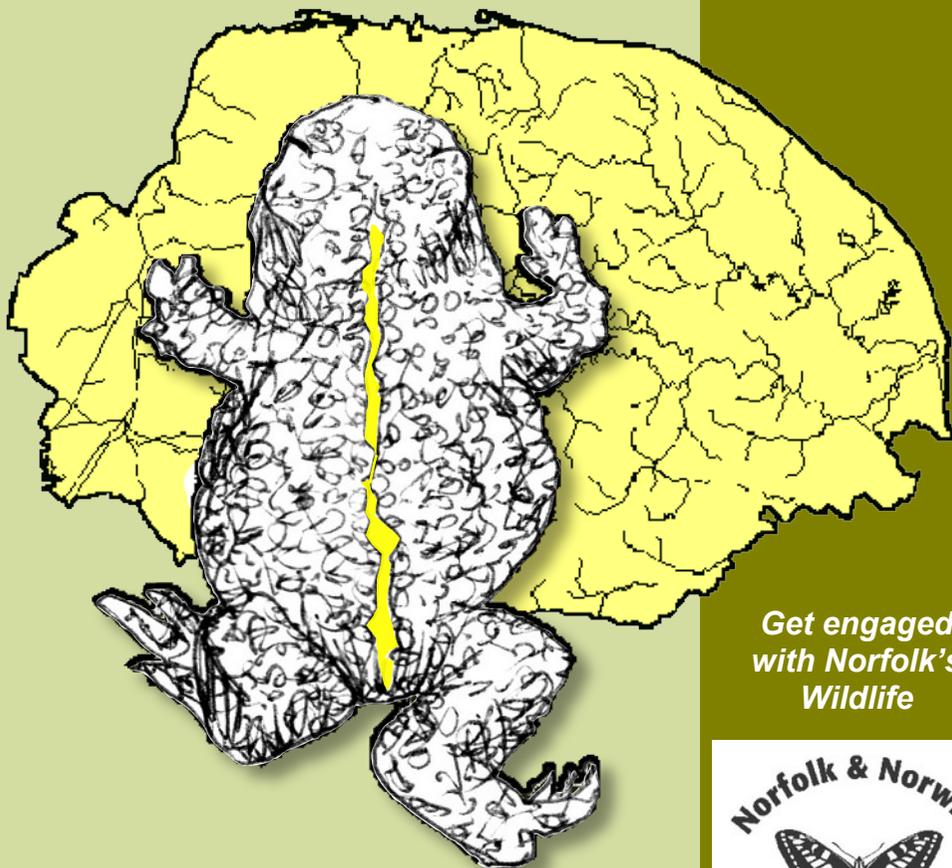


The Norfolk

AUGUST 2012
Number 118

Natterjack



Get engaged
with Norfolk's
Wildlife



The quarterly bulletin of the
Norfolk & Norwich Naturalists' Society

www.nnns.org.uk

Norfolk & Norwich Naturalists' Society

Founded 1869

Reg. Charity No. 291604

Officers of the Society 2011/2012

President: Norman Sills.

Vice Presidents: Dr. R.E. Baker, P.R. Banham, Mrs. M.A. Brewster, A.L. Bull, D.A. Dorling, R.C. Hancy, P.W. Lambley, D.L. Paull.

Chairman: Dr. N.W. Owens, 22 Springfield Close, Weybourne, Holt, NR25 7TB.
Tel. 01263 588410. E-mail: nick@nickowens.wanadoo.co.uk

Secretary: Ms. D.L. Cheyne, Wood House, Free Lane, Ditchingham, Bungay, NR35 2DW.
Tel. 01986 894277.

Assistant Secretary: F.J.L. Farrow, "Heathlands", 6 Havelock Road, Sheringham, NR26 8QD.
E-mail: francis.f@virgin.net

Treasurer: D.I. Richmond, 42 Richmond Rise, Reepham, Norwich, NR10 4LS.
Tel. 01603 871000.

Assistant Treasurer: M Stew, Sandpipers, The Street, Kelling, Holt, NR25 7EL.
Tel 01263 588604

Membership Committee: Dr. N.W. Owens (address above).
Secretary: M. Stew, (address above).

Programme Committee: S.M Livermore, 70 Naseby Way, Dussindale, Norwich, Norfolk, NR7 0TP.
Tel. 01603 431849. E-mail: stephenl@btinternet.com
Secretary: Dr. S.R. Martin, 3 St. John's Close, Hethersett, Norwich, NR9 3DQ.
Tel. 01603 810327. E-mail: srmartin@uk2.net

Publications Committee: Dr. A.R. Leech, 3 Eccles Road, Holt, NR25 6HJ.
Tel. 01263 712282. E-mail: leech@dialstart.net
Secretary: P.W. Lambley, The Cottage, Elsing Road, Lyng, Norfolk, NR9 5RR.
Tel. 01603 872574 E-mail: Plambley@aol.com
Editor, Transactions: S. Harrap, 1 Norwich Road, Edgefield, Melton Constable, NR24 2RP Tel 01263 587736 E-mail: simon@norfolknature.co.uk

Editors, Bird & Mammal Report: (*Birds*) A. M. Stoddart, 7 Elsdon Close, Holt, NR25 6JW
(*Mammals*) Dr DI. Leech, % BTO, The Nunnary, Thetford Norfolk IP24 2PU. E-mail: dave.leech@bto.org

Research Committee: R.W.Ellis, 11 Havelock Road, Norwich, NR2 3HQ.
Tel. 01603 662260. E-mail: bob@elymus.demon.co.uk
Secretary: Mrs M.P.Ghullam, 5 Beech Drive, Cromer Road, North Walsham, Norfolk NR28 0BZ.
Tel. 01692 402013. E-mail: mylia@btinternet.com

Council:

Retiring 2013: A. Brazil, Dr R. Carpenter, G. Coupland, S. Paston, S. Perkin, H. Watson

Retiring 2014: G. Carrick

Retiring 2015: N. Gibbons, D. White, T. Kemp, M. Fielden



Articles with the camera symbol have associated photographs in Nats' Gallery (centre pages)

Norfolk & Norwich Naturalists' Society Recorders

Mammals

- General Dr Dave Leech BTO, The Nunnery, Thetford, IP24 2PU
E-mail: dave.leech@bto.org
- Badgers John Crouch 2, Chestnut Cottages, Guton Hall Lane, Brandiston,
Norwich, NR10 4PH E-mail: norfolkbadgers@yahoo.co.uk
- Bats John Goldsmith Barn Cottage, Wheelers Lane, Seething,
Norwich NR15 1EJ E-mail: john@aurum-ecology.co.uk

Birds

Dave & Jacquie Bridges 27, Swann Grove, Hempstead Road,
Holt, NR25 6DP E-mail: dnjnorfolkrec@btinternet.com

Reptiles & Amphibians

John Buckley 77, Janson Rd, Shirley, Southampton, SO15 5GL
E-mail: john.buckley@arc-trust.org

Fish

- Freshwater Dr Martin Perrow ECON, Norwich Research Park, Colney Lane,
Norwich, NR4 7UH E-mail: m.perrow@econ-ecology.com
- Marine Rob Spray & Dawn Watson 1 Town Houses, Yoxford Rd, Sibton,
Saxmundham, Suffolk IP17 2LX
E-mail: hello@seasearcheast.org.uk

