

The Phycologist



The Newsletter of

The British Phycological Society

STRICTLY MARGINAL

BY R.H.RICHENS

with verses by R. A. LEWIN

and

illustrations by G.E.FOGG

At the outbreak of the Second World War the UK was cut off from its accustomed supplies of agar and alginic acid and an urgent survey of the seaweed resources of the British Isles became necessary. This was carried out by four members of the Cambridge Botany School working for the Marine Biological Association under contract to the Ministry of Supply. For the participants it was a unique opportunity to see a large part of the unspoilt British coastline and to become acquainted with the variety of communities which lived by it. Their bohemian appearance and peculiar activities naturally aroused deep suspicions in the minds of the police and those responsible for coastal defence, and their travels were not devoid of incident. Afterwards, the three junior members of the team put together, with some artistic licence, their story of the survey. The phycological content of this account is indeed marginal but its record of youthful excesses and undergraduate philosophies, having accumulated the dust of fifty years, is now put before a, hopefully, indulgent public as a quaint fragment of social history.

The publication date will be 1st. January 1996 and the book will be on sale at the Lancaster meeting of the Society, from 2-5th January 1996, at a special price of £8.00. The subsequent price for copies ordered by post will be (including postage and credit card costs):

Within the U.K.	£14.00
Europe	£18.00
Rest of World	£20.00

The address for mail orders (credit cards accepted):

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The Phycologist

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Editorial

Well here we are again, or are we? As you read this our intrepid hero and usual editor is cruising in Antarctica. Andrew Johnston, sends his apologies and has awarded me the privilege of compiling the newsletter in his absence. In all fairness, Eileen and he have done the hard bits and all that remains for me is assembly. So, here are the AGM minutes from the 43rd meeting, the AGM agenda for the 44th meeting, the programme for the Lancaster meeting (and the booking sheet for attendance) along with a few brief articles, reviews and updates. George Lawson has written a tribute to Professor William Edwyn Isaac who died this year, and Gavin Hardy has produced a report on marine macroalgal diversity in Indonesia. I would like to thank those that helped, mainly Andrew, Eileen, Robert and the Dundee and Lancaster folks, and wish Andrew every success with his Antarctic venture. Looking forward to seeing many of you at the Lancaster meeting in January 1996.

P.S. Andy....Put that penguin down....

P.P.S. Andy....mine's a pint of Guinness....no ice....

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Professor William Edwyn Isaac 1905 - 1995.

Edwyn Isaac died on May 11 of this year a month before his ninetieth birthday, in Blairgowrie, near Port Philip Heads Australia where he had been living since his retirement in 1970 from the University of Nairobi, Kenya. He was born in the Rhondda Valley of South Wales on 15 June, 1905 in a Welsh-speaking family and grew up with a keen interest in natural history and science, especially chemistry. It was this that led him, on leaving school, to become apprenticed as a pharmacist at Boots of Aberdare. Later he left and went to an Adult Education/Matriculation College from which he gained a scholarship to the University of Wales at Cardiff. He completed an Honours degree in Botany in 1928 followed by postgraduate work leading to a doctorate in grassland ecology. His first academic job was as a junior lecturer at Birmingham University but he soon left to take up a Thomas Smart Research Fellowship and a Tutorship in Smuts Hall at the University of Cape Town. It was here that he met the girl he was to marry, Frances Margaret Leighton, who was then on the staff of the Herbarium of Kirstenbosch Botanic Garden. Thus needing permanent employment he took a research appointment with the South African Department of Agriculture but in his spare time he began the work which was to be the main scientific interest of his life, namely the seaweed ecology of southern Africa. During the war years Edwyn was involved with Government work and led the discovery of the high and stable vitamin C content of Guava fruits. I well remember his wife Frances saying to me that after the war when she had complained to a greengrocer about the high cost of guavas compared to what they had been before the war he had replied "Ah, yes Madam, but before the war guavas gave you appendicitis: now they give you vitamin C!".

After the war Edwyn returned to the academic world with a Senior Lectureship and subsequently a Chair at Rhodes University College, Grahamstown. In 1952 he was appointed to the Harry Bolus Chair of Botany at the University of Cape Town. It was here that he led a research team which produced a considerable body of work on the ecology and distribution of South African marine algae including especially such genera as *Gracilaria*, *Hypnea* and *Porphyra*. It was here, also, that I first met him and worked with him on a sabbatical year from the University of Ghana during which I experienced to the full his and Frances's hospitality and generosity. The highlight of my visit was to take part in an expedition he had organised with Dr. Richard Simons and Judy Graves to record and study the seaweeds along the coast of South West Africa - now Namibia. In 1961 Edwyn left Cape Town to be the foundation Professor of Botany in The University of East Africa at Nairobi, Kenya. Although Nairobi is some distance from the Indian Ocean he was able to establish an excellent marine algal research station south of Mombassa at Diani Beach, a project I had much reason to be thankful for since I took over his Chair of Botany at the University of Nairobi, as it became to be called, and was able to make full use of its facilities. Despite having to function as Acting Principal of the College, Edwyn remained very active in phycology and produced a further series of papers on the seaweeds of East Africa until his retirement in 1970. He leaves a wife, Frances, a daughter, Alison, a son Rhys, Professor of History at La Trobe whose twin brother Glynn who spent 17 years at Berkeley, California, was Professor of Archaeology at Harvard before his tragic early death of a tropical viral infection, and six grandchildren.

George W. Lawson, The Natural History Museum, Cromwell Road, London SW7 5BD

Publications of W.E. Isaac

Some observations and experiments on the drought resistance of *Pelvetia canaliculata*. Ann. Bot. 47: 343-348. 1933.

Rate of decay in relation to soil type and vegetation covering in Glamorgan. Jour. Ecol. 22:289-91. 1934.

A preliminary study of water loss of *Laminaria digitata* during intertidal exposure. Ann. Bot. 49: 109-117. 1935.

The distribution and zonation of marine algae on the coasts of South Africa. Note in Brit. Assn. Adv. Sci. Rept. Ann. Meeting, 1935 (105th year): p. 455. London. 1935.

Studies of South African seaweed vegetation, 1. West coast from Lambert's Bay to the Cape of Good Hope. Trans. Roy. Soc. S. Afr. 25: 115-151. 1937.

South African coastal waters in relation to ocean currents. Geographical Rev. 27(4): 651-654. 1937.

The geographical distribution of seaweed vegetation in relation to temperature and other factors, with special reference to South Africa. Compt. Rend. du Congres Internat. de Geographie, Amsterdam, 2, Sect. 7: 12-28. Leiden. 1938.

Seaweeds of possible economic importance in the Union of South Africa. Jour. S. Afr. Bot. pp.225-236. 1942.

Marine biological research and the South African fishing industry. 1943.

Agar from South African seaweeds. Nature. 151: 532. 1943.
(with M.H. Finlayson & S.M. Simons).

Studies of South African seaweed vegetation. II.- South coast: Rooi Els to Gansbaai with special reference to Gansbaai. Trans. Roy. Soc. S. Africa. 32: 126-160. 1949.

Observations on the ecology of *Bifurcaria brassicaeformis* (Kutz.) Barton. Jour. Ecol. 39: 94-105. 1951.

South African seaweed vegetation and future investigations in this field. Jour. S. Afr. Bot. 19: 59-71. 1953.

The morphology, geographical distribution and ecology of *Hypnea spicifera* (Suhr.) Harvey. Jour. S. Afr. Bot. 19: p.73. 1953. (with F. Hewitt).

Seaweed resources of South Africa. Jour S. Afr Bot. 19: 85-92. 1953. (with C.J. Molteno).

