

The PHYCOLOGIST

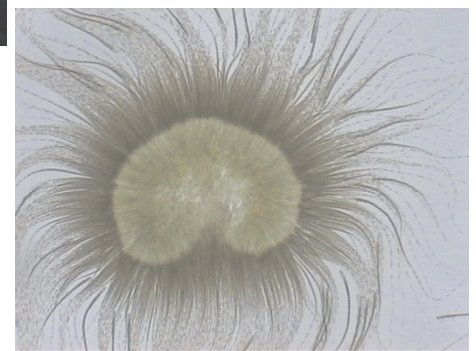


The Newsletter of the British Phycological Society

Editor: Dr Jan Krokowski

Homepage: <http://www.brphycsoc.org/>

Number 71
Autumn 2006



Top, photo courtesy of Caroline McGillivray, Clyde River Foundation.
Right, *Gleotrichia echinulata*.

2006

British Psychological Society

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The BPS Council have also held their Summer Council meeting at the very scenic location of Galway, at the Martyn Ryan Institute (28 June). No cyanobacteria were seen, although extensive growths of filamentous green algae were spotted in the river Corrib. If you have not yet managed to meet and talk to members of the Council, the opportunity may yet arise in Belfast, either before and/or after the presentations...or at the bar. In the mean time, please acquaint yourself with the Council.

From the back, left to right - M. Tobin, G. Codd, M. Wilkinson, E. Shubert, D. John, J. Krokowski, F. Küpper, M. Guiry, M. Dring, E. Cox, G. Malin, S. Marsham, J. Brodie, B. Leadbeater, J.D. Parry.



The BPS continued to be busy over the summer period. A new brochure has just been designed for the Society - many thanks to Elliot Shubert. This can be viewed at http://www.brphycsoc.org/documents/bps_brochure_2006.pdf. The BPS also strongly supports the initiatives of the Biosciences Federation in the United Kingdom, and latest minutes from the Biosciences Federation annual general meeting and Members' Meeting are available on the Biosciences Federation website, <http://www.bsfc.ac.uk/newsletters.htm>. A number of conference and summer bursaries have been awarded in 2006, with two reports detailed so far in this edition. Further reports will follow in the spring 2007 edition, following completion of the summer work programmes, and following attendance of autumn conferences. Application details for bursaries can be found at <http://www.brphycsoc.org/courses.lasso>

And finally..... please write to me with your 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/physcologist.lasso>.

What's New

Welcome to the autumn edition of *The Phycologist* !

The summer has been and gone, and with autumn fast approaching, there may have been a number of cyanobacterial blooms and scums reported from where you are, like for example the bloom of *Gleotrichia echinulata* from a reservoir near East Kilbride, Scotland, as shown on the cover page. Cyanobacteria are an annual summer/autumn occurrence in certain waterbodies and pose a risk to two-legged as well as four-legged water users, with greatest risk from shoreline scums. In this edition of *The Phycologist*, we have a report which presents a global situation assessment of the occurrence of cyanobacterial blooms, cyanotoxins, associated health incidents and a survey of available risk management measures which have been used, or are available to address the problems. The CYANONET project, as it is called, has identified substantial needs in many regions of the world and has provided recommendations to tackle these - read more on pages 4-5.

Details of the annual winter meeting in Belfast, 3-6 January 2007 are also provided, where, amongst other things, there will be a Cyanofest symposium, convened by Geoff Codd, with invited speakers including Tony Walsby, Paul Hayes, Dave Scanlan, and John Raven. Hope to see you there !

Happy reading !

CYANONET: Publication of Initial Situation Assessment and Recommendations



An all too common sight of a cyanobacterial bloom.

Fiona M. Young, Division of Environmental and Applied Biology, School of Life Sciences, University of Dundee, Dundee DD1 4HN, Scotland, United Kingdom. Email: f.m.young@dundee.ac.uk

Bloom-forming cyanobacteria produce a diverse range of toxins which have been implicated in a number of animal-poisoning and human health incidents. Human health outcomes range from short-term effects such as skin irritation and gastrointestinal illness, to acute illness and long-term poisoning. Cyanobacterial blooms (CyanoHABs) may also cause severe economic losses as a result of costly toxin-monitoring programmes and fish and shellfish mortalities. Although toxic blooms appear to be increasing in frequency, severity and duration across the globe, recognition and awareness of the problems caused by CyanoHABs is highly variable according to geographical location. Moreover, the extent to which anthropogenic eutrophication is contributing toward and exacerbating the problems associated with toxic cyanoHABs is, with the exception of a few countries, unknown.

