GLASGOW NATURAL HISTORY SOCIETY NEWSLETTER

September 2006

David Palmar
(Newsletter Editor)

Next Newsletter Deadline
1 Nov 2006

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

FORTHCOMING MEETINGS

Tuesday 19th September 2006 7.15pm – Exhibition meeting in Graham Kerr Building museum. Wine and Nibbles will be provided. Please let Mary Child know in good time, if you need table top or backboard for your display.

Tuesday October 10th Tutorial 6.30pm Norman Tait - digital imaging part 1
Talk 7.15pm Ewen Donaldson - Renovation of Kibble Palace

Tuesday November 14th Tutorial 6.30pm Norman Tait - digital imaging part 2
Talk 7.15pm Keith Futter and Richard Sutcliffe - Ragwort, Creeping thistle and Butterflies in South West Scotland.

Wednesday December 6th 5pm The BLB lecture from Prof. Mike Majerus on Badly Behaved Ladybirds.

Xmas Buffet Supper A new venue for Christmas. In December, the pre-Christmas social is a Buffet Dinner, which will be held on Tue 12th, 7.15pm in the Museum of the Graham Kerr Building. Guest speakers Joanna Smith and Dan Thornham will talk on "Sampling Trinidad's Rainforest for Frogs, Beetles and Bromeliads". Grooms will be doing the catering. Blodwen will take care of the drinks at the table. All you need do to book your place is send cheques payable to GNHS for £18 pp to Morag Mackinnon along with the booking form at the end of the Newsletter by 1st December at the latest. Numbers limited by the tables available – so book early to avoid disappointment.

FORTHCOMING EXCURSIONS

Saturday 9th September Geology of Waulkmill Glen. Meet at Ashoka car park, Darnley at 10am. Contact Richard Sutcliffe.

Wednesday 27th September 2006 Mid-week outing to Auchincruive

Full-day excursion to the Arboretum and the Garden at the West of Scotland Agricultural College**.** Michael Hitchon will guide us. Meet in the Refectory at 10.30 for coffee. A look at the Garden, return to the Refectory for lunch then afternoon exploration of the Arboretum.

Travel by private car. Cost for the day £5 plus share of petrol. I would be glad to know if you intend coming so that we can give the College a rough idea of numbers.

As most of you know Auchincruive is scheduled for closure so this may be the last opportunity to see the grounds of this historic college where so many of our horticulturalists have trained.

Saturday 7th October Fugus Foray, Waulkmill. Meet 10am at Ashoka car park, Darnley. Contact Denise Nealy.

Saturday 21st October Fungus Foray Bothwell woods. Meet at Uddingston railway station 10.30am. Contact Robin Jones

Wednesday 1st November Visit to the Jeffrey room in the Mitchell Library to view rare Natural History Volumes. Meet in the Mitchell coffee room from 12pm. Contact Joyce Alexander

Bats **Norman Grist**

Bats are in the news, partly because "Bat Detectors" have become available and are opening a world of ultrasound, mostly beyond human hearing range but fully used by bats for echolocation, hunting and navigation. We wait with interest for early findings from use of our Society's detector, currently by Richard Weddle. The August 2006 issue of *BBC Wildlife Magazine* shows field identification features of eight species of British bats (p.59: Stephen Harris).

The high frequency ultrasound of bats is audible to most of us in early life, but as we age it passes out of range. The first time I became aware of bat sounds was as a young boy returning from a country walk in Derbyshire. Approaching Taddington clutching a fine field mushroom. I heard repetitive "tinkling", mistaken at first for a loose buckle on my sandal. Nothing was loose and I noticed that the sound came every time the bat passed westbound overhead, seen clearly against the evening sky.

I enjoyed the plate-sized mushroom next morning, grilled under sizzling bacon with a flabby Derbyshire oat-cake for breakfast. From then on I knew & recognised bat "squeaks" - until in 1943, on short leave from the Army (RAMC) after primary training. Standing on the bridge at Callander with Mary, my wife, also on leave (WAAF), we watched bats swooping along the river and under the bridge- and realised they were "silent". Never again did I hear one, whether due to my normal ageing or to exposure to "thunderflashes" and other noises of war in training I do not know.