Plants of land and sea. Jour. Bot. Soc. S. Afr. 39. 1953.

Some observations on *Gigartina pistillata* (Gmel.) Stackh. from Port Alfred with a record of plants bearing both tetraspores and carpospores. Lour. S. Afr. Bot. 20:117-124. 1954. (with S.M. Simons).

Seaweeds. Jour. Bot. Soc. S. Afr. 40. 1954.

Marine algae of Inhaca Island and of the Inhaca Peninsula. 1. Jour. S. African Bot. 22(4): 161-193 + Pls. 36-42. 1956.

Some characteristics of the South African seaweed flora with special reference to siphonous *Chlorophyceae*. Phycological Bull. No. 4. 1956.

The ecology of *Gracilaria confervoides*(L.) Grev. in South Africa with special reference to its ecology in the Saldanha-Langebaan lagoon. Second Internat. Seaweed Symp. pp. 173-185. Pergamon Press, London. 1956.

The distribution, ecology and taxonomy of *Porphyra* on South African coasts. Proc. Linn. Soc. Lond. 168 Session: 61-65. 1957.

Some marine algae from Xai-Xai. Jour. S. Afr. Bot. 23: 75-102. 1957.

Marine algae of Inhaca Island and of the Inhaca Peninsula. 2. Jour. S. Afr. Bot. 24: p. 128. 1958. (with Y.M. Chamberlain).

Ecology of algae. In A natural history of Inhaca Island, Mozambique. Eds. W. Mcnae & M. Kalk. Witwatersrand University Press, Johannesburg. pp. 18-22. 1958.

Comments on the seaweed flora and vegetation of Inhaca. S. Afr. Jour. Sci. 55(7) 181-183. 1959.

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Marine botany of the Kenya coast. 5. A third list of Kenya marine algae. Jour. E. Afr. Nat. Hist. Soc. & Nat. Mus. 28 (22): 1-23. 1971.

The marine algal flora of Namibia: its distribution and affinities. Bull. Br. Mus. nat. Hist. (Bot.). 20(2): 153-168. 1990. (with G.W. Lawson & R.H. Simons).

British Phycological Society

Minutes of the 43rd Annual General Meeting of the Society, held at University of Portsmouth, at 17.00 on Thursday 5th January 1995. The President, Dr M.J.Dring, was in the chair, 48 members were present.

1. There were no apologies for absence.

2. Minutes of the 42nd Annual General Meeting were approved and signed.

3. Matters arising: There were no matters arising.

4. Presidential report: The President announced two items of news. He regretfully reported the death of Denis Greenwood in the spring. Denis had attended the Liverpool meeting but died subsequently. An obituary had appeared in *The Phycologist*. On a more optimistic note, Prof. Bill Stewart had been awarded a knighthood in the summer honours list and the President had written to congratulate him.

With respect to future winter meetings, the President pointed out that these were the major activity of the society and we should try to plan ahead. The next meeting would be held in Lancaster, with Dr R.I. Jones as local secretary, in the same time slot, 2nd 5th January. However, there were problems with subsequent years. Dr G. Beakes had offered Newcastle for 1997, but with the 1st Jan. falling on a Wednesday, the start of term had been shifted to 6th Jan. which precluded meeting there. This may be a common problem, but we need to ascertain whether other universities would allow us to meet at the traditional time. If it were not possible to meet in the new year, what was the society's reaction to a pre-Christmas date? Moves towards a semester system in many universities could preclude a pre-Christmas slot while a meeting over the first weekend of the year could also clash with students arriving on the Sunday. It was suggested that a general debate over the problem could be held in *The Phycologist*.

5. Reports from Council:

a. Hon. Secretary. This year the total number of contributions exceeded previous numbers, but the balance shifted, with many more posters (35) and slightly fewer oral presentations (60). However, once again there were parallel sessions for much of the meeting. This year's applied day, organised by Dr Clive Barwell, was on the "Valorisation and utilisation of algae and algal products", a title which no doubt sent many rushing to their dictionaries. The special topics needed less explanation, being "Phosphorus and freshwater algae" and "The species concept in algae". Nine students submitted papers for the Manton prize. It is encouraging to have such a good response again. The Presidential lecture was given by Dr Matt Dring, as he ends his term of office, having already quit UK shores; perhaps another encouragement to have closer links with Europe! As before the meeting covered a wide range of algal topics and continues to offer the opportunity to meet and discuss. An abstract booklet was again produced for registered participants (those who registered by the closing date) and abstracts of presentations will appear in the next issue of *"The Phycologist"*. On the whole contributors have acted upon instructions as far as presentation of abstracts and submission dates were concerned, although some still failed to do so. The legibility of abstracts in the booklet is in the authors' hands, based upon their capacity to read!

Similarly, deadlines are there for a reason: the programme has to go to the Editor of The Phycologist some time before it lands on members' desks. The Hon. Secretary realises that some find this awkward, but she too has to fit in the programming amid a busy schedule. Thanks to the Natural History Museum for allowing her to do so. A request was made that non-members attending the winter meeting be sent copies of the programme. This could be arranged with due notification.

Complaints were voiced about the accessibility of the posters and problems in linking the poster session with the buffet. A 5 min presentation for each poster was suggested. It was also suggested that poster presenters should ensure that they are beside their posters for the first two hours. Photos of presenters on their posters was often found helpful.

b. Hon. Treasurer. The Treasurer indicated that in future the format of the accounts in relation to income and expenditure may change in line with the Charity Commission's directives.

Income: There was a fall in the total subscriptions received (the first time since the subscription was increased), but the surplus from the journal was higher and reflects the move to Cambridge University Press. Income from the journal is not recognised until it has been received, in the March after the end of the year of the journal. The increase is in line with predictions. The journal has been increased in size but it is hoped that the surplus will be maintained, although it might drop slightly in the future. A surplus from the winter meeting at Liverpool was received and thanks were expressed to them. The cost of the abstract booklet was offset against the profit from the meeting. The T-shirts made a profit and some are still available by mail order, The proceeds of the auction, Manton and non-Manton items, were allocated to the appropriate funds. More subscriptions have been made by credit card and virtually all costs were recovered. Interest was down on the previous year reflecting the poor interest rates. Holding accounts in various funds has been reviewed and funds are being switched.

Expenditure: There was a modest increase in the cost of the journal linked to the Editor's honorarium which goes to the employing institution to offset costs. The Journal management expenses depend on the officers and their location. Costs of the Newsletter have increased, reflecting the changes in allocation of costs. Previously these were incurred by the Secretary. Expenses of members representing the society have increased reflecting wider activities, e.g. Microbiology 2000 and IFBS, the Biodiversity Forum, field meeting organisation and travel. £400 to the Natural History Museum was payment for the colour plate in the Coralline volume of the Seaweed Flora. Bank charges have fallen thanks to changing the account. The new stationery cost of £412 covers art work and printing. Scientific Meetings Fund continues to support student attendance at meetings, providing a contribution towards registration, subsistence and travel. It is however only offered to presenters. £100 has been allocated for the independent examiner.

The excess of income over expenditure is the second highest the society has had, but reflects the recent increase in subscriptions.

The analysis of the different funds is itemised, interest being allocated on a proportional basis based on the opening balance at the start of the year. We have a Special Charities

account with the Bank of Scotland which offers a better rate of interest. Now that the society is VAT registered we can always reclaim this, a major benefit for the CUP account (c. £2000 VAT).

