



**GLASGOW NATURAL
HISTORY SOCIETY
NEWSLETTER**

November 2016

**David Palmar
(Newsletter Editor)**

**Next Newsletter Deadline
10 January 2017**

**GNHS is a Registered Scottish
Charity Web-site:
www.gnhs.org.uk**

GNHS Indoor Meetings in Boyd Orr Building unless noted

November

Tuesday 8th

6.30pm Book Launch: *The Amphibians and Reptiles of Scotland*

introduced by Pete Minting and Chris McInerny

7.30pm Talk/discussion: 'Welfare and conservation; is there a conflict? Roger Downie

Thursday 24th

7.30pm Bower (Botany) Building

Lecture: The history of woodland exploitation in Scotland - from a dendrochronological perspective; Anne Crone, post-excavation project manager, AOC Archaeology (jointly with Friends of Glasgow Botanic Gardens and Glasgow Tree Lovers). Dendrochronology is the study of dating by means of tree ring analysis.

December

Tuesday 13th

7 for 7.30pm Graham Kerr Library. Christmas buffet dinner - **see end of Newsletter for details and booking form;**

includes Lecture: A review of Glasgow's local nature reserves; Jim Coyle
2017

January

Tuesday 10th

6.30pm Lecture: Plastics and poo: threats to Scotland's marine life; Matt Barnes

7.30pm Lecture: Sex chromosomes - is this organism male, female, hermaphrodite or asexual? James Milner-White

February

Tuesday 14th

7.15pm Photographic Night: members' digital slide shows, plus photographic competition results.

March

Thursday 2nd, 7.30pm Paisley Museum, High St, Paisley

Lecture: Scotland's dinosaur isle; Neil Clark (Joint with Hamilton NHS and Paisley NHS).

GNHS/BRISC bursaries

Richard Weddle

As in previous years, GNHS and BRISC (Biological Recording in Scotland) are offering bursaries towards attending a training course in natural history field studies skills. The bursaries will be for £200 or 75% of the cost of the course, whichever is lower. This year there will be seven bursaries available; the closing date for applications is January 31st 2017; for full details, and an application form, see www.bris.org.uk/Bursaries.php after the start of November.

2017 Subscriptions

Richard Weddle

Subscriptions fall due on 1st January 2017 (except for those who have joined in the past few weeks). A subscription renewal form is enclosed for those who don't pay by Standing Order; email recipients will receive a separate reminder by email. We would be grateful if you could pay your subscription as soon as possible, to save us having to send further reminders. Remember that if you pay by the end of January you may deduct £1.

Gift Aid

Richard Weddle

In an earlier Newsletter we notified all members of a change in Gift Aid declarations. We hoped that those who had signed old-style forms would sign the new declaration; in the event the response was very disappointing, so we'd ask those who haven't done so already to sign and send in one of these new declarations as soon as possible.

HMRC require that, from April 6th 2016, Gift Aid declarations include the following text: "I confirm that I am a UK taxpayer and understand that if I pay less Income Tax and/or Capital Gains Tax in the current tax year than the amount of Gift Aid claimed on all my donations it is my responsibility to pay any difference." Previously it seems that charities might be deemed responsible for paying any difference.

We would of course encourage others to sign a declaration as well – the form is also available on our website at www.glasgownaturalhistory.org.uk/documents/application_ga.doc - you don't need to complete the 'application for membership' section as well of course.

The Glasgow Naturalist - proposed online digitization

Dominic McCafferty

The Glasgow Naturalist has been in circulation since 1908, with a long history of publishing important and interesting scientific papers, mostly on natural history in Scotland. It has created a significant historical record, which the Glasgow Natural History Society would like to make more widely available through the Biodiversity Heritage Library.

The Biodiversity Heritage Library www.biodiversitylibrary.org has become the world's main free archive of digitised natural history literature, and has established itself as a leading online research library. Its main partners in the UK are the Natural History Museum and the Royal Botanic Gardens at Kew. It offers free access to a vast number of historical books and journals, with many relevant to Scotland: these include the *Scottish Naturalist*, the *Annals of Scottish Natural History*, the *Proceedings of The Glasgow Natural History Society* and rare books by Pennant, Harvie-Brown and MacGillivray.

