Seashells and Seaweeds

The Princess of Seaweeds

Excerpt from Algae Danmonienses - dried specimens of marine plants, principally collected in Devonshire, prepared and sold by Mary Wyatt, dealer in shells, Torquay.

Top: Nurturing young talent

Bottom: Evans blue staining of a Macrocystis pyrifera strain inoculated with Eurychasma
2007
British Phycological Society

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Addresses

1. Dr Jackie D. Parry
Dept Biological Science
Lancaster University
Lancaster LA1 4YQ, UK
j.parry@lancaster.ac.uk
Tel: +44 (0)1524 593489

2. Dr Michelle Tobin
Scarborough Centre for Coastal Studies
University of Hull
Filey Road, Scarborough
YO11 3AZ, UK
m.l.tobin@hull.ac.uk
Tel: +44 (0)1723 357290

3. Dr Sara Marsham
Scarborough Centre for Coastal Studies
University of Hull
Filey Road, Scarborough
YO11 3AZ, UK
s.marsham@hull.ac.uk
Tel: +44 (0)1723 357223

4. Dr Jan Krokowski
Scottish Environment Protection Agency
Redwood Crescent, Peel Park
East Kilbride G74 5PP
jan.krokowski@sepa.org.uk
Tel: +44 (0)1355 574200

5. Mr Sam Fielding
Earth & Ocean Science
University of Liverpool
4 Brownlow Street
Liverpool L69 3GP
s.r.fielding@liv.ac.uk
Tel: +44 (0)151 794 5201/5191
Welcome to the autumn edition of *The Phycologist*!

Can't believe it's that time again! Summer has been and gone and we are, I'm sure, all looking forward to Christmas and the New Year, and of course our next winter meeting, which will be hosted in Bristol. Details of the first circular are attached, but do watch for further details from the BPS-L and appearing on the BPS website. The Christmas thought is continued by Ralph Lewin in the Letters & Announcements section, in his *Kelper's Carol*.

This summer has been very interesting. BPS Council held their annual summer meeting at the excellent venue of the Royal Botanic Gardens, Edinburgh, and at the 4th European Phycological Congress (Oviedo, Spain) the new Federation of European Phycological Societies (FEPS) was established. Details of FEPS are included in this edition and it will be interesting to monitor the growing progress of FEPS over the coming years.

This edition includes a biography of Mary Wyatt, initially a seller of seashells, but who nonetheless made her mark on the world of phycology. It just goes to show what can be achieved with hard effort, a guiding hand from a mentor, good tuition, and supporting friends. It is hoped that in future editions of *The Phycologist* we shall have further biographies of other well-known phycologists. The nurturing of young students to produce future eminent phycologists should always be continued by whatever means of encouragement possible, whether financial such as through bursaries and grants, educational, and spiritual, but this is difficult under the current climate of declining practical skills and a decline in teachers with such skills. It is never too young to start, as the cover image shows - the saying 'catch them young' is very fitting. As a reminder, the BPS offers a wide range of travel grants and bursaries for its student members, see: [http://www.brphycsoc.org/courses.lasso](http://www.brphycsoc.org/courses.lasso) - reports of which are detailed here.

There is also some light relief....in the form of a caption and name the beastie competition. Winners will be announced in the next edition.

And finally please write to us with your phycological views, news, work events, or any matter you wish to share with readers of *The Phycologist*. YOUR input is required; all relevant material will be considered (job adverts, science reports, book reviews, news items of topical interest, meeting announcements, research news, and suggestions for future articles are always welcome). Without YOU the newsletter would not exist.

As a reminder, previous issues of *The Phycologist* can be downloaded at: [http://www.brphycsoc.org/phycologist.lasso](http://www.brphycsoc.org/phycologist.lasso)

*Happy reading!*
As a supporting member of the Natural History Museum I was afforded the opportunity to take-part in one of its behind-the-scenes tours. The tour visited the Cryptogamic Herbarium housed in the Botany Department. On display were several seaweeds and seaweed related products. Included was a volume of dried and pressed seaweed collected by Mrs Mary Wyatt, a seller of seashells from Torquay, a market town on the northern shore of the picturesque Torbay in the county of Devon.

During the tour it was drawn to the Members’ attention that very little was known about Mrs Wyatt, even though her contribution to the history of natural history collecting is viewed with increasing importance among the scientific community. This absence of knowledge prompted my research and the writing of this article.

My research began by looking at the 1851 and 1871 census returns, which show Mrs Wyatt to have been born at St Stephens, Cornwall. The census information and death certificate suggests she was born in 1789, sometime between April 7 and December 4 of that year. Unfortunately, nothing is currently known of those early years in Cornwall, but in later life Mary found employment as a servant to the renowned phycologist and seaweed collector Amelia Warren Griffiths (1768 - 1858). By 1830 Mary had married William Wyatt - a man some fourteen years her senior - and appears in the Torquay listings of Pigot & Co.’s National Commercial Director as trading in seashells from Terrace Road.

However, after marriage to William Wyatt, Mary remained friends with Griffiths, introducing her to the botanist John Ralfs (1807 - 1890), whom she had first met on a beach at Penzance, Cornwall. During Wyatt’s first encounter with Ralfs she had taken from him the seaweeds he had painstakingly collected and promptly disposed of them, replacing them with better specimens.

Although illiterate, Mary Wyatt showed intelligence and, during the early 1830s, the Irishman William Henry Harvey (1811 - 1866) suggested to Mary she should produce a volume of pressed seaweed. With guidance from Griffiths, Mary responded with 4 volumes of Algae Danmonienses between 1833 and 1836. Each volume contained 50 species. Apparently a volume cost 25/- (£1.25, a large sum in the 1830s), but enterprisingly 20/- (£1) to those who signed-up to buy the set. The second volume was dedicated with permission to the Duchess of Kent and Princess Victoria. A supplement was produced in 1841, making 236 species in all. Most specimens in Wyatt’s collection were from Devon. Not all were taken from the shore, for Mary also successfully dredged at Salcombe. Other specimens were collected in Cornwall.

By 1851 Mary was assisting her invalid husband (a retired builder and stonemason) in his dealership of Berlin Wool, a form of embroidery which was in vogue at the time, but within a decade or so was in rapid decline. It was perhaps the development of Torquay and its rapidly growing population, however, that assisted the decision of the Wyatts to move to Brixham, a fishing port on the southern shore of the bay. It was at Brixham that William Wyatt died. He died on 16th April 1858 at New Road, during the same year and a few months after Amelia Warren Griffiths. His niece, Mary Ann Vittery, registered the death.

Sadly, it was in November 1871 Mary Wyatt was diagnosed as having bronchitis. Fourteen days later, on Tuesday 5th December, she died at the age of 82. Susan Collings, the wife of Joshua Collings, a farm labourer, registered the death on 12 December. Mary’s will was proved at Exeter on 19th December. Apart from her wearing apparel Mary’s estate was basically divided into six shares. One share each went to Joseph, William and Thomas Abrams Wyatt, the sons of William’s brother. At the time of the drawing of the will (12

MARY WYATT (1789 - 1871)

The Princess of Seaweeds
December 1870) Joseph was living in London and William had left for Australia. Thomas, a builder, remained in Brixham. Two shares were given to Mary Ann Vittery. The final share was given to Margaret Dart, once a servant, but now shown on the 1871 census as a milliner.