Insects

- Butterflies Andy Brazil 68, Albany Road, Great Yarmouth, NR31 0EE
E-mail: recorder@norfolkbutterflies.co.uk
- Moths Jim Wheeler Iveygreen, Town St., Upwell, Wisbech, PE14 9AD
E-mail: jim@norfolkmoths.org.uk
- Beetles Martin Collier Hillside Cottage, Syleham, Eye, IP21 4LL
E-mail: collierm.beetles@virgin.net
- Mayflies Francis Farrow Heathlands, 6, Havelock Road, Sheringham,
NR26 8QD E-mail: francis.f@virgin.net
- Bumblebees / David Richmond 42, Richmond Rise, Reepham, Norwich, NR10 4LS
Grasshoppers & Crickets E-mail: richmond.42rr@btinternet.com
- Lacewings, Sponge & Wax flies, Antlions, Alder flies, Snake flies, Scorpion flies & Snow flea
Paul Cobb 34, Staithe Road, Heacham, King's Lynn, PE31 7EE
- Aphids Dr J I T Thacker 38, Gladstone, Street, Norwich, NR2 3BH
E-mail: jit@caleopteryx.com
- Dragonflies Dr Pam Taylor Decoy Farm, Decoy Rd, Potter Heigham,
Gt Yarmouth, NR29 5LX E-mail: BDSPamTaylor@dragonflysoc.org.uk
- Parasitic Hymenoptera Graham Hopkins 15, Matlock Road, Norwich, NR1 1TL
E-mail: hopkinsecology@yahoo.co.uk
- Solitary Bees & Wasps Tim Strudwick 16, Beech Way, Brundall, Norwich,
NR13 5ND E-mail: timstrud@tiscali.co.uk
- Ants Doreen Wells 1, Cobden Terrace, Northgate Street,
Gt Yarmouth, NR30 1BT E-mail: wells_doreen@hotmail.com
- Hoverflies Stuart Paston, 25 Connaught Road, Norwich, NR2 3BP
E-mail: stuartpaston@yahoo.co.uk
- Other Insects Dr Tony Irwin Natural History Dept., Shirehall, Market Avenue,
Norwich, NR1 3JQ E-mail: tony.irwin@norfolk.gov.uk

Spiders & Harvestmen

Phillip Collyer, 9 Lowther Road, Norwich, NR4 6QN
E-mail: pipcollyer@yahoo.co.uk

Woodlice & Pseudoscorpions

Dick Jones 14, Post Office Rd., Dersingham, King's Lynn,
PE31 6PH E-mail: rej@johalpinjones.eclipse.co.uk

Centipedes & Millipedes

Freshwater Molluscs

Dr Roy Baker 126, Pelican Row, Norwich Rd., Tacolnston,
Norwich, NR16 1AL E-mail: annbaker7@btinternet.com

Marine Invertebrates (incl. Molluscs)

Rob Spray & Dawn Watson 1 Town Houses, Yoxford
Road, Sibton, Saxmundham, Suffolk IP17 2LX
E-mail: hello@seasearcheast.org.uk

Galls Rex Hancy 124, Fakenham Road, Taverham, Norwich, NR8 6QH
E-mail: ardea@andricus.fsnet.co.uk

Vascular Plants

East Norfolk Bob Ellis 11, Havelock Rd., Norwich, NR2 3HQ ,
E-mail: bob@elymus.demon.co.uk
West Norfolk Richard Carter 367 Doddshill, Dersingham, King's Lynn, PE30 4DJ
E-mail: rcarter@rsk.co.uk

Mosses & Liverworts

East Norfolk Mary Ghullam 5, Beech Drive, Cromer Road, North Walsham,
NR28 0BZ E-mail: mylia@btinternet.com
West Norfolk Robin Stevenson 111, Wootton Rd., King's Lynn, PE30 4DJ
E-mail: crs111@talktalk.net

Algae

Marine Rob Spray & Dawn Watson 1 Town Houses, Yoxford Rd, Sibton,
(Seaweeds) Saxmundham, Suffolk IP17 2LX E-mail: hello@seasearcheast.org.uk

Lichens

Peter Lambley The Cottage, Elsing Rd., Lyng, Norwich, NR9 5RR
E-mail: plambley@aol.com

Fungi

Dr Tony Leech 3, Eccles Road, Holt, NR25 6HJ E-mail: leech@dialstart.net

Other Taxa

Martin Horlock Biodiversity Information Officer, R301 County Hall, Martineau
Lane, Norwich, NR1 2SG E-mail: martin.horlock@norfolk.gov.uk

Special interest groups

NNNS Photographic Group:

B D Macfarlane, 10 Peregrine Road, Sprowston, Norwich, NR7 8JP
Tel 01603 408647 E-mail: david.brian.macfarlane@gmail.com

For NNNS Microscopy enquires:

S M Livermore, 70 Naseby Way, Dussindale, Norwich, NR7 0TP
Tel 01603 431849 E-mail: stephenl@btinternet.com

Other *Special Interest Groups* have been formed to bring together those interested in studying particular groups. They are not part of the NNNS but have similar aims to the Society.

Norfolk Amphibian & Reptile Group: P Parker, White Row Cottages, Leziatle Drove,
Pott Row, King's Lynn, PE32 1DB Tel 01553 630842
E-mail: philipparkerassociates@btconnect.com

Norfolk Bat Group: J G Goldsmith, The Barn Cottage, Seething, Norwich, NR15 1EJ
Tel 01508 550003 E-mail: john@aurum-ecology.co.uk

Norwich Bat Group: S Phillips E-mail: info@norwichbatgroup.org.uk

Norfolk Flora Group: S Harmer / R Carter, 67 Doddshill, Dersingham, King's Lynn, PE31 6LP.
Tel 07711870553 / 07711870554 E-mail: sharmer@rsk.co.uk / rcarter@rsk.co.uk
R W Ellis, 11 Havelock Road, Norwich, NR2 3HQ
Tel 01603 662260 E-mail: bob@elymus.demon.co.uk

Norfolk Fungus Study Group: Dr A R Leech, 3 Eccles Road, Holt, NR25 6HJ
Tel 01263 712282 E-mail: leech@dialstart.net

Norfolk Lichen Group: P W Lambley, The Cottage, Elsing Road, Lyng, Norwich,
NR9 5RR Tel 01603 872574 E-mail: Plambley@aol.com

Norfolk moth Survey: K G Saul, Albion, Main Road, Filby, Gt Yarmouth, NR29 3HS
E-mail: kensaul@stone-angel.co.uk

Norfolk Spider Group: P Collyer, 9 Lowther Road, Norwich, NR4 6QN
Tel 01603 259703 E-mail: pipcollyer@yahoo.co.uk

Norfolk & Suffolk Bryological Group: Mrs M P Ghullam, 5 Beech Drive, Cromer Road,
North Walsham, NR28 0BZ Tel 01692 402013 E-mail: mylia@btinternet.com
C R Stevenson, 111 Wootton Road, King's Lynn, PE30 4DJ
Tel 01553 766788 E-mail: crs111talktalk.net

Toad-in-the-hole....

Even if the weather hasn't produced the summer we were hoping for the strange mix has induced some spectacular shows of Bee Orchids and certainly for the coastal strip brought some exotic visitors in the form of Red-veined Darters in early July.

My thanks to those contributors and photographers who have sent in material, especially Steven Martin, who has written up two of the Societies excursions. We also have from Colin Dunster a definitive guide to the Samphire tribe, including a comment on which one not to eat!

FF

It's a MIRACLE...

Nick Elsey

About 20 years ago I moved into a ground floor flat overlooking a most unpromising looking garden with its ubiquitous lawn and border.

In an attempt to bring some form of wildlife into my daily view, I decided that a pond was needed. I hadn't reckoned upon the vast root system from the nearby mature wood criss-crossing the whole area. Digging was nigh on impossible and the only pre-fabricated pond that I ever 'planted' was established after a lot of hard work and the realisation that I wouldn't be doing that again.

