



# GLASGOW NATURAL HISTORY SOCIETY NEWSLETTER

March 2005

David Palmar  
(Newsletter Editor)

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GNHS is a Registered Scottish  
Charity Web-site:  
<http://www.gnhs.freeuk.com/>

## Invitation to the Glasgow Green Roof Technology Seminar

Green Roof technology can provide a range of benefits, from energy conservation, improving air quality, reducing drainage costs, storm water amelioration and extending roof life to contributing to biodiversity objectives and people's health through the provision of communal 'green' space in built up city areas. Green Roofs are already used in Germany and Switzerland and are being developed primarily in London within the UK.

With their economic, environmental and aesthetic benefits, green roofs have the potential to enhance Glasgow's environment for the future.

Dusty Gedge, one of the UK's foremost experts, has kindly built us into his seminar schedule for 2005. The seminar will include a presentation on SUDS and green roofs, and a technical presentation by Bauder (this element carries a RIBA CPD certificate). It will include an in depth look at biodiversity delivery through the use of green roofs.

Glasgow City Council's Land Services and Glasgow's Biodiversity Partners invite you to attend this **FREE** seminar on Monday 11th April 2005. The venue is James Watt A conference room at Scottish Enterprise, 150 Broomielaw, Atlantic Quay, Glasgow from 2pm-5pm. Registration and coffee from 1.30pm.

If you wish to attend, please reserve a place by contacting Carol MacLean or Francesca Pandolfi using the contact details below. Please send the details of the seminar on to anyone else you think may be interested.

Carol MacLean (Biodiversity Officer) or Francesca Pandolfi (Conservation Technician)  
Glasgow City Council  
Land Services  
37 High Street  
Glasgow  
G1 1LX

Email: [carol.maclean@land.glasgow.gov.uk](mailto:carol.maclean@land.glasgow.gov.uk) or  
[francesca.pandolfi@ls.glasgow.gov.uk](mailto:francesca.pandolfi@ls.glasgow.gov.uk)

## **GNHS EXCURSION, Trearne Quarry 16th April 2005**

Those of us who attended the tutorial on Trearne Quarry will be looking forward to visiting this area of Carboniferous limestone and hoping to find a great many marine fossils. Mike Keen, who will be leading the excursion to Trearne, will arrange our visit with the quarry owners. On Health and Safety grounds the quarry owners need to know how many members will be visiting the quarry and Mike also has to know how many hard hats to bring for us to wear.

I would, therefore, be grateful if members intending to participate in this excursion would let me know, at least 7 days beforehand, so that arrangements can be made.

It would also be helpful if members would share cars.

Trearne Quarry lies off the B777 Lugton to Beith road. Take the A736 Barrhead / Irvine road from Glasgow, at Lugton turn right at the Paraffin Lamp Inn on to the B777 and continue for some way until a whisky bond sign (Balgray Bond, Chivas Bros.) is reached. Turn left here until you come to a 'creamy peach' bungalow. Park here. Trearne Quarry is opposite. Alternatively take the A737 Irvine road to Beith and from the by-pass there take the B777 Gateside to Lugton road. The Balgray Bond sign and quarry road is now on the right, just after a small, red brick house on the left of the B777.

## **GNHS weekend, 20-22nd May 2005**

Perthshire is the venue for the Society's weekend this year.

On Saturday morning we visit 'Tighnacleirgh', the garden of Beryl and Russell Coope at Foss, near Loch Tummel. Russell and Beryl have a very varied garden and enjoy showing interested parties around. Cluny House Gardens is the venue for Saturday afternoon. This is a 6 acre Himalayan woodland garden overlooking Strathtay and again there are many species to be seen, including mature policy trees. Hopefully we shall also see the garden's red squirrels.

The arboretum at Kenmore and the policies of Taymouth Castle will be visited on Sunday and, if there is time, we will take a look at the Madrona tree growing near Castle Menzies.

Travel is by one's own car.

If you are interested in this weekend please try the following for accommodation, as they are the nearest to Kenmore.

Coshievile House: 01887 830319

Tigh na Sgoill: 01887 829043

Ailean Chraggan Hotel: 01887 820346

Farleyer Restaurant & Rooms: 01887 820332

If participating please phone to let me know and to receive instructions when, and where, to meet.

## Glasgow University Courses

GNHS Members may be interested in knowing about this course run by the Department of Adult and Continuing Education. Two years ago there was a similar one and the participants and tutors had a lot of fun collecting samples and getting to know the diversity of invertebrate life around Loch Lomond. It lasts for two consecutive days and is non-residential.