In direct response to these problems, a multinational project (CYANONET) was formed as part of UNESCO's International Hydrology Programme-VI. CYANONET aims to increase CyanoHAB awareness, promotion, education and training, and to provide a global situation assessment of the occurrence and impact of cyanotoxins in water resources and the risks these

present to health. The CYANONET project has now reached the end of its first year and the Initial Situation Assessment and Recommendations have now been published. The CYANONET Report* is available online as a UNESCO Technical Document in Hydrology at:

<http://unesdoc.unesco.org/images/0014/001425/142557E.pdf>.

The Report presents the initial situation assessment and recommendations of the CYANONET International Steering Committee (ISC) along with a growing network of National Contacts. Approximately 70 countries in Africa, Asia, Australasia and Oceania, Europe, North and South America were included in the initial survey, with all countries reporting the occurrence of CyanoHABs in a range of surface waters. Examples of adverse effects on animal and/or human health were available from all regions. Available data and perceived requirements were summarised for each region with regards to the following:

- The occurrence of CyanoHABs and cyanotoxins in natural and controlled waters
- Reported adverse health incidents (illness, poisoning, mortalities) of humans and animals
- The existence and outcomes of systematic surveys and epidemiological studies of associations between cyanobacteria, cyanotoxins and health



CYANONET

- Adverse impacts of CyanoHABs on water supply, water-body use and ecological status
- The availability of management strategies and tools to reduce the adverse effects of CyanoHABs and cyanotoxins
- The availability of educational, training and awareness-raising materials, practices and requirements.

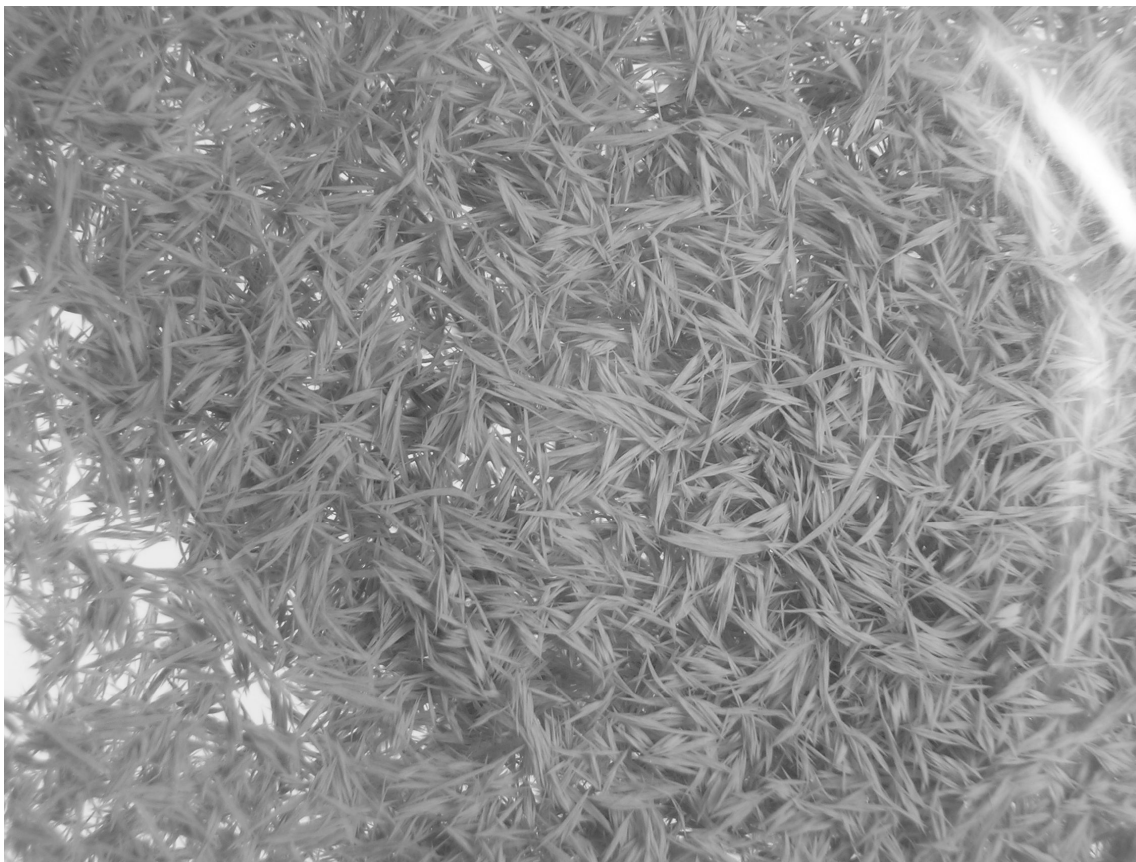
A CYANONET website (www.cyanonet.org) has also been established (Website Manager, Tomasz Jurczak, University of Łódź, Poland) and is being updated on a regular basis.

