GLASGOW NATURAL HISTORY SOCIETY NEWSLETTER

Next Newsletter Deadline 22 March 2024

GNHS is a Registered Scottish Charity

February 2024

David Palmar (Newsletter Editor)

newsletter@gnhs.org.uk

www.gnhs.org.uk

GNHS Talks Programme, Spring 2024 Roger Downie

Our talks programme for January to May will all be in-person presentations. Talks will all be in the Boyd Orr Building Lecture Room C (LTC), University of Glasgow (except for the Exploration Society report-back). Most talks will be on the second Tuesday evening of the month at 7pm, as usual, but watch out for a few irregular dates. Talk abstracts will be circulated later by email.

February

Tuesday 13th: Boyd Orr Building LTC at 7pm: Photographic Night. See separate item.

March

Wednesday 6th: **Graham Kerr building at 6pm**: Exploration Society report back- this is a chance to find how the students used their BLB grants.

Tuesday 12th: Boyd Orr Building LTC at 7pm: Heather Ferguson: 'Mosquito vectors of avian diseases in Scotland'. Heather is Professor of Infectious Disease Ecology at the University of Glasgow, and works both in Africa and Scotland on the ecology of mosquito-borne infectious diseases and their control.

The talk will be FOLLOWED BY the Society's AGM.

April

Tuesday 16th: Boyd Orr Building LTC at 7pm: Nigel Willby: 'Beavers in Scotland: a 20-year journey'. Nigel is Professor of Freshwater Science at the University of Stirling. His team works on the ecological effects of Eurasian beavers, water policy, invasive species and habitat restoration.

NB This talk is on the third Tuesday, not the second. It is a joint meeting with Paisley Natural History Society.

May

Tuesday 14th: Boyd Orr Building LTC at 7pm: two half-hour talks. First, Louisa Maddison on the work of the Green Action Trust. Second, Stuart Whittaker, Community Woodland officer of the Cassiltoun Housing Association on 'the Castlemilk Project: nature and community'.

June

Saturday 8th: Not part of the talks programme, but an additional event is being planned as part of the Graham Kerr Centenary. The event is still at the planning stage, intended as a contribution to the Glasgow Science Festival. Watch out for further details.

Five articles with deadlines coming up soon:

1) Big Garden Birdwatch **David Palmar**

This year's Big Garden Birdwatch, organised by the RSPB, runs from ***26th to 28th January***, and you don't need a garden to take part! If you don't have one, you could do the survey in a park or along a canal or river.

Taking part is easy:
1. Choose an hour and a patch between 26 and 28 January
2. Record the highest number of each species of bird you see at any one time
3. Go online and tell us what you saw

https://www.rspb.org.uk/get-involved/activities/birdwatch/

2) GNHS & BRISC Bursaries **Richard Weddle**

Since 2009, BRISC (Biological Recording in Scotland) and GNHS have been offering bursaries towards attending a training course in natural history field studies. These bursaries are open to anyone living in Scotland who wants to improve their skills and contribute to biological recording.

From 2024 we are pleased to be able to offer bursaries of up to £400, up to £100 of which can go towards transport costs, to make it easier to attend courses, particularly those outwith Scotland.
The closing date for applications is January 31st 2024.

An application form and full details of the bursaries on offer can be found at www.brisc.org.uk/bursaries.
The bursaries are not restricted to GNHS members, so please feel free to forward this information to anyone you think may be interested.

3) Darwin's Earthworms
Richard Weddle

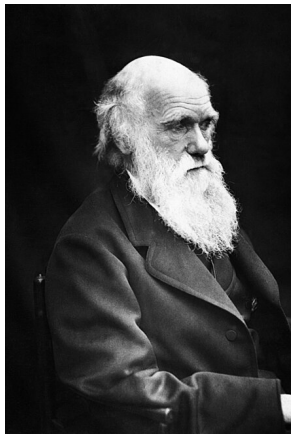
Online talk (free) by Kerry Calloway of The Biological Recording Company at ***7pm on 12th February 2024***, to coincide with International Darwin Day.

