GLASGOW NATURAL HISTORY SOCIETY NEWSLETTER

August 2011

David Palmar
(Newsletter Editor)

Next Newsletter Deadline
1 October 2011

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

Winter Programme 2011-12

Please note: The Graham Kerr Building is confirmed only for the Exhibition meeting. Venues for future meetings to be confirmed. Costs have risen again, and we are looking at alternatives.

2011
September
Tuesday 20th Exhibition meeting: wine and nibbles
Zoology Museum, 7.30pm. N.B.

October
Tuesday 11th **Before the Tutorial** at 3:30-4:30pm there will be a fungal foray in Glasgow Botanic Gardens, which is where Klotzch did much of his collecting. Meet at the Kibble Palace.
Tutorial: In the footsteps of Frederick Klotzch: fungi and mycologists past and present: Roy Watling. 6.30pm
Lecture: Introduced tree species in Scottish forests: recruits, renegades or refugees? Scott Wilson. 7.30pm.

November
Tuesday 8th **Tutorial**: Working towards a revival of the Clyde Valley orchards. Crispin Hayes. 6.30pm
Lecture: The bats of Scotland and Trinidad: Keith Cohen. 7.30pm
Wednesday 16th **Blodwen Lloyd Binns Lecture:** Plant speciation in action in the UK: tales of the unexpected. Richard Abbott. 5.00pm.
Note time and day

December
Tuesday 13th **Christmas Dinner** in Café Connect, 7pm for 7.30pm. **Please book by 1st November -** See form at end of Newsletter.
Speaker(s): A contrast in expedition locations: Iceland and Peru. David Bradley and Emily Waddell

Remember to look at the GNHS website www.gnhs.org.uk for details of society activities, including for example the changed meeting venues, (when decided).

Excursion Reports

Dams to Darnley Country Park, 9th April 2011 **Adrian Sumner**

A dozen or so enthusiastic recorders turned up in the car park of the Ashoka Restaurant on what was easily the warmest day of the year so far, for a day recording, mainly the molluscs of this site. Although the excursion was intended in part as a follow-up to an indoor training course on molluscs held in February, only one person who was on the course was actually able to come; though for all those who came it was a useful opportunity to learn practical field skills for finding and identifying slugs and snails.

We started at the north end of the site, and soon found a variety of slugs and a few snails under various sorts of debris by the track leading through the woods. Among the slugs were *Arion owenii* and *Arion flagellus*, both relatively recently recognised species which seem to have their Scottish headquarters in the west, but which are now spreading widely. A bit further on we came to the Mill Pond, dating from the days when the site was industrial. Here we found a variety of freshwater species, ranging from the big duck mussels (*Anodonta anatina*) down to the minute Nautilus ramshorn snail (*Gyraulus crista*), and only 2 mm in diameter. A less welcome sighting nearby, however, was a mink, nestbuilding, about which we later informed the Countryside Rangers.

More woodland and ponds followed, until we reached a seat above the Flood Pond ('BTCV Pond') just at the right time for lunch. This pond didn't look too promising, with a traffic cone and a lack of marginal vegetation at this time of year, but in fact proved to be a real gem, with no less than 19 species in or by it. Particularly interesting were a couple of snails from dead vegetation washed up beside the pond: *Euconulus alderi* and the Shiny glass snail *Zonitoides nitidus*, examples of terrestrial species that have adapted to a virtually amphibious life. Also here, and in many other places, was the Dwarf pond snail *Lymnaea truncatula*, notorious as the carrier of liver fluke, though as there were no sheep on site one hopes it may have been free of infection.

Moving on to the woods of Waulkmill Glen, we continued to find more species, including the introduced Worm slug *Boettgerilla pallens*, first found in Britain in 1972 and which has now spread virtually everywhere; fortunately it does not cause any harm. A sample of the leaf litter in the wood produced numerous examples of the minute Slender herald snail, *Carychium tridentatum*; not unusual, but easily overlooked. However, we didn't find the River limpet *Ancylus fluviatilis* in the Brock Burn nearby; rather surprisingly, as it has previously been reported from the burn, and the water looked reasonably clean.

Altogether a most successful day, with a very respectable total of 41 species recorded, of which about 14 appear not to have been recorded there previously (Richard Weddle has the full details). Even so, there are several more species for which the site looked suitable, and which may therefore turn up in the future.