We occasionally noticed bats after the war in and around Glasgow and elsewhere. One flew around inside our Lochranza cottage for a night or so, but I found no evidence that bats were using the roof-space. From time to time we saw one or more on hunting circuit over the gardens at Hyndland Court - best seen from our north-facing kitchen window about tree-canopy height. Then one July a feeble pipistrelle was found here (Newsletter Nov-Dec 2002). It died and provided specimens of the flea *N. longiceps*. Happily the pipistrelle species has not to my knowledge been found to carry European bat lyssaviruses - the variety of rabies that killed an unvaccinated British naturalist in 2002 (Bat Rabies in the United Kingdom; Smith A., Morris J & Crowcroft N: *Brit.Med.J*. 2005; 330: 491-4920).

From The Reviews Editor **Bob Gray**
Book received in exchange for review in *The Glasgow Naturalist*

A History of the Native Woodlands of Scotland, 1500-1920
T.C. Smout *et al.* **Edinburgh University Press** **2005** **Hardback £60**

This history of Scottish woodlands is written by authors highly respected in their field. The text explores the changing relationship between trees and people from the time of Scotland's first settlement, focusing on the period 1500 to 1920, the year of founding of the Forestry Commission. It presents an account that balances social, economic and environmental factors and reference is made to papers presented at the Society's conference in 2001 about alien species.

EXCURSION NOTES

Life under rocks and logs, Pollok Park, 25th March 2006 Mike Rutherford

As a follow-on to the Woodlice tutorial on the 14th March an excursion was taken to Pollok Country Park. It was attended by five members. The aim was to look for a variety of terrestrial invertebrates and learn how to identify them. Despite a pessimistic forecast the weather was sunny and bright. We had barely left the car park when we decided to have a look around a small patch of woodland (NS 547620) between the road and an open area of grassland. After everyone had coped admirably with climbing over a fence we were soon turning over old rotting logs, looking through leaf litter and keeping an eye out for anything that moved.

Before long we had uncovered a wide range of invertebrates. Some were identified in the field but most we took back to the car park where a wide range of literature was available to allow members to try and work out species.

The four most common types of woodlouse, *Porcellio scaber*, *Oniscus asellus*, *Philoscia muscorum* and *Trichoniscus pusillus* (those mentioned in the tutorial), were soon found and easily identified by those taking part. Two different types of centipedes were found; the large *Lithobius variegatus* with fifteen pairs of legs and the long thin *Geophilus carpophagus* with around fifty pairs of legs. Millipedes were also in abundance with a very common snake millipede, *Tachypodoiulus niger,* and a flat-backed millipede, *Polydesmus angustus*, both being uncovered.

The differences between spiders and harvestmen was explained with the help of a nice specimen of *Nemastoma bimaculatum* showing the single body part and long thin legs of a harvestman compared with the two part body and shorter generally hairy legs of a spider such as the wolf spider *Pardosa amentata*.

Molluscs were well represented with the snails *Discus rotundatus*, *Oxychilus cellarius* and *Cochlicopa lubrica,* and the slugs *Deroceras reticulatum, Limax maximus, Arion silvaticus, Arion ater* and *Arion intermedius.* All are common species that you would expect to find in such a habitat.

Other invertebrates such as ground beetles, beetle larvae, earthworms and springtails were also found but not identified to species level due to constraints of

time and knowledge. And a very sleepy toad was discovered in leaves almost under a log.

Argyll weekend, 17-18th June 2006 **Bob Gray**

Eight members participated in this field trip, the main purpose of which was to study aspects of the natural history of some parts of Argyll.

On Saturday morning we met the local SNH manager, John Halliday, who escorted us around the Taynish National Nature Reserve (NNR), of which there are about 90 throughout Scotland. Heavy early rain meant we had to drive a short distance into the reserve, thus curtailing the length of our walk. Taynish is a semi-natural Atlantic oakwood and we observed signs of its old as well as its recent natural history as we walked along. The underlying metamorphic schists have a NE/SW orientation and influence soil types and habitats.