In this context some volumes of *The Glasgow Naturalist* are already on The Biodiversity Heritage Library website; but only volumes 2-12 (1910-1934) www.biodiversitylibrary.org/bibliography/38981#/summary, where copyright has expired.

The Council of the Glasgow Natural History Society has endorsed the proposal to place volumes of *The Glasgow Naturalist* from 1934 to the current date on the Biodiversity Heritage Library. However, to do this, Council needs to ascertain if authors and contributors to the journal agree with this proposal. Authors and contributors originally submitted their articles and other material to *The Glasgow Naturalist* for print publication, mostly before the idea of digital access. It is impracticable or impossible to trace all the individual contributors or their legal representatives to ask permission to put their material online. But we believe that most or all would be happy to see their work now reaching new and wider audiences to the overall benefit of Scottish natural history. If any copyright holder does not wish their material included in free digital access, they are asked to contact the Editor www.glasgownaturalhistory.org.uk/editor.html to discuss this as soon as possible, preferably before 1 March 2017. Arrangements are in place to have such material excluded from web access where necessary.

From this point forward we will also request that Authors sign a publishing agreement giving The Glasgow Natural History Society the Copyright for articles published in *The Glasgow Naturalist*. This is standard procedure for publishing in most scientific journals today.

GNHS would like to thank Chris McInerny for his leading role in the digitising.

Blodwen Lloyd Binns prize for New Author

Dominic McCafferty

At the recent BLB Lecture, GNHS was delighted to award to Suzanne Burgess (née Bairner) the Blodwen Lloyd Binns prize for *New Author* for her paper: "Glasgow's Buzzing pollinator survey results" and short note: "The Hobo spider, *Tegenaria agrestis* (Walckenaer, 1802), Aranaea, Agelenidae in Glasgow" both published in the latest edition of *The Glasgow Naturalist* Volume 26 (2).



Suzanne receives her prize from Dominic

The Blodwen Lloyd Binns prize is awarded 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 authors new to scientific writing. Submitted work should therefore be amongst the first three papers the writer has submitted for publication. The prize is a voucher and a 1 year free membership of the GNHS.

See: www.glasgownaturalhistory.org.uk/grants.html

Suzanne's papers can be found at:

www.glasgownaturalhistory.org.uk/gn26_2/glasgows_buzzing_bairner.pdf

www.glasgownaturalhistory.org.uk/gn26_2/hobo_spider_bairner.pdf

Excursion reports

Baron's Haugh, 21st August 2016

Alison Moss

Eleven of us enjoyed a real mixed interest excursion in ok weather - the butterflies would have preferred a bit more sun and less damp undergrowth. Green-veined white were the most prolific and one Peacock. Taking the 'red' path from the car park, the first habitat zone we encountered was a large wild flower meadow. The



Wild flower meadow with Knapweed (David Palmar)

predominant plant in flower was Knapweed (*Centaurea nigra*), turning huge areas purple. Overall, it was fairly species-rich, providing interest particularly from James and Richard who trapped hoverflies and other invertebrates for the rest of us to admire. (See Richard's list) Other meadows had different plant mixes, including one with wild carrot, toadflax and many dockens. This seemed to be attractive to a large flock (over 20) of Goldfinches. Cattle had been put out to graze in adjacent fields and on grassy areas within the wetlands. Habitat

variety and management is very high on the RSPB agenda and without even entering the wetlands, I ticked off about 140 species of flowering plant and trees. The blue sow thistle was particularly attractive.

We stopped at 4 hides which had views over the wetland areas. Flocks of lapwings were particularly active. There were the beginnings of some good fungi, mainly 'rotters' on fallen branches and timber, e.g. *Ganoderma*, *Trametes*, *Crepidotus*. 'Untidy' woodlands and hedgerows along the banks of the Clyde again add to the variety of habitats and ultimately bird variety on this reserve. Indeed, there was sufficient wildlife to distract us that we did not 'do' the adjacent Dalzell Park. We decided that we should target this for a future excursion at a different time of year, but also revisit the meadows and hides to observe the seasonal variation.



Green-veined white on Knapweed (DP)

Bird list from David Palmar:

Wood pigeon, Magpie, Pied wagtail, Green sandpiper, Cormorant, Little grebe, Coot, Moorhen, Mallard, Teal, Black headed gull, Herring gull, Goldfinch, Long tailed tit, Black tailed godwit, Lapwing, Blue tit, Buzzard.