In summary, Mary Wyatt appears to have been kind, intelligent, enterprising and well liked. Her collected seaweeds are held in museums and private collections worldwide. Indeed, some specimens were auctioned at Christies in April 1994. The world of phycology would be poorer without her. If Griffiths is the Queen of Seaweeds, Mrs Mary Wyatt of Torquay, seller of seashells and collector of seaweeds, must surely be its Princess.

Acknowledgement

I would like to thank the Membership Team at the Natural History Museum (BM) for arranging the tour and especially Ms Jenny Bryant, the tour guide and Curator of Algae at the museum who allowed me access to the Museum’s algae collections.

David Charles Rayment
The Federation of European Phycological Societies (FEPS) was established on 22 July 2007. This occurred at the beginning of the 4th European Phycological Congress in Oviedo, Spain.

FEPS was established by the signatures of the Presidents, or their delegates, of 7 constituted national Phycological Societies and Algal Groups, namely the Belgian-Dutch, British, German, Greek, Italian, Polish and Spanish. I was pleased to sign on behalf of the BPS.

The BPS, alongside these other national Societies and Groups, is now a full member of FEPS.

FEPS welcomes additional national Societies and Groups as members, both throughout Europe and from our neighbouring states and discussions are in progress in this context.

As a European Federation, FEPS has the potential to:

"provide a forum for all European phycological societies and individuals with an interest in phycology to enable, promote and enhance algal (including cyanobacterial) research, education and other activities, to increase public awareness of the importance of algae and cyanobacteria, and to contribute to public debate and policy issues involving these organisms throughout Europe."

(Mission Statement, FEPS Constitution.)

Work has begun to form a FEPS website and on the building of activities at European level. In the meantime, the FEPS Secretary, Elliot Shubert, can be contacted for more information (e.shubert@nhm.ac.uk). I have been appointed as FEPS President to serve throughout the next 12 months of the "founding phase", as the new Federation consolidates its governance and gets its activities underway.

The BPS Council has had a full role in the conception and foundation of FEPS and I am sure that our Society has a continuing and valuable part to play in the further development of this new Federation.

Geoffrey Codd
University of Dundee
31 July 2007
A summer in Oban: Studying the immune system of brown algae with in vivo microscopical approaches

Emmanuelle Evariste, SAMS

This summer, after finishing my first year of master's degree studies in Montpellier (France), I joined the Scottish Association for Marine Science in Oban for a 2-month summer studentship. I worked at CCAP (the Culture Collection for Algae and Protozoa), under the supervision of Claire Gachon.

The aim of this work was to establish microscopic protocols to understand the host-pathogen interaction between the oomycete *Eurychasma dicksonii* and different brown algae such as the genome model *Ectocarpus siliculosus*. Previous work in this laboratory had shown that inoculations with this pathogen may have different outcomes depending on the strains used in the experiment. Most often, the alga gets infected by the oomycete, which ultimately produces sporangia, thereby completing its development cycle. However, some algal / oomycete strain combinations do not lead to the development of disease symptoms. In all cases investigated so far, this phenotypic resistance is associated with the death of the challenged algal cell, which prevents further spread of the disease.

First, I learned how to cultivate different species of brown algae, mainly *Ectocarpus siliculosus*, *E. fasciculatus*, *Pylaiella littoralis*, and gametophytes of the giant kelp *Macrocystis pyrifera*. I also had to check my cultures with epifluorescence microscopy / DAPI staining for the presence of epiphytic bacteria and to inoculate them with the parasite *Eurychasma*.

Firstly I developed a simple staining protocol to monitor the death of infected cells in my cultures. For this purpose, I used Evans Blue, which selectively enters cells with altered membrane integrity. Recording the presence or absence of *Eurychasma* spores on dead cells clearly demonstrated that the majority of dead cells in the culture have indeed been attacked by the parasite (Fig 1). This comforted us that we could explore this process further, by trying not only to observe if, but how cells die. For this, I tried a number of additional staining techniques to follow various cellular events potentially occurring before cell death. Our hypothesis was that this process is a programmed defense response similar to the animal apoptosis or the plant hypersensitive response. My work was to try adapting these protocols to brown algae, because they have just been established for human, animal or terrestrial plants so far.

In order to observe processes in some cell organelles which have the potential to play a specific role in programmed cell death, we tested a range of dyes to stain the nucleus, vacuoles, mitochondria, and lysosomes (Fig 2). Most of these observations were realized with standard epifluorescence microscopy. But for the purpose of obtaining high quality images of the most interesting observations, I was briefly introduced to confocal microscopy, especially for following small-sized organelles. In parallel, I have also started to work on a fixation protocol to test for DNA fragmentation in dying cells using fluorescence microscopy.

I have learnt that science does not always work as planned, and that many alternatives have to be tested before a protocol works perfectly. However, I have also had nice results. Through this work, I have learned a lot of microscopic methods, their difficulties and limitations. In contributing to the development of new protocols, I realized that setting them up really provides the opportunity to reflect about why they fail or why they succeed.

I did this training course because of my passion about macroalgae. I wanted to learn new methods, to broaden my knowledge about them. However, this summer studentship was not only about killing algae in Petri dishes. It also was an opportunity to improve my English and work in a professional, foreign environment, strengthening my desire for pursuing academic studies involving algae. Moreover, I have met a lot of people and lived together with students from all sorts of origins. This was a wonderful opportunity to get an insight into new cultures. And of course, I have seized this opportunity to visit Scotland and learn a lot about this country.

I would like to thank my supervisor Claire Gachon, for the knowledge that she has shared with me and the opportunities that she gave me, and the British Phycological Society for the bursary that enabled me to do this work. I am grateful to the staff of the laboratory, in particular Martina Strittmatter who helped me so often, and also to my French professor, Marc-André Selosse at the University of Montpellier, who was at the origin of my contact to the scientists at SAMS.
Earlier this year, I attended a freshwater algae identification course in Perthshire, Scotland. The course was held at Kindrogan Field Studies Council centre close to the main town of Pitlochry. The centre is situated amongst the quiet Scottish countryside, a beautiful, tranquil area, ideal for a week’s intensive study on the morphology and taxonomy of freshwater algae groups. The course is well designed and structured to accommodate a range of levels of phycological identification. A number of participants attended including; university students, water company professionals and others whose interest in micro biology has developed into an enjoyable hobby. The course was intensive and as a result this allowed me to make excellent progress with the sample material during the week. The days were filled with a series of lectures, field collection outings and microscopic analysis of samples; this was often followed by excited algal discussion in the bar! Course tutors, Dr Eileen Cox and Professor Elliot Shubert from the Natural History Museum, provided lectures on a number of research areas including algal morphology, taxonomy and ecology; sampling protocols mainly in aquatic systems, applications of algae as tools for environmental monitoring and discussion of the contrasts between identifying live and fixed diatom communities. Access from the site to such a diverse range of sampling habitats meant that a range of algae communities could be studied. In addition, a number of lucky sightings of Woodpecker, Red deer and Marsh harrier brought an added excitement to the overall experience. Collection trips included habitats such as the standing waters of lochs and ponds to fast flowing rivers and highland peat bogs. During one outing a participant had to be freed from a rather deep bog which she had unwittingly sunk into as a result of becoming so engrossed in the sampling task and the usual photographic frenzy ensued! In the laboratory a number of participants made some interesting discoveries, my personal favorite being *Batrachospermum*. The field centre is a comfortable and friendly place and the hospitality of the staff at Kindrogan was second to none. Overall, the course provided a thorough introduction to algae identification which was delivered with great enthusiasm, by assiduous, supportive and approachable tutors. On returning to my own work I was relieved to find that the pile of sides which I had to make my way through no longer seemed such a daunting prospect. Thank you to Elliot and Eileen for a memorable week.
Understanding the DNA packaging mechanisms used by dinoflagellates using bacterial DNA packaging mechanisms as models