The initial assessment has demonstrated that wide differences exist within and between regions with respect to the necessary levels of recognition, knowledge and willingness to address the problems which CyanoHABs and cyanotoxins present to water availability, amenity, safety and health. Major geographical and institutional differences were also observed in the availability of required skills, information, experience and technology transfer. The CYANONET project indicates that these resources can be shared by raising awareness, promotion, education and training, and can be adapted to accommodate regional and local requirements.

Also highlighted in the Report, are needs and recommendations for the next phase of the CYANONET project. These include the further development of the CYANONET website and incorporation of a database with public and members sub-sections. The network of National Contacts will also be extended to aid continued data collection and updated global situation assessment. Furthermore, information on current international and national guidelines, regulations and management measures will be made accessible in local educational materials and on the CYANONET website. Increased awareness and accessibility to information about CyanoHABs and cyanotoxins will enable more effective management measures for the protection of water resources and human health on a global scale.

* CYANONET: A Global Network for Cyanobacterial Bloom and Toxin Risk Management. Initial Situation Assessment and Recommendations.

G.A. Codd, S.M.F.O. Azevedo, S.N. Bagchi, M.D. Burch, W.W. Carmichael, W.R. Harding, K. Kaya and H.C. Utkilen. International Hydrological Programme -VI, Technical Documents in Hydrology No. 76, 138 pp., UNESCO, Paris, 2005.



Close up of *Aphanizomenon flos-aquae*, a common bloom forming cyanobacterium.

The 7th International Temperate Reef Symposium, California, 26th June - 1st July, 2006

John Griffin, University of Plymouth and the Marine Biological Association of the UK

Over three hundred ecologists from around the world congregated in Santa Barbara, California, for the 7th International Temperate Reef Symposium earlier this year. Thanks to funding from the British Phycological Society I had the fantastic opportunity to join them! The meeting opened with a session led by Professor Steven Hawkins on the loss of Biodiversity on temperate reefs and the functional consequences, which I was fascinated by, as it is the main theme of my Ph. D research. A lively discussion ensued, during which I made several contributions, trying to point out that many studies are biased towards finding no effect of biodiversity, as they are limited to small scale, short-term mesocosm studies. The social that evening, a beach barbeque on campus, allowed a continuation of the debate from the morning session. Such discussions, over dinner or in the bar, were great as they allowed me to really 'probe' the brains of people working in my field, turning the conference into a constant and intense learning experience.

Preparing, practicing and delivering my talk entitled 'primary succession, biodiversity and ecosystem functioning in semi-natural rockpools' was invaluable experience. Several people said how interesting and unique my study was, whilst one suggested ways that I could further explore the data.

In addition to helping me focus on my specific subject area and learn from people working at the fore of my field, the meeting really helped to broaden my understanding of temperate reef ecology, and indeed, ecology in general. Sessions on key topics, such as 'The use of long-term data sets' and 'Ecological processes causing and maintaining variability in marine populations', were enlightening. In the final session 'The ecology of temperate reefs: What have we learned? What should we learn?' the 'elder statesmen' of rocky reef ecology made pleas for greater inter-disciplinary collaboration and understanding of previous work, upon which we have to build. The resounding sentiment was that, despite great progress in recent years, we still have a long way to go before we understand the complexity of temperate reef communities.

Summary of the 12th International Conference on the Cell and Molecular Biology of *Chlamydomonas*

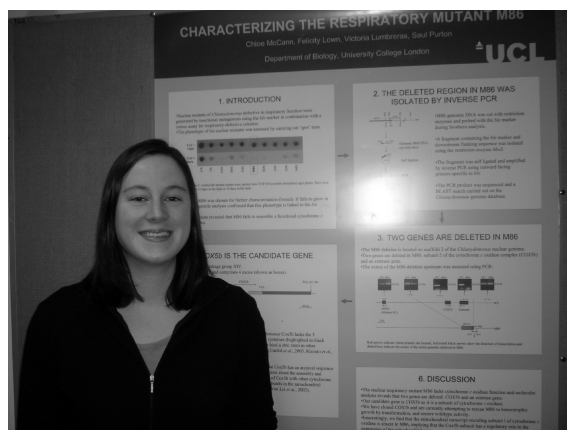
Chloe McCann, Department of Biology, University College London.