Receiving Newsletters by email saves GNHS distribution costs, and allows you to see photos in colour. If you haven't already done so, please send the Society your email address - info@glasgownaturalhistory.org.uk and indicate that you wish to receive Newsletters by email. Thank you.

Birds and Photography at Scene, East Loch Lomondside Rowardennan, NS376960, 15th May 2011 **George Paterson**

Emzi extracting a Blue tit chick from a nest box for ecological research

A good day was had by all during the excursion. The rain pretty much managed to stay away with only a few midges making an appearance later on. During the morning we were lucky enough to be shown the contents of a few nest boxes near the centre by two students (also GNHS members), Emzi Frater and Lowell Mills, involved in a project to monitor the progress of the chicks and eggs. These included Blue tit (*Cyanistes caeruleus*) and Great tit (*Parus major*), and also Pied flycatcher (*Ficedula hypoleuca*). The students let us take shots of the chicks and eggs while pointing out key differences in size and colouration, in particular differences between the Blue and Great tit eggs.

Wood warbler singing

Walking away from the centre towards the shore of the loch we were lucky enough to be joined by a Wood warbler (*Phylloscopus sibilatrix*) for a good 15 minutes or so enabling us to get a number of good quality shots.

Common sandpiper

On reaching the shore we initially heard, but couldn't see, a Common sandpiper. However, a bit of patience, and hiding in the trees, allowed us to get within about 10 metres of the bird and take many wonderful and atmospheric shots as it skipped along the shoreline looking for food with waves gently breaking on the shingle. It repeated this process a number of times seemingly unaware of or unconcerned by our presence.

Heading back towards the centre we again saw Wood warbler, but also a Blackcap (*Sylvia atricapilla*) which was in the scrub near the shoreline. Unfortunately we weren't able to get a shot before it disappeared.

Despite the challenging conditions (overcast) we were able to take some pretty impressive shots. Many thanks must go to our leader David Palmar for this who was able to pass on his expertise on low light shooting – notably the use of aperture priority and exposure composition in different scenarios to get the clearest sharpest results.

Can't wait for the next lesson!

Muiravonside Country Park, Saturday 25 June 2011 Edna Stewart

The weather forecast had been for rain, but changed for Saturday, so that by the time we reached the park, the rain stopped, and it remained dry. There were only three of us from the GNHS, but we were joined by Roy Sexton, who knew the park well, and was able to lead us to a meadow full of Greater Butterfly Orchids (*Platanthera chlorantha*) and Common Spotted Orchids (*Dactylorhiza fuchsia*). He gave us practical demonstrations of the way different insects pollinate different species of orchids. The various methods had been predicted by Darwin, entirely theoretically. Roy maps the position of each GBO using his GPS and transfers the data to his computer, so that he can compare the movements of the orchids from year to year.

We made our way down to the wooded banks of the River Avon, and found Sweet Woodruff (*Galium odoratum*), Sanicle (*Sanicula europaea*), Wood Sedge (*Carex sylvestris*), Wood Millet (*Mileum effusum*) and other woodland plants. Several patches of Lily-of-the-valley (*Convallaria majalis*) were found, but we did not know whether they were of native or garden origin.

We stopped at a small pond higher in the woods and found Reed Canary Grass (*Phalaris arundinacea*), Bottle Sedge (*Carex rostrata*), Broad-leaved Pondweed (P*otamogeton natans*), Yellow Iris (*Iris pseudoacoris*) and Common Duckweed (*Lemna minor*).

We then climbed up the wooden steps to gain access to the Union Canal and the aqueduct which carries it high above the River Avon – the view was worth the effort. The plants of the canal and the hedgerow beside the towpath gave us other habitats and species.

BSBI Pondweeds (Aquatic Plants) Weekend, 1-4 July 2011, Kindrogan Keith Cohen

Jim McIntosh, the BSBI Scottish Officer arranged this session for BSBI local recorders, but filled up a few spare places with other BSBI members including me. We were a small but sociable group of very mixed experience and ability; some like me had never identified a pondweed, while others were looking for expert mentoring.

