

THE PHYCOLOGIST

Number 52

April 1999

The Newsletter of the British Phycological SocietyHome page: <http://www.qub.ac.uk/bb/jbpage/bps/home/bps.htm>

Editor:

Bruce Osborne

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Editorial

I think most of us were impressed at the scientific content of the presentations at the Dundee meeting. There is clearly a rich vein of phycologists out there doing some really interesting and important work on an extremely diverse range of phycological topics. My feeling is, however, that there are a significant number of younger participants, in particular, who are not members of the BPS. Currently we have about 550 members, but we need more! The activities of the society are supported largely by the members, and the greater the membership the more we can do. The BPS is a thriving society with a flagship journal, the *European Journal of Phycology*, which goes from strength to strength. This journal attracts papers from all branches of phycology and, for all those interested in jobs and research assessment exercises, shows an increasingly higher impact factor. Importantly, this should not be seen as just a European Journal and the recent issue, for instance, contains papers from researchers in Australia and the United States. This journal is available at a reduced rate to BPS members. There are additional benefits, particularly for student membership, including support for attending meetings, and I have given some information on this, and the society, in the current newsletter. All it really needs is for one current member to aim to recruit one new individual to the society. That doesn't seem like too tall an order!

HISTORICAL CORNER

Does Iron Really Rule the Waves?

Until as recently as eleven years ago it was unclear why about 30% of the ocean consisted of areas with high nitrate, but low chlorophyll or low phytoplankton abundance, the so-called high nitrate/low chlorophyll enigma (HNLC). Whilst various proposals attempted to explain this paradox, none were particularly convincing. In 1988, however, John Martin published a paper that provided an elegant solution to this question. The paper contained the results of iron addition bioassay experiments and was published in *Nature*, with the title '*Iron limits phytoplankton growth in the Northeast Pacific subarctic*'. This paper sparked a flurry of activity that has revolutionised our understanding of biological oceanography and may provide a key to the way that oceans regulate atmospheric carbon dioxide levels.

Several hypotheses previously advanced to explain the occurrence of HNLC regions including, (1) light limitation due to extensive vertical mixing, (2) low temperature and (3) control of phytoplankton growth by high grazing rates. However, the HNLC phenomena was observed in the Southern Ocean, where hypothesis (1) and (2) could apply, or the subarctic North Pacific, where hypothesis (3) was a possibility, but also in the eastern equatorial Pacific as well. There was no unifying explanation for these observations. In contrast, Martin's iron limitation hypothesis provided a single solution that can be applied to all three oceanic regions. To give early oceanography its due, the Norwegian H. H. Gran proposed that iron could have accounted for the HNLC phenomena in the Southern Ocean in 1931. Also, H. W. Harvey and L. H. N. Cooper, working at the Plymouth laboratory of The Marine Biological Association of the UK, examined the role of iron in phytoplankton nutrition as early as the 1930's.

As with most advances in our understanding

of the mechanism that regulates phytoplankton distribution and abundance in the sea, elucidation of the role of iron had to await the development of appropriate analytical techniques. From 1900 to 1980 the concentration of iron in seawater was consistently found to lie in the range 0.001 to 0.1 mg dm⁻³ (20-200 nM). In 1981 Bill Landing and Ken Bruland, at the University of California, San Diego, indicated that iron concentrations in the oceans were at least 10 to 100 fold lower than previously thought. They did this by rigorously applying ultraclean sample collection and processing techniques, together with concentration by solvent extraction and detection using atomic absorption spectrophotometry. John Martin immediately and effectively exploited this improvement in methodology at the Moss Landing laboratory.

As with virtually all-new discoveries, John Martin's iron limitation hypothesis was not immediately accepted. Many felt at the time, and still do, that the complexity of ecological communities' is too subtle to allow for a single explanation for such phenomena. Experiments to test the iron limitation hypothesis have not only led to refinement of our understanding of the role of iron in phytoplankton ecology, but have also resulted in a more rigorous approach to investigations of interactions between potentially limiting factors. It quickly emerged that the iron limitation hypothesis could not be proven or refuted solely on the basis of the actual concentrations of iron in the sea, or by the use of small-scale iron addition experiments. In order to unambiguously demonstrate that iron is a limiting factor it is necessary to fertilise a region of the sea. John Martin passionately advocated such an approach and this eventually resulted in a series of experiments where 10 km square patches of ocean were enriched with iron. These experiments provide a unique opportunity to manipulate the planktonic community and to examine

the interactions among potentially limiting factors. From the outset they were controversial because of proposals that deliberate additions of iron could be used to slow down atmospheric increases in carbon dioxide concentration by stimulating phytoplankton productivity. There are also additional ecological consequences of iron addition, including increased anoxia. Fortunately, wide scale enrichment of the oceans is unlikely to be feasible due to the low solubility of iron in seawater. During fertilisation experiments, for instance, it is necessary to add iron at 2-3 day intervals to sustain any biological response.

