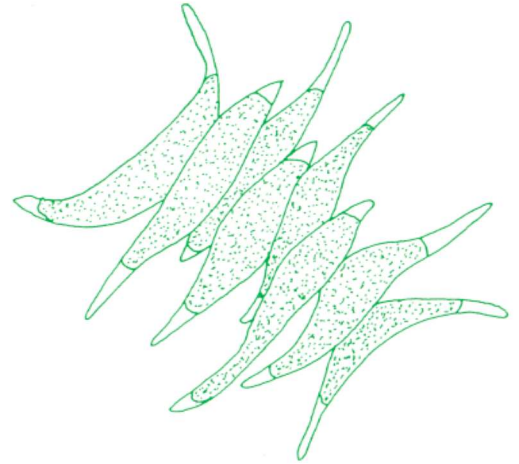


The Phycologist



**The Newsletter of The
British Phycological Society**

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NEW ASSOCIATE EDITORS APPOINTED

The decision of Council to rename the newsletter and produce it to strict deadlines three times per year has led to a requirement for help in its production. It was therefore decided to appoint two associate editors for THE PHYCOLOGIST.

Their essential role is to ensure deadlines are met. Thus they will be chasing authors, advertisements and other copy as well as collating copy and (hopefully - though I haven't told them yet) putting various bits on disc to ease the final compilation.

They will also have a free hand to dream up and develop new ideas for THE PHYCOLOGIST - new series of articles, comment columns etc. so watch this space.

Phil Wright and David Williams have been appointed as the first associate editors and their addresses are given below. Do get in touch with them with any ideas or comments.

(However, these new associate editors are too far away to do the nasty work like stuffing and addressing envelopes! - ed.)

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

Tel:- 071 938 8819 Fax:- 071 938 9260

Philip J. Wright, School of Biological Sciences, The University of Birmingham, P.O. Box 363, Birmingham, B15 2TT.

Tel:- 021 414 5579 Fax:- 021 414 5925

NEW COPY DEADLINES:

JANUARY 31

MAY 31

SEPTEMBER 30

**PLEASE TRY TO SEND ALL
COPY ON COMPUTER DISC**

XIVth INTERNATIONAL SEAWEED SYMPOSIUM, FRANCE, 16-21 AUGUST 1992.

For details contact:- The Secretariat, XIVth International Seaweed symposium, Universite de Bretagne Occidentale, Institut d'Etudes Marines, 6 Avenue Le Gorgeu, 29287 BREST Cedex France.

REPORTS ON THE WINTER MEETING

BIRMINGHAM, JANUARY 6-9 1992

BRUM '92 - A CITY FIT FOR PHYCOLOGISTS

FROM THE OLD HAND.....

A personal view of the B.P.S. winter meeting held at the University of Birmingham, 6-9 January 1992. by M.J.Dring.

Birmingham, my great-uncle used to say, lies at the centre of England. While this may not have been of much assistance to those of us travelling from Scotland or Ireland, it probably helped push the total attendance at this meeting over the 200 mark for the first time. Another factor of undoubted importance, however, was the inclusion in the programme of a one-day session on "Algae and water quality" which was targeted at the growing section of the British water industry concerned with biological monitoring. The success of this session can be judged from the fact that over 50 participants were from water companies, rather than from academic institutions, and the somewhat meagre attendance at sessions on "Physiology/ biochemistry" and "Cell/ molecular biology" which attempted to compete with it. This should serve as a salutary reminder that what some of us do is not as useless as we, ourselves, often like to pretend, and that there may be an inverse correlation between academic fashionability and down-to-water usefulness.

The first evening of the meeting was devoted to a poster session and buffet, designed to refresh and stimulate the minds and the bodies, respectively, of phycologists wearied by their travels to the "centre of England". The buffet was generously sponsored by a number of water or environmental companies and publishers, most of whom also contributed posters or exhibits. The apparently endless supply of wine certainly stimulated discussion around the posters (23 in all), and probably meant that the authors were more thoroughly "blooded" than those who had decided on the 'soft option' of an oral presentation. The pros and cons of posters and papers are finely balanced, but lubricated discussion sessions like this, which are now standard at B.P.S. meetings, seem to me to tip the balance in favour of

posters. You can collar the people who you really want comments from (instead of seeing them disappear into the other parallel paper session), and you can often benefit from the results of 'lateral thinking' - i.e. cross-fertilisation from adjacent posters.

The first full day of the meeting was "Water Day" but, in spite of the promise of several B.P.S. star performers in the programme for the water session, I elected to sample the "Physiology/biochemistry" session, which came in the form of a John Raven double-decker sandwich - i.e. 3 layers of JAR surrounding 2 layers of mixed filling! After this diet of mainly inorganic carbon, whose weight was increased to various extents with ^{13}C , I was relieved to find that the organisers had arranged a light salad lunch (other conference organisers please note!). Then it was time to avoid the water industry again in favour of "Cell and molecular biology" and to enjoy a wide-ranging series of papers showing how the techniques of molecular biology are being used to illuminate aspects of the physiological ecology of blue-greens, the evolution of chromophyte plastids, and fertilisation in *Fucus*.

The final session of the day was billed as the 'Foundation Meeting' of the proposed *European Federation of Phycological Societies* and promised to be one of the highlights of the meeting which, we hoped, would attract a substantial European attendance. In the event, however, the number of participants from continental Europe was lower than for many years (surely they weren't put off by all those stories about British water being the dirtiest in Europe?!). This was particularly disappointing because a preliminary meeting held in Germany last March had indicated that there was a lot of enthusiasm for a Federation, and had welcomed our representatives' invitation to hold the inaugural meeting at Birmingham. The imminent re-launch of the *British Phycological Journal* as the *European Journal of Phycology* had also been planned to coincide with the establishment of a *European Federation of Phycological Societies*, which could, eventually, take over the running of the Journal. I

would be like to hear the views of European members about why so few of them attended this meeting, and about whether there really is a need for a E.F.P.S. - why not send them to the Editor of this Newsletter?