Plant and invertebrate list from David Palmar's photographs:

Knapweed, Ragwort and Ash, Creeping thistle, Rosebay willow herb, Tufted vetch, Goat's beard, Buff tailed bumblebee on Knapweed, *Udea lutealis*

moth, Greater willow herb, Devil's bit scabious, Broad-leaved helleborine, Red-legged shieldbug or Forest bug, Wood cranesbill, Black ground beetle, Greater bird's foot trefoil, Blue sow thistle, *Ganoderma* sp fungus, Arum, *Episyrphus* hoverfly on Blue sow thistle

Baron's Haugh tree highlights from Bob Gray:

Beside the track leading northwards towards the car park from the River Clyde: red oak (*Quercus rubra*), Turkey oak (*Quercus cerris*) and railway poplar (*Populus x canadensis* / 'Marilandica' - a female clone). All are worth a measure.

Some fine horse chestnuts (*Aesculus hippocastanum*). A couple of Sweet chestnut (*Castanea sativa*) seedlings by the path, one of them marked with a small cane. Planted? There are also plenty of tree highlights in Dalzell Park, farther east: Covenanters oak, Lime walk, Chestnut walk, Arboretum.

From Richard Weddle:

The meadow area by the car park hasn't been so good for insects this year, though there have been some interesting sightings, such as the Tree Bumblebee (*Bombus hypnorum*) earlier in the year. On the day of the excursion we were pleased to find the large hoverfly *Sericomyia silentis* along with the smaller hoverflies *Syrphus ribesii*, *Episyrphus balteatus*, *Helophilus pendulus*, and *Melanostoma scalare*, with Buff-tailed and Red-tailed Bumblebees, Common Carder bee, a good showing of honeybees, and a small fly with spotted wings - *Palloptera quinque-maculata*. Elsewhere James found a rather less common hoverfly which I later identified as *Dasysyrphus albostriatus*, and which hasn't been recorded at Baron's Haugh for 22 years; and Su found a 'false crane-fly' with black-marked wings which I later identified as *Ptychoptera contaminate* (thanks to Geoff Hancock for confirming my ID), an insect which hasn't been recorded in the Greater Glasgow area for some 100 years - and there is some doubt whether the old records are reliable. There was also a splendid Red-legged Shieldbug (the 'Forest Bug', *Pentatoma rufipes*), and a large black fly with bright orange face and orange wing-bases - *Mesembrina meridiana* ('Noon Fly'), associated with cow dung, though the adults are also pollinators.

We saw only one species of butterfly: Green-veined White, but there were several moths: a number of Pale Straw Pearl (*Udea lutealis*) in the meadow area, and elsewhere Shaded Broad-bar (*Scotopteryx chenopodiata*), Nut-bud moth (*Epinotia tenerana*), and Sallow (*Cirrhia icteritia*). Both Sallow and Shaded Broad-bar are UK Biodiversity Action Plan species - having declined in numbers by 73% and 82% respectively over the last 35 years.

Su also found a female Scorpion-fly (*Panorpa* sp.), and I found just one ground-beetle (*Bembidion tetracolum*) on the edge of the Clyde - the water was quite high, so there wasn't much scope for investigating the river-banks. Finally there were good numbers of true bugs (*Homoptera*), such as leaf-hoppers, and some *Mirid* bugs, none of which were identified to species.

A legless invertebrate that attracted much attention was a large orange slug; we wondered if this might be the so-called 'Spanish slug' (*Arion vulgaris*, an invasive non-native species), but closer inspection showed that it had neither dark-rimmed spiracle nor grey / orange-tinged sole, so is likely to be either *A. rufus* or a pale form of another *Arion* species. The name 'Spanish' comes from a former confusion between *Arion lusitanicus* and *A. flagellus* - the former being an Iberian species, the latter a UK species - together with an initial confusion between *flagellus* and *vulgaris* when the latter - which is a northern/central European species - first appeared in the UK 20-30 years ago.

Giant Hogweed investigation

John and Margaret Lyth



This was taken on the summer outing to Carmyle, when 4 members set out to find how far up the Clyde Giant Hogweed (*Heracleum mantegazzianum*) grows.

The answer is that it does not grow above the weir across the Clyde Latitude 55° 49' N Longitude 4° 09' W.