I decided that another way to create a wetland area was to use any water tight container I could lay my hands on. With this method I would be able to manage a range of environments from pots of acid soil, in which now Bog Myrtle happily grows, to others where Water Soldiers flower. During the winter months there are buckets, dustbins, flowerpots and troughs to look at, but they all soon become hidden as the planted native vegetation regrows in the Spring. Over the years, all manner of wildlife has arrived and made its home in this natural/un-natural environment.

Periodically, I have found what I know as Horsehair Worms, probably *Mermis sp.* To the vegetable gardener they are known as 'cabbage worms'. I found reference to them in Peter Marren and Richard Mabey's fascinating book 'Bugs Britannica'. It explains how some of the members of this Nematode family parasitize ground dwelling invertebrates. When it is time, the larva sends a signal for the host to seek out water and drown its self, so that the worm may hatch! Whenever I find one, it has been free swimming in a clear water container, but I had never seen any evidence of the host.

However, this Easter Monday I found a 12cm long reddish-brown specimen with a ground beetle *Pterostichus madidus*, floating nearby on the surface. Attempting to photograph the nematode proved futile, so I gathered up the dead beetle. On returning to my study I left the beetle on some tissue paper, so it would dry out. I could then examine it under the microscope. I was hoping that I would be able to find an exit hole in its body from which the worm had hatched. After about 10 minutes I saw the 'dead' beetle slowly coming back to life. Within 5 minutes it was up and running around inside my upturned pot.

Because of the date of this observation, I was tempted to rename the beetle *Pterostichus lazarus*!

Grasshopper hunters on Kelling Heath

Nick Owens



I have been attempting to photograph two wasp species of the genus *Tachysphex* which hunt grasshopper nymphs on Kelling Heath. The larger of the two, *Tachysphex pompiliformis*, is about 12mm long with an orange upper abdomen. I photographed this in June 2010, dragging a large Field Grasshopper nymph up some gorse twigs (see photo). The grasshopper has been paralysed by the wasp, and is placed on a high point (perhaps to avoid the attentions of ants according to Fabre) while the wasp makes a hole in which to place it. The grasshopper is then retrieved, dragged into the hole and an egg laid on it. The growing larva feeds on the paralysed grasshopper. I did not see all this sequence however.

Tachysphex nitidus is a less common species about 8mm long with an all-black body. In June 2011 I found it on some bare ground on the heath and took a specimen for identification. This June, I returned to look for it and found it occupying a spot where rabbits habitually place droppings. This has turned into a patch of fine soil in which Mottled Grasshoppers breed. In early June the newly hatched grasshoppers were there in abundance. The behaviour of the wasp was rather like a spider-hunting wasp: the wasp rushed about in a zig-zag pattern making occasional small flights. This behaviour may serve to flush grasshoppers which are then attacked. I noticed a couple of paralysed grasshoppers together on top of some low plants. A wasp soon approached these and dragged one of the grasshoppers to some bare ground. It then adjusted the prey so that it was head first and legs upwards. At this point the wasp, rather surprisingly in view of the size of the prey, took flight, presumably taking the prey to a nest hole (see photos).

Eye's Down Looking

Colin Jacobs

In the late winter of 2011 my personal life crashed and I found myself in a bed sit in Lowestoft, During that time my Leica binoculars, 'scope and Fuji camera were stolen in a burglary.

In the spring of 2012 I moved to Norwich and began my studies on Mousehold Heath, a few metres from my new home. It was strange being unable to take my "Bins" with me but I was loaned an Olympus digital camera, so at least I could take photographs again.

It was now a new experience and a very new approach to nature that I had to get used to. Letting my eyes fall to below my sight line or level with it instead of looking up and or searching for birds. My walks are always what I call general nature walks but unless I heard bird calls and songs I recognised, no birds were searched for.

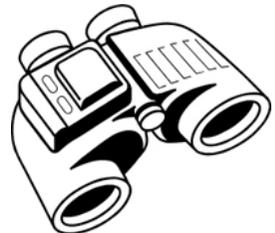
One morning in March I found Goat Willow *Salix caprea* flowers playing host to Honey Bees *Apis mellifera* and several bumblebees. I netted some and photographed the unknowns and recorded the ones I did. Known were Red-tailed Bumblebee *Bombus lapidarius*, Queens and White tailed Bumblebee *B. Lucorum*.

Next I walked up to the Vinegar Pond to check on the frogs and found a colony of mining bees but they were so busy I was unable to identify or even get close to photographing them.

There also seemed to be some wasp-like bees attempting to get in the nest holes but again no images just a few notes on them to see if I could match them to my books.

On the way home I found the Forest Cuckoo Bee *Bombus sylvestris*.

I know now that I would have ignored these had I had my binoculars as I would have been side tracked into looking for birds, nests or even butterflies. Perhaps losing my 'comfort blanket' steered me in the right direction and when I can afford some new binoculars I might, just might leave them at home occasionally.



Cley visit

Brian Macfarlane



This year has been a nightmare regarding getting to see any wildlife because of a problem with one of my legs. I did manage to visit Cley one afternoon about a month ago, and got as far as the Daukes hide. Bird life was fairly sparse, and I had hoped to see more young birds about. I immediately noticed several families of Avocets running around on a small island to the left of the hide. It was fairly calm most of the time, but if any bird landed near to them they were quickly seen off by the various parents. A Shelduck decided to push its luck, and was continually chased on the ground until it decided it would be better to leave. Later a Little Egret landed nearby in the water near some chicks, and all hell let loose. Although a lot smaller, the Avocet flew straight at it several times trying to spike it with its bill. A very brave ploy when you consider the size of an Egret's bill. It too could have speared the Avocet. Eventually the Egret thought better of it and retreated. Bird behaviour is very interesting to watch, and all sorts of species have the same determination to defend their young.

I enjoyed the afternoon, but after three hours sitting in the hide, and having got very cold with the wind in my face I decided make tracks for home. As I spend day after day with my leg elevated wishing I could get out there, I am relieved to see the torrential rain hammering against the window, and thinking well at least I'm in the dry. Well look on the bright side, there is always next year!

A Journey North

Tony Howes



We spent a week in N.E. Scotland last month (May) around the region of Inverness. One of the highlights was visiting Chanonry Point on the Moray Firth, probably the best place in the U.K. for watching Bottle-nosed Dolphins. Two hours after low water they began showing up, sometimes just a few yards from the shore, the attraction of course are the fish that start coming in with the tide. The dolphins here are some of the biggest known of the species and can reach four metres in length.

The Osprey watch point at Loch Garten was somewhere else we visited. The camera set up covering the nest showed them off well on the monitors inside the observation hide, but they were a long way off, too far to get decent images with my camera. However, I did manage to photograph Red Squirrels nearby, not looking their best due to moulting, but lovely to see them. Many birds, including Siskins and woodpeckers were coming to the feeders outside.

On the same day I went on to Loch Ruthven, renowned as one of the few waters that attract Slavonian Grebes to breed, only a few lochs in the area have breeding pairs, they have never expanded since they were first found in the early 1900's. They are beautiful birds in their breeding plumage, sometimes known as the 'Golden-eared Grebe'.

We came across the body of a Pine Marten on the side of a road near Elgin, these are still rare creatures in Scotland, a great shame this gorgeous animal had been killed by a vehicle.

And, finally, a myth was laid to rest, I now know the Loch Ness monster is a reality, I have seen it with my own eyes??