### **W094 - Introduction to aquatic insects**

09.30-16.30, Saturday-Sunday, 21-22nd May 2005

Venue: Rowardennan Field Station

Course is aimed at the general naturalist who may wish to get more experience in insect studying techniques and identification skills. It will have particular relevance to those working in environmental or conservation organisations including rangers, wardens and teachers. The aquatic element is also of great interest to anglers.

Tutors: E Geoffrey Hancock BSc and Margaret Reilly, BSc

Enrolment limit 15

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Miss Agnes Mackenzie, Courses Secretary  
Department of Adult and Continuing Education  
St Andrew's Building, 11 Eldon Street,  
Glasgow, G3 6NH

Tel: 0141 330 1851 Fax: 0141 330 1821

Course information available at:

<http://www.gla.ac.uk/adulteducation>

### **Insect Diversity**

One week course, including fieldwork  
Monday 10th - Friday 14th June 2005

Insects are the most numerous and diverse group of animal life on earth. Sampling and studying living and preserved material will demonstrate the world of insects. Lectures, practical sessions and fieldwork will lead to an appreciation of their successful life styles.

**Monday** Introducing the main insect groups. Visit to local park to sample insects.

**Tuesday** Sort samples using identification keys. Insects on the world stage.

**Wednesday** Handling the numbers - taxonomy, systematics and classification.

**Thursday** Field and lab. work at University Field Station, Rowardennan, Loch Lomond.

**Friday** Insects of towns, houses and gardens. What's special about Scottish insects?

Tutors: Geoff Hancock & Maggie Reilly

Zoology Museum, Graham Kerr Building, University of Glasgow, Glasgow G12 8QQ  
0141 330 2194

<http://www.hunterian.gla.ac.uk/g.hancock@museum.gla.ac.uk>

## **Blodwen Lloyd Binns Lecture**

The fourth in the series of annual BLB lectures was given on 17th November in Glasgow University's Western Infirmary Lecture Theatre to a good audience of GNHS members plus staff and students from the University's Institute of Biomedical and Life Sciences. This year's speaker was Dr Tracey Chapman, a Royal Society Research Fellow at University College London, and one of the rising stars of evolutionary biology in the UK. Dr Chapman gave an exceptionally clear and well illustrated review of the "complex mating games of insects" finishing with an account of recent work done in her laboratory.

Dr Chapman began with a summary of the huge variety of mating strategies shown by insects including unusual features such as sexual cannibalism, chastity belts, armoured genitalia and nuptial gifts. She showed that this diversity was related to the short lifespan of insects, limited parental care, the occurrence of sperm storage and longevity, and the usually larger investment in reproduction made by females compared to males. Dr Chapman then went on to the details of how male insects obtain a mate, how they keep their mates and how they ensure paternity. She finished with a discussion of her own recent results on the roles of the many molecules, mostly peptides, secreted by male accessory glands and involved in maintaining sperm and ensuring successful fertilisations. This work showed the value of genetic and molecular levels of analysis in revealing the fine scale at which evolution can work.

## **Otters and Loch Lomond and The Trossachs National Park**

As part of an on-going research project on otters within the Loch Lomond and The Trossachs National Park I am keen to hear of any records of otters seen throughout the area (past records too). I am particularly interested in hearing of sightings of animals with young, so that important breeding sites can be protected. Together with the National Park we are setting up a mortality recording scheme. If you see any dead otters please could you inform me immediately by phone or email so that we can obtain samples from these animals. Please record location (with six fig grid reference), sex (if you can) and likely cause of death.

Your help is much appreciated. Many thanks. Dominic McCafferty

## **Library Catalogue Update**

**David Palmar**

The GNHS library has received 60 new book acquisitions since the catalogue was last updated by Fiona Palmar. New member Carol Christie has done an update of the electronic book catalogue during the last few weeks, including thinking up and entering keywords for searching into a spread sheet. The Society's thanks go to Carol for this effort. The next step is to make the information easily available to members, by a list in the Library, and perhaps also electronically.

## **GNHS Conference: The Natural History of Loch Lomond and the Trossachs** **Roger Downie**

Saturday 27th November saw the culmination of nearly two years planning when about 130 people attended our conference on the natural history of Scotland's first National Park. Those attending included many GNHS members, staff and students of the University of Glasgow, a large contingent of National Park staff, members of organisations like RSPB and SWT: there were even some people from Edinburgh!

Alan Bell, the Park's ecologist – and a Glasgow zoology graduate – gave a wonderfully detailed picture of the Park's characteristics concentrating on the natural features which make the area special – its wetlands, woodlands and mountains. He noted how strange it was that Scotland had had to wait so long to create its first National Park, given that the concept had originated with John Muir – but also pointed out how different the UK's national parks have to be compared to their North American counterparts: ours simply have to be compatible with being home to large numbers of people.

John Mitchell followed with a typically erudite and witty account of the Park's native woodlands, concentrating on tree species other than oaks. Who else knew of the previous extensiveness of holly and the use of its timber in printing?