I am currently a first year PhD student at UCL. My research involves studying the respiratory complexes in mitochondria using the green alga *Chlamydomonas reinhardtii* as a model organism. Funding from the BPS enabled me to attend the 12th International Conference on the Cell and Molecular Biology of *Chlamydomonas*. The conference convenes every alternate year and allows members of the *Chlamydomonas* community to exchange ideas and present the latest research to the rest of the field.

Held in Portland, Oregon (May 2006), the meeting was spread over 6 days and included talks on many different aspects of the alga, from photosynthesis to flagella function. The conference commenced with an introductory talk from the organiser, Susan Dutcher, and was shortly followed by an opening social to go easy on those still suffering from jet lag. The rest of the conference was far from laid back, a typical day beginning at 8.30 a.m. and continuing till 10.00 p.m. - despite this many people found the energy for a drink in the bar at the end of the evening!

The talks were split into 15 different sessions with the final session giving a taste of new frontiers in *Chlamydomonas* research. With the completion of the *Chlamydomonas* genome sequence there were many interesting talks on post genomic research. Meetings were held after the formal sessions to allow discussions on the annotation of the genome so providing an open forum for suggestions on how to improve it. I presented a poster summarizing my work to date, involving the cloning and characterization of a nuclear gene affected in the respiratory mutant M86.

Before leaving Oregon I took the opportunity to visit Mt St Helens and explore some of the picturesque surrounding landscape. Overall, the conference was thoroughly enjoyable and proved to be an invaluable experience - I'm already looking forward to the next *Chlamydomonas* meeting! I am most grateful to the BPS for their financial support towards this conference.





Report on the Kindrogan Freshwater Algal Identification course, 2006

Jenny Horne, University of Sheffield.

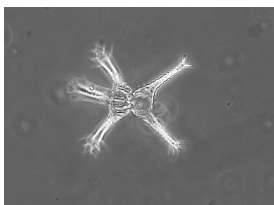
This year I was lucky enough to be awarded a student bursary to attend the Freshwater Algal Identification course held at the Field Studies Centre at Kindrogan in Scotland. Professor Elliot Shubert and Dr Eileen Cox of the Natural History Museum, London, ran the course. This year people attending the course came from a variety of backgrounds including students, researchers, industry workers and a number of different disciplines within this. Also it was quite international with people from as far a field as Portugal, Germany and Spain.

The week was very intense, meaning that in one week I probably made more progress than I would have done in several weeks trying to teach myself identification. I also benefited from the informal scientific discussions we had both with our tutors and with our fellow students. Days consisted of a mixture of lectures, sample collections and microscope work. Plenty of help was available from our enthusiastic and tireless course leaders, and with a mix of abilities present we were able to share our knowledge. In the middle of the week we had a collecting trip round several different local freshwater habitats including lochs, rivers and even a distillery stream. We even got to sample more than just the algae - the local whisky!

Kindrogan Field Centre was a friendly and comfortable place to stay with good food and welcoming staff. It also has the advantage of having beautiful surroundings and even red squirrels on the nut feeders to entertain us! There was a bar available and beautiful surroundings to enjoy in the time we were not looking at the algae.

The week culminated in the tenth anniversary of the now legendary algal charades, you have to be there to appreciate the hilarity but our new knowledge certainly came in useful.

All in all, the course was extremely worthwhile and I would recommend it to anyone who needs to learn or improve their algal identification skills and their knowledge of this important group of organisms. It will certainly benefit my research tremendously and kick start my identification of samples at the University of Sheffield. Thanks once again to Elliot and Eileen for an unforgettable week!



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Freshwater Algal Course 2007

Where and when?

Kindrogan Field Centre, Enochdhu, Blairgowrie, Perthshire, Scotland (near the tourist area of Pitlochry), 8-15 June 2007.

What is the course about?

The course takes full advantage of the excellent range of aquatic and terrestrial habitats in this beautiful area of Highland Perthshire to provide a sound introduction to the recognition, identification and ecology of freshwater algae. Emphasis will be placed on the use of the microscope and taxonomic keys (print and electronic) for the identification of algae to generic and species level and their ecological importance.

For those with some prior knowledge of the algae, we hope that the opportunity to study samples from a range of habitats will broaden their knowledge and/or allow them to focus on particular groups.

Field trips, on foot or by vehicle, will be varied, but not strenuous and will be complemented by laboratory work, illustrated talks and class discussion.