Hiran Kara, University of Westminster

Last summer I was privileged to participate in a experimental project at the School of Biosciences University of Westminster which involved conducting experiments to understand the DNA packaging mechanisms used by dinoflagellates (Alexandrium tamarense, Prorocentrum micans), using bacterial DNA packaging mechanisms as models. The experiments involved both a molecular and non-molecular approach in order to test the aims. The non-molecular approach involved testing the effects of cell growth and survival in cultures exposed to DNA gyrase inhibitors i.e. Fluorinated 4-quinolone. DNA gyrase is a bacterial topoisomerase that allows super coiling of bacterial DNA in order to fit DNA inside the bacterial cell. Therefore if such an enzyme was present and active within the dinoflagellate species tested then the inhibitor would negatively affect cell growth and survival. The molecular approach was to design primers of conserved regions of DNA gyrase and Topoisomerase II (eukaryotic enzymes that is involved in control and modification of the topological state of DNA in cells) in order to identify if these regions were present within dinoflagellates via the application of PCR.

By conducting such an experiment I was able to achieve a theoretical and practical understanding of molecular approaches associated with PCR, Primer design, DNA extraction and purification techniques. I was also able to learn bioinformatic approaches used in searching and evaluating gene sequences and protein motifs for a range of species using computer databases for searching conserved regions of genes and online molecular biology tools. The most challenging part of this experiment was in relation to extraction of genomic DNA from A. tamarense and P. micans, which involved the testing and adaptation of many different protocols in order to achieve the level of DNA extraction and purity required for this work. The most rewarding aspect of conducting this experimental project was the experience I gained in relation to investigating the scientific concepts and approaches used to develop and conduct molecular based experiments, which I hope to further study in more detail on both a theoretical and practical level.

Finally I would like to firstly thank the British Phycological Society for subsidizing the costs involved in this project, and secondly I would like to thank the Project leaders Professor Jane Lewis and Dr Mark Odell and the scientific staff that work for them at the School of Biosciences University of Westminster in helping me to carry out certain parts of the experimental work.

Images courtesy of SEPA phytoplankton image archive.
The verdant Asturian hills, studded with russet hórreos lazily swam into view as my plane descended out of the clouds. I disembarked, with my presentation poster tucked under my arm, eager to begin my first international meeting.

I was fortunate to receive funding from the British Phycological Society. This monetary award enabled me to fly half-way around the world to attend and present my research at the IV European Phycological Congress in Oviedo, Spain. I presented a poster of my current thesis research entitled, “Reproductive effort in the red macroalga *Mastocarpus papillatus* along a latitudinal gradient.” Additionally, I co-authored an oral presentation given by Janet Kübler, one of my co-advisors, entitled, “Estimation of differential viability in a seaweed that exhibits geographic parthenogenesis.” My other co-advisor, Steve Dudgeon, gave an oral presentation entitled, “Fertilization rate, genetic diversity and hypothesized effects on the evolution of macroalgal life cycles.”

Each morning began with an hour-long keynote addresses, followed by morning and afternoon sessions of more specific symposia and poster sessions. I attended scintillating lectures and visited posters about a diversity of topics: the evolution of algae, phylogenetic techniques, biogeography, phylogeography, biodiversity, phenology, conservation, and global change. This meeting was an invaluable opportunity to present my research to a European audience. I was able to meet many of the leading phycologists in my realm of interest as well as members of l’Equipe Evolution et Génétique des Populations Marines at Station Biologique de Roscoff with whom I will work for 10 weeks this autumn supported by the Sally Casanova California Pre-Doctoral Scholarship (which partially supported my attendance at EPC). Names of those about whom I have read finally have faces and voices attached to them. Especially thrilling was my poster session in which I could explain the fruits of this past year of intensive sampling along my beloved California coast. The sincere interest expressed by those who visited my poster motivates me to continue in this field. It was extremely rewarding and inspiring to matriculate at such a meeting.

The Congress was not all work and no play. I toured around Oviedo, a pristine city with a beautiful medieval quarter, dotted with numerous statues, including, oddly enough, Woody Allen. I explored the small, twisting streets of bustling shops and the gastronomic delights with my DAAD RISE advisor (Summer 2006) Burkhard Becker and a post-doc from the lab in Köln. The mixer on Sunday night featured more delightful Spanish dishes and bagpipers who made the walls of the congress hall reverberate with ancient echoes. Tuesday night saw all the congress participants piling into buses to visit Cudillero, a quaint fishing village, wherein we were treated to a typical Asturian dinner. We remained standing, bob-knobby, as we moved among teetering plates loaded with *croquettes, jamón, pan, and pollo*, to name a few. In the middle of the congress, we were given a day to tour Asturias. I visited the basilica at Covadonga where it is said that Pelayo defeated the Moors and drove them from the northern part of Spain. Next, we strolled along the boardwalk and splashed in the ocean at Ribadesella. The congress concluded with a banquet, complimented by fireworks, more bagpipers, and traditional folk dancers. The week flew by with but a few spare moments to reflect on the quality of the poster and oral presentations, as well as the city of Oviedo itself.

I sincerely wish to express my gratitude for the funding provided by BPS. This meeting was an incredible experience which has further energized me. I came away from Spain with a new lease on pressing ahead with my work and the pursuit of a PhD in Europe. I am itching to begin my work in Roscoff and also to return to the field in California to finish my thesis research.
Annual Student Prizes
for best Oral and Poster Presentations
at January meetings of the BPS

Two student prizes are awarded annually at the January meeting of the BPS. One, the Manton Prize, is awarded for the best oral presentation and the other, the BPS Prize, is awarded for the best poster. Occasionally, if the judges decide that two presentations are of equal merit, the prize may be split between contestants.

Entry for the either prize is available to any current bona-fide postgraduate student who is a member of the British Phycological Society. This includes full or part-time students registered for higher degrees or equivalent awards.

In order that experience, duration of postgraduate work and other factors can be taken into account by the judges, contestants for the prize are asked to submit a cv when they submit the title and abstract of their presentation. The cv must include details of the amount and nature of any assistance that has been received during the course of the work presented. (Please refer to BPS website for further details).

● The Manton Prize - for best student oral presentation
The Manton Prize was instigated in 1993 for the best postgraduate oral presentation at the January meeting of the British Phycological Society. The annual prize is in memory of Professor Irene Manton FRS, a distinguished botanist and member of the BPS, and funds were made available to the BPS by the Executors of her estate following her death in 1988. The Prize takes the form of a cash award, currently £250, and a certificate.

Guidelines for students presenting oral presentations for the Manton Prize are published on the Society's website. Details are also given of the criteria, and their relative weighting, that will be taken into account during the judging process. In summary, oral sessions will follow the usual format for a scientific meeting, each contestant speaking for 15 minutes, using appropriate visual aids, after which five minutes will be available for discussion. Adjudication will cover all aspects of the presentation including: (i) Quality of the visual aids, (ii) Clarity of speech, (iii) Clarity of science presented; (iv) Quality of science presented, (v) Timing of the presentation, (vi) Handling of questions.

Normally there will be a minimum of five judges who will be selected for their experience and specialised knowledge - the choice will also take into account the list of subjects being presented.