Luckily, there was an excellent opportunity after dinner to work out any frustration built up during this non-meeting and the resultant failure to inaugurate a Federation. The occasion was the inauguration of another major phycological event - the B.P.S. Disco. Unfortunately, I had to use this part of the evening to work on my paper, but the disco certainly sounded good from four floors away, and the stories that I heard over the breakfast the next morning were even better! The highlight of the next morning - and, with the possible exception of the disco, the highlight of the whole meeting - was the 2nd Founders' Lecture by Peter Tyler (University of Tasmania). His title was variously rendered as "A land fit for algae" and "Paradise for phycologists", but his intention was clear - to deliver a phycological ode to the island of Tasmania as a whole and to the upland lakes of the eastern World Heritage

AND THE NEW.....

A research Students view - by Digby Harris

It could not be said that this year's winter meeting was sparsely attended, people had flocked from all over the British Isles, indeed the world, to attend this most prestigious event. The evening of Monday 6th saw the start of the poster session on subjects as wide ranging as Dinoflagellate distributions in the North Sea (J.D.Dodge) to the effects of seaweed extract on the chlorophyll content in tomato plant leaves (C. Whapham et al.), a "must" for you budding horticulturists! It was also a time to catch up on the latest developments, research, and gossip with colleagues not seen since last year's meeting.

On Tuesday morning I was one of the many who attended Brian Whitton's lecture on predicting nuisance algae of the year 2000. The future looks rosy if you're a blue-green whose mission in life appears to be the maximum disruption of human and bovine aquatic activity! However, all is not safe for the terrestrial fraternity either, *Nostoc* and *Cylindrocystis* have even found their way onto the golf courses! The slippery masses lie in wait for some poor unsuspecting soul to fall base over apex in the event of placing a foot in the wrong place. Is nowhere safe?? The morning session continued with a talk by Eileen Cox on diatoms as indicators of river water quality, it's about time the potential of these ubiquitous algae was realised, N.R.A. take note! S. Marshall highlighted the methods and difficulties associated with using algae for toxicity

Area in particular. He followed Tony Fogg's lead in the 1st Founders' Lecture 2 years ago by giving a personal, anecdotal talk, rather than a formal, "scientific" lecture, and he succeeded brilliantly in entertaining, enthralling and enthusing us all with his (after this, it's no longer van Dieman's) land. The 3rd Founders' Lecturer certainly has a hard act to follow.

I find that the remainder of the last day-and-a-half of the meeting has been largely obscured by the snow that was falling as we left Birmingham - meeting tiredness sets in early at this time of year. We had visions as we left of spending the night in a snow drift on the road to Stranraer, but Birmingham appeared to be the central attraction for snow as well as for phycologists this year, and we saw little more of either once we had left the city behind.

M.J. Dring. Queens University, Belfast.

testing. It would seem that much work is still required on the techniques and the search for the ideal test alga.

After coffee, Session A continued with talks from Dundee University and the N.R.A. on blue-green algae. Geoff Codd concluded that of all the water bodies examined in the UK for blue-greens, 66% were discovered to be toxic. Alarmingly, the list of blue green species found to be toxic is increasing and includes that of a benthic *Oscillatoria* species. The anglian Region of the N.R.A. (have been busy since their formation in 1989 and) have formed a Toxic Algal Task Group in response to the blue-green algal issue. The Task Group has produced a publicity leaflet to emphasize the problem to the public, and has instigated a monitoring program. However, S. Hawser informed us that cyanobacteria are not restricted to freshwater and should you fancy a swim in the sea beware of swimmers itch (contact dermatitis), contrary to popular opinion this is not necessarily caused by sewage pollution but *Nodularia spumigena*. Is this the start of cyanobacterial world domination I ask myself? (and a subject for the next Winter Meeting - ed)

Following lunch, talk turned to algal control, possible solutions were put forward by Brian Moss including the use of Alum to precipitate out the algae. In the Norfolk Broads G. Philips control measures centred around phosphate stripping, however, sediments were found to release phosphate even under aerobic conditions, thus defeating the object. Could the answer centre around something as simple as bales of barley straw? P. Barret and J. Newman seem to think so. AFRC trials in the Chesterfield canal have shown that straw does indeed have an inhibitory effect on algal growth but works best

under lotic conditions, preferably with numerous locks in which to store the straw! Alternatively L. Carvalho has discovered a solution for eutrophication lentic systems. This involves the input of sewage effluent which reduces the dissolved oxygen levels thus devoting the lake of any piscine activity. This, in turn, eliminates the grazing pressure on *Daphnia* which then feasts on the phytoplankton, QED.

The final session of the day centred around algae and the water industry. Barry Leadbeater explained the problems of algal interference in the water treatment process, including taste and odour, filter clogging and the production of THMs. Many of these problems may be alleviated by storage prior to use, therefore encouraging settlement of suspended particles and bacterial degeneration. B. Croll continued on the same theme stating that the reduction of "dirty water" from our mains systems requires elimination of particulate and dissolved carbon sources. A solution to these problems seems to be the synergistic interaction between activated carbon and ozone treatment as described by K. Kaur (Severn Trent Water Ltd.). Hopefully, this may soon spell the last for algal interference in treated water, in the Severn Trent region at least!

On Wednesday, I attended Session B, the ecology and physiology session. Topics ranged from Matt Dring's lecture on improved underwater light measuring techniques, through the ecology of algal assemblages in Yeman and Newfoundland, to saltmarsh cyanobacterial guzzling amoebae (could our future be safe after all?). The first instalment ended with K. Berube discussing image analysis techniques for observing salt shock in *Dunaliella bioculata*.