To book, see the following link:
www.eventbrite.co.uk/e/darwins-earthworms-a-groundbreaking-piece-of-soil-ecology-tickets-734547971757

4) Photographic Night, led by Andy Wilson
Tuesday February 13th, Boyd Orr Building LTC at 7pm
Results of our annual photographic competition, plus any interesting pictures members wish to show. Please contact Andy in advance if you are willing to contribute a short presentation.

5) Darwin Day Lecture

Richard Weddle



This year's lecture will be given by Prof. Rebecca Kilner of Cambridge University on ***February 14th at 4pm*** in the Graham Kerr Lecture Theatre 1. It will be followed by a cheese and wine reception.

Prof. Kilner's research interests are on social evolution and biodiversity in burying beetles and birds. The title of her talk is not yet decided, but will be included in an email reminder nearer to the time.

Photo - Julia Margaret Cameron, Public domain, via Wikimedia Commons

2024 Subscriptions — Richard Weddle

Subscriptions fell due on January 1st 2024 (except for those who have joined since September 2023). Members who pay by standing order need take no action; others who have not already paid will receive a subscription renewal form either as an email attachment or in the envelope containing this newsletter.

If you do receive a reminder, and will be paying by cheque, it would still be best to send it to my home address: 89 Novar Drive (1/2), Glasgow G12 9SS, but you may address it to the Graham Kerr Building if you prefer. This information will be given in the reminder, but I thought it worth repeating.

Annual General Meeting — Alison Park

This year's AGM will take place during our scheduled evening meeting on Tuesday 12th March 2024. The evening will start at 7pm with a lecture on 'Mosquito vectors of avian diseases in Scotland' given by Heather Ferguson and our AGM will proceed afterwards.
We would encourage GNHS members to attend this session. It is important to have a good number of members participating in the AGM to assist the society to maintain a successful and open society for its members.
As usual, there will be elections for Council members to help run the society and make longer-term decisions on the Society's future development. We would be delighted to hear from you if you might consider nomination for a Council position. For further information on Council tasks, or if you have any other queries relating to the AGM, please contact Alison Park.

Glasgow nominated for National Park City — David Palmar

(Suggested by Richard Weddle)

The idea of a National Park City is simple - to use the familiar idea of a National Park to inspire a shared vision for Glasgow, as a greener, healthier and wilder City for everyone - where people, places and nature are better connected and a lot more besides - See https://www.glasgownationalparkcity.org/ for details.

On October 31st it was announced that Glasgow is amongst 5 more cities which have been successfully nominated for National Park City status, aiming to join London and Adelaide as established National Park Cities. There are over 200 partners which supported this active movement in Glasgow, with a campaign which has demonstrated passion, motivation and ability.

We hope that will culminate in a final application for National Park City status being submitted in early 2024.

Wild Spaces — David Palmar

(Suggested by Richard Weddle)

The combined effect of habitat loss and climate change means that butterflies and moths are in severe decline across the UK. But... it doesn't have to be that way. **Butterfly Conservation** is asking for everyone's help in creating more Wild Spaces where butterflies and moths can thrive. Working together we will make a difference!

You don't need a garden to make more room for nature. Whether you live in a flat with a balcony or a house with a patio, you can help make a difference.

Already across the Glasgow area there are several wild spaces (such as North Kelvin Meadow), with over 2300 across Britain as a whole.

To see how you can help, go to https://wild-spaces.co.uk/

Old Newsletters on GNHS Website — David Palmar

If you would like to read old newsletters, those from 2004 onwards have been made into pdfs can be found on the GNHS website. For example, previous excursion reports, conferences and meeting details may be of interest to members.

Thanks to Chris McInerny for editing the initial batch of newsletters.

Contributors' contact details have been redacted to preserve privacy.