Spotted Flycatcher *Carol Carpenter*



I returned from a short holiday in early June to find that a Spotted Flycatcher had built a nest, balanced on a rose trellis, on the wall of my house. As I write, she is sitting on 5 eggs and presumably has a good food supply from the insects on and around the large Lime tree nearby. She frequently sits on the top of an apple tree stump that seems to be her favourite perch. I have managed to obtain photographs quite easily from my bedroom window. I hope by the time you read this that the young have fledged although weather conditions and local cats may be against her. I have lived in this house for more than 30 years and have never known this here before. I count it a great privilege that in these years of declining numbers she has decided to lodge with me.

Photographing Hares *Alan Dixon*



I have been trying to photograph hares for a couple of years now, on a farm near Bawdeswell. They are very tolerant of people lying on the ground and can be approached to within 10 metres or less by crawling. The hare in the snow, for example, was taken after crawling across the snow covered ground for about 150 metres and waiting nearly an hour for it to stand up! Alternatively, I use a chair hide which is much more comfortable but has the disadvantage of always looking down slightly onto the subject. They were all taken with a Nikon D300 and a 300mm lens, occasionally with a 1.4x teleconverter.

AMAZING SAMPHIRES – their adaptation and identification

Colin Dunster



August is an ideal time to begin looking at this much neglected group of plants because by the end of the month they will be beginning to flower and, within a few weeks, will develop their characteristic mature shapes and colours that enable an attempt to be made at identification. Samphires or Glassworts, as they are often called, are contained in two genera, the perennial *Sarcocornia* (one species) and the annual *Salicornia* (5 species, although some say 7, and a hybrid). These plants have a partly deserved reputation for being difficult to identify but it would be a pity to ignore them on this account for, as the title suggests, they are truly remarkable. They represent a striking example of extreme evolutionary adaptation to one of the harshest environments in Britain. Some have the ability to cope with the toxic hypersalinity of the upper saltmarsh, resulting from evaporation of fresh water and infrequent irrigation by tides, while others are pioneer species of the intertidal zone where the force of tide and currents and the shifting and scouring of sand and mud present a formidable problem for land plants.

These segmented vegetable worms of the shore seem to have neither leaves nor flowers, although they in fact have both, and to understand the way they survive and flourish in such a hostile environment it helps to consider their evolution and structure. They are members of the Goosefoot family, the *Chenopodiaceae*, and like many plants in that family they are halophytes, that is they are able to live in an environment permeated with salt by means of both physical and biochemical adaptations. These plants started their evolutionary life as something resembling a typical Goosefoot such as Fat Hen and over time the pairs of opposite leaves have become fused at their edges and to the stem and have grown succulent to produce the familiar Samphire structure. In fact the free upper margin of the leaves can just be seen as a narrow scarious border below the cyme. The structure is effective at storing fresh water, minimising evaporation and providing low resistance to the force of the swirling tides. The flowers, which are single or in cymes of three, depending on species, have been absorbed into the structure and flattened flush with the stem and are now seen as slightly irregular discs with a tiny tri-radiate slit in the centre representing the division of the three tepals. The flowers do not open in the normal way but a (usually) single stamen is partially exerted through the slit and sometimes a stigma also at a different time. The flowers are mainly cleistogamous, that is self fertilised within the flower. This bestows these plants with another advantage on a shifting foreshore in that a single seed is sufficient to start a new colony. During September and October Samphires take on a whole range of autumn colours as their soft parts mature and the seeds ripen. These seeds are not, however, shed at this stage but are retained within the flower cavities of the woody inner stem until the final breakdown and decay of the green outer covering is well advanced. Thus the seeds are kept together until the last possible moment,

helping to protect them from being swept away by the tides and, probably, also from predators such as Skylarks, Teal and Brent Geese which love nutritious Samphires at least as much as we do. Finally the seeds themselves, which are produced singly in each flower, are large, heavy and covered with hairs giving them the best chance of hanging on until their roots can anchor them in the mud or sand. I do not think that anyone could deny that this amounts to a pretty impressive piece of evolution!

Identification to species level is not for the faint-hearted nor for the pedantic kind of botanist who insists on being able to track down every single plant using exclusive characters in dichotomous keys. The problem is that these plants have precious few obvious physical features and those that there are alter progressively throughout the growing season. They are also notoriously variable, even within a species in a limited area, and it is therefore necessary to employ tactics akin to detective work using subjective attributes such as plant shape, mature colour and habitat to supplement physical clues. Habitat in this case means a particular zone within the saltmarsh recognised by its level above low water mark and its characteristic vegetation. Each species has a distinct preference for a particular zone and plants growing outside it will tend to be stunted or atypical and so it is useful to become familiar with the plant populations of the succession from dry land to the lower tide line. The golden rule is never to attempt to identify individual plants out of context. Always choose a homogeneous group plants in a single habitat and then work on two or three typical plants from that group. Until some experience is gained do not attempt to identify Samphires before they have taken on their mature stem shape and colour – late September is usually about right. The drawings and the photos that follow will, I hope, be of help but there is no substitute for time in the field looking at the real thing.

Perennial Glasswort *Sarcocornia perennis*. This is the first one to eliminate and, fortunately, that is easy. The wiry woody perennial stock and frequent non-flowering shoots separate this species from the annuals but beware a covering of sand or mud which may obscure the base. In doubtful cases the arrangement of the three flower discs, which are almost in line rather than in a triangle is definitive (Fig 1a page 8). A plant of the upper levels of the shore, usually on raised sand or mud banks or the edges of channels but occasionally scrambling among Cord-grass at lower levels where it looks most untypical. Frequent and often overlooked. Not good to eat.

Purple Glasswort *Salicornia ramosissima*. This and the next species are closely related members of the *S. europaea* group although, in practice, they look very different and occupy distinct niches in the saltmarsh. The keys in traditional Floras distinguish this group as having the central one of the three flower discs larger than the laterals and “beaded” or convex sided stem segments. They

certainly are almost always convex (Fig 1b below) but the differences from the *S. procumbens* group (below) are not always as clear cut as they suggest. The leaf tip below the flowers with its narrow scarious margin is bluntly pointed, often forming a right angle. The *S. europaea* group can have segments with sides that are anywhere between slightly convex to positively knobby! In practice this problem is usually resolved if the character is used in conjunction with others such as shape, colour, zone etc. Purple Glasswort is a specialist of the highly saline upper saltmarsh or even on dry land within the spray zone. It can turn up outside its preferred zone, usually singly or in small numbers, on any part of the shore when it can appear in a number of confusing forms so remember the golden rule. When it develops its intense all over purple colouration this species is unmistakable. When green, the short terminal spike gives it a distinctive “stag headed” appearance and the lower segments often turn yellow before the purple colouration develops. Abundant on almost all shores.

Common Glasswort *Salicornia europaea*. The second member of the *S. europaea* group and similar to the Purple Glasswort in general structure although it tends to have less convex segments. It differs in being a taller, green, more elegant plant with a much longer terminal spike. It colours, fairly late in the season, to a yellowish green and sometimes develops a pinkish red tinge but never the intense colour of the Purple Glasswort. Common Glasswort occupies the deeper mud of the central zone below the classic plant community of Saltmarsh Grass, Sea Lavender, Thrift etc. It often forms a monoculture or can be accompanied by Cord-grass in the deeper pools. Common in suitable habitats.