Nabiel Salana then described the results from a 30 year moth trap survey at the University Field Station, Rowardennan. This is part of a UK-wide standard survey set up by the Rothamstead Institute. The stability of the woods around the field station give some confidence that the trends found are likely to reflect climate change, and the study demonstrated the great importance of long term data sets.

Bob Gray and Ian McCallum gave accounts of two from the series of Loch Lomond and the Trossachs GNHS excursions enjoyed by members last summer. Bob conveyed his enthusiasm for the alien tree species growing well at Kilmun, and Ian gave his first ever PowerPoint-aided talk in describing a circuit round Aberfoyle.

The morning session finished with Gillian Dalrymple's vigorous account of surveys she'd done of the recreational uses of the Park, and the current conflicts between certain kinds of use, especially jet-skis.

Peter Maitland began the afternoon session by surveying the aquatic invertebrates and vertebrates of the Park, and attempting to identify key species that could be used to publicise the cause of conservation. Dominic McCafferty continued the aquatic theme by describing his analysis of the diet of the otters of the park: the arrival of ruffe in the Loch may have dismayed fish conservationists, but the otters are certainly enjoying them!

Tracy Livingstone then made an impassioned plea for the feral goat as a legitimate rare breed requiring conservation in the Park. It was good to hear that a management plan is being worked out for the goats, which are a real attraction for visitors, in the RSPB's reserve at Inversnaid.

Scot Ramsay then described the value of a large set of small-bird nest boxes in the oakwoods at Rowardennan. The management of the woods has left few

natural rot holes, the normal nest sites for these birds, and the provision of nest boxes has promoted a very significant rise in the nesting population of blue tits and other small passerines. Scot's recent work, still being analysed, is on the importance of micronutrients in the diet of chicks, especially the amino acid taurine, mainly derived from spiders, which the parents seem to collect selectively at a key stage in the chick's development.

Simon Zisman of the RSPB then moved us on to policy issues, reviewing recent population changes in the birds of the Loch Lomond area: black grouse and capercaillie are still suffering worrying declines, but some of the raptors such as osprey are coming back well, with kites soon expected from their centre at Doune. He described a magical moment where he had seen a peregrine, two eagles and five black grouse within 5 minutes at Inversnaid.

Gordon Watson, the Park's Planning Chief, finished proceedings by describing the detailed work that has gone into writing the Park's Plan: this will be complete by spring 2005 and will then go out for consultation to all interested parties.

Roger Downie finished by thanking all the speakers for their excellent contributions; Hazel Rodway and her team for keeping us plied with coffee and tea; Morag McKinnon and Richard Weddle for staffing the registration desk; several members for bringing small exhibits; and David, the Graham Kerr janitor who kept the show on the road by dealing with all the minor technology glitches. With that, we repaired to the Graham Kerr museum for a glass of wine and more chat; one of the speakers remarked that he didn't think any other natural history society in Scotland could have put on such an event – that gave us a warm feeling of satisfaction. What should we decide as the theme for our next conference?

**The 75th AGM** was held on the 22nd Feb and attended by 38 members. The minutes are enclosed with this Newsletter and the final page is a list of Council Members for reference purposes. The evening finished with a talk about the secret lives of our native orchids entitled "Darwin and our Native Orchids."

Three years after publishing *The Origin of the Species* Charles Darwin produced another book describing his investigations into the pollination mechanisms of our native orchids. He realised that the beautiful adaptations which manipulate insects so that they carry pollen from one flower to another provided extremely good illustrations of the new theory of evolution. Dr Roy Sexton of Stirling SWT gave an illustrated account of Darwin's observations including those on local orchids like the twayblade, broad-leaved helleborine and butterfly orchids. Not all his work ran smoothly and some threw up dilemmas that even Darwin could not resolve. Why did insects continue to visit the pyramidal orchid when its sham nectaries offered no reward? Why was the bee orchid always self pollinated when it had evolved all the features of a cross-pollinated flower? The speaker reviewed some of the possible explanations.

**Irene Nove**

**Jean Millar**

For many of us in the GNHS, one of the pleasures was to be in the field during the Flora of Glasgow Project with Irene and Dick Hunter. They both had such a joy in

plants and in good-humoured arguments about identifications. We miss them both, with their infectious laughter. Field trips will never be such fun again.

## **An Unusual Halloween 2004**

**Junella McKay**

Intent on banishing yet another of the many late-flying wasps that have plagued us throughout this disappointing summer, on 31st October I descended the steps outside my kitchen and was amazed to see an apparently healthy butterfly sitting on the cold stone.