There is still much we need to know about iron limitation of biological and ecological processes in the sea. New techniques have been developed to examine iron limitation,

including immunoassays, using molecular probes and biophysical assessments using, for instance, fast repetition rate fluorescence. The effect of iron is also not related solely to the phytoplankton. Bacteria and protozoa may also experience iron limitation in nature. Iron also has important ecological effects, altering species composition in oligotrophic ocean regions where nitrate and phosphate are virtually undetectable. Finally, iron may influence the activity of nitrogen-fixing cyanobacteria thereby altering oceanic and global nitrogen cycles. Clearly, we haven't heard the last of the iron limitation story.

Richard Geider

THE DUNDEE WINTER MEETING

Despite all that the weather could throw at us, the Annual Meeting in Dundee (4-7 January, 1999) proved a great success. We can all probably still visualise television pictures of people walking almost horizontally along Prince's street in Edinburgh due to gale force winds, on the first day of the meeting. A number of participants experienced major delays, whether they were travelling by land, sea or air, so much so that the Council Meeting on the first day did not take place. Is this something of a record?

Over one hundred and twenty people attended the meeting. Special sessions had been organised on *Threatened and Threatening Algae*, *Algae in Extreme Environments*, *Algal Taxonomy and Inorganic and Organic Carbon Assimilation by Algae*. There was a number of outstanding presentations on a diverse range of phycological topics ranging from ecology, through taxonomy, to molecular biology. The retiring President, **Brian Moss**, gave an outstanding and emotive address, dealing with his life, family background and interests, whilst stressing the importance of fundamental phycological research. In

another outstanding after dinner speech, **Professor Sir William (Bill) Stewart**, covered some of the highlights of his scientific career, including his early research on cyanobacterial nitrogen fixation, his initial appointment as head of Department in Dundee and then his subsequent 'political' career in the corridors of Westminster. This speech included some particularly illuminating comments on several former cabinet ministers.

In a new move it was decided to publish the abstracts of presentations made at the meeting in a separate book, which will be sent to all members with the newsletter. We hope this is a sensible move. If you have any comments on this you should contact the editor.

A special thank you should go to the Dundee organisers of the meeting, **John Raven**, **Shona McInroy**, **Becky Taylor**, **Gail Alexander** and **Janet Kubler**, as well as the excellent projectionists, **Karl Abel**, **Christine Hulse**, **James Metcalfe** and **Lynda Poole** and those who contributed to the special sessions.

THE BPS AUCTION

The annual auction was held at the winter meeting, with master of ceremonies, **Elliot Shubert** in control as usual. A variety of items were auctioned, including books, T-shirts and wildlife stamps from Australia and Portugal. After some 'lubrication' of throats the bidding often reached frenetic heights, (some items actually had to be modelled for interested customers!), resulting in £560 being raised to support student travel and stipend wards. Thanks to all those who donated items (**Peter Bloomqvist, Vanda Brotas, Laurence Carvalho, Eileen Cox, pat Kociolek, Janet Kubler, John Raven, Frank Round, Eliot Shubert, Pauli Snoeijs, Bill Stewart**, as well as the mystery donors). Thanks are also due to **John Berges**,

Eileen Cox, Lydia King and Anna Watson for their help at the auction.

The continued success of the auction is dependent on donations. Now is the time for you to examine your offices and bookshelves for suitable items. Almost anything goes, memorabilia, objects d'art, T-shirts and algal artwork are particularly popular. Items for inclusion in the auction should be brought to the next meeting or, if you are unable to attend, you can contact Elliot Shubert or a member of council, in order to have the item posted. Your continued support and generosity for this good cause is greatly appreciated.

1999 MANTON PRIZEWINNER

The winner of the Manton prize this year for the best oral presentation at the winter meeting is **Alison Sherwood**, from the Botany Department, University of Guelph, Ontario, Canada. Allison's paper was entitled '*A comparison of freshwater and marine Hildebrandia from North America and Europe*'. A native of Halifax, Canada, Alison graduated with a BSc in Marine Biology from Dalhousie University in 1996. In the summer of 1995 she worked with **Robert Sheath** at the Memorial University of Newfoundland, completing an honours project on the stream diatom communities of the Bonavista peninsula. After graduating from Dalhousie Alison moved to Austin, Texas for eight months', where she worked with **Jimmy T Mills** at St. Edward's University on the diatoms of springs in central Texas. Her early interest in diatoms led her to enrol in **Eugene Stoermer's**

course on the biology and systematics of diatoms at the Iowa lakeside laboratory in the summer of 1996. Soon after she returned to Dr Sheath's laboratory, this time at the University of Guelph, to begin graduate studies.

Alison expects to finish her thesis in the summer of 2000. Her doctoral thesis involves an evaluation of the systematics of the red algal order Hildenbrandiales, using gene sequence analyses, morphometrics, karyology and microscopy. Other interests still include the ecology of diatoms in springs, as well as the systematics of the green algal order Prasiolales.