2022 newsletters have now been similarly edited and uploaded to the publications page of the GNHS website at:

http://www.gnhs.org.uk/newsletter.html

Natural History Museum Recording Toolkit Becky Clover(NHM)

At the Eurobioblitz event in Kelvingrove Museum last September, I introduced some of the new resources we have on our website in the Nature Recording Hub, which you can find here: www.nhm.ac.uk/take-part/monitor-and-encourage-nature/nature-recording-hub.html . This aims to be a one-stop shop for beginner recorders who want to learn how to get involved with biological recording. More content is being added soon, including where biological data goes and how to view open access data to help inform your actions for biodiversity.

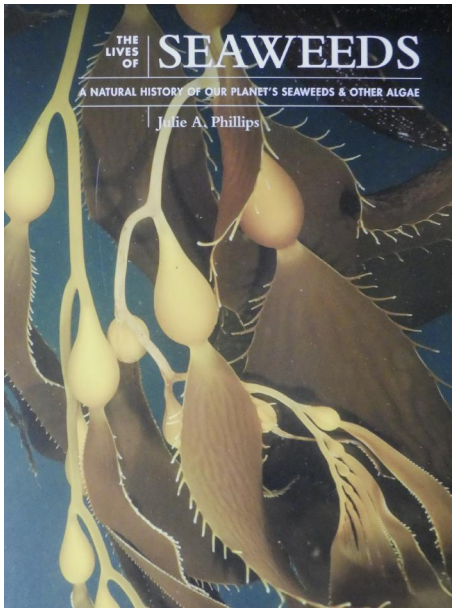
I also told everyone about the new Urban Nature Network which we have just set up to sit alongside the Hub. This aims to connect a real range of people and organisations to share knowledge and resources around monitoring and working to improve biodiversity in urban green spaces. You can find and request to join the Network here: https://the-urban-nature-network.mn.co

We also have a community science project live at the moment called Nature Overheard: www.nhm.ac.uk/take-part/monitor-and-encourage-nature/nature-overheard.html. If you know of groups who would be interested in getting involved with these please pass on the info.

Books Received Anthony Payne

The following book has been received:-

"*The Lives of Seaweeds. A natural history of our planet's seaweeds and other algae*" by Julie A. Phillips (2023). Princeton University Press. HB £30.00, 2188pp. ISBN 0691228558.



A highly informative, profusely illustrated book on algae ranging from unicellular species such as *Euglena* to giant kelp 30 metres long. The Introduction makes it clear that "algae" are not a unified group, but belong to four of the six kingdoms of living things (plants; protozoa; bacteria; chromists). There are chapters on evolution, the structure of algae, reproduction and life histories, ecology and, finally, algae and man.

This is not primarily an identification manual, but dozens of algae are described, including about 50 which receive a double-page spread. Over half of these have a widespread distribution, while the rest are restricted to one ocean or the river systems of one continent.

The colour photographs are surprisingly rich and are supplemented by numerous explanatory diagrams and line drawings.

It is hoped that a full review will appear in a future edition of The Glasgow Naturalist.

Reports from GNHS Members, bursary recipients and friends of GNHS:

Further tales of burnet moths in Scotland — Chris McInerny

Figs 1-2. Transparent Burnet *Zygaena purpuralis* and Slender Scotch Burnet *Z. loti,* Ardmeanach Peninsula, Mull, 17 June 2023. Chris McInerny

Readers of this Newsletter with good memories may recollect two short pieces that I wrote on various species of burnet moths of the genus *Zygaena* in Scotland, published back in July and September 2020. The 'saga' continues here with me having completed the next instalment in June 2023.

The search this time was to locate a much rarer and declining species, Slender Scotch Burnet *Zygaena loti*, only found on the islands of Mull, Ulva and Gometra, though formerly present nearby on the mainland in the Morvern area.

On the weekend of 17-18 June 2023, I travelled to Mull with Lepidoptera-searching friend and moth expert Martin Culshaw, and we walked to the end of the Ardmeanach Peninsula (a 15 km round trip!) to find Slender Scotch Burnet. An initial false alarm of many flying burnets on slopes at the cliff bases were, unexpectedly, revealed to be Transparent Burnets *Zygaena purpuralis* (Fig 1). A few hundreds of this species were seen throughout the day.