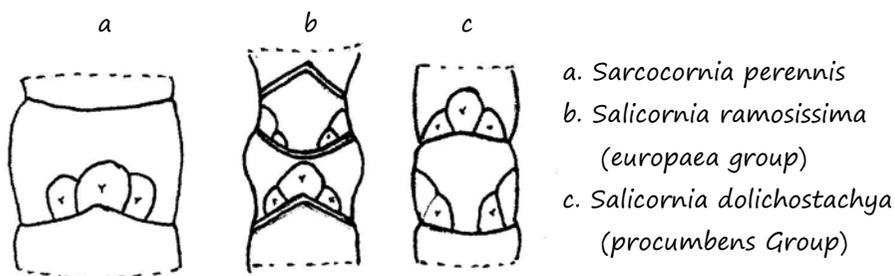


Fig. 1 *Sarcocornia* and *Salicornia* fertile segments

Yellow Glasswort *Salicornia fragilis*. This and the next species, the Long-spiked Glasswort, constitute the *S. procumbens* group, a name which describes their low, densely tufted habit, quite unlike the erect, branched *S. europaea* group. The sides of the segments are never strongly concave, although they may appear slightly so late in the season. The flower discs are more or less equal in size and the leaf tip below the flowers is truncate instead of bluntly pointed (Fig 1c above). These two

species are primary colonisers of the lowest area of the shore where other vascular plants scarcely venture. The Yellow Glasswort prefers a slightly more raised site and where the mud has formed hummocks and runnels it will be found on top of the hummocks with the Long-spiked Glasswort in the gullies. The two species usually look quite distinct from one another although there are often some confusing intermediate plants which may or may not be hybrids. The Yellow Glasswort has a rather short terminal spike and stubby, cylindrical branches which never taper towards the end. The light green plants mature to a clear yellow and form a zone which can be seen at a considerable distance. Common only on the north Norfolk coast.

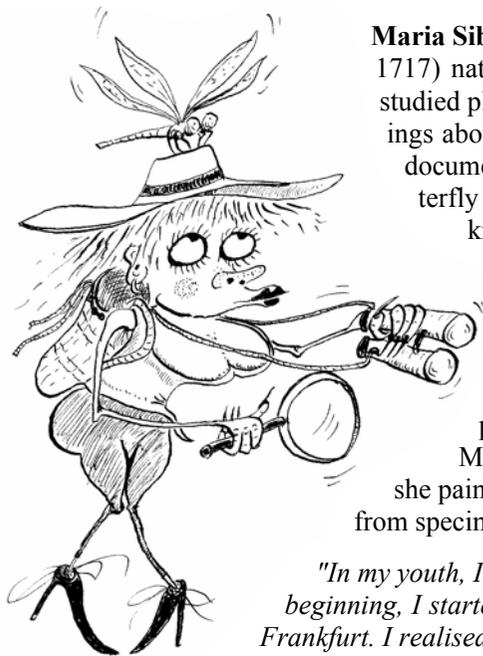
Long-spiked Glasswort *Salicornia dolichostachya*. The structure of this true pioneer is generally similar to that of the Yellow Glasswort but it can easily be separated by its long tapering terminal and lateral branches. It matures to a buff colour and finally to ginger-brown. Its preferred habitat on the lowest areas of the shore pioneer is generally similar to that of the Yellow Glasswort but it can easily be separated by its long tapering terminal and lateral branches. It matures to a buff colour and finally to ginger-brown. Its preferred habitat on the lowest areas of the shore is more restricted than that of the previous species but it is reasonable common on the north Norfolk coast and around Yarmouth.

One-flowered Glasswort *Salicornia pusilla*. As the only species with a single flower disc on each side of the stem, this one ought to be easy. Unfortunately, there are considerable complications involving hybridisation with the Purple Glasswort in places where it shares the habitat of the rich upper saltmarsh turf. In areas such as Morston and Stiffkey hybrid swarms are common and they can be found with flowers in any combination of one, two or three, even on the same plant. These plants are slender and shortly branched and usually take on a yellow colouration on the lower segments and a rosy red on the flower discs and shoot tips. To complicate matters there is another greener, more branched, lax form of this plant, always with single flowers, which is frequent along the edges of channels among the sands of Blakeney Harbour and it may be that this is the pure species. A nice research project in the making!

It may be noticed that I have ignored two species which are described in most Floras, the Glaucous Glasswort *Salicornia obscura* and the Shining Glasswort *Salicornia nitens*. Experts, including a former BSBI *Salicornia* referee, have doubted the existence of these forms as separate species. I have found individual plants which match the Flora descriptions exactly but which, on close examination, could equally well be slightly aberrant forms of a different species. Until good colonies of each can be found and vouched for, I do not think they should be on the County list.

SOME GREAT LADY NATURALISTS

Francis Farrow



Maria Sibylla Merian (2 April, 1647 – 13 January, 1717) naturalist and scientific illustrator. Maria studied plants and insects and made detailed paintings about them. Her detailed observations and documentation of the metamorphosis of the butterfly make her a significant, albeit not well known, contributor to entomology. Maria was born in Frankfurt, Germany, into the family of Swiss engraver and publisher Matthäus Merian the Elder. Her father died three years later and in 1651 her mother married still life painter Jacob Marrel. Marrel encouraged Maria to draw and paint. At the age of 13 she painted her first images of insects and plants from specimens she had captured.

"In my youth, I spent my time investigating insects. At the beginning, I started with silk worms in my home town of Frankfurt. I realised that other caterpillars produced beautiful butterflies or moths, and that silk worms did the same. This led me to collect all the caterpillars I could find in order to see how they changed".

In 1665 Maria married Marrell's apprentice, Johann Andreas Graff and the family moved to Nuremberg. While living there, Maria continued painting and studying insects, particularly the lifecycle of caterpillars and butterflies. The scholars of the time believed that insects came from "spontaneous generation" of rotting mud. Against the prevailing opinion, Maria studied what actually happened in the transformation of caterpillars into butterflies. She took note of the transformations, along with the details of the chrysalises and plants that they used to feed themselves, and illustrated all the stages of their development in her sketch book.

This book of sketches turned into her first book, the first edition of which was sold in 1675 at the age of 28 under the title - *New book of flowers*. In 1678 her second daughter was born, and one year later she published another book called - *The Caterpillar, Marvellous Transformation and Strange Floral Food*. In this book she presented the stages of development of different species of butterflies along with the plants on which they fed. In 1699, at the age of fifty-two, with her parents dead and husband divorced she was sponsored along with her youngest daughter by the City of Amsterdam to go to Surinam (a recently acquired Dutch Colony) to study South American flora and fauna. Maria worked in Surinam for two years, travelling around the colony and sketching local animals and plants. She succeeded in discovering a whole range

of previously unknown animals and plants in the interior of Surinam. Maria spent time studying and classifying her findings and described them in great detail. Her classification of butterflies and moths is still relevant today. She also recorded local native names for the plants and described local uses. In 1701 malaria forced her to return to Netherlands. In 1705 she published a book about the insects of Surinam, using the Linnaeus classification of natural species. In 1715 Maria suffered a stroke and was partially paralysed. After death in 1717 her daughter published a collection of her mother's work, posthumously.

Eleanor Glanville [*née* Goodricke; *other married name* Ashfield], (c.1654–1709), entomologist. Eleanor found herself a very rich woman in her own right having inherited several properties, including Tickenham Court in Somerset where she established her home. Problems with her husband and children seem to have encouraged stories in the local neighbourhood of her insanity, or at least eccentricity, not helped by her interest in collecting butterflies (a practice thought very odd). Eleanor had begun her interest in butterfly collecting at an early age, but started to make a serious collection soon after separation from her husband. Collecting insects became an obsession and she paid her servants to collect for her.