● The BPS Prize - for best student poster presentation
The BPS Poster Prize was instigated by the Society to complement the Manton Prize. The Prize takes the form of a cash award, currently £150, and a certificate.

The guidelines relating to entry for this Prize and the conditions governing award of the prize are similar to those for given above except, of course, adjudication will focus on the layout and clarity of information presented in a poster format.

● Guidelines for Contestants
Contestants can obtain further details relating to all aspects of the two prizes by referring to the BPS website:

http://www.brphycsoc.org/prizes
The Biodiversity and Conservation Committee met twice in 2007: initially on 4th January, at the MBC Queen's University, Belfast during the winter meeting of the British Phycological Society, and secondly on 10th May at The Natural History Museum, London. A broad range of subjects has been covered by the committee. The following is a summary of some of the main activities.

**Conservation Issues**

*Important Plant Areas (IPAs):* The document 'Important Plant Areas - A provisional review of sites and areas of Importance for Algae in the United Kingdom' by Juliet Brodie, David John, Ian Tittley, Mary J. Holmes and David B. Williamson is now complete and with Plant Life in preparation for publication as a pdf to be available on their website.

*Plant Diversity Challenge:* The BPS was represented by Juliet Brodie and Gill Stevens at the Plant Diversity Challenge Conference at Kew on 26 April 2006 in which four years of the challenge were reviewed. Plant Diversity Challenge is the UK's response to the Global Strategy for Plant Conservation which was launched by the UK Government in 2004 and sets out the framework for plant and fungus conservation throughout the UK under sixteen targets of which identifying IPAs is one. The work on identifying the conservation status of the marine algae and desmids was highlighted as a notable success at the conference.

*Hickling Broad:* The Chair wrote on behalf of the committee, in response to a request by Brian Moss, to The Broads Authority in order to provide professional support in relation to maintaining charophyte communities in the Norfolk Broads. The Broads Authority replied positively on 6th June 2006.

**Field Meetings**

2006 was another good year for field meetings:
3. Freshwater algal identification - Eileen Cox and Elliot Shubert (July 2006).
4. Identification of freshwater and subaerial Algae of Ireland - Fabio Rindi and David John (June 2006).
5. Introduction to Freshwater Algal Identification - Brian Whitton and David John with assistance from Gordon Beaks, Alan Donaldson and Martyn Kelly. (July 2006).

**Flora volumes**

**Sales figures for flora volumes, May 2006**

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*Sales:* The last set of sales figures available up to May 2006 are below. We are investigating 'print on demand' for the books in the series which are out of print.

*The green seaweeds of the Britain and Ireland:* A draft of this book has now been completed and will shortly be ready for publication. We are immensely grateful for sponsorship from the British Phycological Society, the Environment Agency, Environment and Heritage Service, Marine Biological Association and the Scottish Environment Protection Agency.

*Freshwater Flora of the British Isles:* CUP reported (December 2006) that currently 1592 copies have been sold and about 200 remain.

Juliet Brodie
Membership issues
Almost all membership applications received to date have been processed. The new online payment system is, in general, working well. Dr Sara Marsham (Membership Secretary) and I are currently working on contacting members in arrears and those whose payments could not be processed successfully.

Winter Meeting
A total of £4161 was passed on to the Belfast 2007 meeting to support the conference. £2123.32 was used to support invited speakers (covering in some cases travel, accommodation and registration - other invited speakers did not require financial support). The remainder of the money was used to support the conference to keep registration costs etc as low as possible.

There is a surplus of £1760 from the meeting this year and once I have received the cheque from Professor Matt Dring I will forward this on to Professor Paul Hayes to support the Bristol 2008 meeting.

Awards & Training issues
£2090 was awarded to students to support their attendance at the Belfast meeting (2 students did not take up the bursaries offered to them). Funding during 2007 has proceeded well, the Awards & Training chair will provide full details but all successful applicants in 2007 have already received their awards (£1705 paid out so far).

EJP
The society has paid £6905.25 for the production of the *European Journal of Phycology* volumes in 2006. Costs are remaining satisfactorily low as Taylor & Francis have been able to reduce a number of production costs again. Profit from last year's volumes totalled £26,714.19 (which again is well above our guaranteed income).

FEPS
As discussed at the Winter Meeting, the Society agreed to provide financial support for initial meetings and development of the Federation of European Phycological Societies. Support given to date is £1016.91 which has enabled Professors Geoff Codd and Elliot Shubert to attend/host a planning meeting.

Honoraria
Honoraria for eligible council members will be paid this month. Recipients are requested to let me know to whom their cheque should be written.

Accounts (from Oct 06 - Jun 07)
Expenditure: £15861.16
Income: £35102.87

Account Balance
BOS Current Account: £34,252.54
NS&I Savings Account: £77,1419.21

£24,000 from the current account will shortly be transferred to a new instant access savings account. Details of the suggested account will be provided at the meeting.

Dr Michelle Tobin (Treasurer BPS), June 2007
Present: 38 members were present

1. Apologies
Gill Malin, Frithjof Küpper, Graham Scott.

2. Minutes of the 54th AGM held on the 6th January 2006
The minutes were approved: proposed by Jan Krokowski and seconded by Elizabeth Haworth.

3. Matters arising
There were none.

4. Presidential Report
Mike Guiry reviewed some of the major developments made by Council over the past year. The Constitution had required significant modification and the Charity Commission had accepted the new version. Council would examine the Constitution on an annual basis from now on. Membership subscription was now on-line and some members had already used it successfully. He thanked everyone involved in setting up this system, especially Sara Marsham and Michelle Tobin. The 2008 Winter meeting would be held in Bristol, hosted by Paul Hayes, and the 2009 meeting would be held in London, hosted by Eileen Cox and Elliot Shubert. From now on, the local organisers of Winter meetings would not organise accommodation for delegates but instead provide a list of hotels/guest houses in the vicinity, as had been done by Matt Dring and Chris Maggs for the Belfast meeting. He informed the membership that the Society’s application to become a provisional member of the Federation of European Microbiological Societies (FEMS) had been accepted. Geoff Codd explained that this Federation comprised 46 Societies from 35 countries and that BPS members could benefit in a number of ways, including funding opportunities. Details of these benefits would be displayed on the Society website and an article would be written for the next issue of *The Phycologist*. Geoff then went on to update the membership on the progress made regarding the initiation of a Federation of European Phycological Societies (FEPS), which the BPS was presently leading. He had received positive responses from Presidents of other European Societies and a working party had been set up to nurture its development. A Federation, rather than a Society, would ensure that each individual Society would maintain its own identity. It was hoped that significant progress would be made by the time of EPC 4 (July 2007) where an announcement would be made. Mike concluded by announcing that it was the 50th anniversary of the death of the eminent phycologist Kathleen Dew-Baker and he would be paying tribute to her during his speech at the Society dinner.

