of Light-breasted Brent Geese. Six healthy male birds have been fitted with 30g satellite tags at the wintering grounds in the west of Ireland, and PC owners sponsor a goose and get a weekly emails or even text-message to their mobile phones with update on their bird's position on the way to the breeding grounds in western Canada. The satellite tags should still be active on the return journey.

As well as making people to feel they can contribute, the project helps to show researchers the bird's route and their key stop-off points, which can then become targets for conservation efforts. The result this year showed that after leaving Ireland the birds headed north to Iceland, where they spent about a month feeding up to face the rest of the journey. They then flew to Greenland and four of the tagged geese reached their breeding grounds in NW Canada on 28 June. The route and current position is displayed on a series of maps the Internet.

Post codes to grid references

It is only too often the case that grid references are missing when people send in their casual garden records, and it is a time-consuming task to work them out from maps, even if one owns the appropriate OS map. But as long as the post code has been supplied by the recorder, help is at hand. This is www.streetmap.co.uk which lets you search for a map centred on OS reference, postcode, lat/long and shows the conversion between each. When you have a map of the location you want, there is a link below the map that shows you the conversion into the different scales.

Andy Wakelin

CD REVIEW

SNH, Natural Heritage Futures: National Assessments. The CD is available FREE from Pam Moncur, Publications Section, SNH, Battleby, Redgorton, Perth PH1 3EW. Tel. 01738 444177, F 01738 82741, or email pubs@snh.gov.uk

The CD contains documents covering seven National Assessment topics :

1. Earth Sciences (259 pages)
2. Physical Characteristics (352 pages)
3. Biodiversity – Species (Excel spreadsheets), covering: Mammals, Reptiles and Amphibians, Birds, Freshwater

Fish, Invertebrates, Vascular Plants, Mosses, Liverworts, Algae, Fungi, Lichens

4. Biodiversity – Habitats (201 pages)
5. Fresh Waters (248 pages)
6. Landscape (445 pages)
7. Recreation and Access (68 pages)

Each of the topics starts with an introduction giving an overall Scottish picture describing the main features, changes over time and current threats, followed by more detailed descriptions for each of the 21 zones into which Scotland has been split (as explained in Jeanette Hall's article about SNH's Natural Heritage Futures in the last Recorder News - No. 44 Jan 2002, page 4). The zone boundaries are such that they enclose broadly similar landscapes and wildlife.

These documents provide a wealth of data (as evidenced by the number of pages in each document) and anyone wanting to access statistics about the Natural Heritage of Scotland can start here. This is, however, only a summary of all the data sets held by SNH or other partner organisations, so deeper analysis would require reference to the source data.

A key feature of such a reference work is the ability to find quickly the data of interest. A search function is provided but its function is not totally satisfactory due to the format of the documents. For instance a search on "machair" gives a list of documents where the word occurs with a percentage confidence rating. Clicking on one of these links leads to another search page that has a link "View the document" – a superfluous step. Once the document is loaded then the Acrobat "Find" facility must be used to find the occurrences of the keyword. A similar situation occurs if the document is a spreadsheet.

Also it appears that the indexing is not complete as some keywords yield no results on the search despite the word being present in at least one document.

I think that the presentation of this data via a web browser interface and using Acrobat and Excel format files has led to a slightly disjoint feeling when using this CD. Although Acrobat reader is provided on the disk, those without Microsoft Excel or compatible spreadsheet software will not be able to access the Species data. Including the Excel reader (freely downloadable from the Microsoft web site) on the CD would have saved the user downloading a 3.5Mb file and added to the user satisfaction of the disk.

There are some sloppy mistakes that detract from what is otherwise a very professional product.

- An error in the HTML on the National Assessments page and the Home page causes a different number of browser windows to open and close as each topic is chosen. In some cases the new topic replaces the last one; in others a new window is opened.
- Users should beware that the map on page 10 of the Landscapes document is very slow to load and will clear and start to reload if the page is scrolled.

- The “sideways” tables in several of the Acrobat documents are difficult to read and could have been printed “the right way round”.

The National Assessments are only one part of the Natural Heritage Futures project and it slightly disappointing that the CD does not include the set of documents that the Introduction makes reference to, that can be found on the SNH web site (www.snh.org.uk). These are six guides to “the future management of the natural heritage towards 2025, within the wider context of sustainable development” covering Coasts and Seas, Farmland, Forests and Woodland, Fresh Waters, Hills and Moors, and Settlements. In addition on the web site there are 21 documents describing each of the Natural Heritage Futures zones. There is plenty of room on the CD for these documents (approx. 30 Mb) and the CD would be a much better package if all these additional documents were included.