The 2nd Founders Lecture was given by Paul Tyler from Tasmania and originally entitled "A land fit for algae". Tasmania contains a lake district of its own, the beauty of which is that it is predominantly untouched by man. The lake district arose largely as a consequence of the local geology and climate. The lakes exhibit nearly every trophic state, ensuring a tremendous range in not only algal diversity, but other flora and fauna as well. I apologise for the lack of detail but I neglected to write anything down, being engrossed in the talk, the superb slides and also unable to see my notes in the dark! However, many of the species described have never been seen before and these include a vast range of desmids.

Where man has interfered, spectacular results have ensued. In one particular case a vast area containing considerable numbers of large plants with complex aerial root systems (the names of which escape me) was flooded to provide water for the lowland areas. This resulted in the mass decay of the root systems and

subsequent release of trapped nutrients from the previously stable sediments. Needless to say this produced the biggest bowl of "pea soup" ever seen due to the prolific phytoplankton bloom! Efforts are now being made to return the area to its original status.

After attending this lecture, I for one would like to visit this country in the future.

In the afternoon I attended the "Port Erin" lectures, however, the first talk was delivered by R. Hooper from Canada in which he spoke about variations in the onset and duration of the reproductive season of seaweeds in relation to pack-ice. This was followed by J. Creed discussing the inverse relationship observed between plant density and biomass in *Fucus vesiculosus* on the Isle of Man. M. Figueirido, also from Port Erin, addressed the issue of crustose coralline algal survival in relation to shading by the fucoid canopy. The epiphytic algae appear to have a propitious effect on *Phymatolithon spp.* survival by providing shade and preventing dessication. The final "Port Erin" paper was delivered by T. Han and centred around the ability of *Laminaria hyperborea* sporophytes to survive only certain levels of irradiance. Tolerance to high light intensities and certain wavelengths is acquired with age.

The Society dinner took place in the evening followed by the auction. Some real bargains were to be had, but I did notice that those bidding for reprints often received many more than one of each!

The final morning saw the continuation of the previous days deluge, which later turned to snow. This didn't interrupt the proceedings and the talks continued until lunch. I saw the presentation by J. Brodie on a new species of *Liagora* found in Florida, little did this alga appreciate the weather here at present! This was followed by a presentation from A. Brook on the taxonomic revisions to the polymorphic Desmidiaceae. It appears that much work is required in this area as species names have previously been awarded to different stages of the same desmid. Finally David Williams spoke on the subject of diatom biogeography. The historical factor as opposed to ecological considerations may be more significant than previously thought when deliberating the presence of diatom communities in a particular area.

As may be seen, a wide range of subjects were covered at the conference with a definite focus on nuisance algae and algae and the water industry, areas which I feel can only expand. I have gone home feeling somewhat more enlightened! See you next year.

Digby Harris, Research student, Polytechnic of Central London.

POSITIONS VACANT AND WANTED

(With the new production schedule of "The Phycologist" it is hoped that "Positions vacant and wanted" will become a more regular feature. - Please note the copy deadlines and remember that the advertisement will reach the membership some 3-4 weeks after the deadline - all copy to be sent to the editor)

POSTDOCTORAL RESEARCH POSTS AT THE UNIVERSITY OF LEEDS, UK.

Two postdoctoral research posts are available for work in the area of biotechnology applied to pollution control. One post is available now and will be for three years and the other in one years time and run for two years.

The project involves the use of biological processes, particularly bioadsorption, to remove highly coloured organic chemicals from industrial waste waters with the aim of reducing effluent colour and COD.

While there is no restriction on the background of the people appointed it is likely that one post will suit someone with a biology, biotechnology, or biochemical background while the other will suit someone with an

engineering, particularly chemical engineering, background.

The posts are funded under an Industry/ Department of the Environment/ Department of Trade and Industry ETIS (Environmental Technology Innovation Scheme) programme.

Candidates are invited to send their CV as soon as possible, with a covering letter and the names and addresses of two referees to:

Dr. R.G.J.Edyvean
Department of Chemical Engineering
The University of Leeds
Leeds LS2 9JT.

From whom further details can be obtained.

NEWS OF MEMBERS

PROFESSOR L.V.EVANS

Len Evans, formally of The University of Leeds, recently moved to the Chair of Life Sciences and Head of Department at the University of Buckingham. Research there is currently focussed largely on animal biochemistry and physiology, including, for example pituitary regulation of insulin secretion in diabetes and obesity, and airway mucus control. However, Len is

planning to build up plant research (taking over from another Phycologist, Professor Alan Brook), continuing in particular the pure and applied studies on seaweeds for which he is well known. He welcomes enquiries, which should be addressed to him at The Clore Laboratory for Life Sciences, The University of Buckingham, Buckingham MK18 1EG, UK (Tel. 0280 814080; Fax 0280 822245).

THE BRITISH PHYCOLOGICAL SOCIETY WINTER MEETING

SWANSEA, JANUARY 4-7 1993

The BPS Winter Meeting 1993 will be held at the University of Wales, Swansea from Monday 4th January to Thursday 7th January 1993. The local secretary is:

Dr. Kevin Flynn, Biological Sciences
University of Wales, Swansea
Singleton Park Swansea SA2 8PP

Tel: 0792 295726 Fax: 0792 295447

The format of the meeting will be similar to that in Birmingham in 1992, with an "Industry Day" on the Tuesday. That day will see the consideration of topics appropriate to water companies and other bodies associated with the well being of inshore and coastal areas.

Topics which could be considered include:-

"Nuisance" algae (by appearance, odour, toxicity etc.) and changes in algal communities with respect to

dissolved and particulate discharges (domestic, industrial, agricultural).

The effects of thermal pollution, barrages and other coastal engineering projects and the introduction of alien species.

Fouling and antifouling

Mariculture, including feed for fish and shell fish and macrophyte production.