5. Reports from Officers
Mike Guiry proposed that ratification of all reports, other than the Honorary Treasurer’s, would be performed at the end.

a) Secretary
Jackie Parry opened by thanking Matt Dring and Chris Maggs for acting as local organisers for the Winter Meeting. Thanks were also expressed to those members of Queen’s University Belfast who had helped in the organisation of such a successful meeting. The meeting had drawn 105 delegates and the programme comprised 55 oral and 34 poster presentations. She thanked all authors, both invited and offered, together with those who had chaired sessions or judged the Manton and Poster prizes. Special thanks went to Paul Hayes, Geoff Codd and Matt Dring for organising the special sessions.

b) Treasurer
Michelle Tobin apologised for the two mistakes in her report i.e., Dr SC Maberley should have read as Dr G Malin and Dr J Krokowski should not have been included in ‘Ordinary Members’. MT then went on to report that the general financial situation of the Society was good and that the Journal had yielded £27.2K profit from Volume 40. Publication costs may have appeared significantly less than last year, but this was because T&F had charged the Society for two years costs in one financial year during 2006. The Winter Meeting at Plymouth in 2006 had yielded a surplus of £4161 and this had been used to support the 2007 Winter Meeting at Belfast. Membership payments had been running smoothly due to the majority of members paying by credit card. The web-based system for payments, set up by Mike Guiry, was working particularly well. Those members that still paid by standing order had been written to asking them to change their payment option; cash and cheque payments were still acceptable. The Society had provided £8K to support student participation at conferences and field courses. Michelle thanked everyone for their help during the last financial year.

Mike Guiry thanked Michelle for her efforts during the year. The Treasurer’s report was accepted: proposed by Chris Gibson and seconded by Eileen Cox.
c) Membership Secretary
Sara Marsham reported on behalf of herself and Graham Scott. She initially apologised for an error in the report in that there were 10 Honorary Members and not 7 as stated. The total active membership of the Society stood at 501 (379 fully paid up, 115 paid to 2005, and Hon. Membership). She stated that the Society had acquired 96 new members in the last year, most of which were students. The database was almost up to date and any member in more than one year of arrears had been struck off the membership list. This list would be made available on the Society website.

Mike Guiry thanked Graham Scott and Sara Marsham for their efforts throughout the year.

d) Joint Editors-in-Chief of the Journal
Matt Dring reported that 37 papers had been published in the four issues of Volume 41 (2006), which was 6 pages over budget and manuscripts submitted to the subject area ‘Applied Phycology’ had increased. The latest issue had not been published at the time of the meeting, but Prof. Dring thought that it should have been distributed by 3rd December; the reason for this delay would be investigated. The current rejection rate stands at around 50% at both the pre-review and review stages, and the rejection rate varied across subject areas. The ISI impact factor had dropped from 2.506 (in 2004) to 2.064 (in 2005) but the Journal was still doing well compared to others in the subject area. Authors will be required, from mid-January, to submit their manuscripts on-line through ScholarOne. The editorial office had been moved from Belfast to the Natural History Museum (NHM) with Elliot Shubert working part-time as Editorial Assistant. Dr Gianofranco Navorino was now the Associate Editor for ‘microalgal systematics’. After 6 years of service, Matt Dring was retiring as Editor-in-Chief of the Journal and John Day, at the Scottish Association for Marine Science (SAMS), had agreed to replace him.

Mike Guiry thanked Matt Dring for his service on the EJP and then went on to thank Eileen Cox and Daryl Birkett for all their sterling work during the last year. Mike also thanked the Associate Editors and reviewers for their efforts.

e) Editor of The Phycologist
Jan Krokowski stated that his first year as Editor had been interesting in that the original printing company at Bodmin had gone into receivership in early 2006 so he had had to move operations to Monument Press in Stirling. Even so, issue No. 70 was published almost on schedule with most copies reaching members by mid-May. Issue No 71 was published in October and quickly distributed. Ms Agnès Marhadour, who is based in Portugal, had continued to do the layout and typesetting. He thanked all those who had contributed items for both editions.

MDG thanked JK, and members of SEPA, for their excellent efforts in continuing the success of The Phycologist.

f) Student Representative
Sara Marsham reported that she had been in position for 2 years and that a new student representative would be in place after the Meeting. She had tried to organise a student-orientated session at the Belfast meeting but the response from students had been poor. She asked the membership to encourage their students to become more pro-active in the activities of the Society. She thanked Council for their support during her two years and she looked forward to her term of office as Membership Secretary.

MDG thanked SM for her work during the year.

(g) Awards & Training Committee
Barry Leadbeater opened by thanking Alison Taylor and Stephen Maberley for their contributions to the Committee and reported that Gill Malin and Martin Wilkinson had filled their positions. A comprehensive discussion document concerning the funding opportunities provided by the Society had been presented at the summer Council meeting. If members wished to view this they should contact the Secretary – however, the document would eventually be available on the website. The Committee had made awards totalling £6532 in 2006, which was within the guideline of £6 to 7K. This covered the attendance of 12 students at the Winter Meeting, 1 student at the Kindrogan Field Course, 4 students at overseas conferences, 3 summer research projects and contributed to two other courses (Plymouth Field Course and “Unravelling the Algae”).

MDG thanked all members of the A&T committee for their contributions during the year.

(h) Biodiversity & Conservation Committee
Juliet Brodie summarised the main points arising from two Committee meetings in 2006. The document Important Plant Areas (IPAs) was near completion. Plantlife would prepare the document for publication as a pdf to be available from their website. The BPS was represented by JB and Gill Stevens at the Plant Diversity Challenge Conference at Kew. The work on identifying the conservation status of the marine algae and desmids was highlighted as a notable success at the conference. Some of the Flora Volumes were out of print and Trudy Brannan (NHM) was investigating ‘print on demand’ for these publications. Bob Fletcher had stated that he proposed to have a draft of the Brown Algae volume available in the summer for publication at the end of 2006; this would be chased up. The Green Algae was progressing well with the aim of publication in 2007.

MDG thanked all members of the B&C committee for their efforts throughout the year.
i) Communication & Education committee
Jackie Parry reported that most of the main issues raised by members in the questionnaire of 2003 had been addressed. Membership payments were now more streamline and on-line, and a fee for the unwaged had been introduced. The membership required the Society to have a higher profile and to be more European. The Society had become a member of the Biosciences Federation in the UK and of the Federation of European Microbiological Societies (FEMS). Work was also in progress with the aim of setting up of a Federation of European Phycological Societies (FEPS), of which the BPS would be a founding member society. The membership wanted The Phycologist on the website, which has been provided, and more training courses (5 were available in 2006). Accessibility to the membership list will be provided soon. Council had decided that the membership should be questioned again before continuing with initiatives.

MDG thanked all members of the C&E committee for their efforts throughout the year.

The reports from council were accepted: proposed by Elliot Shubert and seconded by Chris Maggs.

Mike Guiry thanked all members of Council and the sub-committees for their sterling efforts during the year.

6. Constitution
Mike Guiry reported that the new version of the Constitution (as published in Issue No 69 of The Phycologist) which was accepted at the previous AGM had been accepted by the Charity Commission with the slight change to Clause 2. In addition, Council, at their summer meeting, had agreed that there should be a slight change to Clause 21 regarding Honorary membership. Details of these proposed changes had been circulated to all members via BPS-L and Jackie Parry had not received any emails of opposition. The membership at the AGM unanimously accepted these changes.

7. Future Meetings
Mike Guiry had already reported that the Winter Meetings in 2008 and 2009 would be held in Bristol and London, respectively. He asked the membership to consider offering their services as local organisers for future meetings and welcomed their ideas for special sessions.

Mike Guiry informed the membership that he would soon become the Immediate Past-President, with Geoff Codd being the new President. The Immediate Past-President normally chairs the A&T committee but considering that he was currently the webmaster, Barry Leadbeater had agreed to be co-opted onto Council to chair this committee. The new President-Elect was Juliet Brodie (Natural History Museum) and Prof. Antonio Quesada (Autonomous University of Madrid) had agreed to become the Overseas Vice-President. Sara Marsham (University of Hull) would take over from Graham Scott as the membership secretary and John Day (SAMS) would take over from Matt Dring as a Joint Editor-in-chief of the EJP. However, Matt Dring agreed to remain on Council for a further year to complete Juliet Brodie’s three-year term as ordinary member.