The auditors report is slightly different, in line with current practice. The surplus will not be as great over the next two years because subscriptions will not increase for 2 years. The Treasurer thanked those who had updated their banker's orders, Dr Jane Lewis for her continuing help and colleagues at work for theirs.

c. Hon. Editor of the Journal. The Hon. Editor expressed her thanks to Dr Roger Jones for handing the journal over in excellent shape. There had been problems with the journal running late, partly due to a lack of manuscripts. The Feb. issue was 2 months late but included 2 colour plates; May was 1 month late, August and November were on time or early. Things are on course for 1995 with the proofs for Feb. completed and plenty of manuscripts coming. The August issue will be thicker so the pages will be more or less made up to 80 per issue for 1995.

Submission of manuscripts to the associate editors has varied with many papers being submitted on macroalgal systematics and microalgal systematics. The other subject areas have received fewer submissions. Overall publication rate is about 2 /3 manuscripts received. Even in those areas where few have been received, manuscripts have been good. The editor hopes that publishing good papers will attract more. The relationship with CUP is happy; a special offer was made of £70 off "The Diatoms" if 2 years subscription to EJP was taken out.

Blank pages remain a problem but odd numbers of pages in papers increase the cost of offprints.

Publication speed is good, less than one year.

d. Hon. Membership Secretary. A breakdown of membership was presented. There are a total of 616 members, the same as the last 2 years. This includes 47 new members, 55 losses. There has been a slight drop in new members but a substantial drop in members in arrears, to only 7.8%.

A membership list was published in the summer issue of The Phycologist, reasonably up-to-date and free of errors. Members should note that subscriptions and address changes are handled by the membership secretary not other officers.

The membership secretary noted that he had received some renewals which he suspected were institutional rather than personal. It is not intended that personal copies of the journal be passed on to institutions. Members were asked to observe this rule.

e. Hon. Editor of Newsletter. Three issues appeared at various intervals after their deadlines. The Hon. Editor described himself as "on a learning curve with deadlines and printers". Numbers and dates have been added to the covers. Costs have increased

because the issues are heavier than in the past, due to abstracts and the membership directory.

The second issue was particularly slow which had a knock-on effect on the call for abstracts. It is hoped that in future the summer issue will appear as soon as possible after the summer Council meeting. Change to a more local printer may be necessary.

Thanks were expressed to a number of contributors, including Stephen Droop for help with the directory which may appear every 3 or 4 years and Dave John for his biodiversity review. Other reviews have been solicited. Thanks were also expressed to the Hon. Secretary, Hon. Treasurer and Hon. Membership Secretary for their help over the year; to Janet Kübler and John Raven for proof reading; to the Hon. Editor's lab. for "sticking and licking". Those who sent favourable comments by E-mail were also thanked. Deadlines for copy and expected posting dates would be published on the back of the issues.

f. Marine Algal Flora Committee. Two meetings were held in 1994 and there were two changes in membership. Thanks were expressed to Prof. Trevor Norton for 25 years work on the mapping scheme. The Atlas published in 1985 stands as a testimony to his work. It was proposed that Dr Gavin Hardy would take on responsibility for the mapping scheme.

Progress: Volume 1, Part 2b is now published, comprising 276 pp, 118 figures and 1 compound colour plate. The authors are to be congratulated. Part 3b of the Rhodophyta volume (Bangiophyceae) has been begun by Dr Juliet Brodie. She hopes it will be multidisciplinary, and appropriate funding will be sought. Parts 3a and 2b are selling well and have received favourable reviews. Work on the browns continues slowly but progressively. Dr R.L. Fletcher will try and draft as much as possible this year. Progress on the Cyanophyceae is fairly slow but a working key to this group has been produced for a summer field meeting. Work on the Haptophyceae has begun.

Teresa Bennett will assist on a part-time basis, paying particular attention to chalk cliff habitats. The preliminary field work is done. Considerable progress has been made on the ecological aspects of the Bacillariophyta volume and numerous collections have been made. There is likely to be a delay to this volume as the application for an extension of a NERC grant failed. It may be necessary to publish in parts by family.

Records are trickling in for the mapping scheme.

g. Freshwater Algal Flora Committee. 1999 is being targeted for publication and the project is more or less on target. There have been 2 meetings of the committee. Dr Dave John is supervising information dissemination and Dr Les Johnson is acting as unofficial co-ordinator. Dr Elizabeth Haworth has joined the committee on behalf of IFE. Money for a co-ordinator must be raised urgently. A publicity brochure has been produced by Dr Peter Robinson to whom thanks were expressed. Members are encouraged to take time to read the brochure and to pass it on to those who might be interested. A response from the Water plcs is required before other bodies can be approached for financial support. If funds cannot be raised it will be difficult to pull the flora together. Salary is sought for a fairly senior individual to work for 4 years at the NHM (£ 1 30,000 approx.). Provisional agreement has been obtained for a 1 day meeting following the

European Phycological Congress in 1996, with plans for a larger meeting in 1997 to work intensively on keys etc.

h. Conservation Committee. At present this meets once a year, but it is trying to become more active. A mission statement has been formulated, giving the general and specific objectives, which include links to the freshwater flora and the red data book, which is to be extended to other algae. The Seaweed mapping scheme is to be completed; this will be facilitated by Dr Gavin Hardy's presence on the committee.

The committee was approached by Plant Life in relation to the UK Conservation Strategy to be published in 1995. Accounts of stoneworts, freshwater and marine algae have been contributed, The entry on algae in the Biodiversity Challenge was seen in draft and found to be unsatisfactory. A revision was formulated and, provided the corrections are incorporated, it was felt that the Society could endorse the document.

The JNCC has asked for information on sites of scientific interest. The response will be co-ordinated by Dr Juliet Brodie. The committee will endeavour to promote conservation via the Phycologist. Comments from the committee on the recently published Plant Conservation Strategy had been sought. The Committee would like to send a suitable representative to a meeting of its committee on Feb. 6th. The 3rd quinquennial review is in preparation and the society has been asked to suggest plants for protection. At present only 2 algae are listed. A donation of £200 was agreed by Council.

Dr Roger Jones asked whether, in view of the time taken to present reports, it would be possible for these to be presented in written form for the next AGM. The proposal was noted and will be implemented next year. The adoption of the reports was proposed by Dr R.I. Jones; seconded by Prof. L.V. Evans.

6. Election of Council for 1994. In the absence of other candidates, the nominations of Prof. B.Moss and Dr W.T. Stam for Vice-President / President-elect and overseas Vice-President, respectively, were accepted and they were declared elected.

As no nominations for Ordinary Members of Council had been received from the membership, Council made the following nominations, for members to serve for 3 years:

Dr R.O. McLean (Paisley);
Dr J. Eccleston-Parry (Lancaster)
Dr J.D. Gilmour (Sheffield);

As Dr A.M. Johnston had taken over as Hon. Editor of the Phycologist and thus as a co-opted member of Council, Prof. C.E. Gibson (Dept. Agriculture, N. Ireland) was nominated to serve for one year.

The candidates were declared duly elected.

7. Phycology in Europe. There has been little further movement towards the formation of a Federation, but the 1st European Phycological Congress is planned for Cologne in August 1996. Organisation of the congress is progressing smoothly under Prof. M. Melkonian.

A European Organising Committee has been set up by Dr M.J. Dring, comprising about 50 members. It has received proposals for plenary speakers and subject areas. The proposals are being finalised. The first circular will be dispatched in March or April 1995.

It is hoped that the congress will stimulate the move towards a federation.

8. Biodiversity issues. It was recognised that not only is the Society often approached for expert opinion, but that it should be involved in biodiversity issues.

The Institute of Biology has prepared a draft response to the government's white paper. This was sent to the President who gave the Society's endorsement. There were no specific comments regarding particular species, but the President felt that the response was well phrased and would not generate any objections within the society. Prof. Trevor Norton attended the International Forum on Biodiversity in Paris in September. He thinks it is important to produce an article to alert phycologists to the dangers of being omitted from the debate. The Society has been involved via the Institute of Biology and is trying to keep informed. It is considered appropriate to be in the forefront and to be seen to be active. The society is also represented (by Dr Paul Hayes) on the UK Forum for Microbiology.