Any offers, or suggestions for the content and promotion of this meeting would be much appreciated. Please send any comments either to the local secretary or to:-

Dr. R. Fletcher
The Marine Laboratory, Portsmouth Polytechnic
Ferry Road Hayling Island, Hants PO11 0DG

THE BIOLOGY OF THE PRYMNESIOPHYTA

PLYMOUTH UK, 29-3 - 1-4 1993

A Conference of The Systematics Association

The aim of this international symposium is to bring together phycologists, marine and freshwater ecologists, biochemists, and all others who have an interest in this important group of organisms. Contributions on any aspect of prymnesiophyte biology, ecology, physiology or biochemistry will be welcome. Sessions will include invited and volunteered contributions, and there will be poster sessions and opportunities for informal workshops.

For further details, and for the submission of paper and poster titles and suggestions for workshops, contact:

Dr. J.C.Green,
Plymouth Marine Laboratory,
Citadel Hill, Plymouth PL1 2PB.
Tel: 0752 222772 Fax: 0752 226865

or
Dr. B.S.C.Leadbeater,
School of Biological sciences,
The University, PO Box 363,
Birmingham, B15 2TT
Tel: 021 414 5567 Fax: 021 414 5924

BRITISH PHYCOLOGICAL SOCIETY

FIELD MEETING

SEAWEED IDENTIFICATION COURSE

Friday-Sunday 17th-19th July 1992

Anglesey

Course director: Dr Eifion Jones

This field course is intended for professionals, students and amateurs who need or wish to acquire a knowledge of the seaweed flora of British shores.

For further details please contact:

Dr Juliet Brodie,
Bath College of Higher Education,
Newton Park,
Newton St. Loe,
Bath BA2 9BN.

THE FIFTH INTERNATIONAL SEAWEED BIOGEOGRAPHY WORKSHOP

JULY 1993

UNIVERSITY OF CAPE TOWN, SOUTH AFRICA

The fifth International Seaweed Biogeography Workshop will take place in the week of 10-17 July 1993 at the University of Cape Town, South Africa.

It is proposed that the workshop should concentrate particularly on seaweed biogeography of southern hemispheres - a topic which has been neglected in past workshops. However, studies on other areas will not be excluded, as input of biogeographers working in the northern hemisphere is essential at this stage.

More details will be published in the next Newsletter, or contact:

Dr. John J. Bolton
Botany Department
University of Cape Town
Rondebosch 7700
South Africa.

Tel: 021 650 3402

Fax: 021 650 3726

WTi's ALGAE COURSE

I was fortunate enough to be able to attend, in November of last year, Water Training international's Algal identification and interpretation of data course held at Burn Hall near York.

Working as an algologist in an environmental consultancy and being faced with solving applied problems, mostly involving nuisance algal growths, I anticipated that it would be of benefit to me. I was not disappointed!

Under the expert tutoring of Drs Eddie Bellinger and Colin Reynolds in the very pleasant rural setting of Burn Hall we were led through a well structured timetable over the five days of the course.

I found it useful to "brush up" on my general algal taxonomy and clear up any particular identification problems that had been niggling me with the aid of the good range of fresh and preserved algal material that was provided. although no field work was carried out - my only disappointment - very useful discussion on sampling and laboratory techniques took place.

The interaction of algae and their environment was covered, providing valuable insights into how particular algal assemblages are indicative of particular water conditions such as trophic status and degree of water column mixing. Leading on from this, the controlled manipulation of algal community types by means of various water management strategies was considered.

The problems of algae in reservoirs and in water treatment operations were detailed, coupled with very useful interactive problem solving exercises involving case studies of applied problems previously encountered by the tutors.

All in all an extremely enjoyable and stimulating week providing many useful insights into a subject close to my heart - highly recommended!

Dr. Paul Joslin, Acer Environmental,
Howard Court, Manor Park, Runcorn Cheshire
WA7 1SJ

Founders' lecture was given by Dr P.A.Tyler, one of the current Vice-Presidents of the Society, which was a particular pleasure. An abstract booklet was produced for the meeting.

The Hon.Secretary expressed her thanks to several colleagues (in particular the Photographic and Reprographic Unit, Dept. of Animal & Plant Sciences, Sheffield), who helped with layout and presentation, and assisted with the folding and dispatch of circulars and programmes.

Dissatisfaction about the positioning of the posters and the fact papers were not of the same duration were expressed. Some of the practical difficulties were mentioned, but it was agreed that both issues would be considered for future meetings.

b. Hon.Treasurer. Thanks were expressed to Dr J.C.Green, Dr L.A.Terry and the auditors for their help as the Hon.Treasurer completed her first year of service. There had been problems with the banks but it was hoped that these were now resolved.

The financial statement for 1991 was presented. Subscriptions had been down but were now recovered. Profit from the Journal had increased to 5700. The Society is running at a loss of 2700 but this will be offset by the increase in membership dues. Contributions to income came from Drs Edyvean (advertising income - Newsletter); Happey-Wood (surplus from the Bangor Winter Meeting); Kerby (industrial support) and those who contributed to the auction.

Interest rates remained fairly favourable so that there were reasonable earnings on capital. The bank inadvertently taxed the society on its interest, but this has since been recovered. Credit card service charges have been raised to 3% this year so it has become necessary to charge 60p extra to those members who choose to pay in this way.

Awards from the Scientific fund were more than doubled, although this did not meet demand. Extra income mentioned above met the additional cost.

The Scientific Meetings and Irene Manton funds will be accounted for separately; the latter will be used to fund a student prize.

Because of the change of amount and bank the Hon.Treasurer expressed concern about Banker's orders. Members were asked to check and if they had not done so, to change their orders immediately.

c. Hon.Editor of the Journal. Production of Volume 26 proceeded normally and appeared on time. The Abstracts from the last winter meeting appeared in the March issue although two were inadvertently omitted and appeared in June. It was not possible to correct any inaccuracies if errata were not to proliferate, but a tighter schedule has allowed proofs of the Abstracts to be available during the meeting so that authors can check their own proofs.