The terms of office of three ordinary members, Frithjof Küpper, Elliot Shubert and Dave John, had also ended, together with the two year-term of Sara Marsham as the Student Representative. Jackie Parry informed the membership that three nominations for ordinary membership had been received and these were for Martha Clokie (University of Leicester) (proposed by Eileen Cox and seconded by Paul Hayes), Thomas Proeschold (SAMS) (proposed by Frithjof Küpper and seconded by Matt Dring) and David Mann (Botanical Gardens, Edinburgh) (proposed by John Anderson and seconded by Martin Wilkinson). One nomination for Student Representative had been received and this was for Sam Fielding (Liverpool University) (proposed by Lydia King and seconded by Jackie Parry).

MDG thanked all those who had served on Council for their time and contributions during their period of office.

The membership accepted all nominations. The membership also agreed to retain the services of the current auditor: proposed by Geoff Codd and seconded by Juliet Brodie.

9. AOB
Geoff Codd thanked Mike Guiry for his services to the Society, not only as the President for the past two years but as the webmaster; a role Mike had agreed to continue. Mike had represented the Society at a number of external meetings, initiated key developments, updated the membership database and had generally left a ship in good condition for Geoff’s two years as President. The membership showed their agreement with Geoff’s sentiments with a rapturous round of applause.

The meeting ended at 6.35pm

Jackie Parry
Amendments to Constitution

Council propose a change to Clause 9 (in bold) to acknowledge the important role of the BPS Webmaster in Society business. This will be voted on at the next AGM.

Proposed new Clause 9
The business of the Society shall be conducted by a Council of members consisting of the six officers of the Society, namely: The President, President Elect, Vice-President Overseas, the Secretary, the Treasurer and the Membership Secretary together with the immediate past-President, Webmaster, the Editors of the European Journal of Phycology and the Newsletter (ex-officio), and not more than ten Ordinary Members of the Council and one of them should be a Student Member; nine to constitute a quorum. All members of the Council, except the immediate past-President and the Editors shall be elected by ballot if contested, the result of the ballot being declared at the Annual General Meeting (see clause 14).

A full copy of the constitution as approved at the 2007 Annual General Meeting in Belfast.

The British Phycological Society Constitution

1. The name of the Society shall be "The British Phycological Society".

2. The aims of the Society shall be to advance research and education by the encouragement and pursuit of all aspects of the study of algae and to publish the results of this research in a journal, and also in other publications which shall from time to time appear desirable, provided that all publications of the Society shall be available to the general public. In furtherance of those aims, but not otherwise, the Society shall also aim to increase public awareness of the importance and applications of algae, and to contribute to public debate on issues involving algae.

All funds acquired by the Society shall be devoted to the aims detailed in paragraph 2 above or to such associated charitable projects as may from time to time further these aims.

Membership

3. Membership of the Society shall be open to anyone interested in any aspect of the study of algae. Application should be made to the Membership Secretary, who will supply a form to be completed, signed and returned by the applicant. A copy of the Constitution shall be made available on request from the Membership Secretary. Applications for Corporate Membership may be considered by Council.

4. Fully paid-up members shall have the following privileges:-
   1. To receive all notices pertaining to the activities of the Society and to attend all Meetings and Excursions.
   2. To receive all literature issued by the Society, free or at a reduced rate as the Council may from time to time determine.
   3. To vote in the election of the members of the Council, and to vote in the conduct of the affairs of the Society at any meetings of the Society.
   4. To be eligible for service on the Council and its committees, or as Officers.
   5. To introduce visitors at any meeting of the Society (with the exception of the Annual General Meeting), unless the Council by resolution suspends this privilege for any particular reason.
   6. To subscribe to the European Journal of Phycology at rates determined by Council and ratified at a General Meeting of the Society.

5. Every new member shall pay to the Membership Secretary or the Treasurer, within one month, the annual subscription for the current year, such payment to entitle the member to all privileges of the Society for that year. The first subscription paid by any member joining the Society within the last two months of the calendar year shall also cover the succeeding year.

6. Resignation of membership shall be signified in writing to the Membership Secretary, but the member so resigning shall be liable for payment of the annual subscription for the current year, together with arrears due.

Annual subscription

7. Annual membership subscriptions and subscriptions to the European Journal of Phycology (for those members wishing to receive the Journal) shall be payable in advance and shall be due on the 15 January each year. At the discretion of the Council, reduced subscription may be paid by the following categories of members:-
1. Student members (undergraduate and post-graduate) for a maximum for four years.

2. Members not in full-time employment.

Changes in subscription must be ratified at a General Meeting of the Society. Subscription rates shall be publicised in the Journal and in all relevant publications of the Society.

8. If any members shall be in arrears of his/her subscription for six months the Treasurer shall advise the member of the fact and, if payment is not made before the end of twelve months, the member’s name may be removed from the list of members.

Council

9. The business of the Society shall be conducted by a Council of members consisting of the six officers of the Society, namely: The President, President Elect, Vice-President Overseas, the Secretary, the Treasurer and the Membership Secretary together with the immediate past-President, the Editors of the European Journal of Phycology and the Newsletter (ex-officio), and not more than ten Ordinary Members of the Council and one of them should be a Student Member; nine to constitute a quorum. All members of the Council, except the immediate past-President and the Editors shall be elected by ballot if contested, the result of the ballot being declared at the Annual General Meeting (see clause 14).

10. Officers and Members of Council

a) The President, President Elect and Vice-President Overseas shall be elected biannually. The retiring President, President Elect and Vice-President Overseas shall not be eligible for re-election for the same office until an interval of three years from the expiry of the term of office. The immediate past-President shall continue to serve on Council (ex-officio) until succeeded by the next retiring President.

b) The Secretary, the Membership Secretary and the Treasurer shall be elected for a period of three years, and on retiring shall be eligible for re-election for a further three year period up to a maximum of three consecutive three year periods.

c) Ordinary Members of the Council shall be elected, normally in groups of three, for a period of three years. Retiring Ordinary Members elected in this way shall not be eligible for re-election to the same office until after an interval of one year from the expiry of the term of office. An Ordinary Member of Council, if elected to any other office on the Council, shall cease to be an Ordinary Member of Council. Ordinary Members elected for one year to fill a vacancy shall be eligible at the end of the year for immediate re-nomination as an Ordinary Member (for the usual three year period).

d) The Editors of the European Journal of Phycology and the Newsletter shall be elected annually by the Council.

11. The Council shall have the power to co-opt any member of the Society to fill vacancies occurring during the year in Council, the tenure of such co-opted members shall terminate at the Annual General Meeting. No one may be appointed as a co-opted member if, as a result, more than one third of the members of the Council would be co-opted members.

12. The Council shall have the power to appoint for any special purposes sub-committees consisting either wholly or in part of Council Members, provided that all acts and proceedings of any such sub-committees shall be fully and promptly reported to the Council.

13. At the request of any three members of the Council, the Secretary shall convene a meeting of the Council, stating the nature of the business to be discussed.

14. Election of Council: Any member of the Society may nominate candidates, who shall be members of the Society, for the election as President, President Elect, Vice-President Overseas, Secretary, Treasurer, Membership Secretary or Ordinary Members of Council.