In the 18th and 19th Centuries the oakwoods here were used to supply charcoal for smelting iron ore especially at Bonawe on the shores of Loch Etive, although some was used to provide tanbark for turning cattle hides into leather. To achieve this the woods were managed on what was known as a coppice-with-standards system on a 24-year cycle. Any species other than oak were removed and for the first seven years of the cycle the woods were enclosed to prevent animals from browsing the young shoots. Although the 'standard' trees are not particularly visible today, the coppice growth certainly is. The trees, now about 140 years old, tend to grow in groups of 4 or 5 with some stems being crowded out by the competition for light.

Today tree species such as holly, rowan, birch, with willow and alder in wet places, are found as well as non-native sycamore, lime beech and horse chestnut. Although the original oak species was probably sessile oak (*Quercus petraea*), acorns of the common oak (*Q. robur*) were introduced over the centuries since the angle of the common oak branches were better for ship building and the bark contained slightly more tannin for leather making. Consequently many of the oak trees today are hybrids (*Q. x rosacea*), although sessile characteristics pre-dominate and the woods are considered representative of old sessile oakwoods.

We set off through a field where cattle graze and the vegetation is cut on occasion in order to allow grass and wild flowers to flourish. We then passed through an area previously used for grouse shooting. Since 1975 the pioneer species birch and hazel, as well as alder and ash, have moved in to replace the heathland. We then crossed a dyke and entered ancient oak woodland. The smooth barked hazel supports a lichen community dominated by *Graphidion scriptae*. The acidic oak and birch barks support *Parmelion laevigatae* communities. Particularly well-developed tree lungwort (*Lobaria pulmonaria*) was found. The rich fern and bryophyte flora has led to the woodland being described sometimes as a temperate rain forest. Much in evidence were Wilson's filmy fern (*Hymenophyllum wilsonii*) and hay-scented buckler fern (*Dryopteris aemula*). Totals of some 336 lichens and 232 bryophyte species have been recorded for the entire woodland. As we walked along the woodland track we crossed over a few smaller trails running inland from the water's edge. These were otter trails.

In the drier, better drained, fertile areas a community of ash, wych elm and dog's mercury occurred whilst in wetter, ill-drained parts an alder carr community was

seen. In the more open areas we passed through, where drainage was poor, rich fen communities were observed where species such as broad-leaved cotton grass (*Eriophorm latifolium*) and bog mosses (*Sphagnum* spp.) were found in abundance. Beside the loch we saw an abundance of common red damselflies (*Pyrrhosoma nymphula*) and were informed that our own John Knowler had, only the previous week, found a comma butterfly (*Polygonia c-album*), a first record for Scotland.

Before we left we headed for a *Molinia* meadow near the shore in search of the marsh fritillary butterfly (*Eurodryas aurinia*), which is associated with the devil's bit scabious (*Succisa pratensis*). Several of these were found despite the chill conditions and members were able to pick them up, warm them and cause them to fly. Small pearl bordered fritillaries (*Clossiana selene*), much more orange in colour, were also found in this area in considerable abundance. The nearest colony of marsh fritillary is in Wales.

Throughout this walk John Halliday was able to identify for us many woodland bird calls such as wood warblers, great spotted woodpeckers, willow warblers, blackcaps, the ubiquitous chaffinch, wrens, blue and great tits and robins. We were also fortunate to view a calling redstart on the woodland margin and also a sandpiper on the shore where we had lunch.

This area would richly reward anyone with an interest in lower plants and invertebrates as well as anyone keen on woodland history and bird life.

We were fortunate to have such a knowledgeable guide as John Halliday.