The course focuses on how to get a grip with identification, and the broader aspects of algal morphology, structure, reproduction, and classification (morphological and molecular).

Who are the participants?

The course is open to individuals with different backgrounds ranging from beginners to those who would like to refresh their knowledge of particular groups of algae or experience collecting in a different region of the world.

What is the full cost of the course?

The course costs £426 per person (approx €630 or \$804), which includes accommodation, all meals (please notify the Centre if you have any special dietary needs) and tuition. This is excellent value for money and costs significantly less than other freshwater algal courses on offer.

Who are the course tutors?

The course tutors, Dr Eileen Cox and Prof Elliot Shubert, have taught this course for the past ten years and they have a wide-ranging expertise on freshwater algae. Eileen and Elliot conduct research at The Natural History Museum, London, specialising in diatoms and green algae respectively. Eileen has published a key to live diatoms and Elliot has published a key to the non-motile coccoid and colonial green algae.

Is there support for students?

Yes, support for a student stipend is available from: The British Phycological Society <http://www.brphycsoc.org/funding.lasso>

The deadlines for applications are: 30 September, 1 December, 1 March and 1 June. The sooner you apply, the better your chances are of receiving a stipend.

Graduate students who are members of the Phycological Society of America are eligible for financial support to attend a phycology course at a field station from the Hannah T. Croasdale Fellowship, <http://www.psaalgae.org/student/stugrants.html>. The deadline for applications is 1 March 2007.

In addition, one outstanding student applicant may be eligible for a 'specialist course' British Ecological Society stipend. For more information and an application form go to:

http://www.britishecologicalsociety.org/grants/attendmeetings/index.php#specialist_course. Applications are due prior to 16 February 2007.

How do you get to Kindrogan?

The nearest mainline railway station is Pitlochry, which is on the London Kings Cross-Edinburgh-Inverness route. Participants will be met at Pitlochry by Kindrogan staff. Edinburgh and Glasgow have international airports. The airports have a coach connection to the main railway station in the respective cities.

Where can I find more information?

For detailed information about the Kindrogan Field Centre:
<http://www.field-studies-council.org/kindrogan/>

For a booking form:
<http://www.field-studies-council.org/documents/leisurelearning/2005/bookingform.pdf>

A £50 (approx €73 or \$94) non-refundable deposit is required (credit cards are accepted).

The 25th International Phycological Conference - Algae and their changes over time, Poland, May 16-19th 2006



Conference venue in Łagów.

Jan Krokowski, Scottish Environment Protection Agency, East Kilbride, Scotland, UK

I was lucky enough to have met a couple of Polish participants at the 2006 winter BPS meeting in Plymouth (Dr Elżbieta Wilk-Woźniak and Dr Sławomir Ligeza) who mentioned about a phycology meeting in Poland. Well, it didn't take me long to organise two posters, a talk and to sort out my travel arrangements, and I was ready for my flight east in May.

The conference was the 25th International Phycological Conference, under the auspices of the Polish Phycological Section of the Polish Botanical Society, which in future is likely to be organised and supported by a newly formed Polish Phycological Society. An opening session was held at the Adam Mickiewicz University of Poznań, at the Faculty of Biology, Department of Hydrobiology, followed by the main part of the conference at the picturesque location of Łagów, a 3 hour bus drive west from Poznań. The chair of the conference was Prof Lubomira Burchardt. The aim of the conference was to present results of taxonomical, biochemical, genetic and ecological studies of algae to extreme, fluctuating and sustainable environmental conditions.

The conference was well attended with ca. 100 participants mainly from Poland, but which also included those from USA, Canada, France, Slovakia, Russia, Ukraine, Finland, and Scotland. The presentations, of which there were between 40-50 were mainly in Polish, which for future overseas visitors wishing to attend is bound to be problematic although all powerpoint slides were in English. There were, however, a small number of presentations in English, which were given by the 'foreign' delegates. All posters (again numbering between 40-50) were in English. Two types of presentations were given, one lasting for 10 minutes and the other for 20 minutes; the latter being in-depth whereas the former was used by MSc. students and others to present their work and preliminary results.

The talks were very diverse and in depth. They included a detailed description of Polish investigators of diatoms in a plenary session by Prof Jadwiga Siemińska. This detailed that diatom studies in Poland can be traced back to the first half of the 19th century. On a personal note there were a number of other notable talks - a discussion of invasive species in eastern Europe as a result of environmental stress and whether such invasions should rather be called expansions (Prof František Hindák), the 'evolution' and dynamics of algal communities during dry and wet years (Dr Elżbieta Wilk-Woźniak), the monad variation in euglenophytes (Prof Konrad Wołowski), and the phenotypic and genetic characterisation of a marine *Aphanizomenon* sp. (Dr Waldemar Surosz). There were very lively and memorable discussions following all the talks!