Giant hogweed
Margaret Lyth

The Wentworth elm (*Ulmus x hollandica* 'Wentworthii pendula')

Bob Gray

As members are probably interested in this headline item (BBC News, 4/10/16) **'Extinct' elms found in Queen's garden in Edinburgh'** www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-37543803, I've been asked to write a short piece for the Newsletter.

It might be assumed that the origin of this tree was Wentworth in Surrey. In reality it is thought to emanate from Spath's nursery in Germany towards the end of the 19th Century. *U. x hollandica* (Dutch elm) is a natural hybrid between *U. glabra* (Wych elm) and *U. minor* (field elm). It occurs in Europe and Britain where their ranges overlap and some 30 cultivars have been recognised. 'Wentworth pendula' is one of these. It has a weeping habit and large, glossy, almost hairless leaves. Few are known in cultivation and it is not found in any common books on tree identification.

Two specimens on the east lawns of Holyrood House were positively identified in 2016 by Dr. Max Coleman and Peter Bourne of the Royal Botanic Garden of Edinburgh (RBGE). According to the list of champion trees of the Tree Measuring Society of the British Isles (TROBI) the larger of the two trees was measured in 2004 when it had a height of 18 m and a girth of 283 cm (111").

According to Dr. Coleman, records at RBGE showed that three Wentworth elms arrived from Spath's in 1902. It is thought these elms were transferred to the Palace and a ring count of one of these three elms, felled owing to Dutch elm disease (the disease originated in Holland), indicated the tree went back to about 1905. This equates roughly to the age according 'Mitchell's rule' - one inch of girth increase per year of age.

RBGE is taking cuttings of these elms in order to create a new generation of these rare trees.

The purpose of this field trip was to find out about the establishment of the "Great Trossachs Forest", the newest and biggest national nature reserve (NNR) in Great Britain.

Firstly, however, on Friday evening we made for **Lochan Spling**, located a short distance from Milton, just west of Aberfoyle. The track from the car park, possessing some very big Sitka spruce (*Picea sitchensis*), led us through a mainly broadleaved wood containing some old sessile oak (*Quercus petraea*) standards and silver birch (*Betula pendula*) as well as many naturally regenerated poles of rowan (*Sorbus aucuparia*) and silver birch and oak seedlings. This area is all part of Loch Ard forest that extends from Aberfoyle westwards to the northern foothills of Ben Lomond. The spruce plantings date back to the 1950's and '60's. The oaks may have been planted some 150 years ago whilst the other native broadleaved species have regenerated here from time immemorial. We crossed a bridge spanning the Duchray Water, a tributary of the Forth and east of the country's east/west watershed. Many trout were rising in the still of the evening and the midges were out. Walking along the forest track leading to our destination we crossed over a piece of bedrock that demonstrated glacial striations. Aberfoyle itself and this area sit astride the Highland Boundary Fault. The soil resulting from erosion of this bedrock is acidic. The average annual rainfall here is about 70" (1735 mm). Both of these factors are well suited for the growth of Sitka spruce, so widely planted in the Loch Ard Forest. We reached Lochan Spling (from the Gaelic meaning "glistening") and admired a sizeable wrought iron sculpture of a dragonfly perched above the water and made along with other sculptures by Rob Mulholland for the Loch Ard sculpture trail.

The Great Trossachs Forest project is a collaboration between FCS, RSPB Scotland and SWT. It includes the RSPB's Inversnaid in the west, Loch Katrine managed by



John Mulgrew talks to the GNHS (DP)

FCS in the middle and SWT's Glen Finglas in the east. The 16.5k ha of the forest comprises about 10% of the Loch Lomond & Trossachs National Park. Sue Morris is the co-ordinator of this massive project and she met us on Saturday morning with a minibus in which we travelled westwards passed Loch Ard and Loch Quoin towards **Glen Gyle** at the west end of Loch Katrine where we were met by John Mulgrew, the forester in charge of converting this area from mainly sheep grazing into mixed native woodland. Part of the driving force behind this project