Numbers of manuscripts submitted was comparable with the average of previous years. Rejection rate remains stable at about 25%. This is scarcely sufficient

to sustain the journal in its present form, underlining the need for reassessment of the future of the journal.

The Hon.Editor expressed his appreciation of the time and effort given by referees during 1991.

In reply to a question concerning delay between receipt and publication, the Hon.Editor replied that the minimum time achieved between receipt and notifying the authors of acceptance was 2 weeks; time to appearance could be up to 3 months later, depending on the timing with respect to publication of the parts.

Dr D.G.Mann offered his congratulations to the Hon.Editor for the work he performed.

d. Membership Secretary. Progress is being made on the computerization of records although this is not yet complete. Prof.W.D.P.Stewart was made an Honorary Member of the Society by unanimous decision of Council. A summary of the membership was presented. Losses exceeded gains, so that the total membership and active membership were both down on 1991 although there was a slight increase in new members. Banking associates are those whose bankers orders have not been up-dated and thus have not paid the full subscription. Numbers in arrears at 20th Sept. 1991 were higher but this may have been due to call for subscriptions for 1991 being inconspicuous within circulated information. Four new members have joined in advance for 1992.

The Membership Secretary was not 100% happy about the term associate member as this implies second-class status, which is not the case. It was recommended that this be changed to member not taking the journal. Full member becomes member taking the journal.

Members were encouraged to return the green membership forms as this information will go onto the database. Similarly any problems concerning receipt of the journal should be addressed to the Membership Secretary.

Dr J.M.Jones suggested that there was a place for members to offer to pay the subscription of phycologists of countries with "soft currencies", or for a fund to be established for this purpose.

e. Marine Algal Flora Committee. Progress on the Flora was reported. The text for Vol.1 (Rhodophyta), Part 2b is under revision and editing; completion is planned for 1992. Dr C.A.Maggs expects copy of the text of Part 3a to be ready for the publishers by April 1992. Volume 2 (Chlorophyta) was published in September 1991.

Work is continuing on the other volumes and support is being sought for work on the final part of Vol.1, Vols 5,6 and 7. Thanks were expressed to both the NCC and BP for financial support.

Following a proposal from Dr B.A.Whitton consideration is being given to the production of a Freshwater Algal Flora.

f. Conservation Committee. Dr D.M.John reported that the committee had not met as no issues had been brought to their attention.

An issue arising from Plant Life is that a committee has been established to compile a lower plant Red Data Book, to include the Republic of Ireland. Sponsorship is also being sought to set up nature trails.

It is possible that the scheme to construct a road along the foreshore of Pegworth Bay may be revived. If a Public Inquiry is called a representative may be required to attend. Dr Tittley reported that a compromise has been reached on the proposed sea-wall at Birchington.

Any conservation issues should be transmitted to Dr S.Hiscock.

g. Hon. Editor of Newsletter. Issue 30 was the only one to appear in 1991.

Henceforth 3 issues, in soft glossy covers, will be published per year. Absolute deadlines have been set: 31 Jan., 31 May, 30 Sept.

The spring issue will include a summary on Council discussions by the President and reports of Council committees. The summer issue will contain general news and an early call for the Winter Meeting. The winter issue will contain the programme for the forthcoming Winter Meeting.

Beginning in 1993 Winter Meeting abstracts will be published in the Newsletter which has an ISSN number. 2 associate editors will be appointed.

It was suggested (Dr D.G.Mann) that another name with a less ephemeral sound be sought. Dr R.I.Jones was in favour. It was also suggested that a distinction be made between sections containing serious articles and material of a chattier nature.

Thanks were expressed to all who had given time towards the running of the society, including the invaluable support of various institutions.

The adoption of the above reports was proposed by Dr C.M.Happey-Wood, seconded by Dr J.M.Jones and carried unanimously.

5. Election of Council for 1992.

As five nominations had been received for the 3 vacancies for ordinary members of Council a postal ballot had been held. The results were that Dr M.E.Callow, Dr D.G.Mann and Dr P.K.Robinson were elected.

It was noted that only a small proportion of the membership responded.

Thanks were expressed to retiring members of Council, Dr A.E.Bailey-Watts, Dr N.W.Kerby and Dr C.A.Maggs.

6. Fund raising. Thanks were expressed to the Birmingham organisers for the money raised from industry.

Prizes: Council recommended that money from the interest on the Manton Bequest be used for a student prize, for the best paper presented at a Winter Meeting.

The prize would be 75 plus a certificate. Prof.L.V.Evans would chair the committee to allocate this.

Any other suggestions on means of raising Society funds should be transmitted to Council.

7. Freshwater flora. Council have recommended that a Freshwater Flora committee be formed to initiate the production of a Freshwater Flora of the British Isles. The first priority would be a practical handbook with keys to identification, but basic taxonomic monographs and the production of wall charts, etc. would also fall within its remit. A 5 year target is envisaged for the handbook.

Dr L.K.Medlin pointed out that the Dutch have produced a database which can incorporate photographs and this could be of use.

8. Federation of Phycological Societies. Following a meeting in March 1991, Dr B.A.Whitton and Prof.T.A.Norton should have prepared a document for the AGM on the form of a Federation between European Phycological Societies, but this has not been achieved. There has also been a lack of feedback from Europe. A formal document with proposals for or against the formation of such a Federation will be presented to the AGM in 1993, circulated beforehand in the Newsletter.

9. Special activities. Dr J.A.Brodie announced that a field meeting in North Wales has been arranged for 17th-19th July 1992. This will be led by Dr Eifion Jones and will concentrate on seaweed identification. Costs will be kept to a minimum and members were encouraged to consider attending and to recommend it to others.

Suggestions for other activities were solicited.

10. Election of auditors for 1992. The auditors, Dr Anne Rumpus and Mr Brian Knights, have expressed their willingness to serve again.