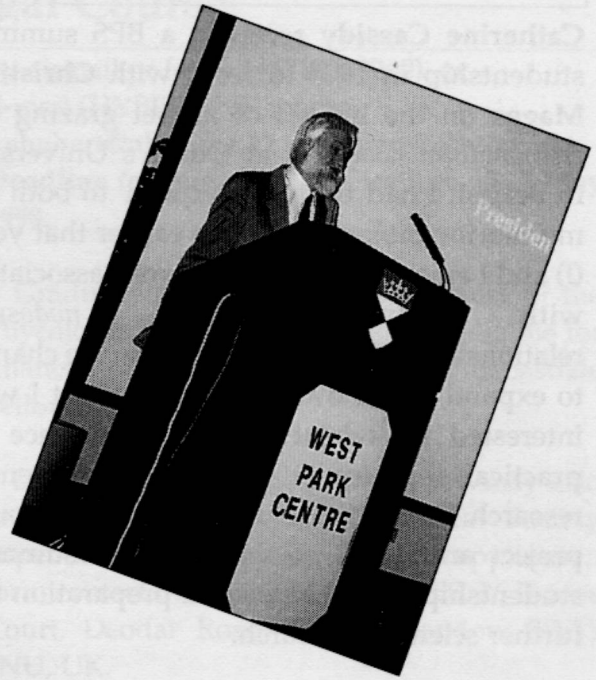
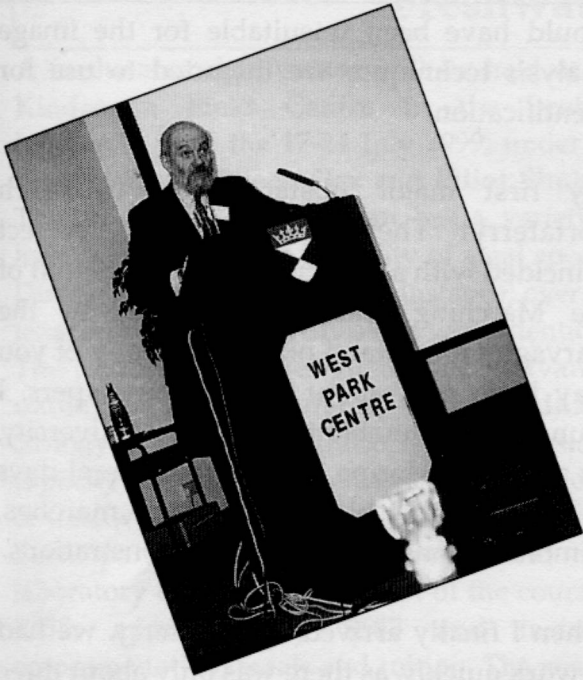
GEORGE LAWSON MEDAL FOR KATHLEEN COLE

During the 1998 Annual Meeting of the Canadian Botanical Association, BPS member **Kathleen Cole**, of the Department of Botany, University of British Columbia, Vancouver received the prestigious George Lawson Medal. This was awarded... "in recognition of the cumulative, distinguished contributions of this senior researcher and scientist who has worked

in Canada for most of her career and who has contributed notably to the advancement of Canadian botany". The President of the association particularly noted Kathleen's research contributions in the field of algal chromosomes and ultrastructure.

Congratulations!

SCENES FROM THE DUNDEE MEETING



BPS SUMMER STUDENTSHIP

Catherine Cassidy received a BPS summer studentship in 1998 to work with **Christine Maggs** on the impact of limpet grazing on *Ascophyllum nodosum*, at Queen's University in Belfast. I had been 'introduced' to both on my marine biology field trip earlier that year (!) and I enjoyed the practical work associated with studying limpet-*A. nodosum* relationships! This project gave me the chance to expand my knowledge on a subject I was interested in, whilst gaining experience of practical techniques used in experimental research. I was soon to undertake my honours project and I hoped that the BPS summer studentship would be a good preparation for further scientific research.

The shore where the experiment was carried out was situated close to the Portaferry Marine Station on Strangford Lough. This was relatively sheltered and the *A. nodosum*-dominated bedrock was in the process of being replaced by limpet-grazed bare rock. Christine started her study in 1997 by removing limpets from some boulders and leaving other boulders as controls. The aim of this study was to investigate *A. nodosum* recruitment in the presence and absence of the limpet *Patella vulgata*.

In 1998, the year of my field trip, another objective was added to the project. The growth rates of marked limpets with and without access to the *A. nodosum* were to be monitored in order to determine the importance of this species in the limpet's diet.

This is where my colleague, Dan Lappin and myself came in. In order to monitor individual limpest it is necessary to label them in a manner that makes them easy to identify. It was also important that the labels would be able to persist under these conditions. Previous experiments using acrylic paint were not very successful and

would have been unsuitable for the image analysis techniques we intended to use for identification.

My first major obstacle was to reach Portaferry! The timing of the project coincided with a particularly 'active' period of the 'Marching Season', heightened by the Garvaghy road stand off, which many of you may have read about in the newspapers. I found myself unable to reach the University, let alone the Marine Station, for several days as roads were blocked due to marches, demonstrations and counter demonstrations.