Shetland Pondweed, *Potamogeton rutilus*, showing its 'stiff' brown leaves

The tutor, Nick Stewart, has a wide knowledge and experience of aquatic plants, as well as a great ability as a communicator; we all benefitted hugely from his enthusiasm. Site visits on the three days took us to a range of excellent lochs from Atholl to Blairgowrie, where we saw many species of *Potamogeton (P natans, P rutilus, P polygonifolius, P berchtoldii, P gramineus, P perfoliatus, P alpinus, P crispus)* plus a common hybrid *(P x nitens*).

Incidental investigations were made of a range of other aquatic and emergent plants, including stoneworts, spike-rushes, water-milfoils, sedges, shoreweed, waterworts, and quillwort. Samples were collected for comparison in the lab, where Nick also laid out samples he had brought of some southern and scarcer species (*P lucens, P coloratus, P filiformis*). The lab sessions, with keys and microscopes provided, were very helpful. Nick also gave an intriguing presentation about Stoneworts, and may well have made a few new converts to this interest.

Jim rounded off the weekend by encouraging us each to visit a local loch or pond and do some recording to practice our new skills; and to help gather records, of course! The weekend acted as a taster for the week-long course that Nick will be running next summer at Kindrogan - I highly recommend it!

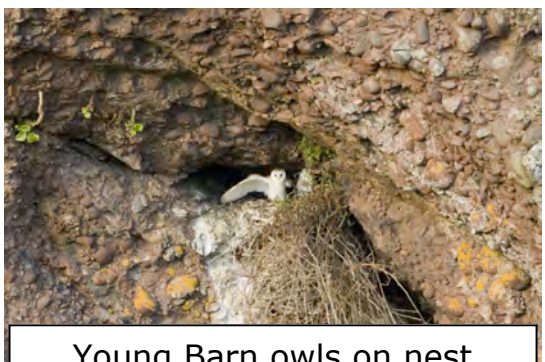
Nick Stewart and BSBI group at Drumore Loch SSSI

Arran 16-17 July 2011 **Anne Orchardson**

On Glasgow Fair Friday, eleven of us made our way to Arran and met up in the evening in readiness for a forecast wet weekend. At 9.30 am the next morning we were picked up by Corinna Goeckeritz, the depute National Trust Ranger at Brodick Country Park, her colleague Jo, our minibus driver for the day, and Jim Cassels, our guide for the day, who is the bird recorder for Arran (www.arranbirding.co.uk/). Our tour was to take us round the northern part of the island, with stops at sites of particular interest.

Our guides Jim, Corinna and Jo

Despite a wet start, and fears that the weather would reduce our sighting opportunities, the day unfolded magnificently. While the main focus was birds, every time we stopped there were chances to see plants, butterflies, other insects.



Young Barn owls on nest

The day had been planned well by Jim and Corinna, but their plans were enhanced spectacularly by the appearance of wildlife at the right time: Hen harriers hunting over moorland, young Barn owls on a nest, soaring Golden eagle being mobbed by Herring gulls, a herd of red deer on a hillside, Common blue butterfly, Six-spot burnet moth, Sand martins nesting colony,

Sundew plants in peat bog, Arran Whitebeam at the Visitor Centre, etc. (see end of article for a list of species seen).

Adult Sand Martin landing at nest to feed young

In addition, throughout the trip we were given many pieces of interesting information about the island. For example there are no Rooks or Magpies on Arran; there are five Golden eagle territories on the island; the owner of the sand quarry at Sannox is not allowed to dig during the breeding season to allow the Sand martins to rear their young.

Two events stick in my mind as epitomising the luck of the day. Driving along the west coast at Dougarie, we saw a Red-throated diver. Jim was describing how their style of diving differs from that of a Cormorant or Shag, when, amazingly, there next to each other were the diver and a shag. First the diver dived in its quiet way of sinking into the water, then the shag followed, with a small leap and splash - perfectly demonstrated! A bit further along the road Jim warned Jo (the driver) that the house round the corner kept Peacocks and they are often in the road. As we rounded the bend, there in the gateway of the house was a male Peacock proudly displaying his magnificent tail! Right on cue!

The final surprise in store for us was arranged by Corinna: she had rescued three baby Pipistrelle bats which had fallen from a nearby colony, and was hand-rearing them until they were big enough to release back to the wild. They were a bit shy of coming out into the light, but they emerged sufficiently for us to see them clearly. The day was rounded off by an excellent meal in Brodick, and, for some of us, a pleasant evening stroll along the shore - until we were driven back by the ubiquitous midges!