Proposed: Dr J.M.Lewis. Seconded: Dr L.A.Terry.

11. Winter Meeting 1993. This will take place in Swansea, from 4th - 7th January. Dr K.J.Flynn has kindly agreed to act as local secretary. The meeting will include a broadly similar industrial day to that in Birmingham, but with the emphasis on marine systems.

12. Any other business. It was suggested that the dates and times of arrival for Winter Meetings be considered in relation to the availability of Apex fares to encourage foreign members to attend.

The meeting ended at 18.25.

THE BRITISH PHYCOLOGICAL SOCIETY
 INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED
 20 SEPTEMBER 1991

	1990	1991
Expenditure		
Br. Phycol. J., Vols 23 & 24	387.50	
Br. Phycol. J., Vol 25	8494.00	
	8881.50	
10620.84		
Add: Hon. Editors Honararium 1990	1000.00	
Provision for Vol. 26, 1991	9610.00	
Provision for Eds. Honararium 1991	1000.00	
Less: Provisions made in 1990 accounts	10100.00	
	10191.50	
22.75 Sub. to Biological Council		22.75
661.33 Newsletter expenses		742.37
75.00 Public liability insurance premium		75.00
34.50 Prospectus printing		35.15
6.61 Credit card service charge		21.88
101.00 Scientific meetings fund awards		638.50
38.00 Flora Committee travel expenses		128.00
150.00 Refund of overpaid subscriptions		15.00
		30.00
		523.55
		56.00
25.00 Transfer of monies to winter meeting		
25.00 Sub. to conservation assoc. of botanical socs.		
250.00 Donation to Marine conservation society		
400.00 Contribution to Mary Parke bursary		
56.00 Data protection registry fee		
200.00 Sponsorship of Plant/Animal Interactions Symp.		
2.50 Bank charges		15.00
500.00 Contribution to red seaweed flora project 88/89		
500.00 Contribution to red seaweed flora project 89/90		
500.00 Provision for contribution to flora project 90/91		500.00
		10.00
Officer's expenses		
Hon. President		
Hon. Secretary	502.10	
Hon. Membership Secretary	95.57	
Hon. Treasurer	51.00	
1006.25 Council meetings		648.67
		1380.23
15484.33 Total expenditure		15033.60
1762.78 Excess income over expenditure		3041.99
17247.11		18075.59

	1990	Income	1991
8542.19			
1338.69			
70.00			
450.00			
58.50			
58.00			
500.00			
1840.45			
14657.83			
1378.74	Interest:		
659.18	National savings fund investment account	1492.92	
355.64	Forward Trust	997.28	
195.72	Midland Bank Enterprise High Interest Account	338.11	
	Scientific Meetings Fund H.I.A.	206.28	
		3034.59	
17247.11	Total Income		18075.59

All subscriptions received in 1991 7966.27
 Add: subscriptions received in advance in 1990 630.00
 Less: subscriptions received for 1992 512.49
 8063.78

Profit from Br. Phycol. J. 5784.25
 Donation M. Parke Bursary 10.00
 Newsletter advertising revenue 120.00
 Surplus from Bangor meeting 451.97
 Industrial support for Edinburgh meeting 200.00
 Physiological sale 355.00
 Monies from winter meeting 56.00
 Sale of back Journal numbers -
 Sale Australian flora -
 Refund deposit Bangor meeting -
 Donation Irene Manton estate -
 Income excluding interest 15041.00

REPORT FROM THE MEMBERSHIP SECRETARY

As at the end of 1991 the membership of the B.P.S. was as follows:-

	Paid up for 1991	In arrears for 1991
1. Members taking the Journal		
Ordinary	428	56
Honorary	8	-
Retired	33	2
Student	60	18
2. Members not taking the Journal	37	8
Totals	566	84

In 1991 the Society welcomed 43 new members plus 3 former members who re-joined. 13 members resigned and 44 were struck off at the end of the year for 2 year's non-payment.

Please note that members who are in arrears do not receive the Journal. At present they do receive the Newsletter, but once the database is complete and used to produce the Society's mailing list (later this year!) members in arrears will only get the first newsletter each year.

So if you have not paid your 1992 subscription please do so now!!!

The database now holds details of each member's status as regards payments and the address details are being added. I would like to thank all members who have returned their "Green Forms" to either myself or Jane Lewis and would ask anyone who has not sent one back to do so as soon as possible. The form is reproduced below for those who have lost the original. If you have changed address recently please photocopy and use the form to notify me of your new address.

To:- Dr. Lynne Terry, 52 Bruce Crescent, Ellon, Aberdeenshire, AB41 9BW, UK.

BPS MEMBERSHIP DETAILS

PLEASE USE BLOCK CAPITALS

TITLE:.....FORNAME(S):.....SURNAME:.....

ADDRESS.....

.....POSTCODE.....COUNTRY.....

TELEPHONE.....FAX.....

MEMBERSHIP CATEGORY:

ORDINARY/RETIRED/STUDENT/ASSOCIATE/HONORARY*

(*Delete as necessary)

REPORT OF THE CONSERVATION COMMITTEE

Sue Scott and Dave John

Two algal matters were brought to our attention through our observer on the Conservation Committee of Plantlife. These concern the extension and proposed publication of a Lower Plant Red Data Book and progress made towards the setting up of seaweed nature trails (see details in Report of Plantlife Conservation Committee).

Ian Tittley has informed us of a proposal to construct a roadway along the foreshore at Pegwell Bay on the Isle of Thanet in Kent. The proposal went to public enquiry in 1987 and Bob Fletcher gave evidence to it on behalf of our society. We objected to the proposal on the grounds that if the development went ahead in this Grade 1 SSSI then it would lead to the loss of unusual and scientifically interesting algal communities on the chalk cliffs. For further details of evidence presented at the earlier Pegwell Bay Public Inquiry, see your Plant Press, 1987, No. 2, p. 5. Bob Fletcher has agreed to represent the Society again should there be a second public inquiry. Ian Tittley, who represented the NCC at the earlier public inquiry, has promised to keep us informed of future developments.