When I finally arrived in Portaferry, we had to work quickly, as there was only about three hours in between tides. The areas with limpets to be labelled consisted of one boulder and three patches of bedrock and, as well as labelling the limpets, we had to take measurements of the longest part of their shells. We marked the limpets using small labels similar to those used to number telephone wires. These were attached using superglue. This was no where near as simple as it sounds. The glue stuck to our fingers, the rocks and our clothes, essentially everything but the limpets!

After we had finished our measurements and returned to the laboratory we found that the image analysis equipment was not working and, in the end, all the assessments had to be done by hand. Despite this I really enjoyed this opportunity and I would like to thank Christine Maggs for her support and the BPS for providing me with the funds to carry out this work. As a result of this work I also undertook a further two marine biology-based modules in my final year.

Catherine Cassidy

KINDROGAN FIELD CENTRE

Freshwater Algal Course

A freshwater algal course will be held at the Kindrogan Field Centre in the Scottish highlands from the 17-24 July 1999, under the supervision of Eileen Cox and Elliot Shubert. The area around Kindrogan has a variety of habitats supporting a diversity of algal species. During last years' course, for instance, over 300 taxa, representing ten divisions were identified. The course is designed for advanced undergraduate students, postgraduates, biology teachers and those in a professional capacity who need to increase their knowledge of freshwater algae and freshwater ecosystems. Participants will receive both field and laboratory experience. The cost of the course is £353, approximately \$583 and includes accommodation, meals and tuition. The nearest mainline railway station is Pitlochry, on the London-Edinburgh-Inverness route. An International airport also serves Edinburgh. Participants can be collected from the railway station.

Stipend Support

Students who are members of the BPS are encouraged to apply for partial support to cover course fees. Two stipends of £250 are available. To apply for a stipend send a typewritten request on one page including the following information. 1) Name, address, telephone number, fax and E-mail address. 2) Education (institution, degree, work in progress and completion date. 3) Briefly explain how attending this course will contribute to your educational and professional development. 4) Name, address, telephone number of your research supervisor or referee. 5) A separate letter of recommendation from your referee (sent by airmail). Applications should be sent to the following:

Dr L. E. Shubert
Department of Botany
The Natural History Museum
Cromwell Road
London SW7 5BD

By airmail or fax (+441719389260), or
E-mail (HYPERLINK mailto:
e.shubert@nhm.ac.uk) e.shubert@nhm.ac.uk).
Deadline for receipt of applications is 17 May 1999.

- Graduate students who are members of the Phycological Society of America are eligible for financial support from the Hannah T. Croasdale Fellowship.

- One outstanding student applicant may also be eligible for a British Ecological Society stipend. For information and an application form contact Ms Hazel Norman, BES, 26 Blades Court, Deodar Road, Putney, London, SW15 2NU, UK.

- For a brochure describing the Kindrogan Centre contact: Kindrogan Field Centre, Enochdhu, Blairgowrie, Perthshire PH10 7PG, UK. Tel. +441250881286. Fax. +441250881433. E-mail: kindrogan@btinternet.com.

- For specific information about the course, please contact Dr E. L. Shubert.

As space is in short supply participants will be limited to the first twelve registered. To ensure a place on the course you must complete the Kindrogan Booking Form and include a non-refundable deposit of £50 (cheques only in sterling, payable to the Scottish Field Studies Association). Applications should be sent directly to the Kindrogan Field Centre. When the course is filled, unsuccessful applicants will have their deposit returned. Students who wish to secure a place on the course, regardless of stipend support, must send a booking form and a deposit to Kindrogan Field Centre.

THE ALGAL FIELD COURSE: A STUDENT VIEW

Chloe Evans, from the Department of Plant Sciences, University of Cambridge was a student on the 1998 freshwater algal identification course held at the Kindrogan Field Centre. She thoroughly enjoyed the course which combines field work with plenty of practical study and recommends it to anyone with an interest in algae, particularly plant scientists and ecologists who wish to broaden their knowledge of algae and their identification. Despite the fact that many universities have shied away from

physiological and/or taxonomic courses this knowledge is often essential for many vocational and environmentally related positions.

Chloe would like to thank the generous sponsorship of the BPS, without which she would not have been able to attend this course.

For another view see *The Phycologist*, number 48, November 1997.

THE MARINE ALGAL MAPPING SCHEME

The marine algal-mapping scheme is now approaching its completion. Launched in October 1970, records have been submitted by a list of almost 300 recorders. Whilst most of the records date from the last thirty years, there are a significant number dating back to the founding of the British Phycological Society in the early 1950's, including some records going back as far as 1750!

PLEASE, please, please ensure that I receive all your outstanding records by 31 December 1999 at the very latest. The plan is for the Atlas to include records from 1950 to 1999 inclusive, with a separate map for every species on the recording cards, together with 'new' species that have been added since the cards were first produced. Nomenclature will be the same as in Michael Guiry's *Marine Species Directory*. The more records received, the more complete the Atlas will be and the more useful the final product.

I am sure you are all asking. What happens next? Well, you are not being left off the hook. Ideally, recording will recommence on 1 January 2000 for the revised version in a couple of decades time! This is an ongoing process and now is the time for you to express your opinions about what information should be included on the new recording cards.

SEND IN YOUR RECORDS NOW!