Young Pipistrelle bat being hand reared

GNHS members examining Judith Baines' moth trap

On Sunday the forecast was still for showers, though we had a dry start. We headed south to the home of Judith Baines at Dippen who was to show us the moth trap she had set overnight, and then to have a walk round her adjacent wild flower meadow, before heading for the coast at Kildonan for a shore walk and whatever we might find - when the tide is right there is a seal colony here.

This turned out to be another wonderful visit in unexpected ways. Judith was extremely hospitable to us. She had laid out her folders of moth photos showing all the moths she has caught in her trap over the last three years. For those of the group who are not used to the immense variety of moths we have in Scotland, this was quite an eye-opener, and a really good introduction before

inspecting what might have visited the trap overnight. There was a real mix: from the relatively plain to the spectacular (see list). For those who had never seen a moth trap, the excitement of discovery and the wonder of the variety and beauty was a revelation.

Following a cup of coffee we went for a wander around the field, where we found more invertebrates and interesting plants as well as enjoying the wonderful views south to the sea. The visit having lasted longer than we had expected, we ate our packed lunch in Judith's conservatory before making our way to Kildonan for a short walk. Common seals were basking on a rocky point. We found an interesting patch of salt-marsh plants as well as other flowers to be expected along the shoreline.

As we returned to the ferries, the rain started. We had experienced a marvellous weekend with a great variety of wildlife to suit all interests, new discoveries, excellent company and, surprisingly, lovely weather! Thank you Arran!

ARRAN SPECIES LIST

Birds

Buzzard
Hen harrier
Swallow
House Martin
Sand Martin
Ringed Plover
Heron
Curlew
Oystercatcher
Shelduck (family)
Barn owl (on nest)
Red throated diver
Shag
Herring gull
Red breasted merganser
Black guillemot
Rock pipit
Great tit
Blue tit
Hooded crow
Jackdaw
Carrion crow
Golden eagle

Plants (in addition to Edna's list below)

Perforated St John's Wort
Valerian?
Arran Whitebeam

Butterflies

Common Blue
Meadow Brown
Ringlet
Small White

Other

Parasitic wasp
Yellow spider?
Earwig
Soldier fly
Grasshopper
Brown-lipped snail
Hoverflies: there were 10 species in all
Soldierflies (and allies): four species
Shieldbugs: Forest Bug (*Pentatoma rufipes*)

Beetles

Red Soldier-beetle
Burying-beetle (*Nicrophorus vespilloides*)
Long-horn beetle (*Leptura quadrifasciata*)

Mammals: Common seal

Moths

In moth trap at Dippen:

Six Spot Burnet
Garden Tiger
Scalloped Oak
Dotted Clay
Lesser Swallow Prominent
Large Yellow Underwing
Plain golden Y
Dark Arches
Triple Spotted Clay
Iron Prominent
Beautiful Golden Y
True Lover's Knot
Pebble Prominent
White Ermine
Buff Ermine
Spectacle
Grey Arches
Flame

Common Rustic Mottled Beauty Silver Y
In meadow/heath at Dippen:
Straw Dot Smoky Wainscot

In the porch of Belvedere Guest House:
Flame Carpet Middle-barred Minor
Riband Wave

Plants **Edna Stewart**

Hedgerow and damp places

Hemlock Water-dropwort	*Oenanthe crocata*
Wild Angelica	*Angelica sylvestris*
Hogweed	*Heracleum spondylium*
Smooth Hawk's-beard	*Crepis capillaries*
Greater Bird's-foot-trefoil	*Lotus pedunculatus*
Bell Heather	*Erica cinerea*
Red Campion	*Silene dioica*
Selfheal	*Prunella vulgaris*
Meadow-sweet	*Filipendula ulmaria*
Marsh Woundwort	*Stachis palustris*
Oval sedge	*Carex ovalis*

Bog

Cross-leaved Heath	*Erica tetralix*
Round-leaved Sundew	*Drosera rotundifolia*
Bog Asphodel	*Narthecium ossifragum*
Star Sedge	*Carex echinata*
Bottle Sedge	*Carex rostrata*
Hare's-tail Cotton–sedge	*Eriophorum vaginatum*
Common Cotton-sedge	*Eriophorum angustifolium*