9. Honorary members. Last year saw the death of one honorary member, Mr John Carter. Council have therefore nominated an additional honorary member, Mrs Linda Irvine.

10. Election of independent examiner for 1995. The nomination of Peter Morrison, who acted as independent examiner for 1994, was accepted.

11. Any other business. Field meetings: 3 meetings were held in 1994. It is hoped to go to the Isle of Man in the summer of 1995. Participation by members is encouraged and students can receive support towards travel and subsistence.

The meeting ended at 18.50.

British Phycological Society

44th ANNUAL GENERAL MEETING

Chair: The President, Prof. J. A. Raven, at 16.45 on 4th January 1996, at the University of Lancaster.

AGENDA

1. Minutes of the 43rd Annual General Meeting, held at University of Portsmouth on 5th January 1995.
2. Matters arising from the Minutes.
3. Presidential report
4. Reports from Council:
 - (a) Report of the Hon. Secretary
 - (b) Report of the Hon. Treasurer; presentation of accounts for 1995.
 - (c) Report of the Hon. Editor of the European Journal of Phycology.
 - (d) Report of the Hon. Membership Secretary.
 - (e) Report of the Hon. Editor of the Phycologist.
 - (f) Report of the Marine Algal Flora Committee.
 - (g) Report of the Freshwater Algal Flora Committee.
 - (h) Conservation Committee.
5. Election of Members of Council for 1996.
Council has made the following nomination for Hon. Membership Secretary:

Dr Laurence Carvalho
nominated: Prof. B. Moss
seconded: Mrs J.A. Moore

There are 3 vacancies for ordinary members of council to serve for 3 years.
Council has made the following nominations:

Prof. C.E. Gibson, nominated: Dr L.A. Terry
seconded: Dr M.J. Dring

Dr M. Brown, nominated: Prof. J.A. Raven
seconded: Dr C.A. Maggs

Dr D.A. Birkett, nominated: Dr C.A. Maggs
seconded: Dr A.M. Johnston

6. Subscriptions (to take effect in 1997).
Council recommends that subscriptions for members receiving the journal be increased to: £30 for members receiving journal; £30 for retired members and students receiving journal; Subscriptions for members, retired members and students not receiving the journal will remain at current levels.

7. Change to the constitution.
8. European Phycological Congress.
9. Election of auditor for 1996.
10. Any other business.

Please notify the Hon. Secretary before 9.00 on the 4th Jan. of any items for consideration.

British Phycological Society

Winter meeting 1996 - Programme

TUESDAY 2ND JANUARY 1996

BUFFET & POSTER SESSION: 19.00 (Buffet starts 19.00; Posters: 20.00 - 21.00)

Alabaster, J.C. & Dussart, G.B.J. (Canterbury Christ Church College)

Enteromorpha control using barley straw: an experimental story.

Betancourt, L., Abalde, J., Herrero, C. & Barwell, C.J. (University of Coruna, Spain & University of Portsmouth)

Effect of culture conditions on phycocyanin production by the unicellular cyanobacterium, *Synechococcus* sp. (Cyanophyta).

Butterwick, C. & Day, J.G. (Culture Centre of Algae & Protozoa, Windermere)

The use of a commercially available UV system to control an algal bloom.

Carta, W., Lobina, G. & Fletcher, R.L. (University of Portsmouth)

Periodicity in the release of gametes and zoospores of *Enteromorpha compresses* (L.) Grev. and *Ulva rigida* C.Ag. in Langstone Harbour, south coast of England.

Chellappa, N.I. (Universidade Federado do Rio Grande do Norte, Brazil)

Studies on microalgae of Rio Grande do Norte, Brazil. N₂ fixation by blue-green alga, *Gloeotrichia echinulata* Richter.

Clokie, J. (Pitkerrie, Rosshire)

Successional methods for controlling algal dominated facies in the marine littoral.

Day, J.G. (Culture Centre of Algae & Protozoa, Windermere)

CCAP - A living resource.

De Gregorio, S. & Fletcher, R.L. (University of Portsmouth)

Autecological studies of the Fucales (Phaeophyceae) in Langstone Harbour, south coast of England.

Diez, I. & Gorostiago, J.M. (Universidade Pais Vasco, Bilbao, Spain)

Recuperating process in the intertidal algal communities in the polluted area of Abra de Bilbao and proximal coast (Northern Spain).

Fleck, R.A., Day, J.G. & Benson, E.E. (CCAP, Windermere & University of Abertay Dundee)

A comparative study of cryopreservation strategies on different life stages of *Haematococcus pluvialis*.

Frogley, A.J. & Chatterjee, R. (NRA, Anglian Region)

Toxic algae and eutrophication control work at the NRA's National Centre for and persistent substances (TAPS).

Gorostiago, J.M., Santolaria, A., Secilla, A. & Diez, I. (Universidade Pais Vasco, Bilbao, Spain)

A preliminary study of the sublittoral benthic marine vegetation of the Spanish Basque Coast (Northern Spain).

Howat, J. & Gilmour, D.J. (University of Sheffield)*

Physiological adaptation of two unicellular green algae to pH stress.

- Hyenstrand, P., Pettersson, A. & Blomqvist, P.** (Institute of Limnology, Uppsala, Sweden)*
The importance of inorganic nitrogen species as regulatory factors for cyanobacterial dominance.
- Kelly, M.C. & Dodge, J.D.** (SOAFD Marine Laboratory, Aberdeen & Royal Holloway College, London)
The use of scallop (*Pecten maximum* L.) digestive systems in monitoring toxic dinoflagellate outbreaks.
- Krisdianto, Martin, N.J. & Ratchford, I.A.J.** (Simpang Empat Banjarbaru, Indonesia & Scottish Agricultural College, Ayr)
The effect of calcium ions on phosphate precipitation in high rate algal ponds (HRAP).
- Kübler, J.E. & Raven, J.A.** (University of Dundee)
The average seaweed: Do seaweeds simply integrate rapid variations in light supply
- Liukkonen, M., Kairesalo, T. & Haworth, E.Y.** (University of Helsinki, Finland & Institute of Freshwater Ecology, Ambleside)
Changes in the diatom community during the biomanipulation of Lake Vesijärvi: Paleolimnological analysis evidenced the initiation of a new species, *Actinocyclus normanii* fo. *subsalsa* into the lake's plankton.
- Martin, N.J. & Glasbey, C.A.** (Scottish Agricultural College, Ayr & University of Edinburgh)
Phycological applications of multimodal imaging.
- Poole, L.J. & Raven, J.A.** (University of Dundee)
The success of the genus *Enteromorpha*.
- Powtongsook, S. & Gilmour, D.J.** (University of Sheffield)*
Production of glycerol by immobilised *Dunaliella parva*.
- Price, R.T., Bott, T.R., Leadbeater, B.S.C., Holden, B. & Gubbins, B.** (University of Birmingham, Anglian Water Services, Cambridge & Bedford)*
The effect of ozone on the viability and ultrastructure of natural algal populations during water treatment.
- Probert, I.P., Erard-le Denn, E. & Lewis, J.** (University of Westminster)
Sexuality and encystment as a contributory factor in bloom decline - A preliminary field survey of an *Alexandrium minutum* bloom in the Aber Wrac'h, Brittany.
- Ratchford, I.A.J. & Fallowfield, H.J.** (Scottish Agricultural College, Ayr & Flinders University of South Australia)
The effect of light / dark cycles of medium frequency on the photosynthetic and respiration rates of *Chlorella vulgaris* 21 1/1 lc and *Synechococcus* 1479/5.
- Ratchford, I.A.J., Noble, R.C., Weaver, L.T. & Amarri, S.** (Scottish Agricultural College, Ayr & York Hill Sick Children's Hospital)
The production of ¹³C labelled docosahexaenoic acid from the marine microalga *Isochrysis* sp.
- Raven, J.A., Beardall, J., Johnston, A.M., Kübler, J.E. & McInroy, S.** (Monash University, Australia and University of Dundee)
Inorganic carbon acquisition by *Xiphophora chondrophylla* (Phaeophyta: Fucales).