However, perseverance paid off and we located about 15 Slender Scotch Burnets on the same lower cliff slopes (Fig. 2), at the flowers of Milkworts *Polygala* sp., Thyme *Thymus* sp., and Bird's-foot Trefoil *Lotus corniculatus*, the latter being the larval food plant.

Many flowering Marsh Fragrant-orchids *Gymnadenia densiflora* were also present, with these found elsewhere on Mull, including near Glengorm Castle at the north end of the island. Here we hoped to locate some more Slender Scotch Burnets, but had no luck. Instead, we found a Northern Emerald *Somatochlora arctica* (Fig. 3), a colony of Beautiful Demoiselles *Calopteryx virgo* (my favourite Odonata), and a few Small Pearl-bordered Fritillaries *Boloria selene* and Dark Green Fritillaries *Speyeria aglaja* (Fig. 4), along with other butterfly and moth species.

Figs 3-4. Female Northern Emerald *Somatochlora arctica* and Dark Green Fritillary *Speyeria aglaja*, Glengorm, Mull, 18 June 2023. Chris McInerny

A lovely visit to a beautiful island.

[The final instalment of the Scottish burnet 'saga' will appear in a future Newsletter when I hope to have seen the last and rarest species of them all - the New Forest Burnet *Zygaena viciae.* Watch this space!]

Ladybirds **Sarah Longrigg**

On Wednesday 1st November, many of us attended the inspiring lecture given by Prof Helen Roy: Documenting and predicting biological invasions globally.

Prof. Roy is one of the co-authors of the Field Guide to the Ladybirds of Great Britain and Ireland, published by Bloomsbury. On 12th October I had been photographing a rather impressive specimen of the slime mould, *Brefeldia maxima,* in a wood between Milngavie and Craigton, and subsequently noticed in one of my photos what appeared to be a ladybird larva, rather blurred as it wasn't the subject of the photo. On checking the guide, I thought it might be a Harlequin Ladybird (*Harmonia axyridis*).

Inspired by Prof. Roy's lecture, on 3rd November I returned for another search and discovered an adult Harlequin Ladybird about 200m away in a different 1km square. As there appeared to be no previous records for this rather unwelcome species near Milngavie, I submitted both of these (and the *Brefeldia maxima*) to iRecord.

My identifications were confirmed by the other co-author of the field guide, Peter Brown, and he directed me to the UK Ladybird Survey (see https://www.coleoptera.org.uk/coccinellidae/home/) and more particularly to https://connect-apps.ceh.ac.uk/targeting_revisits_ladybirds/ where I now have the satisfaction of seeing that my records are the first of any ladybird species recorded in two 1km squares. This inspires me to try and collect more ladybird records in the coming season, and I hope that others may also find this recording scheme rewarding and of interest.

More on Ladybirds **Richard Weddle**

As a footnote to Sarah's account, those who are already using iNaturalist might like to know that Peter Brown also monitors the ladybirds reported there, so they don't need to report them on the UK Ladybird Survey as well, as that would create a duplicate record, giving an erroneous impression of abundance.

In my role with Glasgow Museums BRC, I sometimes encounter records thought to be Harlequins, and it seems that many observers forget (or are unaware) that the Harlequin is distinctly larger than most common ladybirds, with the exception of the 7-spot ladybird. The photo shows a congregation of ladybirds in Glasgow Necropolis prior to hibernation: three Harlequins, three Orange and a Cream-spot ladybird.

Harlequin, Orange and Cream-spot Ladybirds at Glasgow Necropolis, November 2023 (Photo, Craig McEwan)

A Stem-boring fly new to Scotland **Paul Cobb**

On 31st December 2023 at the Polnessan former mine site in Ayrshire I was splitting open stems of Knapweed *Centaurea nigra* hoping to find the rare gallwasp *Phanacis centaureae*. I thought I'd found it, but instead of a gallwasp larva I had a fly pupa.

It turned out to be the first Scottish record of the Agromyzid fly *Melanagromyza oligophaga*, confirmed by Barry Warrington of the National Agromyzidae Recording Scheme, and it is classed as pRDB1.