is the need to remove sheep as they are the likely transmitter of *Cryptosporidium*, a water-borne protozoan disease that needs to be completely excluded from the source of water for Loch Katrine, Glasgow's water supply. Other huge benefits of the tree cover will be to help filter the water supply and prevent erosion of the soil on the hillsides surrounding the loch. John explained how Scots pine (*Pinus sylvestris*) tends to grow naturally higher up on the less fertile, well drained north-facing slopes. Oak, especially sessile oak, is dominant on the more fertile south-facing slopes. Birch is suited to the better drained areas above the oak whereas alder (*Alnus glutinosa*) is more suited to the poorly drained, rush dominated lower ground. Much deer fencing has been constructed in order to allow young trees to grow

successfully and this fencing has been augmented with angular slats in order to prevent grouse particularly from flying into the wire. A fine stand of Scots pine growing here is thought to have been planted at the time Loch Katrine was established as a reservoir in the mid 19th Century. A spotted flycatcher, a summer visitor with a characteristic streaked whitish breast, flew by and was stalked and successfully photographed by David Palmar.

Lunch at the pier tearoom at **Stronachlachar** allowed us to see the eradication of rhododendron being carried out by Forestry Commission Scotland to allow the regeneration of non-invasive species. It also enabled us to identify locations in some old black and white photographs of the area from the 1960's provided by Stephen Docherty.



Spotted flycatcher (DP)



Loch Katrine in the 1960s (courtesy of Stephen Docherty)

In the afternoon we headed westwards and stopped northwest of Loch Arklet at the



GNHS and a similar view in 2016. Note the clear felled area left (DP)

Garrison, now an RSPB visitor centre, but built originally to enable troops to control (unsuccessfully) the activities of Rob Roy in the first half of the 18th Century. From this vantage point it is apparent where the RSPB boundary merges into that of Forestry Commission Scotland ground, the whole area becoming part of the Great Trossachs Forest.

At the RSPB reserve at **Inversnaid** we were met by Fraser Lamont, the reserve warden, who led us along part of the West Highland Way. The reserve occupies some 100 ha and has some 7 km of deer fence in order to control both deer and goat depredation of natural regeneration.



Fraser Lamont explaining RSPB Inversnaid to members (DP)



A tree regeneration enclosure at Inversnaid (Bob Gray)

Deer numbers are more easily controlled by shooting than the more agile feral goats. We were shown a particular plot from which these mammals were completely excluded and here there was much evidence of birch, rowan, oak and ash regeneration. The Loch Lomond oakwoods comprise one of the largest areas of semi-natural woodland in Britain and are a Special Area of Conservation (SAC) for their old sessile oakwoods. Owing to the lack of active management for wood products over the last century, heavy grazing by sheep and deer has prevented natural

regeneration and so has resulted in the development of an even-aged woodland structure which is less good for wildlife than an uneven structure would encourage. Interestingly, with their upswept branches providing fly catching space below, sessile oakwoods are a prime habitat for Redstarts, Wood warblers and Pied flycatchers (Mitchell, "Trees of Britain"). Most of the oak we saw were sessile. Pedunculate oak (*Quercus robur*) possesses more horizontal, sinuous branches, suitable for historic wooden ship building (and also richer in tannins for tanbark) and seems to be more common towards the southern end of the Loch Lomond oakwoods. In order to encourage Pied flycatchers the RSPB has set up within the reserve many woodcrete nest boxes with lips that prevent pine marten access. The ground flora contains areas of Common cow wheat (*Melampyrum pratense*), an indicator of ancient woodland.



Common cow wheat, Inversnaid (DP)

During our return to Aberfoyle we paused at the **east end of Loch Arklet** in order to view a Black grouse lekking area (where blackcock display before the waiting females). To encourage Black grouse to inhabit this area the habitat is managed in such a way as to create a habitat mosaic provided by cattle grazing and strimming and by allowing the growth of bog myrtle and bilberry to surround the area. Early morning in April/May is the best time to observe this remarkable sight.