The standard and quality of presentations and posters was extremely high, and it seemed to me that there was a very high percentage of young people present (students and post-grads). An ad hoc algal identification workshop was also held, whereby students were able to have their images of difficult taxa on CDROM correctly identified by the experts present (Prof František Hindák and Prof Konrad Wołowski).

The entertainment and food were also very memorable; from a BBQ on the opening night with traditional Polish sausages and 'Żurek' (white borsch soup), the impromptu dancing and a more 'formal' dance session on the last night, to a lovely hog roast, and of course the traditional shot of 'wódka'...or two. A mid-symposium excursion to a peat bog and an end-symposium trip to the National Park of the inland delta of the river Warta were spectacular. The hospitality of the organisers (especially Prof Burchardt and Dr Beata Messyas) and all the participants was generous and very warm, and I would encourage you all to attend in the future.

Polish hospitality





Report on the symposium 'Unravelling the Algae: The past, present and future of algal molecular systematics'

Juliet Brodie and Jane Lewis

On the 11th and 12th March 2006, some 85 people from at least 15 countries from around the world came together at the Natural History Museum in London to participate in a symposium to review the impact of molecular techniques on algal systematics. This symposium, run under the auspices of the Systematics Association, was also supported by the British Phycological Society, The Linnaean Society and the Natural History Museum. In addition to the 16 invited oral presentations, there were 27 posters which covered almost all the algal groups.

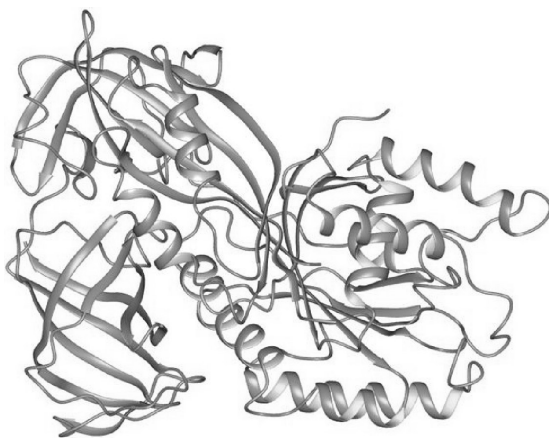
After welcoming comments by Johannes Vogel, the Keeper of Botany at the Natural History Museum, the first day opened with a presentation by Chuck Delwiche (University of Maryland) who gave an engaging overview of the algae through the evolution of their plastid acquisition. Chuck regards the algae as being monophyletic through their possession of plastids, a concept he illustrated with the picture of a bonsai tree as the ultimate alga. Paul Hayes (University of Bristol) navigated us through the immensely confusing field of cyanobacterial taxonomy where it appears that there is very little congruence between morphological and molecular results. Paul demonstrated that genetic approaches could reveal unknown diversity in some groups but might lead to over classification in others, hence he advocated a polyphasic approach to the investigation of cyanobacteria. Chris Maggs (Queen's University Belfast) and Olivier de Clerck (Ghent University) covered the red algae, following the development of our understanding of this class over the last century. Their intriguing and insightful analysis based on studies of which genes, parts of genes or spacer regions had been deployed in red algal taxonomy, demonstrated not only that particular



A bonsai tree as the ultimate alga.

genes were potentially helpful at different levels of classification but that over the years since molecular tools had become available that there had been a shift in the level of taxonomy that was being addressed going from trying to understand higher-level classification in the early days to an increase in species-level approaches today.

An extended lunch break enabled people to spend time discussing the excellent posters that had been provided for the meeting and a chance to engage with the students, who made up almost a half of the participants and whose work was very much in evidence. Poster topics were wide-ranging from the general to the specific, covering macroalgae to ultraplankton and from phylogenies to the development of identification tools using molecular techniques. The afternoon session started by Thomas Pröschold (Dunstaffnage Marine Laboratory) demonstrating, using green algae, how useful molecular approaches can be in combination with traditional morphological approaches. Then, John Hall (University of Maryland) brought us to the charophytes, a group that is relatively poorly known and patchily sampled and equally patchily studied. John explored the difficulties in interpretation this can bring, but offered future hope for this group in the guise of genomic data. Following on, an even more obscure group that was only discovered in the 1980s, the chlorarachniophytes, was brought visibly to life by the startling videos presented by Ken-ichiro Ishida (University of Tsukuba). Ken also showed that these marine amoeboid unicellular algae, whilst presenting a fascinating



Molecular genetic schematic representation.

plastid acquisition history, are much more diverse with several resolved lineages than hitherto expected. The final presentations of the day covered the haptophytes, given by Bente Edvardsen (University of Oslo) and the cryptophytes, presented by Federica Cerino (Stazione Zoologica, Naples). Both speakers spoke of the challenge of taxonomic revision that these two groups presented in the light of molecular data and that there was much to do to achieve taxonomic resolution. A wine reception followed to round off the day's events.