Overall this CD provides a reference data source which will be of great value to all who have an interest in the natural heritage of Scotland and want access to the summary data. Clearly SNH should be commended on gathering together this information describing the current state of Scotland’s natural heritage. However, a second CD project should be undertaken to bring all the relevant documents together in a single, consistent, searchable format. This would then be an invaluable source of data that no-one with an interest in Scotland’s nature would want to be without.

Andy Wakelin

[SNH says: Later in the summer (August) we shall be producing another CD, which will included the National Assessments (as the above CD) together with all 28 of the Prospectuses - so all the Natural Heritage Future publications that we launched in March on 1 CD. –AMS]

BOOK REVIEWS

Gimingham, C. (Editor) (2002). *The Ecology, Land Use and Conservation of the Cairngorms*. Packard Publishing Ltd., Chichester. 224 pp. ISBN 1 85341 102 7 hbk. £74.99; 1 85341 117 5 pbk. £39.99.

This is an important and timely book by scientists and other experts of the highest calibre, describing an area soon to become Scotland’s second National Park. Following an introductory chapter by the Editor, the volume is arranged in three parts. Part 1, headed *The Ecological Basis*, has five chapters by nine authors describing physical geography, vegetation, birds and mammals, insects and aquatic habitats. Part 2, headed *Key Issues*, has nine chapters by twelve authors covering land use generally, agriculture, native woodlands, men and woodlands, red deer and their management, grouse and moorland management, fish populations, open air recreation and conservation of nature and landscape. Part 3, headed *The Future of the Cairngorms*, has two chapters, both by the Editor, leading from an Integrated Management Strategy to a final chapter with the title *The Cairngorms in the Future*. Each chapter concludes with lists of references, some chapters having

more than one hundred. The final pages include a list of the 40 figures, graphs and maps, 35 tables and 101 photographs, almost all in colour; short biographies of the twenty authors; and a nine page index by June Morrison, which must have been hugely difficult to compile for such a complex book. Incidentally, the number of authors is twenty (not twenty-two) because Gimingham wrote the chapter on vegetation and D. W. Mackay is part author of two chapters.

The book is described by the publisher as combining the different strands of the Cairngorm story, thus providing “background information and references for further academic research and managerial and legislative decisions”. Most of these objectives are achieved with distinction and clarity and the book is warmly recommended for anyone with a serious interest in the ecology of the area. Individual readers will have their personal preferences but I particularly admired the opening chapter in Part 1, describing the extraordinary range of geological and geomorphological features of the area and appreciated inclusion of a chapter on insects, so often overlooked in accounts of this sort. Part 2, also contains much of interest about past and present land use history, with useful detail about the economic drivers for farmers and foresters about suitable stock and future planting regimes.

There are, however, two concerns. First, because of various delays in publication resulting in much of the actual writing having been done some years ago, some of the contents may be a bit out of date. How much, I am unqualified to say; it is simply that I have been told this independently by two of the authors. The other worry is that there is some overlap in chapter contents, for example the Lurchers Gulley story is told twice and mentioned three times, with slightly different interpretations. The Editor acknowledged this as a strength when the book was launched and certainly if one reads a single chapter, then the freedom given to authors to provide background details, say about past history, makes good sense. However, if (as a reviewer should) one reads all the chapters seriatim, then the occasional repetition makes one wonder whether some tighter editing would have been appropriate, not least because repetition has a tendency to make one want to skip bits which might lead to missing out something important.

Focusing on one chapter for special commendation is perhaps less than kind when all contain so many good things and should deserve individual review. Nevertheless, without prejudice to all the other authors, if you are a student or future member of the National Park Authority and pushed for time, then the one chapter you really should read is Mike Mathew’s on Conservation of Nature and Landscape. Both in the style of his writing and masterfully full coverage, this is as brilliant an overview of the Cairngorms, from its superb attributes to its most urgent problems, as one could hope for.

Essentially, the chief virtue of this book lies in its excellent and detailed description of habitats and processes, past and present, that comprise one of the most remarkable areas in Britain, from its exceptionally wide and high mountain plateaus to its richly wooded valley floors. My guess, however, is that the jury must still be out as to how really useful such a book can be for illuminating “managerial and legislative decisions” without considerable interpretation for those not steeped in the language of ecology and the earth sciences. Furthermore, at the end of the book, after summarizing present debate about whether the future National Park Authority should have full planning powers, the Editor concludes: “Whatever the final outcome of this and other issues, the fact that there is now an end to the long history of opposing views on the future management and administration of this area must be welcomed as a great step forward”. Well, yes, it might be a great step forward if this were to be so but I would not put my money on the creation of a National Park being the end of opposing views. The circumstances and structure of debate may change but a surer forecast is that opposing views will always be with us as a consequence of our (thankfully) democratic society.