On Sunday morning we again travelled in the FCS minibus to the **Lodge visitor centre**, a mile north of Aberfoyle on the east side of the Duke's Pass. We split into a group that visited the wildlife hide and another that followed the oak coppice trail with Nik Harris. The former enjoyed some fine views of nuthatches and red squirrels. Nuthatches are here at the northern limit of their current spread through Britain. Coppicing oak trees involved cutting trees down to ground level and then allowing new shoots to grow, thus providing a sustainable source of timber. The oak was used chiefly for different industrial purposes such as: 1.charcoal production, by heating

the wood to drive off water thus leaving charcoal which produces a far higher temperature when burnt than wood does, essential for iron smelting. This was done sometimes locally in woodlands in "bloomeries" and later by transporting to a commercial smelter such as the Bonawe furnace (1753); 2. harvesting oak bark in order to extract tannic acid which is used to convert animal hides into leather and 3. the manufacture of dyes. Coppicing occurred from the 17th to 19th Centuries. In this area the rotation cycle used was 24 years, so that the woodlands were divided into 24 annually exploited lots. These lots were typically fenced off for a few years after felling to allow for re-establishment. Large numbers of pedunculate oak were planted (see above) along with the sessile oak that grew here naturally. Some clear signs of coppicing were seen during our walk.

Leaving the Lodge we passed a life sized bronze sculpture in memory of the "Lumberjills", the Women's Timber Corps who helped manage the country's forests during the last war.

We were driven over the Duke's Pass to the east end of Loch Katrine where we embarked upon the "**Sir Walter Scott**" steamship from which, for about an hour, Sue described some of the salient features of the north and south shores of the Loch. The road on the north side had been damaged by landslips caused by the severe winter weather earlier in the year and so was not suitable for use. The cost of road refurbishment is very high owing to SSSI standards that have to be met. As part of the broadleaf tree introduction programme cattle are being used for conservation grazing at three sites on the north side. A group of conifers was pointed out that was being retained to provide red squirrel habitat until the broadleaf species become established. The waterfall outlet from Glen Finglas into Loch Katrine through the mountain was clearly visible. Part of this area is being managed to encourage the pearl-bordered fritillary butterfly that was discovered here in 2011. Its host plants are dog violet and bugle. The narrow-bordered bee hawk moth, whose caterpillars feed on devil's bit scabious, has also been found in this area. The Primrose Hill waymarked trail, also on the north side of the Loch, is claimed to have the greatest diversity of plants in Stirlingshire. The south side of the Loch, well to the west of the pier, is largely a SSSI that is difficult to access and is being left to develop with minimal management.



Sue Morris explains the planting plan on the Sir Walter Scott (DP)

After leaving the steamship we passed the foot of the south side of iconic Ben A'an where we were shown an area from which all commercially viable conifers had been removed last year and which will be restored to native woodland.

By this time it was raining hard and so we were glad to be inside the minibus as we approached **Glen Finglas**. This is the biggest area of land owned by the Scottish Woodland Trust and includes Glens Meann and Casaig as well as land up to the summits of Ben Vane and Ben Ledi. This area is renowned as an area of wood pasture, which was the most common form of woodland management in the

mediaeval period. This involved the grazing of stock in very open woodland with trees being pollarded (cut at high level) to produce leaves for fodder and wood for fuel. This particular area was a Royal Hunting Forest in mediaeval time and appears on the 1866 OS map as very open wood pasture. Some veteran trees of alder, oak and birch have survived in the U-shaped glacial landscape. 30 plots of 3ha each have been set up by the James Hutton Institute particularly in order to investigate the effects on the ground of grazing by different numbers of sheep and cattle. In the meantime Luing cattle, which having no horns are easier to handle, are being used to increase the area of wood pasture habitat to 50% to 70% of the total estate. The correct amount of grazing required is still being debated.



The bicycle tree, Brig O' Turk (Bob Gray)

Our final visit was to the **bicycle tree at Brig O' Turk**. This is a remarkable curiosity as it appears the local blacksmith left an old bicycle about 7' – 10' upon a sycamore tree which has grown around it. An x-ray scan apparently shows that a sickle is enclosed within the trunk!

Finally Sue emphasised that the three main stakeholders (see paragraph 3) in the Great Trossachs Forest are encouraged to develop each of their own areas in accordance with their own needs. It is recognised, however, that these needs overlap so that what is beneficial for one area ties in with the requirements of the

others. All three manage their ground in a way that is hugely beneficial to the water supply that feeds into Loch Katrine and ultimately reaches the citizens of Glasgow. We were most fortunate to have as our guide someone as knowledgeable about this project as Sue Morris.

GNHS welcomes contributions to the Newsletter from members, without which the Newsletter would be a poor production! It would be of enormous help in getting the Newsletter out in time if you could please send them either as plain text or in a Word file as Verdana 12 points, which saves them being reformatted by the Editor. Scientific names should be italicised if you have time.

