

# BRITISH PHYCOLOGICAL SOCIETY

## NEWSLETTER

NUMBER 15

MARCH 1982

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The closing date for the next Newsletter is 31st December 1982 for publication in early 1983. Please feel free to send any kind of contribution which may be of interest to phycologists, at any time in the year, to the editor:

Dr Martin Wilkinson  
Department of Brewing  
and Biological Sciences  
Heriot-Watt University  
Chambers Street  
Edinburgh EH1 1HX  
Scotland

Please use the enclosed reply form if you wish, or make any other kind of contribution.

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## SOCIETY ANNOUNCEMENTS

### Free Reprints

The Society has a surplus of reprints for sale which are now to be given away to members free of charge on receipt of a stamped, self-addressed envelope by the Society's reprint sales officer, Dr J.C. Green. His address and a list of reprints available appears inside the back cover of each issue of the British Phycological Journal. This offer does not extend to the Check-list of British Marine Algae. Early application is advisable as unclaimed reprints will be destroyed during the year.

### Society Logo

It has been suggested that the Society ought to have a logo. Do any members have any bright ideas? If so, the secretary, Dr Joanna Jones, would be delighted to hear from them.

### Mapping Scheme

The Seaweed Mapping Scheme is reaching a critical stage. The publication of a provisional atlas is imminent. To be included in this atlas all records must reach the coordinator, Dr Trevor Norton, by September 1982 at the very latest. There are still areas with no records at all. Please contact Trevor if you think you can help.

## FORTHCOMING MEETINGS

### First International Phycological Congress

Memorial University of Newfoundland, St. John's Canada, 8-14 August 1982. Details from the congress secretariat at the above address.

### British Diatomist's Meeting

It is hoped to hold a meeting in Autumn 1982. Details of a successful meeting in 1981 are given elsewhere in this Newsletter. For details of the next meeting please write to Mrs G. Lockett, Dept. of Botany, University of Bristol, Woodlands Road, Bristol, BS8 1UG.

### 21st Northeast Algal Symposium

to be held 1st and 2nd May 1982 at the Swope Conference Center, Marine Biological Laboratory, Woods Hole, Mass.02543, U.S.A. Dr J. Hellebust will give a distinguished lecture on "Osmoregulation and Salt-Tolerance of Algae" and the programme will include a mini-symposium on "Implications of Genetic Relationships from Algal Studies at the Micro and Macro level". This regional meeting has gained a reputation over the years as a particularly friendly and productive occasion and this years' organisers have extended an invitation to attend to members of the British Phycological Society. Anyone wanting further details should contact one of the organising committee:

Beth Gantt  
Radiation Biology Lab.  
of the Smithsonian  
Institution  
12441 Parklawn Drive  
Rockville  
MD 20852-1773  
U.S.A.

Hank Parker  
Biology Dept.  
Southeastern  
Massachusetts Univ.  
North Dartmouth  
Mass 02747  
U.S.A.

Charlie Yarish  
Biology Dept.  
University of  
Connecticut  
Stamford  
CT 06903  
U.S.A.

#### Field Meeting, Isle of Arran, 18-24th July 1982

On behalf of the British Phycological Society, Dr Trevor Norton, is organising a field meeting to be held on the Island of Arran in the Firth of Clyde on the West Coast of Scotland. In addition to considerable algal interest Arran is a beautiful holiday centre. Further details can be obtained from Trevor at the Dept. of Botany, The University of Glasgow, Glasgow, G12 8QQ, telephone 041-339 8855.

Workshop on multicellular green algae, Edinburgh, 21-23 July 1982. This is a further event being organised on behalf of the British Phycological Society. It is intended to provide three day's informal field collection, laboratory work and discussion for anyone, expert or novice, interested in problems of identification in the multicellular green algae. It is expected that most of the field collection will be in estuarine and marine sites but many of the species involved can colonise, or have close relatives in fresh-water and it is hoped that a forum will be provided for marine and freshwater phycologists to compare ideas. The workshop will take place at Heriot-Watt University where accommodation will also be available. Further details from the organiser: Dr Martin Wilkinson, Dept. of Brewing and Biological Sciences, Heriot-Watt University, Chambers Street, Edinburgh EH1 1HX, Scotland, tele. 031-225 8432 ext. 347.