Seashore

Sea Radish	*Raphanus raphanastrum* ssp *maritimus*
Perennial Sow-thistle	*Sonchus arvensis*
Sea-milkwort	*Glaux maritime*
Sea Campion	*Silene uniflora*
Sea Rocket	*Cakile maritime*
Wild Carrot	*Daucus carota*
Bladder Campion	*Silene vulgaris*
Sea Sandwort	*Honkenya peploides*

Grassy shore

Cut-leaved Crane's-bill	*Geranium dissectum*
Lesser Trefoil	*Trifolium dubium*
Harebell	*Campanula rotundifolium*
Common Bird's-foot-trefoil	*Lotus corniculatus*

Saltmarsh

Common Scurvygrass	*Cochleria officinalis*
Sea Arrowgrass	*Triglochin maritimus*
Saltmarsh Rush	*Juncus gerardii*
Sea Club-rush	*Scirpus maritimus*
Sea Aster	*Aster tripolium*

Froglife's Living Waters Project **Eilidh Spence**

Froglife has just celebrated its second year of completing project work in Scotland and would like to thank Glasgow Natural History Society for its kind support through these projects. Over the past busy two years eighteen ponds have been created and 21 restored in Glasgow. Already, only eight months into the expansion to North Lanarkshire, a further thirteen ponds have been created and one undergone restoration work.

Roger Downie examining his pond-dipping net at Robroyston

Project staff have provided the GNHS with opportunities to learn more about standing open water habitats and surveying, ecology and identification of amphibians in Scotland. Members of GNHS assisted on a night survey at Robroyston LNR in April and were lucky enough to come across possibly the best breeding populations of smooth newts (*Lissotriton vulgaris*) in the city.

Smooth newt caught at Robroyston

Key to the success of Living Waters is working with volunteers and local communities surrounding sites and Froglife have being working towards this in a variety of ways. Throughout Glasgow and North Lanarkshire staff have communicated with over 6,159 members of the public at events, 170 people at talks or workshops, and interacted with 1232 school children on environmental education themes focused primarily on amphibians.

The contribution of volunteers towards habitat work, surveys, events, educational days and many more activities is incredibly valuable to the success and achievements of the project. Over 391 dedicated volunteers have assisted the project to reach its targets and to increase awareness of amphibian and reptile conservation in Scotland. Froglife's Scotland team would like to take this opportunity to thank everyone that has volunteered for, and supported the Living Waters project in the past and into the future.

Froglife's website http://www.froglife.org/ is packed with facts and information on amphibians and reptiles and how you can help conserve them.

Freshwater Algae ID Course at Kindrogan Field Centre Lesley Gregg

Thanks to a bursary kindly provided by Biological Recording in Scotland and Glasgow Natural History Society I was able to attend the Freshwater Algae course provided by the Field Studies Council at Kindrogan, their only centre in Scotland.

As BTCV Natural Talent Headwaters Apprentice I have looked at the effect of heavy metal mine drainage on the diversity of the flora and fauna of headwater streams. I wanted to study algae and this meant I had to go further afield to get to grips with this fascinating group of plants. I took a course back in February on diatom identification, provided by University College London which was ideal for my project as I was studying diatoms, but I wanted to get a broader understanding of freshwater algae and not be restricted to looking at cleaned preserved material. I also thought the course would greatly benefit my CV as it would demonstrate my interest in the subject and how I wanted to advance and develop my skills which is really important for beginners.

The benefit of the FSC course is that it covered all forms of algae. The two tutors had their own area of expertise; Elliot Shubert (green algae) and Eileen Cox (diatoms), and I learned so much from them in such a short space of time, it really was intensive.

Each day, teaching lasted from 9am until 9pm. On two of the evenings there were opportunities for each of the attendees to give an informal presentation of the work they were focusing on. I really enjoyed finding out the range of applications of the course and how different everyone's background was, it was a really useful way to use the time. We spent two of the days in the field collecting samples from ponds, rivers, streams, lakes and…walls. The huge variety of different types of algae was fascinating. Reds, greens, blues, browns, yellows and violets and all these were found in and around the Pitlochry area or in the grounds of the centre itself. In total we identified 158 different taxa representing all of the major groups of freshwater algae, a truly amazing figure for a small group of enthusiasts that knew very little before the course began.