Gavin Hardy
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tel: 01912227891
fax: 01912225282/6661

SUSTAINABILITY 2000

Becky Taylor writes. After some discussion with **Brian Moss** at the winter BPS meeting I have submitted an article on 'green tides' to *Sustainability 2000* on behalf of the Society. This is a programme being run by the Institute of Biology in an attempt to increase public understanding of science. Seemingly lots of different societies will be contributing articles that may be of interest both to other scientists and to the lay person.

This event is being organised by Jonathan Cowie at the Institute of Biology (e-mail:

j.cowie@iob.org) if any members are interested in any further information. There are also a couple of web sites that may be of general interest:

<http://www.sustainability2000.org>
This is the site for information regarding the current project.

<http://www.environment97.org>
This is a site with information on a similar event that was set up a couple of years ago.

MEMBERSHIP OF THE BPS AND WHAT IT MEANS TO YOU

Background

The British Phycological Society is a registered charity. It was founded in 1952 and now has over 500 members in 40 countries world-wide. The primary aim of the Society is to actively promote the study algae and to act as a forum for the exchange of ideas and information on algae.

Benefits

There are several benefits associated with membership. The *European Journal of Phycology* is published four times per year. This is a major International Journal with a high impact factor that publishes papers on systematics, ecology, physiology, biochemistry and molecular biology, as well as applied phycology and algal biotechnology. Members can, however, elect to join the society at a reduced subscription by opting not to receive the journal.

Each member also receives 'The Phycologist', the Newsletter of the BPS, which is issued three times per year. This contains society news, meeting announcements, advertisements and contributed or invited articles of topical interest. Members are free to advertise in *The Phycologist* for specimens, information, books etc.

Membership of the Society also has the following benefits

- Reduced registration costs for the annual winter meeting. Prizes are also awarded annually for the best student oral presentation and poster
- Students can receive financial assistance to attend the winter meeting, as well as some European meetings.
- There is financial support for vacation studentships
- Members can avail of reduced prices on some books and BPS members receive reduced subscription rates for membership of the Institute of Biology.

The Annual Winter Meeting

A meeting covering all areas of phycology is held annually. The format includes oral and poster presentations, a Society dinner and the Annual General Meeting. The biennial presidential address alternates with the BPS Founders' lecture; given by an eminent phycologist. Update lectures have been added to keep members abreast of current phycological issues. The highly popular auction of memorabilia follows the Society dinner.

Normally an applied day or session is included at the meeting and this focuses on practical topics such as water quality, nuisance algae, ecotoxicology and algal biotechnology.

Other activities

- Production of a new flora of British marine algae
- Mapping of the seaweeds of the British Isles.
- Publication of a flora of freshwater algal species
- Running a conservation committee that provides advice on threats to rare marine, brackish and freshwater algae.

Categories of Membership

Ordinary member (£30 per annum): A member wishing to receive the *European Journal of Phycology* who does not qualify for either the reduced student or retired subscription.

Student member (£30 with journal, £5 without journal): A member who is a full or part time student registered for a degree. Individuals are entitled to student membership for a maximum of four years.

Retired member (£30 with journal, £5 without journal): A member who is retired from full-time employment.

Member without journal (£10): A member who does not wish to receive the *European Journal of Phycology*. Members receive *The Phycologist*, together with some additional notices/information.

NEW OVERSEAS VICE PRESIDENT HANS PREISIG

The BPS is pleased to announce the election of **Hans Preisig** as overseas vice president of the society for the period 1999-2002. Hans obtained his diploma degree in Botany (1973) and PhD (1979) from the University of Zurich, Switzerland. Some of his PhD work was carried out in Paris with **Pierre Bourrelly**, who kindled his interest in algal systematics. After more than two years in Cambridge at the Culture Centre for Algae and Protozoa with **David Hibberd**, he returned to join the staff of the University of Zurich where he was first lecturer and, from 1995, Professor in the Institute for Systematic Botany. His research is centred on systematics, phylogeny, ultrastructure and ecology of freshwater algae, especially flagellates. Most recently he has been involved in research on toxin-producing species of cyanobacteria. He has been an editor/associate editor of *Nova Hedwigia* and the *European Journal of Phycology*, an editorial adviser for journals such as *Phycologia* and the *Systematics and Geography of Plants* and European councillor for the *International Society for Evolutionary Protistology*. Importantly, he is a long-standing supporter of the BPS, having been a member for almost twenty years. We look forward to his contribution to the BPS.

Some selected publications

Jahn, R., Meyer, B. and Preisig, H. R. (eds). (1997). Microalgae: Aspects of Diversity and Systematics. Special Issue of *Nova Hedwigia* 65, 453.

Mez, K., Hanselmann, K. and Preisig, H. R. (1998). Environmental conditions in high mountain lakes containing toxic benthic cyanobacteria. *Hydrobiologia* 368, 1-15.

Preisig, H. R. (1998). Systematics and evolution of the algae: phylogenetic relationships of taxa within the different groups of algae. *Progress in Botany* 60, 369-412.