After leaving Taynish we made for the Moine Mhor (Great Moss) NNR, much smaller than Taynish and providing a contrast with it. Moine Mhor is unique as the only British example of a complete habitat change from saltmarsh through freshwater, peat bog to woodland and hillside. At the centre is a raised bog. Ice melting at the end of the last ice age caused sea levels to rise and inundate Kilmartin glen, filling it with clay. The land then rose relative to the sea as the weight of ice was removed. This formed a shallow estuary at the river mouth and so saltmarsh spread. Inland a freshwater loch developed and the filling up of this loch with vegetation caused the formation of an acidic peat bog. Our half hour meander round the reserve showed us typical acid loving plants such as ling, cross leaved heath, sundew, red sphagnum, bog myrtle and sedges such as cotton grass and deer grass. Particularly noticeable was the way in which birch was trying to colonise the bog so that management of the area involves removal of these invaders in order to protect the bog. One plant found in common with the Taynish oakwoods was the distinctive lungwort lichen (*Lobaria pulmonaria*) growing on bark and indicative of a very moist atmosphere.

A visit to the fascinating Kilmartin museum for coffee and fine views of glacial terraces brought the afternoon to a close.

Sunday's weather was inclement but we braved the elements and midgies to walk around the slightly unkept, little-known Lochgoilhead castle arboretum that has links with the rhododendron Hookers. Amongst many interesting trees growing there were western red cedar (*Thuja plicata*), Japanese umbrella pine (*Sciadopytis verticillata*), an attractive avenue of yew trees (*Taxus baccata*), Irish yew (*Taxus baccata* 'Fastigiata'), Austrian pine (*Pinus nigra* var. *nigra*), holm oak (*Quercus*

ilex) and Camperdown elm (*Ulmus glabra* 'Camperdownii'). Rhododendrons and azeleas were just past their best as were the candelabra primroses but the herb garden proved most interesting.

The climax of the weekend was to have been our visit to Crarae woodland garden but the rain, midgies and finally a closed bridge rather scuppered plan this. Nonetheless we observed, amongst other things, masses of seedlings of what appeared to be *Sorbus vilmorinii*, as well as finding views of flowering *Cornus* and the exotic Chinese fir (*Cunninghamia lanceolata*).

Thanks are due to Marion Ballantyne for her help with matters geological.

Dick Institute, 13th May 2006 **Ian McCallum**

I was asked by the Excursion Convenor to lead two coach outings. The first one was to the Dick Institute on the 13th May. The bus parked at the Dick Institute in Kilmarnock, where we were met by the Director, Jason Sutcliffe.

Jason gave us a private tour round the Museum before the public were admitted. The tour followed a fascinating route, which took us behind the scenes, where we were shown items not on view to the general public. Jason excelled in giving us an informative and sometimes amusing dialogue on the items we were shown. The Dick is, of course well known for its excellent art collection, interesting local history and archaeological sections, but our interest lay more in its fine Natural Sciences Gallery, where we were shown a comprehensive selection of geological minerals and fossils, insects, whale jawbones etc. All too soon the tour ended and after giving Jason a vote of thanks we boarded the bus for Dean Castle. After lunch the party walked round the grounds of the castle in pleasant sunshine - looking at plants and birds while following the prescribed geological walk. After refreshments in the tearoom, the bus was boarded and we arrived back in Kelvin Way about 4.30pm.

Coaltown of Balgonie

Because of lack of interest, I cancelled this outing, which was to carry out a botanical survey in Fife.

Future of coach outings **Ian McCallum**

Only seven members of the Society booked for the Dick and in order to make the bus pay I invited an additional six friends along to make up the numbers. For the Balgonie outing only two members were on the list and I felt that the bus - which is subsidised by the Society - should be cancelled. One solution for future bus outings might be to have combined outings with the RSPB, SWT or SOC.

The Excursion Convenor and the Council will have to discuss the viability of the coach outings.

Legless in Lenzie **Ian McCallum**

This spring my garden pond was visited by about a dozen frogs. Lots of spawn was deposited which duly hatched. I have monitored the tadpoles over the last few months and been surprised to note that most have not, as yet, developed legs (at 14th August). I remember Roger Downie saying that some populations of frogs overwinter as tadpoles, which gives them a head start the following year. They would then be larger than the next year's brood, which would give them benefits for breeding and survival.

The alternative theory is that they know when they are well off and do not want to leave the nest.