#### Symposium on Green Algae

It is proposed to hold an international symposium on the systematics of Green Algae at the Polytechnic of North London from 29-31 March 1983. The symposium is sponsored by the Systematics Association and the programme will consist principally of invited papers, but it will be possible to accept additionally a limited number of offered papers. The organisers are Dr D.E.G. Irvine, Dept. of Food and Biological Sciences, The Polytechnic of North London, Holloway Road, London N7 8DB, Gt. Britain, and Dr D.M. John, Department of Botany, British Museum (Natural History), Cromwell Road, London SW7 5BD, Gt. Britain, from whom further information can be obtained.

#### REPORTS OF MEETINGS

##### XIII International Botanical Congress

It is slightly puzzling why an International Botanical Congress has not been held in Australia before. The floras (terrestrial and aquatic) are quite fascinating to northern hemisphere inhabitants and the Australians are apparently exceptionally good organisers.

The Congress opened with a flourish in the Concert Hall of the Sydney Opera House, that most photogenic of buildings. The serious work took place on the campus of the University of Sydney which provided excellent facilities for lecturing, talking and eating, in a reasonably compact area.

In spite of the economic climate in the north there were about 3000 full participants at the Congress in Sydney. There were almost 2000 presentations, a fifth of which were posters. For this number there had to be up to 33 simultaneous sessions. With 13 defined subject sections this did

not involve too much clashing of interests, though clearly exciting things were frequently going on in several places at once. The fact that the section with the second most papers was Marine and Freshwater Botany can probably be attributed to the activities of the organiser, our Vice-President, Professor H.B.S. Womersley. In addition to these sessions there were three special lectures each lunchtime and a programme of films in the afternoons and evenings. One of these films, produced specially for the Congress, was 'A Curious and Diverse Flora', an excellent piece of work and quite fascinating even to phycologists.

The accompanying members and skivers from the serious work were well taken care of with 10 different excursions in and around Sydney. In addition there were 15 local botanical excursions, most of them on the Sunday, including a serious look at the excellent way in which Australians have harnessed two plant genera, *Vitis* and *Saccharomyces*.

Clearly most overseas participants had come a long way and wanted to spend more than the single week on the continent. The range of environments is such that many completely different plant communities could be looked at. For this 33 extended field trips covering much of Australia were offered before and after the Congress. Three were mainly concerned with algae. The longest of these was organised by Bryan Womersley and encompassed the coast between Melbourne and Adelaide. No-one could have done it better, everything had been thought of. We saw algae from the sheltered waters of Port Phillip Bay to those existing on exposed capes where the fetch extends to the Antarctic. At each site Bryan described the marine flora and told anecdotes about previous collectors. In addition Elise Wollaston was a boon to those interested in the plants on dry land.

(We are grateful to Joanna Jones for this report)

#### 1981 Meeting of British Diatomists

The 1981 meeting of British diatom workers held at Malham Tarn Field Centre (November 6-8th) was given over to practical demonstrations of techniques for preparing microscope slides and accurately drawing diatoms. In Victorian times diatoms were collected for their beauty as microscopical objects and there was a thriving interest in making decorative arrangements of diatoms on a microscope slide. Today, modifications of these techniques serve a serious scientific purpose; there can be no doubt which diatom is intended to illustrate a taxon if the specimen has been selected and mounted individually. Used with discretion, such slides can provide information quickly and without the need to spend time searching the slide to find the specimen.

Klaus Kemp, using a simple micromanipulator of his own design, gave a very convincing demonstration of the ease and speed with which even very small diatoms can be selected and arranged. Bernard Hartley emphasised that it is possible to make neat, clean 'strewn' slides quickly, and that since a good job will serve as well as a bad, even slides made under pressure of time ought to look neat. Horace Barber, well known among the community of British diatomists for his many unpublished volumes of painstaking drawings of diatoms, divulged the elements of his craft.

The meeting also provided an opportunity to canvas opinions of DISCO, a scheme being organised by Rick Battarbee for using a computer to compile a central register of samples and slides collected by British workers. Debate ranged over the usefulness of the scheme, the practicability of centralised storage of samples and slides, how far it would be advisable to attempt to register existing collections, and the design of data

cards and a checklist for samples to be gathered in the future.

Above all the meeting provided an informal and convivial atmosphere in which to talk shop. Anyone---amateur or professional---with an interest in diatoms will be welcome at the 1982 meeting to be held in autumn; details will be available from Mrs G. Lockett, Dept. of Botany, University of Bristol.

