



THE NORFOLK NATTERJACK

The quarterly bulletin of the Norfolk & Norwich Naturalists' Society

No.12

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NATURAL SCIENCES

We were talking about the sorts of things that should go into the Transactions. Or rather, I was trying to get Council to talk about the things that go into the Transactions -- that is, the sorts of things that the Society should and should not concern itself with -- but Council was reluctant to be led into a discussion of first principles. All of which is by-the-by, except that during the course of the discussion one Council member offered that, "This is not a scientific society". Pause for thought.

I suppose, in the steps of the sad Dr. Joad, it all depends what you mean by 'scientific'. Certainly no-one should attend meetings at the Library Lecture Theatre expecting to meet a band of white-coated technicians, bustling through towering constructions of laboratory glassware, grappling with milligrammes of this and molecules of that, electronic counters and VDUs flickering in the background (or whatever your favourite archetypal scientist looks like). We are clearly not that sort of creature, but a society of people "having an interest in natural history", whatever that is. 'Natural history' is easy: that means plants and animals. 'Having an interest in' comes closer to the heart of the problem since in order to explain it, we have to say what sorts of questions we would address to the plants and animals we are interested in.

Certainly our first question will almost always be, "What is your name?". This is a fundamental question for almost anybody meeting almost anything for the first time, and as I said in the last bulletin, some naturalists feel the need to go no further: they seek the homeliness, the familiarity, the satisfaction that comes from knowing the names of woodland blossoms, wayside beetles or garden birds, as others will learn to name the stones beneath our feet or the stars in the sky. But for many this is not enough, and any involvement in natural history usually leads on beyond names: distribution in space and time; kinds of relationships; patterns of behaviour; and many, many other dimensions will provoke questions. It may be enough for some just to ask the questions and leave it at that; others will want to dwell on possible answers and perhaps set up possible hypotheses. (A few, regrettably, may become so enamoured of their untested hypotheses that they come to accept them as fact, but not among the members of our Society, I am sure!).

In trying to define 'natural history' or 'naturalist' it occurred to me that someone like Dr. Ted Ellis offers us a paradigm of the naturalist, and since he is not only a distinguished elder of the Society but also a prodigious writer on the subject, his frequent countryside notes collectively

amount to a definition in themselves. In recent E.D.P. columns, for instance, (where I have managed to retrieve them from firelighting) he has touched on rodents in stacks, the origins of winter heliotrope, life on the seabed, bird ringing, violets flowering at Christmas, fruit flies, spiders in garages, and the history of crop plants. Every so often, however, Ted follows a phenomenon to the point where he comes face to face with an experiment. On 23.1.86, for example, in discussing the mixing of different cut flowers in a single vase, he offers the hypothesis, "...I have come to suspect that it is not a good idea to mix bulb-flowers such as daffodils and tulips with, say, chrysanthemums, dahlias or other daisy-like species". In a similar discussion on 29.1.86 of a fern plant and a pitcher plant sharing the same pot he says, "It would be interesting to look into this matter more deeply, by controlled experiments. It might even be found that some of our wild ferns eliminate other competitors for living space by underground warfare."

If one of our members was interested enough to take the matter further, don the mantle of scientist and set up the experiments to answer these questions, would he or she still be acting as a naturalist? I think that the answer must be 'Yes', and that there is certainly no incompatibility between acting as a scientist and as a naturalist: indeed I am sure that there is much affinity. Perhaps ours is not a scientific society in the sense of being devoted solely to scientific endeavours: but that science is a proper and important part of its procedures, I have no doubt.

My apologies to those who recall that I have touched upon related topics before in these editorials (No. 8, Feb, 1985, 'Making and Supporting Hypotheses'; No. 11, Nov, 1985, 'Testing the Ground'). Since this is the last 'Norfolk Natterjack' that I shall be producing, and therefore the last editorial that I shall be writing, I can safely promise never to do it again!

G. D. W.

DATA PROTECTION ACT, 1984

To qualify for exemption from registration under the terms of the above Act it is necessary for our Members to be informed of the information which we maintain on computer files, and to enquire if they object to the data relating to them being held in this way.

Our computer records, which currently are used solely for distributing our publications and other circulars and reminders, contain your name or names and initials, full postal address and membership category. We hope that you will not object, thus allowing our Society to use modern methods for the preparation of your address labels. If you do object to the Society having this data, please send a written notice of your objection to the Society Secretary, Dr. Baker.