- Reid, G. & Cox, E.J.** (The Natural History Museum, London)*
The morphology of some sigmoid Naviculaceae (Bacillariophyta).
- Riches, C.J., Rolph, C.E. & Robinson, P.K.** (University of Central Lancashire)
The effects of heavy metals on lipids from *Selenastrum capricornutum*.
- Rodriguez, D.I. & Merrett, M.J.** (University of Wales, Swansea)
Dissolved inorganic carbon utilisation by a marine picoeukaryote, *Micromonas pusilla*.
- Saker-Sampaio, S., Yang, M.H., Barwell, C.J. & Rogers, D.J.** (University of Portsmouth)
Seasonal content of vitamin E and pro-vitamin A carotenoids in *Palmaria palmata*.
- Schmid, R. & Maier, J.** (Universitat Marburg, Germany)
Inhibition of pterin biosynthesis eliminates stimulation of red-light photosynthesis by blue light in *Laminaria saccharine*.
- Skidmore, R.E., Maberly, S.C. & Whitton, B.A.** (Institute of Freshwater Ecology, Monkswood, IFE Windermere & University of Durham)
Phytoplankton dynamics in the Rivers Yorkshire Ouse and Trent, eastern England.
- Swain, L.J., Rogers, D.J., Critchley, A.T., Petraki, E.G. & Georgakopoulos, C.O.** (University of Portsmouth & University of Witwatersrand, Johannesburg, R.S.A.)
Lectins from species of the genus *Codium*.
- Webb, K. & Williams, D.M.** (The Natural History Museum, London)
The relationship between historical collections and the determination of biogeographic boundaries in *Fragilariaforma virescens*.
- Yang, M.-H., Huang, F.-L., Blunden, G. & Fletcher, R.L.** (University of Portsmouth)
The growth and development of juvenile stages of *Codium* spp. in relation to temperature, irradiance and salinity.

Posters marked * have been entered for the BPS Poster prize.

Those presenting posters should ensure that these are in place before the start of the evening session on Jan.2nd. The posters will be located near the lecture theatres so that it will also be possible to view them during the rest of the meeting.

WEDNESDAY 3RD JANUARY 1996

NUISANCE ALGAE AND THEIR CONTROL - FRESHWATER

- 9.00: Introduction** - R.I. Jones
- 9.10: Bailey-Watts, A.E. & May, L.** (Institute of Freshwater Ecology, Penicuik)
Modelling phytoplankton development.
- 9.20: Codd, G.A.** (University of Dundee)
Occurrence and significance of cyanobacterial toxins.
- 10.10: Phillips, G.** (NRA, Ipswich)
Algal control in the Norfolk Broads - What have we learnt in the last decade?
- 10.40: COFFEE**

- 11.10: Heaney, S.I., Foy, R.H., Smith, R.V. & Lennox, S.D.** (Department of Agriculture for Northern Ireland)
A catchment problem in controlling algae in Lough Neagh.
- 11.40: Kairesalo, T.** (University of Helsinki)
Control of cyanobacteria by biomanipulation.
- 12.10: Ridge, I. & Pillinger, J.** (The Open University, Milton Keynes)
Use of barley straw to control nuisance algae.

12.40: LUNCH

**SESSION A -
NUISANCE ALGAE AND THEIR CONTROL - MARINE**

- 14.00: Flynn, K.** (University of Wales Swansea)
Toxic marine phytoplankton: some aspects of nutrient ecophysiology.
- 14.30: Maggs, C.A.** (Queen's University Belfast)
Introduced marine macroalgae: are they a problem?
- 15.00: Callow, M.E.** (University of Birmingham)
Fouling of ships' hulls and static structures.

**SESSION B -
SYSTEMATICS**

- 14.00: Brodie, J., Hayes, P.K., Barker, G.A.L. & Irvine, L.M.** (Bath College of Higher Education, University of Bristol & The Natural History Museum)
Porphyra (Rhodophyta): new insights using classical and contemporary techniques.
- 14.20: Douglas, G.E.** (The Natural History Museum, London)
Taxonomic implications of ultrastructural studies of cellular development in photobionts from a specialised group of lichens.
- 14.40 Jones, H.L.J., Cockell, C & Rothschild, L.J.** (Imperial College London & NASA/Ames Research Centre, California, U.S.A.)
Intraspecies variation in *Poteroochromonas malhamensis* due to long-term culturing conditions.
- 15.00: Campbell, C.N. & Sidgwick, J.E.** (Culture Collection of Algae & Protozoa, Oban)
Chemotaxonomic studies on 3 "*Chlorella*" strains used in aquaculture.

15.20: TEA

**SESSION A -
NUISANCE ALGAE AND THEIR CONTROL - MARINE**

- 15.50: Fletcher, R.L.** (University of Portsmouth)
Epiphytism and fouling: a major problem in seaweed cultivation.
- 16.20: Raffaelli, D.** (University of Aberdeen)
Effects of macroalgal mats on coastal food webs.

- 16.50: Taylor, R. & Fletcher, R.L.** (University of Portsmouth)
Nutrient uptake and removal by "green tide" algae: applications to waste water treatment.

**SESSION B -
SYSTEMATICS**

- 15.50: Williams, D.M.** (The Natural History Museum, London)
New species in the diatom genus *Tetracyclus* and some implications for historical biogeography.
- 16.10: Fletcher, R.L.** (University of Portsmouth)
The occurrence of *Undari pinnatifida* Harvey) Suringar (Laminariales, Phaeophyceae) on the south coast of England.
- 16.30: Plumb, J. & Brodie, J.** (Bath College of Higher Education)
A temporal investigation into the endophytic flora of the red alga *Chondrus crispus*.
- 16.50: Whitton, B.A. & John, D.M.** (University of Durham & The Natural History Museum, London)
Towards a modern Freshwater Algal Flora for the British Isles.
- 19.00: DINNER**

BPS AUCTION

THURSDAY 4TH JANUARY 1996

**SESSION A -
PHOTOSYNTHESIS AND GROWTH**

- 9.00: Introduction**
- 9.10: Dring, M.J., Makarov, V., Schoschina, E. & Liining, K.** (Biologische Anstalt Helgoland, Germany & Murmansk Biological Institute, Russia)
Growth and chlorophyll fluorescence as indicators of UV-damage in different life-history stages of three species of *Laminaria*
- 9.30: Han, T.** (University of Inchon, Korea)
Effect of UV-B radiation on the growth and pigmentation of a green alga, *Ulva pertusa*.
- 9.50: Anning, T., Wyman, M. & Purdie, D.** (Plymouth Marine Laboratory & University of Southampton)
The expression of photosynthetic genes in natural populations of marine phytoplankton.
- 10.10: Geider, R.J. & MacIntyre, H.L.** (Plymouth Marine Laboratory & University of Delaware, U.S.A.)
Photosynthesis in fluctuating light: control of light-saturated CO₂ fixation by the concentration and activation state of the carboxylating enzyme ribulose biphosphate carboxylase/oxygenase.