Eleanor became a correspondent of James Petiver, a London apothecary, naturalist, and insect collector, Joseph Dandridge, silk-screen printer and owner of one of the finest butterfly collections of the time, and the botanist Adam Buddle, whom she described as a cousin. They introduced her to other naturalists with whom she exchanged information. Petiver used many of her specimens and information received from her in his great work *Gazophylacium naturae artis* (1703). He described *Callophrys rubi* (Green Hairstreak) from her specimens and gives her credit in his text. Many of her butterflies and moths provided new records for Britain, including the now famous Glanville fritillary (*Melitaea cinxia*).

Sarah Bowdich Lee (*née* Wallis) (10 Sept., 1791 - 22 Sept., 1856) was an English author, illustrator, traveller, zoologist, botanist, and pteridologist. An Essex girl, born in Colchester, married Thomas Edward Bowditch, the naturalist in 1813. She shared her husband's interests in nature, travel, and adventure. In 1814 Thomas was employed by the Royal African Company, and Sarah and their infant daughter soon sailed to join him in 1816 - a voyage that included a mutiny. But when Sarah arrived at Cape Coast Castle in Ghana, she learned that her husband had briefly returned to England. Undaunted, she used the time to begin documenting local natural history. Sarah was the first European woman to explore tropical western Africa. In 1819 they went to Paris to visit, the naturalist, Baron Cuvier. In 1823 on their final trip to Africa, they visited Madeira on their way, but her husband died on the Gambia river on 10th January 1824. Left with three children she struggled to support her family as an author. In 1826 she married Robert Lee and in subsequent years published under the name "Mrs. Robert Lee." Of her numerous works perhaps Sarah's greatest single achievement is *The Fresh Water Fishes of Great Britain*, a project that made the most

of her rare gift for artistic, scientific observation. The detail and accuracy of her hand-painted plates – are still studied by naturalists today. She painted each fish from life, and employed a painstaking technique that employed watercolours and gold and silver foil to replicate the shimmer of the scales. In 1854 she was granted a civil list pension of £50 per year. In 1856 she died at Erith while visiting her daughter Eugenia.

Catharine Parr Traill (*née* Strickland) (9 January, 1802 – 29 August, 1899) Settler, teacher and naturalist. Catherine was born in Rotherhithe, Kent, however, her father, Thomas Strickland, retired as manager of the Greenland Docks on the Thames and removed his family to Norwich. While he maintained a small residence in Norwich in conjunction with his new business interests, he rented Stowe House, a farm in Suffolk, near Bungay, overlooking the pastoral Waveney valley. It was here that Catharine's most vivid memories of childhood were formed. Later they moved to Reydon Hall near Southwold. In 1832 she married Lt. Thomas Traill and the couple emigrated to Upper Canada and settled near the Otonabee River close to Peterborough. Together they had nine children between 1833 and 1847. At this time, in a magazine called the *Horticulturist* (Albany, N.Y.) she found, albeit briefly, an outlet for her writings on flowers and the natural world.

It was not, however, until years after Thomas Traill's death that she had the opportunity to collaborate with her widowed niece Agnes Dunbar FitzGibbon who was a skilled illustrator of flowers. Agnes not only taught herself lithography but secured publication by John Lovell in 1868 of *Canadian wildflowers*, to which she contributed the illustrations and Catharine the text. The book was sold by subscription and went through at least four editions. The collaboration resumed years later when, in 1884, Agnes, then Mrs Chamberlin and settled in Ottawa, undertook negotiations for publication there of Catharine's fullest nature work, *Studies of plant life in Canada; or, gleanings from forest, lake and plain* (1885). This led to praise of her descriptive skills as "one of the greatest botanical triumphs which [anyone] could achieve." Though she was not a critical scientist she brought a passion to her study that has won her considerable admiration.

Mary Henrietta Kingsley (13 October 1862 – 3 June 1900) Explorer and writer. Mary was born in Islington, London, the daughter of a well-travelled medical doctor. The family moved to Cambridge in 1886. Following her parent's deaths within a few weeks of each other in 1892 Mary was free to travel and took a brief trip to the Canary Islands, which left her wanting more. She was searching for a purpose and decided to travel to West Africa to follow up on some of her father's projects. Some doctors and scientists who advised her to stay home suggested that if she were to go anyway, she could help them by collecting specimens of fish and plants, which she did. Mary fearlessly explored areas that no white person had ever been to before. She rowed a canoe up the Ogowe River in Gabon and was the first woman to climb Mount Cameroon, an active volcano with a summit of 13,435 feet /4095 metres.

Of all the plants and fish specimens she brought back, three fish species were previously unknown and named after her. In 1899, the intrepid adventurer went back to Africa, this time looking to collect freshwater fish from the Orange River in South Africa. When she arrived in Cape Town, the Boer War was going on. She worked as a journalist and a nurse in Simon's Town but died of Typhoid while nursing prisoners on June 3, 1900, when only 38, and at her insistence, was buried at sea.

Margaret Fountaine (16 May, 1862 - April 21, 1940) Traveller and butterfly collector. The Fountaine family into which Margaret was born was one of the oldest families in Norfolk. Margaret was a woman of many talents, and she could have been an artist or a singer. When she visited Damascus for the first time in 1901, and met a young Syrian man, Khalil Neimy, who was her guide, translator and eventually her 'partner' for 27 years. The couple's many journeys to collect butterflies took them to places including Algeria, the Caribbean, Central America, the Far East, Turkey, India and the USA. They also spent a disastrous period of nearly three years in Australia trying to farm in the rainforest of Queensland. In the international world of entomology Khalil became accepted as her companion on her trips, and she always referred to him in the papers she wrote for entomological journals. Her first article, on Sicilian butterflies, was published in the journal *'The Entomologist'* and the Natural History Museum in London added 44 of her butterfly specimens to its collections. Her huge collection of 22,000 butterfly specimens was left to the Norwich Castle Museum is called the Fountaine-Neimy Collection. After Khalil died in 1928 Margaret travelled in the Amazon, and found two new butterflies, which she allowed to be named after him.

Margaret was an exceptionally courageous and talented woman who travelled the world, collecting in sixty countries on six continents for over fifty years, and became an expert in tropical butterfly life-cycles, while coping with an extremely complex emotional life. In 1940, at the age of 78, she died, while collecting, of a heart attack on the slopes of Mount St. Benedict in Trinidad.

How far removed are these courageous and dedicated women from Kevin's modern humorous take on the lady naturalist. I am sure that Queen Victoria's immortal phrase 'We are not amused' would soon come to mind if they could see such a portrayal! Such strong, determined and purposeful women of science should not be forgotten, and yet, if it hadn't been for the quirky drawing I would never have gone looking and found these great lady naturalists!



Glanville Fritillary

Norfolk & Suffolk Bryological Group Meetings 2012-2013

Beginners are always very welcome - the only equipment needed is a handlens (x10 or x20) and some paper packets (old envelopes are fine) for collecting specimens. Meetings begin at 10.30am and will only be cancelled if there is snow or hard frost. The Norfolk and Suffolk Bryological Group (a sub-group of the British Bryological Society) is an informal interest group with no formal status or legal identity. All attendees at the events set out in the annual programme participate in those events entirely at their own risk and no responsibility for any injury loss or damage shall lie against the organisers of the events. The distribution of the programme of events is not intended to and does not form any contract or any other legal relationship between the organisers and the participants.

Saturday 6 October 2012 – Kettlestone Fen and Little Ryburgh Common. Mixed habitats though lots of fen/carr/wet woodlands. Turn north off A1067 near Langor Bridge TF 961293 and park in pull-ins on roadside by the wood.

Sunday 21 October 2012 – NNNS Workshop at Wheatfen Reserve Study Centre, Surlingham (car park at TG 324056). Support of all bryologists would be much appreciated. Please note that the workshop runs from 10.00 – 4.00 (early start).