Agromyzidae are better known for the more familiar (and visible) leaf-mining species, but the family includes other lifestyles. For anyone wishing to know more about Agromyzidae I can recommend the recording scheme's website www.agromyzidae.co.uk

There is in fact a whole world of beasts, in a number of different groups, that live out of sight inside stems of herbaceous plants, and twigs and branches of shrubs and trees, difficult to find and often difficult to identify as well. In Knapweed stems alone there are a further three species of Agromyzidae.

Hair ice **Alison Park**

On 9th January 2024 I was excited to see a spectacular showing of hair ice during my weekly session leading the Health Walk through woodland within Fernbrae Meadows LNR. The formations of fine hair-like strands of ice spreading outwards from fallen twigs looked magical, and really engaged the attention of other walkers in the group. The sightings were all made from the main path and no time was available to search the area more widely. It was interesting to learn from Social Media postings by 'Love Linn Park' that larger examples had been observed in the nearby Linn Park LNR within the same week.

According to the Met Office website the formation of this phenomenon is mostly restricted to latitudes between 45 ºN and 55ºN and requires both specific weather conditions (moist air and a temperature slightly below 0 ºC) and the presence of the fungus *Exidiopsis effusa* on dead wood. Alfred Wegener (the discoverer of continental drift) is attributed as the first recorder of hair ice in 1918. He then proposed that a specific fungus may be the key to the formation of fine ice strands and in 2015 research scientists identified this species as *Exidiopsis effusa.* The ice hairs (measuring around 0.01 mm in diameter) grow out from pores (wood rays) within the woody material through a process that is not fully understood. It is believed that the fungi may possess a protein that has an antifreeze effect preventing ice recrystallisation so that the fine ice strands remain as they were created and are preserved

Hair ice at Fernbrae Meadows taken by Alison Park on 9/1/24

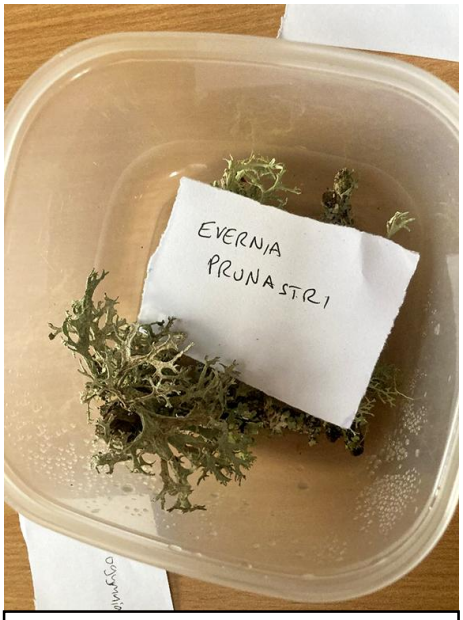
for extended periods even when air temperatures rise.

The Met Office website provides access to a fascinating time-lapse video showing the growth of hair ice. To view it use the link:

https://www.metoffice.gov.uk/weather/learn-about/weather/types-of-weather/frost-and-ice/hair-ice

Note from editor: We saw hair ice in November near Pitlochry at nearly 57 degrees north.

Lichen Course **Anna Redpath (bursary recipient)**



Evernia prunastri

In August 2023 I attended the course "Lichens of Birch and Pine Woodlands" in Glenmore, near Aviemore in Scotland. When I applied for this course I was a recent zoology graduate looking for work. Whilst my degree focussed on animals, I have been learning more about plants and fungi, and how to read the landscape. I wanted to do this course to further my knowledge, and give me a solid basis in a sector of biology that I didn't cover at university. I would not have been able to attend this course without the bursary from BRISC.


Peltigera britannica

I and a group of other, truly wonderful, folk spent a weekend with Petra Vergunst as she taught us all about lichens. The course started with friendly introductions and a broad look at the study of lichens. Petra then had some samples for us to identify, a selection of the most common species found in the area. She drifted between us, answering our questions and helping us understand which key identification features to look for. She had a variety of identification resources for us to use, and stressed the importance of cross-referencing and finding which resources were useful to us individually.