The second day began with a review of algal evolution by Tom Cavalier-Smith (University of Oxford). Rarely can so much information have been packed into such a short space of time! Progress in this field has been breathtaking with the advent of molecular techniques allowing the testing of detailed hypotheses to drive reconstructions of the past forward. This field has clearly benefited by the information that can be provided through molecular approaches. Returning to a specific group of Øjvind Moestrup (University of Copenhagen), as with Chuck, used a tree to make a point, not this time a bonsai, but the famous dinoflagellates tree presented to us upside down to illustrate the impact of molecular data on the taxonomy of the dinoflagellates, a group that surely displays profligacy in the number of postulated past symbioses. Jane's maxim that it never pays to generalise about dinoflagellates is true! David Mann (Botanic Garden, Edinburgh), using diatoms, reiterated the overarching theme that more than one type of information is required to do meaningful phylogeny. He went on to show how progress is confounded by the lack of high-grade information available for most taxa even in this comparatively well-studied group. The classification of brown algae was covered by Bruno de Reviers (Muséum national d'histoire naturelle), and as with many other classes, molecular information has led to a major upheaval in phylogenetic thinking for this group leading to new hypotheses and the movement of many taxa to new orders and families. Robert Andersen (Bigelow Laboratory, Maine) finished the morning by covering the rest of the heterokont algae, in particular the chrysophytes and some related groups, and proposed that 'within class' resolution may be possible using appropriate molecular sequence data.

After another extended lunch, with more posters read and the museum explored, we returned to consider the

development of whole genome sequencing. Chris Bowler (Stazione Zoologica, Naples and ENS, Paris) gave an erudite exposition on the potential developments that arise from this type of information and the opportunities this provides us with. He reported that six eukaryotic algae have been completely sequenced, including green, red and brown algal lineages, with more underway with all the implications for new information, such as the evolution of different groups of photosynthetic eukaryotes with respect to each other and with respect to other eukaryotes. David Williams (Natural History Museum, London) discussed the principles of classification in a passionate presentation, illustrated using examples from the diatoms. The symposium finished with a review of molecular techniques with emphasis on the future. This was illustrated with examples from the microalgal field by Linda Medlin (Alfred-Wegener Institute for Polar and Marine Research, Bremerhaven) and macroalgal field by Jeanine Olsen (University of Groningen), who both set new challenges and food for thought.

From the presentations it was clear how rapidly our understanding of algal systematics has moved in the last twenty years. It was also overwhelming clear that it was inappropriate to focus on a single technique to further our understanding in the future, rather, a range of traditional and molecular approaches are required. A number of speakers also highlighted the need for transmission electron microscopy in order to support interpretation. Discussion sessions on both days were animated and allowed participants to debate issues as they arose and to speculate on the shape of the future. Arising from these debates it was clear that there is concern around the appropriate use and interpretation of 'DNA barcoding' and its use in taxonomy, and that there is a need for proper long term vouchering of analysed material to sit alongside any electronic record (e.g. genbank) allowing further investigation if required in the future.

All in all this was a successful meeting which demonstrated to us the power of having a focussed subject and the value of bringing people together from a wide range of backgrounds to discuss the material. We believe that the book that will result from the symposium (of the same title) will be a valuable legacy of this noteworthy and timely event in the development of algal systematics.



The 55th Annual British Psychological Society Meeting Queen's University Belfast, 3rd-6th January 2007 inclusive

Venue:

Queen's University, Belfast, Northern Ireland, on and around Medical Biology Centre site (MBC), Lisburn Road/Elmwood Avenue junction (close to the main University site).

Travel:

Budget airlines fly to Belfast from almost every GB airport, so that travel from GB is easy and cheap, if booked early. Belfast City airport is about 15 min taxi/bus ride; Belfast International airport about 30 min away by bus. From Europe, there are more direct flights into Dublin airport, with hourly bus connections to Belfast (trip takes about 2.5 hours).