(We are grateful to Barrie Paddock for this report).

#### NEW JOURNAL

Nordic Journal of Botany is published jointly by Denmark, Finland, Norway and Sweden, and replaces the four journals Botaniska Notiser, Botanisk Tidsskrift, Friesia and Norwegian Journal of Botany.

Despite its name, the journal is international and its language is English.

Nordic Journal of Botany covers a wide range of botanical subjects, but all articles are referred to one of the following seven sections and marked with the section's code and a graphic mark, HOL: general taxonomy and taxonomy of plants in the extratropical areas; TROP: taxonomy of higher plants in the tropics; GEOBOT: plant geography and plant sociology; STRUCT: structural botany in a broad sense; MYCOL: mycology; LICHEN: lichenology and PHYCOL: phycology.

The journal is planned to appear with one volume a year, consisting of 800 printed pages. The subscription price is 480 D.Kr. per year plus postage.

Members of specialized botanical societies like the British Phycological Society may subscribe to the sections on an off-print basis. A subscription of this kind costs 135 D.Kr., and the off-prints are distributed three times a year (with every second issue of the journal).

Subscription orders and correspondence concerning subscription to Nordic Journal of Botany and the sections should be directed to the Secretary, Ø. Farinagsgade 2 D, DK-1353, Copenhagen K, Denmark.

#### REQUESTS FOR ASSISTANCE

##### Cultures required

"I am looking for cultures (axenic or non-axenic) of the green colonial alga, Botryococcus braunii Kutzing, other than the strain in the University of Texas or Cambridge algal collections. The available strain grows slowly (generation time, 76 hours) and I am seeking faster growing strains of this high lipid alga. I would also like to know if it has been reported as a common or bloom organism from lakes, etc. in your area".

Dr Sheldon Aaronson  
Biology Department  
Queens College, C.U.N.Y.  
Flushing, N.Y. 11367, U.S.A

Thank you for your cooperation.

Records for check-list required

I am currently assembling records of marine algae of the coast of Northumberland and Durham in order, hopefully, to produce a check-list which could be published in something like the Transactions of the Natural History Society of Northumbria, updating those of Brady (1860) and Batters (1889), would anyone interested please send records, to:

Dr F. Gavin Hardy  
11 Windsor Avenue  
South Gosforth  
Newcastle-upon-Tyne  
NE3 1PS

"PHYCOLOGICAL BLOOMERS"

Prof. Peter S. Dixon has suggested this section and kindly sent the first entry. Does anyone know of any howlers for the next issue?

Chondrus crispus

Very rich growths of Chondrus crispus or "Irish moss" occur along the coasts of Maine and the Maritime Provinces. It develops as a dense covering on the rocks up to a depth of about 70 feet and is a conspicuous part of the sublittoral vegetation from Cape Cod to Newfoundland. About 600 years ago, housewives from County Carraheen, Ireland, discovered that a handful of this seaweed cooked with milk and flavored made a delicious pudding. Many other uses for the plant developed, and it was utilized for centuries in Ireland and western Europe as food, medicine and fertilizer.

From: The Seaweed Handbook by T.F. Lees, The Mariners Press, Boston, Mass. 1977.

POSTDOCTORAL FELLOWSHIP - ALGAL CYTOLOGY

Applicants should be experienced in light and electron microscopy and preferably also in EM cytochemistry on Rhodophyta or Phaeophyta. The fellowship initially pays \$15000 per annum and may start any time after January 1982. Interested candidates are invited to send a C.V. with names, addresses and telephone numbers of 3 referees to:

Dr Kathleen Cole  
Dept. of Botany  
University of British Columbia  
#3529-6270 University Blvd.  
Vancouver,  
B.C., CANADA V6T 2B1

RECENT THESIS TITLES

J. Gillis, M.Sc. De Ceramiales (Rhodophyta) van de kust by  
Boulogne (Pas-de-Calais).  
Leerstoel voor Morfologie Systematiek en Ecologie van  
de Planten, Ledeganckstraat 35, B-9000 Gent, Belgium.