Its wings were folded and, not being a Richard Sutcliffe, I was unable to say just which it was. I held my breath as the cat stalked in and out of the house, but she passed it by, probably mistaking it for a dead leaf. The air was still, not a breath of wind, and although there was no sun, it wasn't particularly cold.

I looked out of the door some 15 minutes later and the dead leaf had turned itself miraculously into a beautiful peacock butterfly sitting on the step, warming its wings in the watery sun that had now emerged. I raced for my camera. At last, I thought, the close-up masterpiece that had hitherto eluded me. I carefully bent down over the butterfly but snap, it instantly shut its wings again.

Cheated, I sat on the decidedly cold stone for a long time, clutching my camera and awaiting developments. A while later the peacock started to vibrate its still tightly closed wings. Ah, I foolishly thought, it's just a question of time.

And it was; but the insect was far too clever for me, for after some minutes of vibration it appeared to shift its head and legs slightly and then, in the twinkling of an eye, opened its wings and flew into the air, all in one quick movement. Richard Sutcliffe would undoubtedly have been able to tell me that the vibrating was a more aerobic and, perhaps more to the point, a less conspicuous method of warm up prior to a quick getaway. Flowers are usually much more co-operative.

## **DARWIN DAY**

**Norman Grist**

Two seasons ago our President, Roger Downie, announced that Feb. 12 had been designated "DARWIN DAY" in the USA, commemorating publication of his momentous new concept of Evolution by Natural Selection.

The idea of evolutionary development of living beings was already circulating in intellectual circles - including Charles Darwin's own grandfather, Erasmus Darwin. It did not offend religious people since evolution might well be just how a God implemented his creative process. Evolution of living beings, a process supported by a growing wealth of evidence that now includes modern genetic studies, is clearly a *fact*, not just a theory.

Darwin's new *theory* was that evolution was a simple consequence of "*natural selection*" - "survival of the fittest" (fittest at exploiting resources of the environment, resisting predation, and propagating to outnumber less stable, more vulnerable competitors). This did not disprove a possible God, but made participation of a "ghost in the machine" unnecessary. This indeed upset the Christian establishments and perhaps other "Peoples of the Book" (Abrahamic

religions - Judaic, Christian, Muslim), believers in the literal truth of the Christian Bible.- and possibly believers in the creation myths of other Faiths.

The course of evolution is usually tracked, as far as evidence permits, from its near-beginning to present times, as in Colin Tudge's recent book *The Variety of Life* (OUP, 2000 - in GNHS Library). It has now been ingeniously tracked in reverse, from 'now' back to 'then' by Richard Dawkins in his latest book *The Ancestor's Tale - a Pilgrimage to the Dawn of Life* (Weidenfeld & Nicolson 2004) which will be reviewed and placed in our Library.

### **Request for information on J. H. Penson**

**Michael Foley**

I am attempting to obtain information on J. H. Penson who botanised in North America and Canada in the 1940s and then in the UK (mainly Scotland) from about 1955 to 1977. In his later years he appears to have lived in the Glasgow area. So far, I have been unable to trace any botanical obituary but have obtained some details from his notebooks which have recently come to light. If anyone has information regarding his background, achievements, life span, etc., I would be interested to hear. Thank you.

MICHAEL FOLEY, Faraday Building, Department of Biological Sciences, University of Lancaster LA1 4YQ.

### **Exceptional Trees**

**Bob Gray**

I am interested in collecting data about both sizeable and unusual trees in Glasgow and surrounding areas. My attention, for example, was drawn by Dave Walkinshaw to a large ash growing at the foot of Fin Glen, near Milton of Campsie. It transpires that this tree possesses the third largest currently recorded ash tree girth in Scotland (7th in the British Isles), according to the Tree Measuring Society of the British Isles (TROBI). Also a specimen of the very uncommon Afghan ash (*Fraxinus xanthoxyloides*) has come to light in Tollcross Park.

If any member comes across trees that they consider to be exceptional I'd like to hear from them, in which case I'd be delighted to come along in order to check it out.

### **Library News**

**Joan Chapman**

The Library has received a further book donation from Society Vice-President Norman Grist - *The Ancestors' Tale*, a book written by Richard Dawkins. A review has been received but there is regrettably no space for it in this Newsletter.

Books bought by the Society on members' recommendation:

*Flora Celtica* - Plants and People in Scotland - William Mitchell & Sam Bridgewater

*Field Studies* - A Field Studies Council Book of research papers by various authors

*Moths of Great Britain and Ireland* - Paul Waring and Martin Townsend

*State of Britain's Mammals* - David MacDonald and Fran Tattersal

Mr Allan Stirling has donated part of his book collection to our library. This is the second recent donation from Allan, and it grieves that it will be his last.

**Apologies from the editor** to those whose contribution has been missed out of this very full Newsletter. It should be included in the next Newsletter, quite soon.