Two public inquiries and one appeal later, the saga of Lock Obisary continues (mentioned in Minute f of the 1991 AGM of the BPS). This small brackish lock in North Uist has a very interesting ecology (stable layer separating brackish water above from marine below) and interesting algal communities, including dense populations of *Cladophora vagabunda*. It is somewhat anomalous in being an SSSI as normally it is not possible in Britain to designate marine SSSIs below low water mark. The owners of the estate containing the lock, North Uist Estates, placed fish cages in Lock Obisary in May 1990. The NCC objected and won a public inquiry which was overturned on appeal by judges who had to have the meaning of 'flora' and 'fauna' explained to them. Meanwhile a separate public inquiry was held in October 1991 on planning grounds, at which Sue Scott again gave evidence for NCC on the conservation interest of the loch. This public inquiry went against the estate, but they also have a right to appeal against the judgement. We await with interest their next action.

Early in 1991 a Cornish firm, Mojo Underwater Engineering, were granted permission by the Crown Commissioners to extract by means of a suction device 20 tonnes of maerl from the seabed one mile from Castlebay, Barra, in the Western Isles. The maerl was to be taken with a view to considering its future commercial extraction. There have been objection to

this from the local fisherman's association, claiming that the extraction process will damage the seabed and harm local shellfish industries. However, permission was granted only until October 1991, by which time the company still had not taken the sample. This now gives time to lodge objections with the Crown Estate Commissioners, assuming the company will re-apply for permission to extract. It provides an opportunity for an objection to be made to the extraction of maerl in principal on conservation grounds, and to monitor the situation in case commercial extraction becomes a possibility in Scotland. Although maerl is not rare off the Scottish coast, it is fragile, slow-growing and contains interesting communities of both seaweeds and animals, and so the widespread destruction of this habitat would be of great concern. We are keeping the matter under review and will consider submitting an objection should the company re-apply to extract maerl.

Kelco used fairly large scale machinery during the summer of 1991 when they undertook some experimental harvesting of *Laminaria hyperborea* off the islands of Gigha and Colonsay on the west coast of Scotland. This machinery is the same as used for large scale harvesting off the coast of Norway. Harry Powell is hoping to co-ordinate work which will monitor the recovery of kelp forest following harvesting, unfortunately the harvesting took place too late in the year to begin monitoring this autumn.

Report of Representative on Plant Life Conservation Committee - Dave John

Two projects involving algae were considered by the committee, the production of a 'Red Data Book' on threatened lower plants and 'Seaweed Nature Trails'. The launch of the trails will depend on the response of possible sponsors who have been sent pro-forma guides. The Red Data Book of UK Lower Plants has been extended to Ireland and involves the collaboration of the HNCC, DoE Northern Ireland, Irish Wildlife Service and Plant Life. Representatives of societies covering different groups of cryptogams were invited to a meeting in The Natural History Museum in November to discuss the format of the proposed publication. I represented the British Phycological Society as one algal group is to be included in the Red Data Book, namely the charophytes. This is first plant group to be dealt with by the co-ordinator of the project, Nick Stewart. He is liaising with Jenny Moore in the Natural History Museum over the entries to be included and hopes to complete it in the first half of 1992.

Report of Representative on Biological Council/Institute of Biology - Dave John

After protracted discussion the amalgamation of the Biological Council with the Institute of Biology finally took place on the voluntary liquidation of the Council following the passing of resolutions at an Extraordinary General Meeting held on 25 September. It was agreed at the EGM that an ad hoc Advisory Committee to the Institute of Biology should be set up with all former members of the Management Committee of the Council. This would liaise with the Institute and discuss the future arrangements for the incorporation of the Council's activities into the Institute of Biology. The first meeting took place on 22 November as it was crucial to discover the views of the learned Societies with regard to their future interaction with the Institute of Biology. I attended the meeting as a member of the former Management Committee of the Biological Council and presented the views of small societies such as our own. In attendance were the most senior officers of the Institute (including its president, vice-president, and executive secretary) and 10 other members of the Management Committee of the former Biological Council.

Some of the more general conclusions of this important meeting were as follows: a) A learned societies link

committee or group should be formed to fulfil a liaison role with the Institute of Biology, b) Any such committee should meet in London at least annually and representatives of the learned societies should be invited to attend, c) The two awards schemes should continue without interruption, so I was asked and agreed to continue to Chair the Awards Subcommittee dealing with awards for student expeditions, d) Panel on Animal Welfare continue its work until its future was determined, e) The Biological Handbook of meetings be resurrected in some form as soon as possible (favoured by larger societies), e) Annual symposium of Drug Action to continue. All these matters are to be considered further by the Institute of Biology at meetings of its Structural Review Group.

The learned societies are to be contacted to determine whether they wish now to affiliate with the Institute of Biology. It is proposed to invite representatives of the affiliated societies to a meeting in London to discuss their views as future to interaction between them and the Institute. I propose that we become affiliated to the Institute of Biology providing the fee requested remains at a level similar to that paid when affiliated to the Biological Council. Documents have been circulated to the Council of the British Phycological Society detailing the advantages of affiliation.

MARINE ALGAL FLORA COMMITTEE

R.L.Fletcher, Portsmouth Polytechnic

The Flora Committee met twice during 1991, on 30 April and 14 October at the Natural History Museum. There were no changes in membership. As usual the main business of the day was progress with the Flora volumes.

Rhodophyta:- Vol. 1. Part 2b (Corallinales, Hildenbrandiales). The text for this volume is now undergoing revision and editing by Linda Irvine, Yvonne Chamberlain and Bill Johansen. It is also being updated in the light of recent taxonomic advances. It is hoped to complete the text in 1992.