When you hear about algae in the news it is normally just about the harmful algal blooms "HABs" or the cyanobacteria "blue-greens", like the one spotted on Loch Lomond back in April, but what I learned from this course is the tremendous importance of algae and why they are such a valuable group to study - mainly because they are the base of the food chain, they are indicators of environmental change, both past and present and have a future importance in pharmaceuticals, but predominantly because they are a measure of biodiversity!

Unfortunately biodiversity and record keeping bias is towards plants and animals that you can see with the naked eye. The only algae on the Red List are macroscopic marine algae. The general attitude is: "If you can't see it, it must not be important" but this course has definitely highlighted the importance of algae and yet simultaneously the lack of recording. I would recommend to anyone wishing to study algae to go on this course. It was the perfect introduction for any level and I thoroughly enjoyed getting to know the small group of attendees and trainers but also the huge group of algae species!

Some notes:
Algae are a large group of simple non-flowering plants containing chlorophyll but lacking true stems, roots, leaves, and vascular tissue, e.g. the seaweeds and many single-celled forms.

Diatoms are microscopic unicellular algae which grow in a wide range of habitats in damp soils, lakes, rivers and seas. Extremely common in almost all freshwater and marine environments they are excellent ecological indicator species sensitive to acidity, nutrients and salinity. Since they have a short life cycle they respond quickly to changes in conditions.

Modern communities are used by environmental scientists for monitoring water quality especially in relation to the problems of acidification and eutrophication. Diatoms are also preserved well in many lake and marine sediments and thus can be used to reconstruct past conditions in a range of timescales from decades to tens of thousands of years.

Here I am collecting phytoplankton (taken by Amanda Bamford, course attendee).

[Lesley was the recipient of one of four bursaries awarded by BRISC and GNHS; one of the conditions of the bursary is that the recipient writes an account of their experience for publication in the BRISC and GNHS newsletters (Richard Weddle)]

Bugnet Alert! **Robin Jones**

With the advent of summer, and in anticipation of our Robroyston NR meeting, I duly sought my butterfly net, which had lain beside my fungi collecting basket on the floor of my bedroom.
I had, as usual folded it away for the winter by wrapping the net around the poles and tubing that fit together to make a kite net. However, upon reaching the place, while the poles and tubing were as left, with rubber band around them, there was no sign of the net, but I was sure I had left it wrapped around the poles as always.

Then I had a horrifying thought. My flat, like many homes these days I am told, harbours a population of Carpet beetles. These consume dry organic matter of all kinds and effectively act as 'dustmen' removing crumbs and other debris that should find its way onto the floor. I often encounter the adult brown beetles of approx. 1 cm long - rather like click beetles in appearance - and find all sizes/stages of the furry brown larvae when moving mats or furniture etc. and even crawling around in the open upon switching the light on at night. Could they have found my cotton bug net an appetising prospect?

Looking closer, I did see some slight sign of frass and shed skin of probable larval stages. To my dismay, I realised that the insects had indeed consumed my net during the winter months. There is something ironic in having one's means of catching insects, itself being consumed by insects. It might be viewed as poetic justice! There is also a moral here - if your bug net is made of natural fibres and your home has Carpet beetles, don't leave your net on the floor over winter! What next? My fungi basket?

GNHS Christmas Dinner – 7 for 7.30pm, Tue 13th Dec 2011
Cafe Connect, 348 Cathedral St Glasgow G1 3BX

Stornoway Black Pudding and Bacon Salad

Melon Fans with Orange and Strawberry Pieces + Passion Fruit Syrup

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Beef Olives with Whisky + Wholegrain Mustard Jus

Chicken Supreme with Tomato + Tarragon Cream Sauce

Homemade Fish Cakes with Tartar Sauce

Fried Rice Stuffed Peppers with Tomato Sugo

(All Served with Vegetables and Potatoes)

Apple Crumble with Raspberry Custard

Mixed Berry Pavlova

Carrot Cake with Orange Cream

Printouts of this menu and booking form will be available at the lectures, to allow you to make your choice and keep a copy for yourself.

Bookable *by 1st November please* by sending a cheque for £23 per head payable to GNHS to Janet Palmar.

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Name(s) (please print) ……

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Address……

Phone no……

Cheque enclosed for £……