All such nominations, with the name of a seconder, and with the consent of the nominee to act if elected, shall be forwarded to the Secretary not later than two months before the Annual General Meeting. If no nominations are received for any of the offices becoming vacant on the council, it shall be the duty of the Council to make such nominations. Voting shall be by ballot and for this purpose the Secretary shall circulate to all members of the Society, one month before the Annual General Meeting, a ballot form listing all nominations for vacant offices on the Council. All completed ballot forms shall be returned to the Secretary in a sealed envelope bearing the signature of the member on the outside, before the Annual General Meeting; at that meeting the ballot forms shall be opened and the count made by scrutineers appointed by Council, and the results of the ballot declared. Any problems arising through nominees for Council receiving the same number of votes will be resolved by a further vote of the members present at the Annual General Meeting.
General Meetings

15. The Society shall hold one or more general meetings each year, one of which shall be the Annual General Meeting. Thirty members shall constitute a quorum for an Annual General Meeting.

16. Notices of all general meetings shall be sent to each member at the earliest possible date, and the agenda of the meetings shall be sent out at least two weeks before each meeting.

17. At the Annual General Meeting members of the Society present shall consider any business brought before them by the Council, or by any member (of which four weeks' notice in writing has been given to the Secretary).

18. The President, or in his/her absence the President Elect or Vice-President Overseas, shall normally chair all general meetings of the Society; in the absence of any of these officers another officer or members of the Council. At any meeting of the Society the chair shall decide as to the procedure and the order of business. It shall be within the chair's discretion to admit communications or other business.

In the case of equality of votes at any meeting of the Society or of the Council, the chair may exercise a second or casting vote.

19. Finances: It shall be the duty of the Treasurer to prepare annual accounts as prescribed by current legislation in England and Wales. The annual accounts shall be examined by an Independent Examiner, who shall be an independent person who is reasonably believed by Council to have the requisite ability and practical experience to carry out a competent examination of the records. Copies of the annual accounts and the Independent Examiner's Report shall be circulated to members together with the agenda for the Annual General Meeting. The Independent Examiner shall be elected for the ensuing year at the Annual General Meeting.

20. Minutes: The Council shall cause Minutes to be duly entered in the books for the purpose of recording: all the appointments to the Council; the names of the members present at each meeting of the Council; and the proceedings of these meetings, the proceedings of the Annual General Meeting and any other special meeting.

Honorary membership

21. At any general meeting of the Society, after nomination by the Council, persons who have rendered conspicuous service to the subject of Phycology or to the Society may be elected Honorary Members of the Society. Honorary Members may have all privileges of membership as defined in Clause 4 of this constitution together with free receipt of the Journal. Honorary Members shall not normally exceed 12 persons.

Alterations to the Constitution

22. No alterations to the Constitution shall be made except at the Annual General Meeting, or at a special meeting of the Society called by the Council for that purpose. Notice in writing of any proposed alterations shall be given to the Secretary at least two months before any such meeting, and the proposed alterations shall be circulated to members with the agenda for that meeting. No alteration shall be made unless two-thirds of the members voting at the meeting are in favour of it. Notwithstanding the foregoing, no alterations may be made to this Constitution that shall cause the Society to cease to be eligible for registration as a charity at law.

Dissolution of the Society

23. The Society may be dissolved, after one year's notice in writing to all members, by ballot in which the majority of all paid-up members who vote, shall be required to affirm the motion to dissolve the Society.

The funds remaining to the credit of the Society at the time of dissolution shall be distributed to one or more other societies being constituted as charities and having similar aims to the British Phycological Society; the selection of these societies being the duty of the Council of the British Phycological Society at the time of its dissolution.
Important Plant Areas
The First Algal Sites

I am very pleased to announce some excellent news for the algae. In the first network of Important Plant Areas (IPAs) for the UK, launched by Plantlife in July this year, the list includes both marine and freshwater algal sites from England, Wales, Scotland and Northern Ireland. These sites are among the first IPAs for the algae in the world. The inclusion of algal sites in this first round of IPAs has been possible because of the initial input of members of the British Phycological Society who provided us with names of sites that they considered important for the algae. It was this list that formed the basis of the selection process for the first IPAs. The methods that we employed to arrive at the sites which are included in the first UK IPA list are covered in detail in Brodie et al. (2007).

Important Plant Areas are natural or semi-natural sites exhibiting exceptional botanical richness and/or supporting an outstanding assemblage of rare, threatened and/or endemic plant species and/or vegetation of high botanical value. The IPA concept identifies a network of the most valuable sites for plant diversity which provides a basis for prioritizing conservation action at the site and landscape level. The IPA initiative is part of the UK’s response to the Global Strategy for Plant Conservation. The UK network of IPAs will support and complement existing protected areas and conservation programmes. In this first round, about 150 IPAs have been identified for the UK. For details, see the Plantlife website at http://www.plantlife.org.uk/. For further background reading see also Brodie & John (2004a, b, c) and Brodie et al. (2005).

So our sincere thanks to everyone who has contributed to this success and to the British Phycological Society for their support. The process of recognizing IPAs will continue and I anticipate that more algal sites will be included in future lists.

References

Juliet Brodie
Letters and Announcements

Obituary
It is with sad news that we have learnt of the death of Dr. A.E. Bailey-Watts in July. Tony worked for many years on the phytoplankton of Loch Leven. A full obituary will appear in the next edition.

A note on the BPS Archive
John Green
As many of you will know, I am assembling, on behalf of the Society, archive material relevant to the history and activities of the BPS. I am particularly anxious to make up a complete set of Newsletters (in its present incarnation, The Phycologist) and I have been able to make up most of the run from my own collection as well as from copies kindly donated by members. However, I am still lacking Nos 1, 2, 8, 11, 12 from the 1970s and Nos 68 and 69 from 2005. If any one can let me have copies of these for the Archive, I shall be very grateful.

The set of Journals in its various guises is almost complete. However, the very first issue from March 1952 was originally published in a duplicated form, though subsequently reprinted professionally in July 1955. If anyone knows of an extant copy of the original first issue, again, I shall be delighted to hear from them; at present I only have the reprinted version from 1955.

Of course, in addition to the Societies publications, I shall be very pleased for contributions of photographs of BPS activities and members, documents, ephemera, such as Annual Dinner menus, and, indeed, anything that has a link to the Society. Please don't hesitate to get in touch: John Green, E-mail: greenjc@dsl.pipex.com, Tel: +44 (0) 1752 775028.

Freshwater Algae Course 2008
The Freshwater Algae Course 2008 will take place from Friday, 30 May to Friday, 6 June, 2008. More information will appear in the next issue of The Phycologist. Queries can be sent to Prof. Elliot Shubert: e.shubert@nhm.ac.uk

E-mail from Ralph Lewin
I was specifically interested in Michael Guiry’s references to the decline of some seaweed harvesting. Before I'd learned that, more than 20 years ago, the Falklands had stopped harvesting and exporting kelp (Macrocystis, etc.), I'd send there to the "kelpers" (presumably many of them Christian Welshmen with good voices) this hymn (tune: St Anne) that I'd composed.

Kelpers’ Carol

Thank God for kelp in ages past
And kelp for years to come;
Our harvest from the coastal cast
That floated in the foam.

A thousand gametes seek the light
And swim towards the sun
But not all substrates can be right,
Supporting barely one.

From holdfast to the flaccid leaves
That float among the foam,
Conveying all that wealth conceives,
To our dear Falkland home.