BLB Report - Over-wintering in the larvae of the common frog (*Rana temporaria*): Isolated event or life history strategy? Patrick Walsh

As part of my Postgraduate research I am investigating over-wintering of common frog larvae, a recently observed and hitherto almost unstudied aspect of the life history of this species. The common frog represents a major part of the amphibian fauna of Scotland and throughout Scotland people eagerly anticipate the spawning event that occurs in early spring. However, the over-wintering of the resulting larvae has only been observed (see Archibald & Downie, *The Glasgow Naturalist*, volume 23(1), 61-2), but not investigated.

With financial assistance provided by the Glasgow Natural History Society's Blodwen Lloyd – Binns bequest for the purchase of tanks and bench space, over-wintering has been replicated in the laboratory. Additionally, I have been able to assess the effects of temperature and food availability on the proportion of over-wintering tadpoles. Experiencing higher temperatures during larval development resulted in fewer over-wintering individuals. Similarly, higher food availability resulted in lower numbers of over-wintering tadpoles. However, there were differences in how over-wintering occurred in the laboratory and what occurred in 'natural' garden pond situations.

Over-wintering in the laboratory occurred at very late developmental stages, and appears to be the result of 'bad luck' with tadpoles over-wintering simply because they could not acquire the resources to begin metamorphosis. However, in the field over-wintering occurred at very early developmental stages, which suggests that it was a strategy to stay as a tadpole. This suggests that there are factors in addition to temperature and food availability that influence over-wintering. I hope that this year's experiments will provide more useful information on this phenomenon.

BLB Grant - Translocation of great crested newts Deborah McNeill

Increasing pressure for development of brownfield and greenfield sites has resulted in conflict between great-crested newt conservation and developers. Translocation has become an increasingly popular tool in resolving this conflict, despite a lack of evidence proving its effectiveness.

Gartcosh former steel works site has one of the largest populations of great-crested newts in Scotland, which is currently in the process of being translocated to a newly created nature reserve around the periphery of the site. This is the largest undertaking of its kind in Scotland. My project is designed to test the

effectiveness of the translocation procedure in its aim to produce a self-sustaining, viable population. Examination of pond and terrestrial habitat use, population dynamics and an assessment of surveying techniques will provide valuable information for the provision of optimum conditions favouring translocation success. The translocated population will be examined to assess response to the translocation procedure itself. Translocated populations of smooth and palmate newts, common frogs and common toads will be included in survey work.

The Blodwen Lloyd Binns bequest made a grant of £500 in 2005 for this project, allowing the purchase of essential fieldwork equipment. A substantial part of the BLB grant was used to purchase pitfall traps (10 litre plastic containers with lids) required in the evaluation of terrestrial habitat use by great-crested newts and other amphibians present. The traps provide information such as dispersal distance and directionality of dispersal. Data on species, sex and life-stage for all amphibians are recorded. Additional information is collated for adult great crested newts: mass, snout-vent length and a photograph of the belly pattern used in the recognition of individuals. The BLB grant was also used to purchase a range of spring balances for the mass measurements and a rain gauge was bought and is being used in conjunction with temperature measurements to establish the climatic conditions that correlate with amphibian movements.

The 2006 field season is the first full season of this project. I hope to be able to present results of this work to GNHS next year.

Blodwen Lloyd Binns. Prof Jim Dickson has already published a most excellent obituary for our benefactor, but since we keep meeting people who have personal memories of her as a tutor or colleague, we thought it would be a good idea to gather these little bits together so that at some time we can put together a fuller account of her life and indeed the many benefits her bequest has brought to our members. Please let Morag know your memories of her.

New Social Convener is required

Hazel Rodway is retiring as Social Convener – after many, many years of dedicated service to the Society. We give her our very grateful thanks and hope she now enjoys being able to stay in the lecture hall to hear the questions and answers at the end of a talk. We need volunteers to help with the teas. Hazel is going to take Mary Child (our first volunteer) and show her the ropes at the October meeting. Mary will show volunteer No 2 the ropes in November. PLEASE help. Boys and girls can do this - and it is only for two evenings.

Christmas Buffet supper booking form

NAME……..

Address……

Phone No.

I enclose cheque for £……. for ……places at the Xmas Buffet supper.

Dietary requirements……..