In due course it may be possible to add subscription details to our records, but a request for your blessing would be sought at that time.

KENT WEEKEND - June 13th-15th, 1986

Visiting: Sandwich Bay (conservation area); Chalk downland (North Downs) around Wye for chalk flora, especially orchids.

A joint weekend with the Kent Field Club has been arranged on the above dates. Provisional arrangements for accommodation have been made at Wye College, Centre for European Agricultural Studies, near Ashford.

Bed & Breakfast :	£15.50 + VAT per night (Friday, Saturday)
Dinner :	£6.50 + VAT (Saturday; possibly Friday evening depending on time of arrival)

Packed lunches are available (for Saturday and Sunday)

Wye College has 23 bedrooms, 10 double (twin-bedded), 13 single, all with washbasins, H. & C., shower points and desks. Tea-making facilities, soap and towels provided.

Their area is one of outstanding interest. Please contact D. Robinson (Mulbarton 70576) as soon as possible if you would like to take part. Details of deposit required will then be sent.

D. R.

DIATOMS

In the last issue of Norfolk Natterjack I speculated about the origin of Surirella craticula, a diatom which is actually an aberrant form of the common diatom, Navicula cuspidata Kg.. It seemed that in all three habitats which I cited it could have been exposed to osmotic stress and I hazarded a guess that this stress could have been the cause of the diatom producing these strange valves.

Ernest Daniels brought the article to the attention of Bernard Hartley, one of the country's leading diatomists. Bernard very kindly sent me a very interesting article by the Austrian scientist, Dr. Anna-Maria Schmid (PROTOPLASMA, 1979 - 99, pp.95-105). She had studied the influence of environmental factors on the development of the diatom valve. One of the diatoms she had used was Navicula cuspidata. She had been able to produce 'Surirella craticula' at will in the laboratory from a population of Navicula cuspidata by gradual increase in osmotic stress. It was nice to know that, for once, my speculation based on field conditions was confirmed by laboratory experiment.

One thing in science usually leads to another. Dr. Schmid had extended her work into the field and had chosen pools in the Namib desert as a place where diatoms would experience gradual osmotic stress. Her observations on the reaction of diatoms to drying out in the desert conditions throw some light for me on another topic which has been interesting me: the behaviour of diatoms on the sand of our large filter beds when they are left empty in summer. We are beginning some experiments based on this aspect of her work.

Keith Clarke

(Note: Bernard Hartley was a member of the Society until he left Norfolk in 1951 - E.D.)

SOME BYGONE NORFOLK NATURALISTS - 10

Thomas Southwell (1831 - 1909)

The last subject in this series played a vitally important role in the early years of our Society and contributed many learned papers which have added to our understanding of the county's past natural history.

Born in King's Lynn, the young Thomas Southwell soon showed an interest in ornithology; but it was in banking that he found his career. His father was chief cashier at Gurney's bank in Lynn and this was where Thomas started. After six years he moved to the Fakenham branch, and was transferred to the head office in Norwich in 1867. He worked here till retiring after 50 years' service. Although his business took him to many parts of the county, he was never able to pursue a very active career as a field naturalist. However, his enthusiasm took him far into the 'ornithological archaeology' of Norfolk. Southwell published several papers dealing with the early natural history records of the county and the first of these appeared in 1870-71. A paper on Norfolk decoys appeared in 1878 and one on St. Helen's Swan-pit in 1891. In all over 100 papers and notes were published in the Transactions, on a variety of topics, but especially on his particular interests of birds and mammals.

Contributions to the wider record of Norfolk's natural history came when Southwell edited Richard Lubbock's 'Fauna of Norfolk' (1879) in which he added many valuable notes, and the appearance of volume 3 of Henry Stevenson's 'Birds of Norfolk' (1890) which he completed from the letters and manuscripts of the author along with his own knowledge of the county's birdlife.

The study of bird migration was particularly interesting to him as, too, was the nascent conservation movement in the county: he was a tireless supporter of the local bird protection societies at Great Yarmouth and Wells, etc.

Sea mammals also occupied his spare time and from 1884 he contributed annual reports on the seal and whale fisheries to the 'Zoologist'. Southwell published a small book on the 'Seals and Whales of the British Seas' in 1881. In 1872 he was elected a F.Z.S. and in 1881 became a M.B.O.U. As already stated his role in the early years of the Society was crucial. He was Hon. Secretary and held the post of President twice in 1879 and 1893. Outside the N.N.N.S. he worked closely with the museum in Norwich and served on its committee from 1893 till his death. Apart from his administrative skills he was valuable in securing several important species for the collections of birds.