Mez, K., Beattie, K. A., Codd, G. A., Hanselmann, K., Hauser, B. Naegeli, H. and Preisig, H. R. (1997). Identification of a microcystin in benthic cyanobacteria linked to cattle deaths on alpine pastures in Switzerland. *European Journal of Phycology* 32, 111-117.

COUNCIL RESIGNATION

It is with some regret that we learn that **Harriet Jones** has tendered her resignation from the BPS Council. Harriet was only elected to Council in January, but has received a permanent job offer that takes her out of

research and phycology all together and, under the circumstances, thought it best to step down. I am sure we would all like to wish Harriet the best in her new career.

ANNUAL REPORT OF THE SOCIETY

The British Psychological Society Registered Charity No: 246707

Annual Report for the Year ended 30 September 1998

The Society is an unincorporated association governed by its constitution and administered by its Council (trustees). The addresses of the current office bearers are set out in the European Journal of Psychology.

Membership of the Council of the Society:

Executive Members:

President:	Prof. B Moss	Hon. Membership Secty:	Dr L Carvalho
Vice President:	Prof. CE Gibson	Hon. Treasurer:	Dr JA Berges
Overseas Vice President:	Prof. R Sheath	Hon. Ed. (Eur. J. Phycol.):	Dr CA Maggs
Immediate Past President:	Prof. JA Raven	Hon. Ed. (Phycologist):	Dr BA Osborne
Hon. Secretary:	Dr RJ Geider		

Ordinary Members:

Dr G Pearson	Dr J Brodie	Dr FG Hardy
Dr MT Brown	Dr J Kubler	Dr E Shubert
Dr DN Thomas		

Principal Bankers: Bank of Scotland, 39 Albyn Place, Aberdeen
Solicitors: Wolferstans, 60/64 North Hill, Plymouth
Independent Examiner: A Johnston, FCA, Johnston Bannan, 14-16 Gordon Street, Belfast

This is the second annual report presented by the current Hon. Treasurer. It is made in this form to meet the requirements of the Statement of Recommended Practice (SORP), issued by the Charity Commission and serves as an annual record of the resources entrusted to the Society and the activities it has undertaken.

The Society has continued to give financial support to activities that promote psychological research, disseminate psychological knowledge and assist young psychologists to present their findings at scientific meetings. The annual winter meeting and AGM were held at Royal Holloway. The standard of presentations were very high and congratulations go to joint Manton Prize winners Dr. K. Rengefors and G. Edwards, and S. Drakare, who received the annual Poster Prize. Sixteen Student Members received support to attend this meeting from the Scientific Meetings Fund (SMF) (thirteen in 1997). The auction raised £652, thanks in large part to the enthusiasm and initiative of Dr E Shubert. These funds were transferred to the SMF; a net surplus of over £2000 is expected, which has yet to be credited to our accounts. Grants from the Freshwater Flora funds totalled £6,954.30. The fund has been spend out, but grants will continue to be paid based on a £10,000 allowance from General funds. The Summer Studentships programme (allowing promising undergraduates to undertake research) supported two award of £500 each made to Queen's University (C Maggs, supervisor) and University of Bristol (P. Hayes, supervisor). As well, the Society provided £500 to support two students at a specialist Freshwater Algal Field Course in Scotland.

This year, for the first time, Honoraria were paid to Executive members for whom it was felt the time commitment of the positions was exceptional. The Hon. Membership Secretary and Hon. Treasurer received £1500 each, while the Secretary and Hon. Editor of the Phycologist each received £750.

The Society's financial situation remains good. Delays in paying Cambridge University Press for member's journals resulted in an over-estimation of assests last year, and consequently an apparently less favourable picture in the current year. Named funds are in good shape generally, although, as last year, spending from the SMF exceeded income; following payment of the 1999 travel awards, additional allocation to the SMF from General funds will be considered.

The Journal has continued to perform well financially. The balance to the Society from Volume 32 of £9,300.17 (£6,507.09 for Volume 31) reflects the price increases in 1997.

The Society has considered moving from Standing Orders to Direct Debit, but this would entail significant costs and administration; the issue should be revisited the next time a membership increase is contemplated.