Thomas Huxley

Warren, Charles (2002). *Managing Scotland's Environment*: Edinburgh University Press. hbk ISBN 0 7486 1312 9 £65.00; pbk ISBN 0 7486 1313 7 £24.99

How many of us have read the genuinely balanced account of the many issues which confront anyone involved and interested in Scotland's environment? I suspect very few for the simple reason that virtually none exist. Of course, there have been many books, papers, pamphlets, dissertations, newspaper and magazine articles from which environmental bureaucrats, like this reviewer, have reacted to privately with every emotion from anger to approval, but Charles Warren has done us all a service in distilling the many and varied environmental management issues in a way which both stimulates further reflection and does not raise one's ire. I agree entirely with the comment in the Foreword to this book ‘Those who actually wish to help to solve Scotland's environmental problems will find this an invaluable survey and an inspiration. And those who simply want to be better informed could not do better than read it.’ This is a comprehensive, up to date, measured and well-referenced account of many of the issues concerning the management of Scotland's environment at the turn of the Millennium.

In some 350 pages of well documented and well organised text he covers a vast array of environmental issues. The author says in his Preface that the book stems from his lecture course at St Andrews, however this is by no means a dry and dull textbook. It is structured around several key themes: the nature and control of the land, the pieces of the jigsaw (management of land, forestry, agriculture, wildlife, and conservation), interactions and controversies (access, species issues, forestry, and inevitably the Cairngorms funicular and the Lingarabay superquarry), and ways of thinking and deciding about the environment. The natural heritage aspect of the environment business is covered

comprehensively. The book, however, does not consider the pollution end of the environment business nor the role of SEPA, except for passing mention in respect of the water environment.

Avid readers can have a field day with the 40 pages or so of references, totaling probably around 1,000 items, though it lacks reference to the material which now abounds on web sites and is given in speeches routinely and excellently reported in SCENES; and also to some of the older and still relevant literature (no reference to Fraser Darling for instance). And Warren does seem to be rather bound to what appears in the literature, accurately summarising the material, but leaving the feeling that the balance of argument must lie somewhere away from the more polarised views. He is often at his best when he has rather less literature to deal with and can impose his own structure and develop his own analysis of the conflicting arguments. This is especially the case when he is dealing with the approaches to different environmental philosophies in Part Four.

Despite the length of the book, it is inevitable that he can only cover each topic in a relatively summary fashion. It would be interesting to see him in a later work develop some of the debates in a less condensed form. And those who have been involved in the business of moving the argument towards solutions and actions, like me, might be a little frustrated with his treatment. For example, on the Cairngorms funicular, he ducks the critical issues of what decision-making and decision support systems might have brought resolution to the controversy at an earlier date and in a more open and accountable manner. Are we really experiencing the limitations of the town and country planning system, which many of us suspect, in dealing with polarised controversial cases and, if so, what might be the way forward?

Again, on species issues, Warren gives us an informed account of the various imponderables about bringing back native species and how to deal with invasives. But I am left with many questions about how we can achieve resolution to the problems without descending into slanging matches and retreating into entrenched positions from which the environment will be the poorer. Practically, we have to take views on those native species that are having a deleterious effect on others, and on those harmful introductions where there is any realistic chance of curtailing their effect. And how can we plan to cope with the effect of climate change when so many of the terrestrial species are at or near the edge of their geographical range? I am sure the author would respond that it was not his intention to get into the controversial areas of solution, but practitioners do need help from the genuine thinker who can play a more dispassionate role. Charles Warren could do that.

No other book in the field is as comprehensive or as dispassionate. I warmly commend it and hope that the author will keep it updated, perhaps including more of the international and European context to managing Scotland's

environment. It will help to de-polarise some of the many emotive issues.

Roger Crofts

Ballantyne, G. H. (2002). *Wild Flowers in Fife and Kinross: A concise checklist*. Published by Fife Nature, Fife House, Glenrothes, Fife KY7 5LT. £5

This excellent volume is the result of a lifelong interest in and study of the flora of Fife and Kinross (Watsonian Vice County 85), for which the author has been the BSBI recorder for many years. The introduction gives the background to the publication, and also a brief description of the geology and landscape as well as the habitats and some of the more unusual flowering plants, which can be found in the different areas. Methods and terminology are also treated briefly. Species are listed in taxonomic order with brief notes on status and location. Thirty-three full colour illustrations are appended at the back of the book, as well as two maps of the area in question, and an index to both English and Latin names of the plants. Unfortunately the book does not appear to have an ISBN, but copies can be obtained from Fife Nature.