Thomas Southwell died in Norwich on September 5th, 1909. His work rediscovering many of the records of past naturalists and his numerous contemporary notes on the status and habits of birds and mammals have provided workers with invaluable material.

Michael Bean

(In completing his series of ten 'Bygone Norfolk Naturalists', Michael Bean is taking a break from these contributions, at least for a time. I would like to say how valuable these have been during the formative years of 'Norfolk Natterjack', giving members something quite different from the usual field reports or administrative matter. Our thanks to you, Michael.

G. D. W.)

PHOTOGRAPHIC GROUP

1985 will long be remembered for its inclement weather and resultant lack of photographic opportunities. There was for us however in the latter half of the year, some measure of satisfaction in the series of lectures put together by individual members of our group, embracing a wide variety of natural history subject matter, all very ably delivered and illustrated with a wide range of colourful, interesting and instructive slides. I know from remarks made, how very much these lectures have been appreciated, and I feel sure that one of the benefits of belonging to the group is the fact that not only do we enjoy, we also learn from each other's photographic efforts.

1986 is now with us, and whilst it is a little too early to suggest that weatherwise it will be more conducive to better photography than 1985, we can at least look forward to the following programme of indoor meetings to hold our interest, and to whet our appetites, for the very many photographic slides we hope to take in the summer months that follow.

Monday, February 10th - 'Impressions of Uganda' - Richard Flowers -

Assembly House, Edmund Bacon Room.

Tuesday, March 18th - 'An Evening with John Gale' - Dr. John Gale -

Assembly House, Edmund Bacon Room.

Wednesday, April 9th - 'Wood' - Members' Evening - Not a competition, more of a challenge. Bring up to 10 slides that in one way or another 'match' or depict the title of the theme - Assembly House, Edmund Bacon Room.

Thursday, May 8th - 'Audio-Visual Evening' - David MacFarlane - The technique of using dual projectors, bringing in and fading out, short sequences of slides to accompany commentary, or appropriate music.

Assembly House, Kent Room.

Now for a short word to the Society as a whole.

The Photographic Group is not something apart: it is open to each and every member of the Society. It is not for experienced photographers only: if you are at all interested in photography you will be made welcome, and if you are a beginner with photographic problems we have members who are willing to advise and assist.

All Photographic Group meetings are held at the Assembly House (free car parking at the rear if you get there early enough) and commence at 7.30 p.m. The group, 40 or so strong at the moment, would like to increase its membership; no additional fee is involved; why not come and join us?

Bob Robinson

A DISTINCTIVE MOSS REDISCOVERED

Cryphaea heteromalla is a very distinctive moss. Exclusively epiphytic, it consists of a rather inconspicuous creeping, pinnate primary stem. From this there may arise conspicuous erect fertile branches. In the fertile condition it is obvious, and easy to recognise.

In common with many other corticolous species (e.g. Antitrichia curtipendula, Orthotrichum lyelli, Uloa crispa, Uloa phyllantha, etc.), Cryphaea has become increasingly rare in eastern Britain. This has generally been ascribed to the effects of air pollution. It had not been seen in Cambridge for 22 years until refound, growing on elder, in the Devil's Ditch in 1983. Similarly, in Norfolk it had not been seen since 1956 when it was recorded from near Thursford by Dr. C. P. Petch.

In April 1985 however it was found growing and fruiting vigorously on elder near West Raynham. Watson (1981) regards it as being especially characteristic of old elders, but notes that it does also grow on a variety of other species. He lists (1971) its most common associates as being Brachythecium rutabulum, Bryum capillare, Ceratodon purpureus, Hypnum cupressiforme, Orthotrichum affine, Zygodon viridissimus and the hepatic Frullania tamariscinum. In this instance the associated species were Amblystegium serpens, Brachythecium velutinum, Bryum flaccidum, Homalothecium sericeum, Orthotrichum diaphanum, Zygodon viridissimus, and the hepatics Metzgeria furcata and M. temperata.