Ophioparma ventosa

Later, we moved outside and applied our new knowledge to the lichen-laden trees and fence posts around the Glenmore car park. Petra pointed out new species and the phenotypic plasticity of the species

that we had already covered. When we returned inside, Petra talked us through the structure of lichens, the different forms and new scientific revelations about their biology. Throughout the presentation, she asked us what we would like to know, and tailored her talk to our interests. The following day, Petra's presentation focused on the what lichens can tell us about the environment, how we can report lichens, and the results of previous surveys. In the afternoon, we set out to Craigellachie National Nature Reserve and had a look for lichens on trees and rocks. We encountered species that we were already familiar with, and some exciting new ones.

Since I applying for the bursary, I have become a trainee ecologist for an ecological consultancy. Now that I know the basics of lichen biology, the most common species, and key identification features to look for, I have a better idea if an area is likely to be of importance to lichens, and if a species is rare or common.

I really appreciated this opportunity to learn for knowledge's sake instead of to pass an exam and to begin a knowledge base that will help me in my career as an ecologist. I will continue to identify species as a part of my job, and I hope to meet up with my friends who are also fascinated by lichens to practise our skills and get lost in the world of fabulous fungi.

Learning the lichens of the pine and birch woodlands

Shaila Rao (bursary recipient)

After more than 20 years of working in the Caledonian pinewoods it was long overdue for me to attend a course on the lichens of the pine and birch woodlands. I signed up for a Field Studies Council course based at Glenmore Outdoor Centre in August and led by a knowledgeable lichen enthusiast Petra Vergunst. The group of eager lichen learners were plunged in at the deep end immediately with a task of pairing up lichen names to lichen samples based on the clues given in the names relating to the lichens characteristics. This was a good introduction into teaching us the need to look very closely at the lichens and their different structures in order to help identification. Petra gave us a fascinating introduction to lichens, outlining how they are not a single organism but a fascinating symbiotic relationship between a fungus and algae and/or cyanobacteria. She also led us through all the lichen structures such as thallus, rhizines, apothecia and cilia and the different types of each of these which are key diagnostic features in identifying lichen species. Finally, we moved on to learning some of the common and characteristic lichens of pine and birch woodland. Quite a lot to take in!!

Usnia sp.

We were all in need of some fresh air and so it was great to venture out around the outdoor centre in the afternoon and spend time looking at lichens growing on the trees and rocks and generally familiarising ourselves

with the tips on how to narrow things down to help identification. On day two it was lashing with rain and so there were no complaints about another morning indoor session. It was great to be able to learn about how lichens jostle and compete with one another on rocks and trees. However, really helpful was an opportunity to look at a range of lichen identification resources and be able to have a go at keying out lichens with the different lichen guides. When the weather picked up we went out into the beautiful Craigellachie birch woodland. It was really interesting to learn that Scots pine and birch support many of the same lichen species as they both have quite acid bark. Whereas species such as rowan and willow have a different and more varied lichen community. After a couple of hours in the birkwood the common species of pine and birch were rolling off our tongues – *Hypogymnia physodes, Parmelia saxatilis, Tuckermanopsis chlorophylla* and *Bryoria fuscescens !* It was a great two days, much learned with a great group of people and thanks to BRISC for funding my attendance. I'm looking forward to trying out my new ID skills back on my home turf at Mar Lodge Estate.

Robroyston Country Park East, 20th July, 2023 **Bob Gray**
Photos by Bob Gray

The evening was cool with occasional gusts of wind from the west for the small group of us in attendance. This was a follow up to last year's visit to the west side of the park. William Wallace was infamously betrayed to English sympathisers in 1305 by Rab Rae, the owner of the local farmhouse, the area of whose farm now encompasses the local nature reserve. The farm, 'Rab Rae's Toun', has given rise to the name Robroyston.