Part 3a (Ceramiales). Christine Maggs reported excellent progress with this volume. She expects to complete the text by January 1992 and have a copy ready for the publishers by April 1992. The Committee gratefully acknowledged a third and final payment of £1,650 from British Petroleum for the work.

Part 4. (Bangiophyceae, generic keys, recent additions etc.). Enquiries are continuing about possible sources of funding and supervision of this final part of Volume 1.

Chlorophyta Vol. 2. The Flora Committee is pleased to report that Volume 2 was published on 10 September 1991 (review in next Newsletter), with a print run of 750. The Committee was very pleased with the final volume and extended their particular thanks to the Publishers and a number of colleagues and friends of Dr. Burrows who helped to complete the text and prepare it for publication.

Fucophyceae (Vol. 3 Part 2b), Cyanophyta (Vol. 5), Prymnesiophyta (Vol. 6). Work is continuing on these volumes, with particular attention being given to obtaining support monies for the more slowly progressing Vols 5 and 6.

Bacillariophyceae (Vol. 7). Frank Round reports good progress with this new volume, despite the move of Drs. Crawford and Medlin to Germany. Efforts are continuing to obtain further funds for assistants and for diving and collecting material of this large and difficult group of algae.

Finally, from a proposal by Brian Whitton, consideration is being given to the production of a freshwater flora.

SEAWEEDS OF THE BRITISH ISLES

A collaborative project of the British Phycological Society and the British Museum (Natural History).

All volumes are 210 x 148mm, illustrated, paperback.

Just published (review in next issue)

Volume 2 *Chlorophyta*

by E.M. Burrows, 1991. 256pp numerous figs. Price £27.00. ISBN 0 565 00981 8

Already published

Volume 1 *Rhodophyta*.

Part 1 Introduction, *Nemaliales*, *Gigartinales*,

by P.S. Dixon & L.M. Irvine, 1977. xi + 252pp 90 figs Price: £15.00 ISBN 0-565-00781-5

Part 2A *Cryptonemiales* (sensu stricto), *Palmariales*, *Rhodymeniales*,

by L.M. Irvine, 1983. xii + 115pp 29 figs. Price: £15.00 ISBN 0-565-00871-4

Volume 3 *Fucophyceae* (*Phaeophyceae*).

Part 1 by R.L. Fletcher, 1987. 360pp 90 figs 15 plates Price: £30.00 ISBN 0-565-00992-3.

Volume 4 *Tribophyceae* (*Xanthophyceae*)

by T. Christensen, 1987. Price: £7.50. ISBN 0-565-00980-X

Volume 3(1) and 4 are available at a reduced price of £32.00 to members of the British Phycological Society.

Copies may be obtained from Publication Sales, Natural History Museum, Cromwell Road, London SW7 5BD, with payment in advance. (+ 15% postage, minimum £1.00).

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Fax. 071 938 9212

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TOWARDS A FRESHWATER FLORA

The winter meeting of BPS council agreed to set up a committee to plan a freshwater flora of the British Isles and details were reported briefly at the AGM. This note explains more about plans for this project.

The major aims of the freshwater flora project are simpler to those for the marine flora - to communicate information about the flora and to acquire the fundamental information to make this possible. However, while the marine flora is being produced as a set of volumes covering the major taxonomic groups, this does not seem the best approach for the freshwater flora. Some groups are already covered by monographs published in other countries, whereas others could only receive monographic treatment if extensive research were to be carried out.

a committee to discuss the flora in advance of council recognised that there are many different types of activity and output, such as:

- 1) A Handbook: 1 or 2 volumes suited to specialist and non-specialist. It would permit identification to different taxonomic levels, depending on current state of knowledge and biological significance of the organisms.
- 2) Checklist. A summary of available taxonomic records.
- 3) Coded list. Similar to the checklist, but modified for recording purposes for organisations such as the National Rivers Authority.
- 4) Annotated keys for smaller groups.
- 5) Data base(s). Computer based record of diverse algal information including synonymy, records, literature.
- 6) Fundamental research on poorly known groups, leading to monographs.
- 7) Colour picture books, educational packs, wallcharts, computer identification guides etc.

It is unrealistic for the flora project to achieve all these, so priority should be given to producing the handbook

and a 5 year deadline has been set to achieve this. Production of the handbook will, however, require assembly of databases and results from studies on poorly known groups. a number of people at the winter meeting commented that computer-based information should play an even bigger role than proposed by the committee. For instance, the handbook should be available in CD-rom form, together with as much database information as possible.

Important early steps to be undertaken by the committee are:

- 1) To assemble information on all current activities in the British Isles.
- 2) To liaise with possible host organisations where activities may be focussed.
- 3) To obtain financial support for a project coordinator and researcher.
- 4) To consider the long-term practical problems associated with accumulating databases, including the question of ownership; (the committee hopes that all data will be as widely available as possible).
- 5) To establish informal links with those producing freshwater algal floras elsewhere.

The present committee consists of E.J.Cox (Sheffield), D.G.Mann (Royal Botanic Garden, Edinburgh), D.M.John (Natural History Museum: secretary), B.S.C.Leadbeater (Birmingham), B.A.Whitton (Durham, chair). Invitations are also being sent to one other person covering other algal groups and to two "user" organisations inviting them each to send one representative.

Members of the Committee would be pleased to receive comments or queries. We aim to present a more detailed account of plans in the third Newsletter of 1992.

Brian Whitton, Department of Biological Sciences, University of Durham.

Plant- Animal Interactions in the Marine Benthos. Edited by D.M.John, S.J.Hawkins and J.H.Price

Systematics Association Special Volume No 46

0-19-857754-0, 576 pages, 7 halftones, 67 line figures.

Clarendon Press, March 1992, Hardback £65.00

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Type, pen and ink, tablets of stone are still acceptable!!!

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