Harry V. Nyberg, Ph. LIC. The effect of P starvation and detergents  
on the growth and P metabolism of the diatom, Nitzschia  
actinastroides. The thesis is a Finnish language summary  
of the following publications in English

Ann. Bot. Fennici, 13: 65-68

16: 28-34

18: 37-45

Dept. of Botany, University of Helsinki, Unionink. 44,  
SF-00170, Helsinki 17, Finland.

John Corrigan, Ph.D. Heterotrophic nutrition in an algal population  
of the polluted Clyde Estuary. Biology Dept., Paisley  
College of Technology, High Street, Paisley, PA1 2BE,  
Scotland.

MEMBER PREPARED TO GIVE LECTURES

Saltmarsh algae: Ecology, methods of investigation -

Dr P. Polderman, Polarisstraat 12,  
3235TH Rockanje, The Netherlands.

REPORTS/TRIAL KEYS etc

1. "'Non-marine algae of Cape Bird, Ross Island and Taylor  
Valley, Victoria Land, Antarctica". Report of the  
Melbourne University Programme in Antarctic Studies,  
No. 37, 97pp. illustrated. A few copies are available.  
Results of a taxonomic and floristic study.

Paul Broady  
School of Botany  
University of Melbourne  
Parkville,  
Vic. 3052  
Australia

2. From Dr E. Coppejans, Leerstoel voor Morfofogie  
Systematiek en Ecologie van den Planten, Ledeganckstraat 35,  
B-900 Gent, Belgium.

Coppejans, E., & Van der Ben, D. 1980.  
Zee vrieringsids voor de Belgische en Noordfranze kust.  
156pp. (in Flemish).

Introduction (zonation, associations etc). Keys to Chloro-, Rhodo- and Phaeophyceae. Drawings of all the recorded species (452 figs.) Glossary. Literature.

Part II, Descriptions, (c. 160pp) will be published January 1982.

#### BRACKISH-WATER ALGAL GROUP

Previous announcements in this Newsletter described the proposed formation of a discussion group on brackish-water algae. The first bulletin consisting largely of a register of active workers and their research interests, should be mailed to those who expressed an interest, about the same time as this Newsletter is mailed. Anyone else who would like to receive a copy and contribute to future mailings is invited to contact the organiser.

Dr Martin Wilkinson  
Dept. of Brewing and  
Biological Sciences  
Heriot-Watt University  
Chambers Street  
Edinburgh EH1 1HX  
Scotland

#### HELEN BLACKLER MEMORIAL FUND

Dr Helen Blackler died on the night of the 4/5 November, unexpectedly but peacefully, at her home in St. Andrews. Her passing has been a great loss to all of us here who have known her. She was one of those rare people who combined a quiet, patient, steady, loyal and always helpful nature with a keen interest in everything around her. She was both interesting and interested, and everyone who knew her professionally found her always ready to make available her immense knowledge of plants - when conversation usually ranged far and wide with fascinating anecdotes from the past.

Of course, Dr Blackler retired as far back as 1968 from her post as Senior Lecturer in Botany, when she had been based at the Gatty Marine Laboratory here. However, she was, if possible, more active since she retired in a wider range of activities including lectures in many places which she gave for the Extra-Mural Department of the University, for the National Trust for Scotland and for other organisations. At the same time she remained an active participating member of the Botany Department continuing her research in phycology and publishing. Indeed the day immediately preceding her death (4 Nov.) she attended a departmental research seminar. Her life was very full and useful and her end, though sad to those of us who loved her, could not have come in a kinder way. We feel in the Botany Department that Helen Blackler's name should be preserved in our midst, and to that end the above fund has been instituted. We do hope you can assist us. The exact form that the memorial will take remains to be decided, but we are sure she would have wanted it to be put towards the academic advancement in botany. We therefore have in mind to set up either a new student prize or a visiting lectureship on a topic in phycology in the broadest sense. We look forward to hearing



from anyone who would like to be associated with this. Please make donations payable to the "Helen Blackler Memorial Fund" and send them to Dr M.G. Stanton at the address below.

David Spence  
(Chairman of Department)

Martin Stanton  
Department of Botany  
University of St. Andrews  
St. Andrews  
Fife  
Scotland KY16 9AL

#### PAPENFUSS MEMORIAL FUND

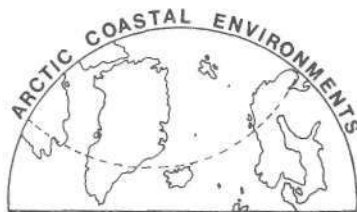
The George Frederik Papenfuss Memorial Fund has been established for the purpose of maintaining, developing, and facilitating the use of the phycological resources of the Herbarium of the University of California at Berkeley. Contributions should be made payable to the Papenfuss Memorial Fund, U.C. Berkeley, and sent to the Development Office, 2440 Bancroft Way, Berkeley, CA 94720, U.S.A.