It is interesting to note that two other pollution-sensitive corticolous species have recently been refound in the county, i.e. Uloa phyllantha and Uloa crispa var. norvegica, neither of which had been recorded for some ten years or so. Whilst it may be true that air pollution has caused a general decline in these species it is equally clear that they are capable of surviving in suitable microhabitats. Certainly in the case of Cryphaea there seems to be no shortage of suitable sites. Presumably therefore its rarity is a reflection of the lack of bryologists in the county as anything else. If any members are prepared to search for this interesting moss I will be glad to send them further information on receipt of a stamped addressed envelope.

Robin Stevenson, 111 Wootton Road, King's Lynn, PE30 4DJ

References

Watson, E.V. - (1981) - British Mosses and Liverworts - Cambridge.

Watson, E.V. - (1971) - The Structure and Life of Bryophytes - Cambridge. . . .

NOTES FROM THE COUNCIL MEETINGS of December 4th, 1985, and February 6th, 1986

Honorary Members and Vice-Presidents - The Council ratified the Working Party proposals put to it (outlined in Norfolk Natterjack 11) including the proposal that elections for either of these positions should be for life. Council rejected a suggestion that Vice-Presidents should ballot to elect five of their number to serve on Council rather than all Vice-Presidents automatically qualifying to serve.

Coffee at Meetings - Council agreed that for a trial period coffee at meetings should be provided in prepacked cartons with the addition of hot water.

Kent Weekend, 1986 - Arrangements for the visit to Wye College from June 13th-15th next were reviewed.

Nomination of the President of the Society for 1986-87 - Rex Hancy was nominated as the next President of the Society by Tony Irwin, seconded by Alec Bull and agreed by Council.

Society Librarian - Council accepted the suggestion that the Society's Library needed care and supervision and agreed to appoint a Librarian. Robert Driscoll was proposed by Tony Irwin, seconded by Rex Hancy, and was appointed by Council.

Transactions Publishing Policy - The Chairman proposed that Council, either directly or through its Publications Committee, should be more involved in the contents of its

publications, by defining a publishing policy and by deciding between contributions. Council rejected this suggestion, leaving matters of policy and choice in the hands of the various editors.

Society Referees for Animal and Plant Groups - Council agreed to include on the Programme Card the names of members prepared to advise others about specialised groups of organisms, and that these would henceforth be known as 'Referees'.

Road Verges Nature Reserves Scheme - Council agreed that responsibility for organising the scheme should in future be undertaken by the Research Committee.

Exhibition Meeting, 1987 - Mr. Bull said that a room in the Assembly House had been booked for a day exhibition by the Society in September, 1987.

A.G.M. 1986 - Council discussed and adopted the draft Annual Report and the Financial Statement for 1985, and made its own nominations for presentation to the A.G.M. on March 27th, 1986.

G. D. W.

REFEREES

The next issue of the Programme Card (due to be delivered with the Transactions in the May mailing) will carry the names of members able and willing to advise and assist others in the Society about particular groups of organisms, especially regarding identification. They will be known as 'Referees' and many will be the same people as used to be called 'Recorders' although the emphasis henceforth will be more on offering guidance and less on gathering records. In the case of most groups the Society has a number of able specialists, but in most cases only one name will be given for each group, and this referee will pass on the request where appropriate. Please remember that in writing to Referees or sending specimens to them, that a stamped addressed envelope should be included for a reply. Please remember also that there may be a little time before you receive a reply (although I hope it will not be as long as the 19 months I waited for a reply from a B.S.B.I. referee!). Most Referees would prefer to help you to identify things rather than simply throwing off a list of names, so do have a go yourself with such references as you have at hand. Large collections of material to be identified by the day after tomorrow will not be popular!

G. D. W.

FOR SALE

Nearly complete run of Society Transactions from the start in 1869. Missing parts are Vol. 1, pt. 2; Vol. 2, pts. 1, 2, 4; Vol. 19, pt. 6. Volumes 3, 4, 5, 6, 7, 8, 9 already bound: other parts (over 100) in separate parts as issued to the current Vol. 27. Whole run, together with over 40 duplicate parts from 1881 onwards, for £165 o.n.o. (Local bookseller has bound copies of Vols. 1 & 2 which he will sell for £17.50 each which would almost complete the run: I could supply a photocopy of Vol. 19, pt. 6 which would complete the text). Ring Tivetshall 661.

CONTRIBUTIONS TO THE NEXT NATTERJACK

should be sent to Ernest Daniels, 41 Brian Avenue, NORWICH, Norfolk, NR1 2DP, to arrive not later than April 15th, 1986.

'Atque in perpetuum, frater, ave atque vale.'