**SESSION B -
MANTON PRIZE PRESENTATIONS**

- 9.00: Introduction**
- 9.10: Pye, K.E., Fletcher, R.L. & Fontana, D.** (University of Portsmouth)
"Green tide" algae of Langstone Harbour, south coast of England - local and seasonal variations.
- 9.30: Saville, P.J. & Johnston, A.M.** (University of Dundee)
Factors affecting isotopic discrimination of inorganic carbon during photosynthesis in marine phytoplankton.
- 9.50: Matthews, S.J.** (University of Hertfordshire)
An investigation into some aspects of the ecophysiology of planktonic diatoms from N.W. Scotland.
- 10.10: Hartley, A.M., Callow, M.E., Leadbeater, B.S.C. & House, W.A.** (University of Birmingham & Institute of Freshwater Biology, Wareham)
The precipitation of calcite in association with algal biofilms.
- 10.30: COFFEE**

**SESSION A -
PHOTOSYNTHESIS AND GROWTH**

- 11.00: Nimer, N.A. & Merrett, M.J.** (University of Wales Swansea)
Mechanisms of dissolved inorganic carbon utilization by marine phytoplankton species.
- 11.20: Brownlee, C.** (Marine Biological Association, Plymouth)
Costs and benefits of calcification in coccolithophores.

**SESSION B -
MANTON PRIZE PRESENTATIONS**

- 11.00: Jones, L., Farnham, W.F. & Gorostiaga, J.M.** (University of Portsmouth & Universidade Pais, Bilboa, Spain)
Fucus chalonii: attempts at elucidating its taxonomic position.
- 11.20: Hoef-Emden, K.** (Universität zu Köln, Germany)
Towards a revision of the genus *Cryptomonas*.

11.45: FOUNDERS' LECTURE

Reynolds, C.S. (Institute for Freshwater Ecology, Windermere) Potamoplankton does it on the side.

12.40: LUNCH

**SESSION A -
PHOTOSYNTHESIS AND GROWTH**

- 14.00: Hein, M.** (Freshwater Biological Laboratory, Hillerod, Denmark)
Carbon limitation of freshwater phytoplankton photosynthesis.
- 14.20: Maberly, S.C., Surif, M. & Parker, J.E.** (Institute of Freshwater Ecology, Ambleside & Universiti Sains Malaysia, Pulau Pinang, Malaysia)
The effect Of CO₂ concentration on the photosynthesis, growth and distribution of *Dinobryon* and other chrysophytes.
- 14.40: Köhler, J.** (Institute of Freshwater Ecology & Fisheries, Berlin, Germany)
In situ measurements of growth rates of phytoplankton populations in a lowland river.
- 15.00: Birkett, D.A., Savidge, G. & Dring, M.J.** (Queen's University, Belfast)
In situ measurements of macroalgal oxygen production in Strangford Lough, Northern Ireland.
- 15.20: TEA**

**SESSION A -
PHYSIOLOGY AND GROWTH**

- 15.40: Johnston, A.M.** (University of Dundee)
Photosynthesis and growth: the use of stable isotope analysis.
- 16.00: Raven, J.A.** (University of Dundee)
Prediction of algal growth rates from short-term measurements of photosynthetic rates.
- 16.20: General discussion.**

**SESSION B -
NUISANCE BLOOMS AND BIOCONTROL**

- 14.00: Bolton, J.J. & Joska, M.A.P.** (University of Cape Town, R.S.A.)
Water quality and growth of *Cladophora glomerata* (L.) Kiitz. in South African irrigation canals.
- 14.20: Ellaway, J., Douglas, G.E., John, D.M., Brooks, S.J., Jones, G.C. & Rundle, S.J.** (The Natural History Museum, London & University of Plymouth)
A bloom of the water net (*Hydrodictyon reticulatum*) in a eutrophic lake: its seasonality, cause and impact.
- 14.40: Glenn, R.F., Epton, H.A.S. & Sigeo, D.C.** (University of Manchester)
Biocontrol of blue-green algae using *Streptomyces*.
- 15.00 Andrews, M., Bellinger, E., Butler, R.D. & Sigeo, D.C.** (University of Manchester)
Biocontrol of cyanobacteria using protozoa.
- 15.20: TEA**

**SESSION B -
PLANKTON ECOLOGY**

- 15.40: Kennaway, G.M. & Novarino, G.** (The Natural History Museum)
Observations on suspended particulate matter and associated planktonic protists in coastal waters.
- 16.00: Jones, R.I. & Young, J.M.** (Lancaster University)
Autotrophic picoplankton in Loch Ness, Scotland.
- 16.20: Ball, S.J.** (Lancaster University)
The role of picophytoplankton in lakes of different trophic state.

16.45: British Phycological Society AGM

19.00 For 19.30: British Phycological Society Dinner
(Announcement of Manton prize winner)

FRIDAY 5TH JANUARY 1996

**SESSION A -
RESTING STAGES**

- 9.00: Introduction**
- 9.10: Eilertsen, H.C. & von Quillfeldt, C.H.** (University of Tromsø, Norway)
Entrainment and subsequent day-length regulated germination of diatom spores: A global mechanism?
- 9.30: Jewson, D.H.** (University of Ulster)
Resting stages in planktonic diatoms of Lake Baikal.
- 9.50: Kuwata, A.** (Institut de Ciències del Mar, Barcelona, Spain)
Survival mechanism of a marine planktonic diatom with resting stages under fluctuated nutrient environments.
- 10.10: Head, R.M.** (Lancaster University & IFE, Edinburgh)
The distribution of *Anabaena solitaria* akinetes in the upper sediments of a small lake.

**SESSION B -
MISCELLANY**

- 9.10: Kirkwood, J.A., Rowell, P. & Kerby, N.W.** (University of Dundee)
Sucrose phosphate synthase: a key enzyme in the osmotic response of *Synechococcus* PCC 6301)
- 9.30: Sigeo, D.C., Bellinger, E. & El-Bestawy** (University of Manchester)
X-ray microanalytical studies on the algae *Spirulina* and *Cyclotella* in a polluted subtropical lake.
- 9.50: Shubert, L.E.** (The Natural History Museum, London)
Factors affecting the abundance and productivity of periphyton.

10.10: Paterson, D.M. & Miles, A.C. (Gatty Marine Laboratory, St. Andrews)
Primary productivity, light and structure of intertidal diatom assemblages.

10.30: COFFEE

**SESSION A -
RESTING STAGES**

10.50: Rengefors, K. & Pettersson, K. (Institute of Limnology, Uppsala, Sweden)
Phosphorus uptake by resting cysts of the marine dinoflagellate *Scrippsiella trochoidea*.

11.10: Hallett, R.1. & Lewis, J. (University of Westminster)
The effect of salinity on the morphology of the cyst of *Lingulodinium polyedrum* (Dinophyceae).

11.30: Forsall, L. (Institute of Limnology, Uppsala, Sweden)
Phytoplankton migration - could the littoral zone be important?

11.50: Discussion

**SESSION B -
TOXINS AND THEIR EFFECTS**

10.50: Bell, S.J., Newlands, A.D., Pearson, M.J. & Codd, G.A. (University of Dundee & NRA, Anglian Region)
Effects of cyanobacterial toxins on fish and evidence for transmission through an aquatic food chain.

11.10: Ward, E.J. & Codd, G.A. (University of Dundee)
Comparative toxicity of four microcystins from *Microcystis aeruginosa* to the protozoan *Tetrahymena pyriformis*.

11.30: Raggett, S.L., Yunes, J.S., Niencheski, L.F. & Codd, G.A. (University of Dundee & Fundação Universidade do Rio Grande, Brazil)
Effects of salinity on the growth and toxicity of *Microcystis aeruginosa* and ecotoxicological studies on *Microcystis* blooms in the Patos Lagoon, Brazil.