The British Psychological Society

Statement of Financial Activities for the Year ended 30 September 1998

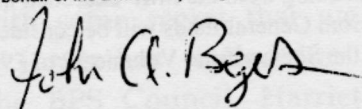
	Note	Unrestricted General £	Funds S.M.F. £	Restricted Manton £	Funds F.W.F.F. £	Total 1998 £	Total 1997 £
Income and Expenditure							
Incoming Resources						13,884.59	16,073.54
Subscriptions		13,884.59				9,300.17	6,507.10
Surplus from Journal		9,300.17				0.00	543.86
Surplus from Winter Meeting			0.00	45.00		697.00	863.31
Auction proceeds			652.00				
Sales of T-Shirts		26.00				26.00	
Sales of Strictly Marginal			390.00			390.00	
Donations		278.00				278.00	318.00
Credit card charges recovered		3,758.16	564.31	422.74	57.84	4,803.05	3,694.92
Interest							
Total Incoming Resources		<u>27,246.92</u>	<u>1,606.31</u>	<u>467.74</u>	<u>57.84</u>	<u>29,378.81</u>	<u>28,000.73</u>
Resources Expended							
Grants, studentships & awards	2	1,750.00	2,893.65	250.00	6,936.27	11,829.92	7,835.60
Publications expenditure	3	20,963.97				20,963.97	6,766.60
Publicity - New recruitment leaflets		225.00				225.00	
Meetings & Committee Expenses	4	3,367.16				3,367.16	1,795.61
Administration Costs	5	4,913.70				4,913.70	1,361.69
		<u>31,219.83</u>	<u>2,893.65</u>	<u>250.00</u>	<u>6,936.27</u>	<u>41,299.75</u>	<u>17,759.50</u>
Net Incoming Resources for the Year		<u>(3,972.91)</u>	<u>(1,287.34)</u>	<u>217.74</u>	<u>(6,878.43)</u>	<u>(11,920.94)</u>	<u>10,241.23</u>
Fund at 1 October 1997		48,967.73	7,962.75	5,459.09	2,379.66	64,769.23	54,528.00
Transfer (General to FWFF)		(4,498.77)			4,498.77		
Fund at 30 September 1998		<u>40,496.05</u>	<u>6,675.41</u>	<u>5,676.83</u>	<u>(0.00)</u>	<u>52,848.29</u>	<u>64,769.23</u>

The British Psychological Society

Balance Sheet as at 30 September 1998

	Note	1998 £	1997 £
Current Assets			
Debtors	7	3,631.83	3,715.65
Short term deposits		53,728.30	60,313.59
Cash at bank		9,393.16	16,703.49
		<u>66,753.29</u>	<u>80,732.73</u>
Liabilities: amounts falling due within one year	8	13,905.00	15,963.50
		<u>52,848.29</u>	<u>64,769.23</u>
Net Assets			
Funds			
Unrestricted		40,496.05	48,967.73
Restricted		5,676.83	7,838.75
Designated		6,675.41	7,962.75
		<u>52,848.29</u>	<u>64,769.23</u>

Signed on behalf of the British Psychological Society



Dr John A Berges
Hon. Treasurer
30 December 1998

The British Phycological Society

Notes to the Accounts for the Year ended 30 September 1998

1 Accounting Policies

The accounts have been prepared in accordance with applicable Accounting Standards and the SORP - Accounting by Charities issued in October 1995. The comparative figures have been restated in accordance with the revised format. A summary of the more important policies, which have been applied consistently, is set out below:

Basis of Accounting

The Accounts are prepared in accordance with the historic cost basis of accounting.

Subscriptions

Subscriptions include amounts received from members during the year. No amount is included in respect of subscriptions outstanding at the year end. Subscriptions received in advance for future years are included in deferred income.

Funds

Restricted funds comprise unexpended balances of donations and interest to be applied for specific purposes. At 30 September 1997 the Society's restricted funds were the Manton Fund and the Freshwater Flora Fund ("F.W.F.F.").

Designated funds are those set aside out of unrestricted funds for specific purposes. At 30 September 1998 the designated fund of the Society was the Scientific Meetings Fund ("S.M.F.").

Cash Flow Statement

The Society has taken advantage of the exemptions provided in FRS 1 "Cash Flow Statements" for small entities and has not prepared a cash flow statement.

	<u>Unrestricted</u>	<u>Funds</u>	<u>Restricted</u>	<u>Funds</u>	Total	Total
	General	S.M.F.	Manton	F.W.F.F.	1998	1997
	£	£	£	£	£	£
2 Grants, Studentships & Awards						
S.M.F. awards for 1998 Winter Meeting		2,393.65			2,393.65	1,624.60
S.M.F. awards for field courses		500.00			500.00	400.00
Manton Prize			250.00		250.00	250.00
Poster prize at 1998 Winter Meeting	250.00				250.00	150.00
Grants for Freshwater Flora work				6,936.27	6,936.27	4,411.00
Summer Studentships	1,000.00				1,000.00	1,000.00
Flagellates Symposium Award	500.00				500.00	
	<u>1,750.00</u>	<u>2,893.65</u>	<u>250.00</u>	<u>6,936.27</u>	<u>11,829.92</u>	<u>7,835.60</u>
3 Publications expenditure						
Journal	16,196.25				16,196.25	3,015.00
Hon. Editor's Honorarium	1,500.00				1,500.00	1,500.00
E.J.M.C. Expenses	332.00				332.00	342.00
Phycologist (including Ed.'s Honorarium)	2,935.72				2,935.72	1,909.60
Strictly Marginal						
	<u>20,963.97</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>20,963.97</u>	<u>6,766.60</u>
4 Meetings & Committee Expenses						
Expenses of Council Meetings	1,336.85				1,336.85	908.48
Flora Committee Expenses	227.46				227.46	549.18
Freshwater Flora Committee Expenses	130.00				130.00	253.05
Conservation Committee Expenses						
Expenses of members representing the Society	235.60				235.60	84.90
Winter Meeting	1,067.25				1,067.25	
Print Framing	370.00				370.00	
	<u>3,367.16</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>3,367.16</u>	<u>1,795.61</u>
5 Administration Costs						
Executive expenses	130.00				130.00	538.84
Subscription to Institute of Biology	214.00				214.00	206.00
Subscription to Foundation for Science & Technology	43.00				43.00	41.00
Public liability insurance	156.00				156.00	153.75
Data Protection Act Renewal						
Independent Examiner's Fee	125.00				125.00	125.00
Credit Card Charges	366.70				366.70	297.10
Bank Charges	129.00				129.00	
Executive Honoraria	3,750.00				3,750.00	
	<u>4,913.70</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>4,913.70</u>	<u>1,361.69</u>