Please send photos separately from the text as jpg files, and indicate where you would like them inserted into the text. The more photos, the better the Newsletter!

Thank you - David Palmar, Newsletter Editor

The Flora of Renfrewshire

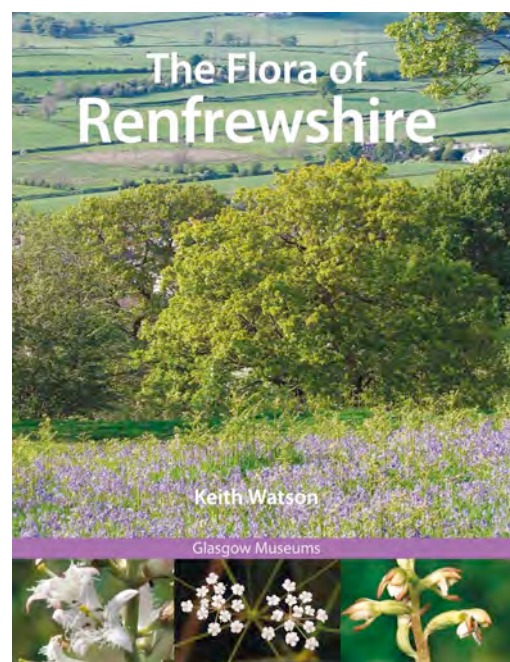
Richard Weddle

Glasgow Museums is offering *The Flora of Renfrewshire* at the specially reduced price of £25 between now and Christmas.

The book is the first full flora of the Vice County of Renfrewshire – a comprehensive survey of the wild plants of an area covering the local authorities of Renfrewshire, East Renfrewshire, Inverclyde and parts of south-west and north-west Glasgow – and includes fascinating introductory chapters about the local environment and conservation. It marks the culmination of almost 20 years of fieldwork and in-depth research of historical records by the author and draws on over 50 years of field recording by local botanists.

The flora contains:

- over 1,500 species accounts that include first record, status, distribution and ecology;
- more than 660 dot maps of native and frequently encountered alien species;
- introductory chapters on geology, soils, landscape, climate, historical recording and the changing environment;
- discussion chapters on distribution patterns, floristic changes and plant and habitat conservation;
- 24 pages of colour plates of maps and photographs showing botanical hotspots and local notable species.



The author, Keith Watson, is Glasgow Museums' Botany Curator and has botanized in the Glasgow area for over 25 years. He is the co-author of *The Changing Flora of Glasgow* and has been the Botanical Society of the British Isles Recorder for Renfrewshire since 1994.

The book is hardback with sewn binding, 408 pages long with maps throughout and has 24 pages of colour plates.

There is a delivery and packing charge of £3.40 for up to 10 copies within the UK (overseas postage costs quoted on request).

To order phone Booksource on 0845 370 0067 and quote the promotion code 'Christmas Flora' or send the order form below together with a cheque made payable to Booksource to:

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Name..... Title.....

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Where you saw this offer.....

"

Christmas Social – 7.00 for 7.30pm, Tue 13th Dec 2016 Janet Palmar

This year Council has decided to hold the Christmas Social in the Library in the Graham Kerr Building, with the talk there too afterwards.

Following its previous popularity, we are again trying a "bring a dish" formula.

Everyone brings enough savoury or sweet food for at least two servings (for example, couples can bring four servings of one dish.) The food is laid out, and everyone can have a taste of any dishes they choose.

Please again bring your own knife, fork and spoon which will make setting up the tables and clearing away much easier. No good at cooking or run out of time with all the arrangements for Christmas? – no problem, just buy cakes or cold meat!

As the kitchen facilities are a bit distant, it would be best to choose dishes which can be served cold. Although there will be no charge for the evening, it is essential to let me know if you intend to come, so that we can set out the right number of tables and chairs. It would also be most helpful if you can let me know what type of dish you intend to bring, e.g. savoury, salad or sweet.

Please fill in the form below and return it to me by the November 24th meeting.

**GNHS Christmas Social – 7.00 for 7.30pm, Tue 13th Dec 2016
Bookable as soon as possible**

Name(s) (please print)

Address.....Postcode.....

Email address Phone no.....

I/we intend to bring (describe type of food - savoury, salad or sweet) and my/our own knife/knives, fork(s) and spoon(s).

.....forpeople