12.00: LUNCH

**N.B. This is your only copy of the programme. Please remember to bring it with you to the meeting.*

Abstracts of all papers and posters presented will be published in the next issue of The Phycologist.

Amendments to the Constitution

Following our most recent changes (January 1994) to the British Psychological Society Constitution, the current constitution and rules were sent to the Charity Commissioners for approval. While accepting the constitution, they suggested two minor additions, which need to be approved at the next Annual General Meeting.

a. That the following proviso is inserted to Clause 11: "No one may be appointed as a co-opted member if, as a result, more than one third of the members of the council would be coopted members."

b. The following proviso should be added to the end of Clause 12: "Provided that all acts and proceedings of any such sub-committees shall be fully and promptly reported to the Council."

Clause 11 presently reads:

The Council shall have the power to co-opt any number of the Society to fill vacancies occurring during the year in Council, the tenure of such co-opted members shall terminate at the Annual General Meeting.

Clause 12 presently reads:

The Council shall have the power to appoint for any special purposes sub-committees consisting either wholly or in part of Council members.

These amendments will be voted upon at the Annual General Meeting in Lancaster. A full copy of the Constitution was published in *The Psychologist* No.37 (March 1994).

Marine macroalgal diversity in Indonesia.

F.G.Hardy, C.A.Suryono and Mulyadi.
Department of Marine Sciences and
Coastal Management, University of Newcastle,
Newcastle upon Tyne, NE1 7RU.

Indonesia is a huge archipelago with its territory being made up of at least as much sea as land, and it straddles a large portion of a region where many groups of important marine organisms reach the peak of their diversity. It contains a wide range of ecosystems including excellent examples of the whole range of tropical coastal communities amongst which are coral reefs, mangroves, sea-grasses and algal beds (Soegiarto and Polunin, 1982). It is located between the Asian and Australian continents stretching from 6 degrees North to 10 degrees South and from 95 to 142 degrees East. It comprises over 13,600 islands and has a coastline of about 81,000 km. Sumatra, Java and Kalimantan lie on the Sunda Shelf, which is the worlds largest continental shelf, while Irian Jaya and its neighbouring islands are situated on the Sahul Shelf. Between these two shallow continental shelves is much deeper water and the island groups belonging to Sulawesi, Maluku and Nusa Tenggara (Sheppard and Wells, 1988).

A few general accounts have specifically reviewed knowledge of the Indonesian seas as a habitat for diverse animals and plants (Weber, 1922 in Soegiarto and Polunin, 1982). Although much of the information is fragmentary, general works such as that of Ekman (1953) have for some time recognised Indo-Australian waters as exhibiting a peak in diversity of many of the major groups of marine organisms. Indonesia occupies a larger part than any other single country of this rich marine biogeographic province. John (1994) draws attention to the global analyses of seaweed floras by Tittley (1992) and Bolton (1994) where it is considered that parts of South East Asia (along with the Japanese Pacific, the tropical and subtropical western Atlantic, the Mediterranean, and the temperate regions of the North East Atlantic) are the most diverse. John (1994) further comments that small and isolated islands are usually cold spots of seaweed diversity reflecting their small coastline, often recent age, and problems of long distance dispersal. Such islands are extremely important in conservation terms if they contain many threatened endemic species. However, seaweed endemism is often low on these islands compared to that for land plants.

Remarkably little has been published in the past about seaweeds from Indonesia, and phycologists interested in the area have largely had to resort to the study of the floras of surrounding areas, such as Australia, Japan, Malaysia, Thailand and the Philippines. 196 species of green algae, 134 species of brown algae and 452 species of red algae have been recorded specifically from Indonesia. If, as suggested by John (1994), only 17% of the total number of species of algae are known, then there is considerable scope to increase this total of 782 species.

A most important source of information about the macroalgal flora of Indonesia is the paper by Taylor (1966) which not only records a variety of species but also lists many of the earlier references (Gilbert, 1942, 1943, 1946, 1947, 1961; Hillis, 1959, Thivy, 1945; Taylor, 1961, 1962, 1964, 1966; Velasquez, 1952, 1957; all in Taylor, 1966). In the 1980s there was a considerable increase in interest of Indonesian algae and there were two major International Oceanographic Expeditions: the Buginesia-III Project and the

- Mulyadi** (1995). Studies on hybridisation between species of the genus *Fucus* (Phaeophyta, Fucales). M.Phil. thesis, University of Newcastle upon Tyne.
- Saputro, S.** (1995). Ecological studies on temperate and tropical marine diatom populations. M.Phil. thesis, University of Newcastle upon Tyne.
- Sheppard, C. & Wells, S.M.** (1988). Coral Reefs of the World. Volume 2. Indian Ocean, Red Sea and Gulf. Cambridge, IUCN Conservation Monitoring Centre.
- Siregar, S.H.** (1995). The effects of pollution on temperate and tropical marine and estuarine diatoms. M.Phil. thesis, University of Newcastle upon Tyne.
- Soegiarto, A. & Polunin, N.V.C.** (1982). The Marine Environment of Indonesia. A report prepared for the Government of the Republic of Indonesia, under the sponsorship of the IUCN and WWF, Cambridge.
- Taylor, W.R.** (1966). Records of Asian and Western Pacific marine algae, particularly algae from Indonesia and the Philippines. *Pacif. Sci.*, 20, 342-359.
- Tittley, I.** (1992). Algae. In: Groombridge, B. (ed.) *Global Biodiversity Status of the earth's Living Resources*. pp.57-62. London, Chapman & Hall.
- Verheij, E. & Prud'homme van Reine, W.F.** (1993). Seaweeds of the Spermonde Archipelago, SW Sulawesi, Indonesia. *Blumea*, 37, 385-510.

Financial Matters

from the Hon. Treasurer, Lynne Terry

My Address

For those who did not notice my "new" address in the corresponding issue last year, I moved house about a year ago. My address is:

13 Harbour Street
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Subscription Renewals

A subscription reminder is enclosed with this issue. If you are not sure of the current status of your subscription please check with the Hon. Membership Secretary (NB Stephen Droop has handed over the membership records to Laurence Carvalho). To simplify administration of subscriptions please:

* send subscription renewals to Laurence Carvalho;

*write very clearly, particularly when filling in details of your credit card. Every year payments are rejected by the bank because I can't read the correct numbers. Some people use a hieroglyphic resembling "Y". I don't now whether this is meant to be "1", "4" or "7"! Please make sure that "3" does not end up looking "8";

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*if you still have a Banker's Order in favour of the Society's account at the Midland Bank in London please change it to the Bank of Scotland in Aberdeen, as per the renewal form; and

*Please do NOT send any advance subscriptions for 1997.

Subscription Increase for 1997

Council will put a motion to the AGM in January that the subscriptions be increased in 1997 by £10 per annum for those members taking the European Journal of Phycology; members who do not take the Journal being unaffected by the proposed increase.

The subscriptions were last increased in 1994 and will, by the time the new rates take effect, have been held at the 1994 rates for a 3-year period. It is hoped that, providing inflation continues at a relatively low level, the subscriptions will be able to be held at the new rate until the year 2000. Although the Society made a healthy surplus in 1993/94 and will return a further surplus in 1994/95, expenditure in 1996 is expected to be significantly higher. Council having already approved support for:

* The 1 st European Phycological Congress in Cologne (£1, 000);

*Financial support (level yet to be determined) for students of the Society who are giving presentations at the Congress;

*Summer, undergraduate studentships (initially a maximum of 2 per year to maximum of £500 each);

*A poster prize at the Winter meeting, commencing 1996;

*Support for the Freshwater Flora.Council has approved, in principle, small grant support for individual contributors to the project to a maximum in total of £10,000 over the life of the project, i.e. an anticipated additional annual expenditure of £2,000.