The British Psychological Society

Notes to the Accounts for the Year ended 30 September 1998 (cont)

6 Reimbursement of Council members' expenses

Ten (1997: Eleven) Council members received £1,237.05 (1997: £1,297.94) as reimbursement of travel and overnight accommodation for expenditures incurred during the year on Society business. No monies were paid to any Council member in respect of subsistence.

7 Debtors

	1998 £	1997 £
VAT	4.02	
Interest receivable	3,127.81	2,503.40
Prepayments	645.00	1,212.25
	<u>3,776.83</u>	<u>3,715.65</u>

8 Liabilities: Amounts falling due within one year

Accruals	250.00	125.00
Deferred Income	1,105.00	1,363.50
Provisions for the Journal and the Psychologist	12,550.00	12,975.00
Editor's Honorarium		1,500.00
	<u>13,905.00</u>	<u>15,963.50</u>

9 Analysis of Net Assets between Funds

	Unrestricted Funds £	Restricted Funds £	Designated Funds £	Total Funds £
Fund balances as at 30 September 1998 are represented by				
Current assets	54,401.05	5,676.83	6,675.41	66,753.29
Current liabilities	(13,905.00)			(13,905.00)
Total Net Assets	<u>40,496.05</u>	<u>5,676.83</u>	<u>6,675.41</u>	<u>52,848.29</u>

Report of the Independent Examiner to the Members of the British Psychological Society

I have carried out an independent examination of the accounts for the year ended 30 September 1998 set out on pages 2 to 4.

Respective responsibilities of the Society and the Independent Examiner

Charity law requires the Society to maintain proper accounting records in respect of the charity and to prepare accounts for each year. It is my responsibility to conduct an independent examination of the accounts and report my opinion to you.

Basis of opinion

My work was conducted in accordance with Section 43 of the Charities Act 1993 and the Directions given by the Charity Commissioners. These procedures provide only the assurance expressed in my opinion.

Opinion

In my opinion:

- (a) the accounts are in agreement with the accounting records kept by the charity under section 41 of the Charities Act 1993; and
- (b) the accounts have been prepared in accordance with The Charities (Accounts and Reports) Regulations 1995; and
- (c) no supplementary information requires to be included in my report to enable a proper understanding of the accounts to be reached.

Johnston Bannon

30 December 1998

Johnston Bannon Chartered Accountants and Registered Auditors
Belfast, Northern Ireland December 1998

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1999 British Psychological Society Council Officers

President

Professor C. E. Gibson (1999-)

President Elect

Dr E. Cox (1999-)

Vice Presidents

Dr E. Cox (1999-)

Professor H. Preisig (Overseas; 1999-)

*Hon. Secretary*¹

Dr R.J. Geider (1997-1999)

*Hon. Treasurer*²

Dr J.A. Berges (1997-1999)

*Hon. Membership Secretary*³

Dr L. Carvalho (Dr M. D. Iglesias-Rodriguez; 1999-)

*Editor of The Psychologist*⁴

Dr B.A. Osborne (1998-2000)

Editor of The European Journal of Psychology

Dr C Maggs

Members of Council

Dr J. Berges

Dr J. Brodie (1997-1999)

Dr L. Carvalho (1997-1999)

Dr R. J. Geider

Dr G. Hardy (1998-2000)

Professor C. E. Gibson

Dr E. Cox

Professor H. Preisig

Dr H. Jones (1999-)

Dr J. Kubler (1997-1999)

Dr B. Leadbeater (1999-)

Dr J. Lewis (1999-)

Dr C. Maggs

Dr B.A. Osborne

Dr Dr G. Pearson (1998-2000)

Dr E. Shubert (1997-1999)

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Copy which is submitted for publication in 'The Phycologist' should be concise and informative. Articles should be scientifically sound, as jargon free as possible and written in a readable scientific magazine style. **Unless absolutely essential references should not be included.** All types of relevant material will be considered, these include job advertisements, scientific reports, book reviews, news items of topical interest, meeting announcements, grant awards, promotions, appointments, profiles of eminent phycologists and obituaries. If you are interested in submitting material that does not fall within any of these broad categories, or you are unsure of the appropriateness of a potential article, then contact the editor. Suggestions for future articles or a series of articles are welcomed.

Copy should be submitted, preferably, on disc (ms word for windows) and the editor reserves the right to edit the material before final publication.

Submission of Copy and Deadlines

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