Saturday 3 November 2012 – NNNS Beginners' meeting led by Mary Ghullam at Buxton Heath. Dry and wet heath, calcareous fen. Meet at car park TG 170214 – turn east off Holt Road at TG169212 and the track to the car park is to the north of the minor road after c.150m.

Sunday 18 November 2012 – Houghton Hall, north of A148. Park at Home Farm TF 786278, south of road, in yard behind house.

Saturday 1 December 2012 – Recording in South Norfolk on a mixture of public footpaths, quiet road verges, churches and field margins. Meet & park at Alburgh Church car park TM 271873.

Sunday 16 December 2012 – East Wretham Heath, with two fluctuating meres and a substantial area of heath, as well as mature woodland, scrubland and open water with marshy grassland. Park TL 913886, just off A1075.

Sunday 6 January 2013 – Hunstanton Park, parkland with a big area of woodland and the proximity of Ringstead Downs if need be. Pass Old Hunstanton church, turn east-north-east for 300m then south for 200m. Park just outside park gate at TF 693418.

Saturday 19 January 2013 – Dinosaur Adventure, Weston Longville. Turn south at the crossroads in Lenwade, then take first left into signed Dinosaur Adventure. Park in main car park.

Sunday 3 February 2013 – Mousehold Heath, an important area of dry heathland on the edge of Norwich. Park at Zak's Diner, Gurney Road at TG 244101 (just north-east of the Mousehold Avenue turn-off).

Saturday 16 February 2013 – Pynkney Estate at Helhoughton – joint meeting with Cambridge Bryologists. Wet and dry woods, wet grassland. Park on field margin on north side of road just west of woodland at TF 854273.

Saturday 23 February 2013 – Marsham Great Wood (immediately north of Buxton Heath). Forest Enterprise woodland. Turn north-east off brown road and meet in car park TG 174232 which is c.150m on north side.

Sunday 10 March 2013 – Old Buckenham Mere and Fen. Turn off Hargham Road at TM 042911, take first right and park opposite Poplar Farm at TM 047916, though we may move on from there depending on water levels. Possible visit to the Askew Agricultural Museum too.

Saturday 23 March 2013 – Minsmere RSPB reserve, Westleton, Suffolk. Reedbeds, lowland wet grassland, shingle vegetation and lowland heath (and a café). Meet in main car park.

British Bryological Society Recorders:

Robin Stevenson, 111 Wootton Road, King's Lynn PE30 4DJ. 01553 766788.
crs111@talktalk.net (West Norfolk)

Mary Ghullam, 5 Beech Drive, North Walsham NR28 0BZ. 01692 402013.
mylia@btinternet.com (East Norfolk)

Richard Fisk, 35 Fair Close, Beccles, Suffolk NR35 9QR. 01502 714968.
richardjfisk@waitrose.com (Suffolk)

Programme:

Chris Roberts, 21 The Street, Burgh-next-Aylsham NR11 6TP. 01263 732772
chrisroberts_500@hotmail.com Mobile: 0788 7914047

Up and Coming - A look ahead to the 2012 Winter events!

- Sunday 7 Oct - Morning fungus foray to NWT Ashwellthorpe Lower Wood
- Tuesday 9 Oct - 'The Norfolk Cranes story' by Chris Durdin - Eaton
- Saturday 13 Oct - Wild about Norfolk - Easton College
- Tuesday 23 Oct - NNNS Photographic Group meeting - Eaton
- Saturday 3 Nov - Mosses at Buxton Heath for beginners
- Tuesday 13 Nov - 'Aliens in Norfolk' by Mike Sutton-Croft - Eaton
- Tuesday 27 Nov - 'The Red Island Madagascar' by John and Sue Goldsmith - Eaton
- Tuesday 11 Dec - 'Blakeney Point - celebrating 100 years of NT ownership' - NNNS Photographic Group - Eaton

*Please check your programme card or the website:
www.nnns.org.uk for full details*

Excursion

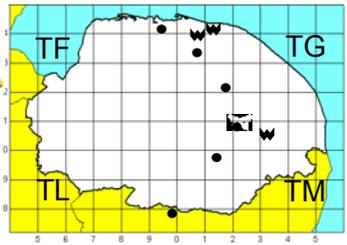
Reports



● 2012-13 Field Meeting location
St. Andrew's Hall
Eaton



W Indoor meetings
Workshop venue



NWT FOXLEY WOOD

Tuesday 24th April, 2012

Despite a prolonged spell of heavy rain thoroughly characteristic of April this year, which abated only minutes before our afternoon walk began at 2.00pm, a dozen members gathered in the car park at Foxley to be met by the NWT Woods and Heaths Reserves Manager, John Milton. After mutual introductions of those present, John outlined the recent history of Foxley from extensive coniferisation of one-third of the wood by the Forestry Commission - now being progressively cleared - through equally monocultural planting of blocks of oak, to the reinstatement of diversity being pursued by the Trust. Interesting tree species include a half-dozen-or-so Wild Service Trees, all on the edges of rides, and Midland Hawthorn common, in contrast, in the centre of blocks, but less so at the edges where birds have brought in common Hawthorn.

The walk was planned in particular to see Foxley's bluebells and spring birds. Bluebell walks for the public had taken place the previous weekend and, with the tendency of bluebells to earlier flowering these days, there had been some fear that even a late April walk might be too late to catch them at their best, but in fact conditions this spring had held back their flowering a little relative to recent past years. The paths along narrower rides had been well-trodden and compressed and in places the recent rains had left ribbons of shallow surface water, yet we were given a reminder of the underlying prolonged drought when shown a little stream valley lined with dying alders in one block of woodland, which has remained stubbornly dry with no flow of water into it for a number of years.

It was good to see a diversity of woodland and other plant species in flower alongside the varied rides, including Wood Anemone *Anemone nemorosa*, Primrose *Primula vulgaris*, Barren Strawberry *Potentilla sterilis*, Dog's Mercury *Mercurialis perennis*, Pendulous Sedge *Carex pendula*, Early and Common Dog-violet *Viola reichenbachiana* and *V. riviniana*, Yellow Archangel *Lamium galeobdolon*, Bugle *Ajuga reptans*, Stitchwort *Stellaria holostea*, Pignut *Conopodium majus*, Water Avens *Geum rivale*, Meadowsweet *Filipendula ulmaria*, Yellow Pimpernel *Lysimachia nemorum* and Lesser Celandine *Ranunculus ficaria*. Early-purple Orchids *Orchis mascula* were in flower, which deer nibble, including Muntjacs present since the mid 1990's, but only up to flowering time. Short spikes

then come to fruition so there is a good recruitment rate. On the other hand, deer love to nibble the scattered but easily-spotted colonies of Greater-butterfly Orchid *Platanthera chlorantha* when in flower, so no seeding takes place. They are also grazed by slugs and snails. One plant by a crossroads of rides has been 'caged' for visitors to see but not trample! The deer population had grown to more than 160 but is now estimated at 80 following culling. Estimating numbers was difficult in the thick woodland before thermal imaging facilitated greater accuracy.

Some 20 bird species were seen, heard, or both, including Blackbird, Blackcap, Blue Tit, Bullfinch, Chaffinch, Chiffchaff, Coal Tit, Dunnock, Great Spotted Woodpecker, Great Tit, Green Woodpecker, Long-tailed Tit, Nuthatch, Pheasant, Robin, Skylark, Song Thrush, Willow Warbler and Wren. A high point came among the block of woodland containing the most sumptuous drifts of bluebells *Hyacinthoides non-scripta* when, through the green but still not visually impenetrable tree canopy above, a Sparrow Hawk was seen circling and positively 'looping-the-loop'.