Historically, the Society has subsidised the cost of the Journal to members. This is in addition to the large price reduction which members get from the publisher compared with the price to institutions. It is Council's policy to gradually reduce the subsidy which the Society makes to individual members so as to bring the rates in line with those charged to members of other European Societies. In addition, the Journal will increase in page size by approximately 20% per issue in 1996 and it is anticipated that the number of issues will increase from 4 to 6 before a further increase in subscription rates is sought.

In 1995 and 1996 the cost to members for the Journal is £15 and the cost for members of other European Societies £25. The Society pays the publisher £20 per BPS member. The rate to the Society from the publisher has been held at £20 for 1996 on the understanding that it will be increased significantly in 1997. Although the rates to the Society have not been agreed for 1997, I anticipate that the Society will be subsidising members' subscriptions before a further increase in subscriptions is proposed. Even with the increase, members taking the Journal will still be getting excellent value for their money!

With best wishes for the festive season.

Lynne Terry
Hon. Treasurer

Strictly Marginal

by

R.H.Richens, G.E.Fogg & R.A.Lewin

A tour-de-force 10 around the British Isles in 1941 surveying for seaweeds, WRENS and engine parts (not necessarily in that order). Your chance to find out how these eminent phycologists got started. To quote one of the authors:

"After fifty years these juvenilia have been dusted off and are here presented to a public which, it is hoped, will regard them indulgently as a quaint medley of social and phycological by-gones. Should they fall into the hands of a historian he or she will scarcely need to be warned that some degree of artistic licence was exercised in putting the narrative together.

Two of the principal characters-the Gauleiter, later Professor V.J.Chapman of the University of Auckland, New Zealand, and Dick, later Dr. R.H. Richens, Cambridge-are, very sadly, no longer with us to blush at the exhumation of youthful follies. Of the survivors, Ralph, now Dr. R.A. Lewin, a doyen of the Scripps Institution of Oceanography, California, preserves the happy indifference to raised eyebrows which he has always had. Gordon, F.E. ('Tony') Fogg, now Emeritus Professor of Marine Biology in the University of Wales, as editor of this abridged version has had opportunity for judicious pruning"

180 pp (approx.) with drawings by G.E.Fogg
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Freshwater Algae

Their microscopic world explored

by
Hilda Canter-Lund & John W.G.Lund

This book contains a selection of Dr Canter's impressive photographs of microscopic algae and their enemies. Around these pictures Dr Lund has woven a commentary which, while in no sense a textbook, gives a fascinating introduction to the world of freshwater algae. All the major freshwater algal groups are represented together with parasitic fungi, protozoan and other invertebrate predators. The book draws on the vast experience of both authors and provides a comprehensive photographic display of these organisms as seen through the microscope. It makes a rich visual and written account which will appeal to everyone interested in or concerned with the aquatic world.

Hardback: 360pp. including over 600 illustrations, more than half in colour, Price £49.50+£4.00 p&p
ISBN: 0-948737-25-5

Order direct from: Biopress Limited, The Orchard, Clanage Road, Bristol BS3 2JX, England, United Kingdom.

Information and notes

I.B.E.C., call for ideas

The Institute of Biology, Environment Committee, recently decided to develop a strategy of becoming more proactive on science issues in the UK. In this regard, members were asked to poll their respective societies for general and specific topics that would be appropriate for the Environment Committee to undertake in the next 12-18 months. Some of the topics mentioned were: biodiversity, research and government policy, importance of taxonomy, E.U. science policies, specific sites that require scientific attention and/or protection, biological monitoring, etc. If you have any ideas, concerns, suggestions, etc, please send to me by post, E-mail, or Fax, no later than 15th December 1995. Thank you. L.Elliot Shubert (temporary replacement for Martin Gibson), Affiliated Society Representative (BPS). Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD; E-mail: e.shubert@nhm.ac.uk; Fax:0171938 9260

Dr.L.Elliot Shubert, Department of Botany, The Natural History Museum, London SW7 5BD UK.

BPS Auction

Items for the auction should be brought to the meeting or sent to Maureen Callow or Jenny Moore. Proceeds from the auction will provide financial support to Ph.D students attending BPS meetings and the First European Phycological Congress in Cologne.

Maureen Callow
Dept. of Botany
The Natural History Museum
Cromwell Road
London SW7 5BD, UK.

Jenny Moore
School of Biological Sciences
University of Birmingham
Birmingham B15 2TT, UK.

Forthcoming meetings

Christian Gottfried Ehrenberg (1795-1876): **The Man and his Legacy**

Dr. D.M. Williams and Dr. R.Huxley
The Linnean Society, 14th December 1995

2.00pm Introduction

Dr. David M. Williams and Dr. Rob Huxley, Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD.

2.10pm C.G Ehrenberg: The Man and his Science

Dr. Regine Jahn, Botanischer Garten und Botanisches Museum Berlin-Dahlem, Koenigin- Luise-Str.6-8, D-14191 Berlin, Germany.

2.45pm The Ehrenberg Collection and its Curation

Dr. David Lazarus, Geologisches Institut, ETH-Zentrum CH-8092, Zurich, Switzerland.

3.20pm When is a Plant an Animal? Unravelling Ehrenberg's names.

Dr. Rob Huxley and Dr. David M. Williams, Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD

4.15pm The Mortality and Economics of Euthanasia for old Collections

Dr. David Mann, Royal Botanic Garden Edinburgh, Inverleith Row, Edinburgh EH3 5 LR.

4.50pm Closing discussions

5.15pm Finish.

Further details are available from David M. Williams
(d.m.williams@nhm.ac.uk) or Rob Huxley
(r.huxley@nhm.ac.uk)

News of your Editors

Robert Edyvean

Robert Edyvean, who seems to have taken on the role of special publications editor (see the advert for "Strictly Marginal" in this issue) has moved down the road from Leeds to take up a Readership in Chemical Engineering at the University of Sheffield. His address is;

Dr.R.G.J.Edyvean
Process Engineering
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Unlike at Leeds E-mail to Robert goes straight to his desk PC. So he has no excuses!

Judith A.Taylor

Judith has moved from I.F.E. Windermere to Lancaster University. Her address is as follows;

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STRICTLY MARGINAL

BY R.H.RICHENS

with verses by R. A. LEWIN

and

illustrations by G.E.FOGG

At the outbreak of the Second World War the UK was cut off from its accustomed supplies of agar and alginic acid and an urgent survey of the seaweed resources of the British Isles became necessary. This was carried out by four members of the Cambridge Botany School working for the Marine Biological Association under contract to the Ministry of Supply. For the participants it was a unique opportunity to see a large part of the unspoilt British coastline and to become acquainted with the variety of communities which lived by it. Their bohemian appearance and peculiar activities naturally aroused deep suspicions in the minds of the police and those responsible for coastal defence, and their travels were not devoid of incident. Afterwards, the three junior members of the team put together, with some artistic licence, their story of the survey. The phycological content of this account is indeed marginal but its record of youthful excesses and undergraduate philosophies, having accumulated the dust of fifty years, is now put before a, hopefully, indulgent public as a quaint fragment of social history.

The publication date will be 1st. January 1996 and the book will be on sale at the Lancaster meeting of the Society, from 2-5th January 1996, at a special price of £8.00. The subsequent price for copies ordered by post will be (including postage and credit card costs):

Within the U.K.	£14.00
Europe	£18.00
Rest of World	£20.00

The address for mail orders (credit cards accepted):

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