#### THE JAPANESE SOCIETY OF PHYCOLOGY

The Japanese Society of Phycology, founded in 1953, is open to all who are interested in any aspect of phycology. Either individuals or organizations may become members of the Society. The Japanese Journal of Phycology (SORUI) is published quarterly and distributed to members free of charge. The annual dues (1981) for overseas members are 5,000 Yen (send the remittance to the Business Centre for Academic Societies Japan, 4-16 Yayoi 2-chome, Bunkyo-ku, Tokyo, 113 Japan.

#### BRAZIL

A new phycological society has been started in Brazil. This is the "Sociedade Brasileira de Ficologia" of which E.C. de Oliveira is President. The British Phycological Society sends its warm greetings to this new society.



#### STUDY GROUP

A 1973/74 Norwegian Parliamentary report stated that the dimensions of the petroleum and gas production on the Norwegian continental shelf coming on top of other sources of pollution make it necessary to intensify research in all marine areas affected by their activities. As well as research aimed at discovering the effect of oil on the marine environment, the report recommended the monitoring of important bio-resources and the intensification of more fundamental research relating to oceanographic and associated biological systems.

Recognising the need for this basic survey work we have formed the Arctic Coastal Environment Study Group (ACESG) with the aims of channelling our collective skills into contributing to baseline surveys and formulating appropriate monitoring techniques suitable for lay usage.

Many of our group are voluntary leaders with the Brathay Exploration Group (BEG), long established in the training and sending of young people (16 - 23 years) on over 20 expeditions a year. Most members are active researchers in relevant fields. Others are highly experienced in the leadership of aware young people. We hope our varied wealth of fieldwork experience, particularly in remote places, coupled with our capacity to organise capable task groups may be put to good use. It is anticipated that participants in the ACESG will follow up their commitment by leading and training relatively unskilled groups of young people from organisations such as BEG on subsequent expeditions.

Hence we could usefully tackle the more remote coastlines which the national Institutions may find less attractive for study, given the financial and logistical constraints of limited resources for an overall national scheme.

During summer 1982 (23rd June - 4th August) we plan to visit Söröya (Lat  $70^{\circ}30'N$ ), an island near Hammerfest, N. Norway. This expedition has received substantial support from British Petroleum. There is a vacancy for an experienced young field phycologist. He/she should be interested in intertidal algae and have had mountaineering and camping experience. Interested? Contact: J.W. Penny, Leader - Söröya Reconnaissance Expedition, ACESG, Dept. of Physical and Life Sciences, Bell College of Technology, Hamilton, Strathclyde, Scotland. Tel. No. 0698 283100 ext. 247.

The editor would like to thank all contributors to this issue

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the editor, Dr Martin Wilkinson, Department of  
Brewing & Biological Sciences, Heriot-Watt  
University, Chambers Street, Edinburgh EH1 1HX.

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NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_  
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LECTURES

I am willing to give a talk(s) to other institutions (subject to  
suitable expense arrangements) on \_\_\_\_\_  
\_\_\_\_\_

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SABBATICALS

I will be going on sabbatical to \_\_\_\_\_

from \_\_\_\_\_ to \_\_\_\_\_

The following sabbatical visitors will be staying in my department  
\_\_\_\_\_  
\_\_\_\_\_

from \_\_\_\_\_ to \_\_\_\_\_  
\_\_\_\_\_

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THESIS TITLES

The following higher degree thesis have been presented this year  
in this department

Student \_\_\_\_\_

Degree \_\_\_\_\_

Title \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

JOBS VACANT

Give title, date available, qualifications sought and details of person to contact.

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JOBS WANTED

Give names of person, qualifications, date available, and field preferred.

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REPORTS/TRIAL KEYS ETC

Give details of any keys, reports etc of phycological interest not published in normal scientific literature.

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Thank you for your help. If this form is not suitable please just send your information or comments to me in any manner you please.

Martin Wilkinson