So succour, God, the crops of kelp -
Our algal canopies.
We turn to Thee for hope and help
For harvests of the seas.

O God, protect our shores for kelp
Till all the oceans pale
With all Thy good eternal help
Our crops shall never fail.
**FIRST CIRCULAR British Phycological Society Winter Meeting**  
**University of Bristol, 3rd to 5th January 2008**

The Winter Meeting of the British Phycological Society will be hosted by the University of Bristol. There will be 2½ days of talks starting in the afternoon of Thursday January 3rd and finishing on Saturday January 5th. The meeting will end with a conference dinner during the evening of January 5th, with delegates heading home on the 6th.

We will have a very exciting scientific programme for you. In addition to offered talks on any aspect of phycology, there will be a Founders Lecture, to be presented by Professor Antonio Quesada (our new Overseas Vice President), two special sessions, one on Algae and Global Processes (organised by Gill Malin and Debora Iglesias-Rodriguez) and the other on Use of Novel Phycological Tools (organised by Jan Krokowski), plus the Manton Prize presentations. There will also be posters, including those entered for the student prize, and plenty of time for unstructured discussion.

Full details will appear on the BPS web site. The final programme is being assembled and abstracts should be sent immediately, either electronically as a word attachment or as plain text within the body of an email to paul.hayes@bristol.ac.uk.

Bristol offers a wide choice of accommodation, ranging from rather basic hostels through to hotels that cater for the most pampered and demanding of clients. We will shortly be posting a list of hotels and hostels with an indication of price and distance from the University. We recommend that you book early, although early January is not the busiest time for many hotels.

Bristol is well served by rail, road and air, so you should have a number of options for travelling to the meeting. If travelling by rail, make sure that you arrive at Bristol Temple Meads, from where it will be a short walk or taxi journey to your hotel and/or the University. Car parking in Bristol, and road traffic generally, can be problematic, so we would advise you not to drive unless your hotel is able to provide a parking space: parking close to the University will be limited to commercial car parks that can be expensive. Bristol International Airport is about 15 miles outside of the city. Several budget airlines fly to Bristol and this may be the cheapest option (in terms of the cash cost) for many people. A regular bus service runs from the airport to the city centre or it is possible to get a taxi to any specific destination.

- **BPS AGM**  
The BPS AGM 2008 will be held in the School of Chemistry during the winter meeting.

- **BPS Council meetings 2008**  
The BPS Council meetings will be held in the School of Chemistry on the 3rd and 5th January 2008.

- **NOMINATIONS TO COUNCIL**  
Vacancies for three ordinary members of Council are available from January 2008. Nominations (proposer and seconder) should be emailed to Dr Jackie Parry (j.parry@lancaster.ac.uk) by December 31st along with an email from the candidate confirming that they wish to be considered for the position.

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**The Botanical Research Fund**

The Botanical Research Fund is a small trust fund which makes modest grants to individuals to support botanical investigations of all types and, more generally, to assist their advancement in the botanical field.

Grants are available to amateurs, professionals and students of British and Irish nationality. Where appropriate, grants may be awarded to applicants in successive years to a maximum of three.

Examples of projects recently supported by the Botanical Research Fund include:

- Development of a vegetative key to the British Flora
- Herbarium research for a monograph of Strobilanthes (Acanthaceae)
- Taxonomic studies of the Coralline algae
- Field surveys of seaweeds, bryophytes and Rubus
- Laboratory work to investigate the status of *Gladiolus illyricus* in the UK.

The next deadline for applications is January 31st, 2008.

Further details may be obtained from

Mark Carine, Hon. Secretary, The Botanical Research Fund,  
c/o Department of Botany, The Natural History Museum,  
Cromwell Road, London, SW7 5BD  
Email: m.carine@nhm.ac.uk
The Biosciences Federation is seriously concerned about the loss of practical skills across the full range of the biosciences. That is, from ecology to in vivo pharmacology and from taxonomy to biochemistry. The biosciences are practical subjects, and yet in our schools and universities the amount of practical experience that students acquire continues to diminish. This decline is likely to continue because we have lost and are losing teachers with practical skills.

For my A levels we went out into the fields and threw metre squares "randomly" on patches of grass and then proceeded to count the number of certain plants and insects within the square. Many of you will have had a similar experience at school or university and will probably remember, as I do, the enjoyment of these outings - and not just for getting your square around someone's neck! But this is now a rare educational activity. And the loss of training in field work is important because, for example, the subtle change in the distribution of lichens is an indicator of climate change. We have lost many lichenologists, and many of those who remain are close to retirement. To embark on a project in the field in this area now requires more than the usual attention to the competence of your supervisor: you could find yourself working on wrongly identified lichens.

The same is true for scientists with in vivo skills. Once again, I have fond memories of tracing dogfish cranial nerves - well, perhaps not so fond because I was not addicted to formaldehyde! But it was an introduction to animal work and developed a real awareness of how nerves pass through tissue and bone. The work brought a three dimensional understanding of line drawings and excited interests that I suspect would not have been ignited without this experience. Some will argue that a dissected dogfish can provide nearly all these educational elements - it is a debate that those involved in medical education know well. Nonetheless, some practice on cadavers seems preferable to the alternative for veterinarians, doctors and those using animals for research. Today, the pharmaceutical industry has great difficulty in recruiting in this area because few are qualified for the work.

Of course, not all bioscientists need to throw metre squares and cut up dogfish in order to make a research or teaching career in one of our disciplines. However they are likely to need to make up reagents correctly and this is not a skill that one can anticipate today in all graduate students. The point is, the decline in practical skills threatens the strength of the biosciences.

How has the present situation arisen? There is no single answer to this question, but the expansion of university bioscience courses is an important component of the answer. With doubling, trebling and quadrupling of student numbers in the biosciences, it has often proved too difficult to find and pay for the space and staff to enable practical work of a high standard to continue. Indeed, as you will know, many courses are structured to minimise the need for practical training. It is possible today to do an Honours degree in Pharmacology and, if you are predicted to obtain a lower second class degree, your Honours project will be in the library. Graduates lacking practical skills will not usually attempt to find the time for more practical work when teaching in secondary schools.

What can be done to reverse this deteriorating situation? Clearly, motivation and money are needed. Motivation comes from need and leads to money. The ecological and in vivo examples given above were chosen because they are in areas where the need is real and so is the possibility of extra resource. We do not think that we can usefully argue for an all-embracing single step solution to this problem, but we do think that we can target areas and work with others to achieve change. Indeed, we are quietly achieving significant success. The loss of practical skills is now part of the national agenda and resolution of particular needs is being discussed in a positive way with Government.

One reader of a well-known magazine has spotted a strange resemblance between these two beasties - one can be found appearing on TV, while the other has a distinctive cystocarp and can be found in Lily Newton's handbook of the British seaweeds. Any ideas?
Instructions for Contributors

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 as attachments to email or on disc (MS Word for Windows or Rich Text Format). **Illustrations and photos to accompany copy are welcomed and should be supplied in JPEG or TIFF file-format no less than 600 dpi resolution.** The editor reserves the right to edit the material before final publication.

**Submission of Copy and Deadlines**

Copy should be submitted to:

Dr Jan Krokowski  
Scottish Environment Protection Agency,  
Redwood Crescent, Peel Park, East Kilbride,  
Glasgow G74 5PP  
Tel. +44 (0)1355 574200  
Fax. +44 (0)1355 574688,  
E-mail: jan.krokowski@sepa.org.uk

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