Anne-Marie Smout

Cook, C. & Harrison, p. A. (eds) (Nov 2001). *Climate Change and Nature Conservation in Britain and Ireland: MONARCH – Modelling Natural Resource Responses to Climate Change – Summary Report*.

This report, published under the Climate Impacts Programme (UKCIP), sets out to evaluate the potential impacts of climate change on wildlife and geomorphological features in Britain and Ireland. The study used statistical techniques to divide Britain and Ireland into 21 bio-climatic classes, each with their own climate characteristics of biological importance. An initial complex 89 variables were reduced to 7 which best explained the variations across the countries. Four of these were related to rainfall, temperature, wind speed, and sunshine. Models were then developed to show the impact of climate change on the geographical distribution of 50 selected species associated with 12 habitats of conservation concern, and species maps were produced showing the potential change. The summary report has a series of maps charting the change in average annual temperatures, according to four scenarios (low, medium-low, medium-high and high), with the highest producing a rise of 2.6 – 2.8°C in Scotland and 3.0 -3.2°C in the south of England. Among other maps are two of potential losers (Large Heath Butterfly and Dwarf Willow, and two of potential winners (Spanish Catchfly and Nuthatch). The report presents key findings for different habitats and not surprisingly comes up with some losers (e.g. Capercaillie and Mountain Ringlet) and some winners (e.g. Beech and Sphagnum). Some habitats will not necessarily be lost but move north. However, it is problematic if species cannot make the move as quickly as will be required. Birds and insects are likely to fare best.

Most recent discussion of climate change in Scotland, however, including this one, disregards one scenario which is seriously proposed by some climatologists. What if the

effect of climate change is to weaken or switch off the Golf Stream? Then far from the future presented here, Scotland will get dramatically colder, and the reverse of all that is foretold will come about. Unfortunately, only time will tell.

Copies of the report are available from UKCIP, Union House, 12 St Michael's Street, Oxford OX1 2DU, Tel 01865 432076 or from the website www.ukcip.org.uk
Anne-Marie Smout

DATES FOR THE DIARY

July – September 2002

- 11 July – ‘**Putting Biological Data to Use**’ – NBN NSS seminar at the Medical Research Council HQ, 20 Park Crescent, London - contact Trevor James tjj@ceh.ac.uk
- 23 July – Neglected Freshwater Fauna & Flora: What do all the species do? Manchester Metropolitan University, Crew Campus – contact Sarah Gee Tel 015394 42468 or email sage@fba.org.uk
- 27-28 July - **Beginners Course in Identification of Local, Common, Native Plants** organised by BTCV at Oatridge Agricultural College, Ecclesmachan, Broxburn. Cost £60 for members, £45 for non-members. Accommodation £18.50 if required. Contact Helen or Kate on 01786 479697 or Email helen.paul@btcv.org.uk -Just a few places left!

Events organised for the **Development of a Scottish Biodiversity Strategy for Scotland** – contact Elaine McCall, Scottish Biodiversity Secretariat, 0131 244 6602 email: elaine.mccall2@scotland.gsi.gov.uk

- 1 August – **Biodiversity Priorities workshop** – Quality Hotel, Perth
- 19 August - **Marine, coastal and sea fisheries workshop**, Battleby, Perth
- 22 August - **Landuse workshop**, Quality Hotel Perth
- 27 August - Launch of the Scottish Biodiversity Week at the Royal Botanic Gardens, Edinburgh. Incorporating a People workshop
- 28 August – **Business & Development workshop**, Glasgow
- 31 August – 8 September **Biodiversity Week** – www.scotland.gov.uk/biodiversity or contact your local biodiversity officer to find out about events in your area
- 31 August-1 September – **Scottish Countryside Fair at RSPB Vane Farm**, Loch Leven
- 10 – 11 September Botanical Society of Scotland **Symposium on Plant Conservation in Scotland**, at King's Buildings Edinburgh – www.ierm.ed.ac.uk/bssconference or contact Shiela Wilson, IERM, University of Edinburgh, Darwin Building, King's Buildings, EH9 3JU Tel 0131 650 5430

Please note BRISC's new office details:

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