[1] *Populus x canescens* regeneration

[2] *Populus tremula*

In the first quarter of the 20th century mineshafts were dug for the extraction of clay used in the manufacture of bricks. The waste from this process formed red blaes pitches which occupy much of the area. Large and small groups of mainly broadleaved trees and some mixed have been planted to the east and north of these pitches and natural regeneration of many of these trees is taking place. Many seedlings were seen growing on an open area next to the path.
They seemed to be those of grey poplar

[3] *Populus alba*

[4] *Salix alba*

(*Populus canescens*)[1], a stable hybrid of white poplar (*Populus alba*) and aspen (*Populus tremula*). In the woodland behind, mature aspen[2] were fluttering in the breeze making a sound like running water. On the edge of a large area of wet grassland was a copse containing a big phoenix white poplar[3], a collapsed tree from which many shoots were growing vertically and displaying maple like leaves with dense white hairs beneath and on the shoots. White poplar is probably the whitest tree in the landscape and most conspicuous because of that. The same copse contained four big white willows (*Salix alba*)[4] with their lanceolate leaves c. 8 cm long, white downy beneath. On the grassland area grows a solitary, coppiced white willow.

Proceeding along the path we passed some spiny female sea buckthorn (*Hippophae rhamnoides*)[5] shrubs with fruits and a bigger specimen which was a male plant. Near here a guelder rose (*Viburnum opulus*)[6] was fruiting.

[5] *Hippophae rhamnoides*

[6] *Viburnum opulus*

Then we encountered a large row of blackthorn (*Prunus spinosa*) well known for its purple fruits or sloes on our way to the park's southern pond[7]. On its margin we found a common alder (*Alnus glutinosa*) with some female catkins infected with alder tongue galls (*Taphrina alni*)[8]. Its leaves were infected with galls caused by the mite *Eriophyes laevis*[9]. In this same area on the north bank of the pond grow several willows: an osier (*Salix viminalis*)[10] with its distinctive very narrow (1 cm), elongated (to 20 cm) leaves; a goat willow (*Salix caprea*)[11] with pointed leaves abruptly bent sideways; and a crack willow (*Salix fragilis*) with its shiny leaves up to 15 cm long. In addition growing here is, intriguingly, a broad-leaved cockspur thorn (*Crataegus persimilis* 'Prunifolia')[12] with its oval glossy leaves and thorns 2 cm long. On the S side of the pond we came across a

[7] The southern pond

[8] *Taphrina alni* tongue gall

ringlet and meadow brown butterflies. Their identifications were confirmed by Kate Semple who carried out butterfly transects in the park back in June.

Beside the path north of the pond grow about four white willows with abundant snowberry (*Symphoricarpos albus*) beneath. At the junction with the path running N/S grows a number of grey alder (*Alnus incana*)[13] with a group of saplings. Unlike the common alder their leaves are always pointed and toothed and their buds stalked.

[9] *Eriophyes laevis*

[10] *Salix viminalis*

Heading northwards we came to the highest point in the park, from which we could see a roe deer in the distance near the large north pond. We headed farther north passing many goat willows en route towards a number of hybrid willows. These can be tricky to identify as they possess in varying amounts features common to each of their parents. Amongst these we identified goat willow x grey sallow (*S. x reichardtii*) and goat willow x osier (*S. sericans*). Nearby grow an abundance of downy birch (*Betula pubescens*) saplings.

We returned to the viewpoint at 90m from where, looking northwards, we spotted another roe deer. Heading eastwards from here we passed a group of common alder and goat willows that were very tall and drawn. At the edge of this group grows an impressive phoenix white willow. From here looking northwards we had a fine view of a conspicuous Japanese larch (*Larix x kaempferi*)[14], with its blue-green needles, growing through a plantation that included many goat willows and hybrids as well as abundant common alder with occasional sycamore (*Acer pseudoplatanus*) and hawthorn (*Crataegus monogyna*).