There are Long-eared and two Pipistrelle bat species in Foxley, but an absence of Noctules. Similarly there are no grass snakes, though the occasional adder is seen. Despite the dank conditions, Nick Owens recorded Red-tailed, Common carder and White-tailed bumblebees.

Many thanks to John Milton for his expert and interesting guidance, to the NWT for facilitating this special visit to Foxley by the Society, and to Nick Owens for the bird list.

Stephen Martin

MARKET WESTON FEN

10th JUNE, 2012



Twelve members of the Society and the Lowestoft Field Club, led by Arthur Copping, gathered on a fine, sunny morning for a joint field meeting at this splendid SWT Reserve, one of the best of the Waveney & Little Ouse Valley Fens, particularly for orchids and a number of special sedges.

Some participants were interested primarily in the bird life of the reserve and soon separated from the main body, returning after lunch with a list of 37 species. The remainder progressed much more slowly, particularly as the main pathway across the narrow grassy field beyond the entrance very soon enters the fen proper with its host of botanical treasures.

Although the Southern Marsh Orchids *Dactylorhiza praetermissa* and the *incarnata* subspecies of the Early Marsh Orchids *D. Incarnata* (with Common Butterwort *Pinguicula vulgaris* quite plentifully in flower among them) were a splendid sight in

their varying colour shades and flower- and leaf-markings, the stars of the orchid show were undoubtedly the cream or straw-coloured flower spikes of *D. incarnata* ssp. *ochroleuca*. Not seen in Norfolk since 1968, this celebrated critically-endangered subspecies is confirmed in Martin Sanford's *A Flora of Suffolk* (2010) as restricted to only three populations in Britain - at Hopton Fen in addition to Market Weston in Suffolk, and Chippenham Fen in Cambridgeshire. When I last visited Market Weston some years ago I saw only 3 flower spikes, and *A Flora of Suffolk* reported only 'up to ten spikes in good years', but the encouraging news is that whereas there were indeed only five or so flowering spikes to the west of the path this June, I counted 32 spikes clustered loosely a few yards to the east. Some of these plants had been caged, with a notice from the SWT posted nearby to the effect that the cages are to provide protection from grazing Muntjacs so that seed can be collected to reinforce and renew orchid populations at Market Weston and elsewhere. So possibly the pale *ochroleuca* will be seen soon gracing once more its old haunts such as Coney Weston, Redgrave, and Roydon Fens. Other orchids seen were Marsh Helleborine *Epipactis palustris* (in bud) and, unexpectedly on a drier 'promontory', three plants of Twayblade *Listera ovata* near Fairy Flax *Linum catharticum* and a huge colony of Common Gromwell *Lithospermum officinale*, with much smaller outlier groups of the Gromwell elsewhere.

Thanks in large part to Arthur's diligence, over twenty species of sedge were found, the most interesting being Flat-sedge, *Blysmus compressus*, not recorded before at the Fen and a species previously believed to have been extinct in West Suffolk since 1960. Also seen and confirmed later was Distant Sedge *Carex distans*. Other species included Flea Sedge *Carex pulicaris* and Prickly Sedge *Carex muricata* ssp. *pairae*. The grasses included Orange Foxtail *Alopecurus aequalis*, Downy Oat-grass *Avenula pubescens*, and Quaking-grass *Briza media*. Other species of interest were Slender Parsley-piert *Aphanes australis*, Betony *Betonica officinalis*, Great Fen-sedge *Cladium mariscus*, Water-violet *Hottonia palustris*, Tubular water-dropwort *Oenanthe fistulosa*, Black Bog-rush *Schoenus nigricans*, Milk Thistle *silybum marianum*, and Marsh Fern *Thelypteris palustris*. On and near a dry mound with anthills were Changing Forget-me-not *Myosotis discolor* and a plant giving much scope for discussion as the material available was too poor to determine accurately: Trailing *Tormentil* *Potentilla anglica* or Hybrid Cinquefoil *P. x mixta*.

By the time the meeting concluded at 4.00pm, no fewer than 209 taxa had been recorded, 112 of them in flower. 49 additions had been made to the list compiled by the Lowestoft Field Club on its last previous visit on 10th June, 2007.

Many thanks to Arthur for providing a meticulous plant list and account of the visit and for once again organising and leading a most enjoyable and productive joint meeting.

Stephen Martin



The next issue of '*The Norfolk Natterjack*' will be November 2012. Please send all articles and notes to the editor as soon as possible by **October 1st 2012** to the following address:

Francis Farrow, 'Heathlands', 6 Havelock Road, Sheringham,
Norfolk, NR26 8QD Email: francis.f@virgin.net

Please send **all photographic material** to:
Simon Harrap, 1 Norwich Road, Edgefield,
Melton Constable, Norfolk, NR22 2RP
Email: simon@norfolknature.co.uk

Nats' Gallery: *All photographs are very welcome, especially to accompany an article or document a record, occasionally however, because of space limitations, preference may have to be given to Norfolk-based images, or to those subjects depicting interesting or unusual behaviour, or are less commonly (or rarely) seen in print.*

Membership subscriptions

The N&NNS membership year runs from 1st April to 31st March. During this time members will receive four copies of the quarterly *Natterjack* newsletter, and annual copies of the Transactions of the Society, and the Norfolk Bird & Mammal Report.

Membership renewals are due on *1st April each year* and should be sent to the treasurer:

- David Richmond, 42 Richmond Rise, Reepham, Norfolk, NR10 4LS.

New memberships should be sent to:

- Mike Stew, 'Sandpipers', The Street, Kelling, Norfolk, NR25 7EL.

Current rates are £15 for individual, family and group memberships (£25 for individuals living overseas).

Cheques payable to: Norfolk & Norwich Naturalists' Society.

Contents

Toad-in-the-hole.....	Page 1
It's a miracle <i>Nick Elsey</i> (<i>Horsehair worms</i>)	
Grasshopper hunters on Kelling Heath <i>Nick Owens</i> (<i>Tachyshex wasps</i>)	Page 2
Eyes down looking <i>Colin Jacobs</i> (<i>Bees on Mousehold Heath</i>)	Page 3
Cley Visit <i>Brian Macfarlane</i> (<i>Avocets</i>)	Page 4
A Journey North <i>Tony Howes</i> (<i>Wildlife of NE Scotland</i>)	
Spotted Flycatcher <i>Carol Carpenter</i> Photographing Hares <i>Alan Dixon</i>	Page 5
Amazing Samphires - their adaptation and identification <i>Colin Dunster</i>	Page 6
NATS' GALLERY (<i>Members photographs</i>)	Centre
Some great lady naturalists <i>Francis Farrow</i>	Page 10
Norfolk & Suffolk Bryological Group Meetings 2012-2013	Page 14
Up and coming - a look ahead to the 2012 winter events	Page 15
EXCURSION REPORTS:	Page 16
NWT Foxley Wood (<i>Stephen Martin</i>)	
Market Weston Fen (<i>Stephen Martin</i>)	Page 17

*Those who dwell, as scientists or laymen, among the beauties
and mysteries of the earth are never alone or weary of life.*

Rachel Carson

Illustrations:

Binoculars (Page 3) - *Computer / Clipart*, Loch Ness Monster (Page 5) - *Computer / Clipart*, Samphire Fig. 1 (Page 8) - *Colin Dunster* Lady Naturalist Cartoon (page 10) - *Kevin Radley*, Glanville Fritillary (page 13) - *Computer / Clipart*.