[11] *Salix caprea*

[12] *Crataegus persimilis* 'Prunifolia'

We then left the path and headed southwards over rough grassland of mainly tussock forming purple moor grass (*Molinia caerulea*) beside a burn that we crossed when we saw on the other bank a group of

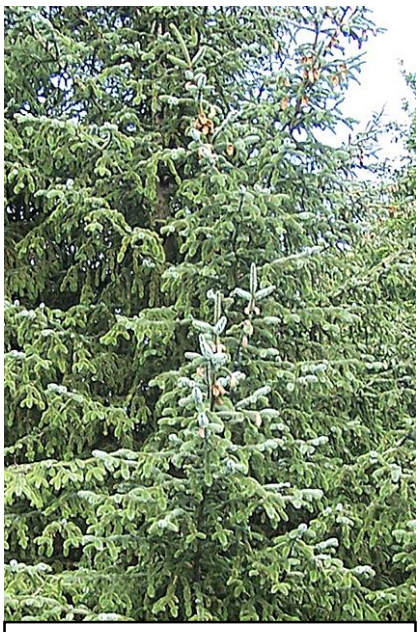
[13] *Alnus incana* unripe cones

Sitka spruce (*Picea sitchensis*)[15] and single giant fir (*Abies grandis*)[17]. Many spruce cones[16] covered the ground but silver fir cones disperse their seeds by disintegrating on the tree. The silver fir was taller than the spruces. No regeneration was visible. In the surrounding mainly broadleaved woodland, John Butterworth found a pedunculate oak seedling.

[14] *Larix x kaempferi*

[15] *Picea sitchensis*

We carried on across the rough ground in the middle of which grew a small but mature pedunculate oak (*Quercus robur*)[18] carrying many acorns borne on its distinctive peduncles[19] or stalks. This oak favours heavy soil, unlike sessile oak that has a preference for more porous ground. Goat willows were scattered to the west of here. Beyond this we came into a small woodland of mixed silver and downy birches with a boundary of common alder. Much of the ground layer consisted of tufted hair grass (*Deschampsia caespitosa*)[20] another indicator of poorly drained clay soil. Within the birchwood the shrub layer included occasional guelder rose (*Viburnum opulus*) shrubs with their three-lobed opposite leaves and a few snowberry (*Symphoricarpos albus*) which grow well on poor soils. Guelder rose is native to Europe, Asia and North Africa: snowberry is native to North America.



[16] *Picea sitchensis* with cones

[17] *Abies grandis* needles

[18] *Quercus robur*

We regained the southbound path and came across on its east side a number of guelder rose shrubs displaying numbers of bright red

[19] *Quercus robur*
acorns on peduncles

fruits developing from flat topped white flowers. A little farther south on the east boundary grow a long group of mixed broadleaves and conifers including a row of ash trees (*Fraxinus excelsior*)[21] infected with ash dieback fungus (*Hymenoscyphus fraxineus*) apart from one, possibly resistant tree. On the edge of the group was a number of the native wayfaring tree (*Viburnum lantana*) with its oval simple leaves and clusters of ovoid red fruits. The group also contained several field maples (*Acer campestre*), the only native maple (apart from possibly the sycamore), with leaves not to be confused with those of the guelder rose. The maple leaves have two more but poorly developed lobes and the guelder rose leaves are softly hairy underneath. On our way back to the group of Norway spruce (*Picea abies*)[22] growing at the northeast gate we passed occasional sycamore, horse chestnut and Sitka spruce.

[20] *Deschampsia caespitosa*

[21] *Fraxinus excelsior*
with ash dieback

This article barely does justice to the sizeable number of different tree species growing within Robroyston Park. Hopefully it has drawn attention to some of the more interesting aspects of the woodlands here, their variety and the considerable amount of natural regeneration which augurs well for the future. The park well deserves its status as a local nature reserve and the north half as a site of interest for nature conservation (SINC). It is also one of the many green spaces in the UK protected under the auspices of Fields in Trust, a charity incorporated by royal charter.

[22] *Picea* abies

Next Newsletter - copy to David Palmar by 22nd March 2024 please.

Thank you very much to all the contributors. Please send contributions by email, preferably as .rtf, .doc or .docx (Word 2007) format. If you have time, please italicise taxonomic names, and use Verdana font, size 12 points.
If sending photos, please submit only a few as separate jpg files (not as part of a Word document), and make them under 100Kb each for emailing).

General Correspondence to the General Secretary:
Alison Park