Accommodation:

There is a lot in the vicinity including hotels, B&Bs and backpackers' hostels; for further details, see "Accommodation" on BPS website, or the Belfast Welcome Centre website:
<http://www.gotobelfast.com/>

Costs:

The registration fee for BPS members will be £40, including buffet (Wednesday) and lunches (Thursday, Friday). Non-members: £100.

Outline programme

Wednesday January 3

1500 Council meeting (MBC, Lisburn Road)
1900 Buffet and poster session (MBC, Lisburn Road)

Thursday January 4 (MBC, Lisburn Road)

0900 Cyanofest symposium (convened by Geoff Codd; invited speakers include Tony Walsby, Paul Hayes, Dave Scanlan, John Raven)
1100 Coffee
1130 Symposium: Water Framework Directive (convened by John Kelly, QUERCUS)
1300 Buffet lunch in MBC
1400 Contributed papers including Manton sessions
1530 Tea
1600 Contributed papers including Manton sessions
1730 AGM
1900 Dinner, table quiz, auction (Varsity restaurant/bar, College Gardens)

Friday January 5 (MBC, Lisburn Road)

0900 Symposium: Use and abuse of algae (convened by Matt Dring)
1100 Coffee

1130 Contributed papers including Manton sessions
1300 Buffet lunch in MBC
1400 Contributed papers
1630 Tea
1700 Presidential lecture
1930 Dinner and céilidh (Great Hall, Lanyon Building).

Saturday January 6 (MBC, Lisburn Road)

Workshops will be arranged if there is sufficient interest.

Possibilities include:

- Use of PAM fluorometers (with Walz)
 - Consult the experts (bring your problem specimens!)
 - Use of "Phycomat" for cultivation of microalgae
- Call for contributed papers and posters
You are invited to submit oral or poster contributions on any psychological topic for presentation at the Winter Meeting in Belfast.

- Oral papers on topics related to one of the symposia may be timetabled within the symposia, or in sessions that follow the symposia. Other oral paper will be arranged in sessions for contributed papers. Contributors must be prepared to present their papers at any time on the Thursday and Friday of the meeting.

- Posters will be on display during the buffet on Wednesday evening, and will remain on display in the foyer of the MBC during coffee and lunch breaks throughout the meeting.

- Manton Prize contributions will be presented in special sessions as indicated in the programme; the number of sessions will be determined by the number of entries.

- Student session: if there is sufficient demand, a less formal student session will be arranged at which students who do not wish to enter for the Manton Prize can give short talks (10 min), primarily to other students. Short talks on topics of general interest to students may also be arranged.

- Student poster prize: as usual, a prize will be awarded to the best poster presented by a student.

Further details and Abstract form from <http://www.brphycsoc.org/meetings.lasso>

All contributions should have been submitted to Matt Dring (m.dring@qub.ac.uk) by 15 September 2006.

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.

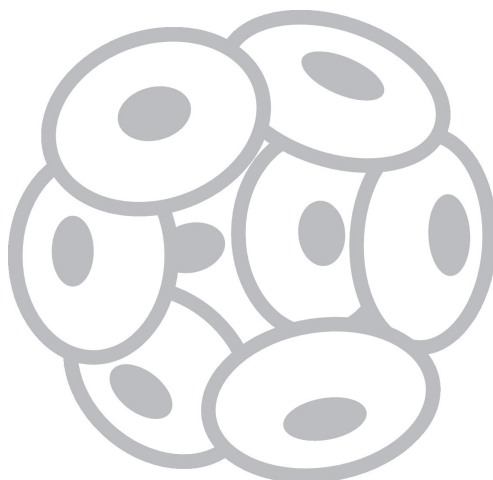
Submission of Copy and Deadlines

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Deadlines are **March 1st** for the April issue, **September 1st** for the October issue

Typesetting by Agnès Marhadour
Printed by Monument Press, Stirling, UK.



**Minutes of the 54th Annual General Meeting
of the British Phycological Society
The University of Plymouth
Friday 6th January 2006, 4.00pm**

Present: 32 members were present

1. Apologies

Lydia King, Stephen Maberly, Sarah Marsham, Graham Scott, Dagmar Stengel, Michelle Tobin.

2. Minutes of the 53rd AGM held on the 6th January 2005

The minutes were approved: proposed by Alison Taylor and seconded by Elliot Shubert.

3. Matters arising

There were none.

4. Presidential Report

Mike Guiry reported that Council had decided to take a lead in the formation of a Federation of European Phycological Societies (FEPS). A Federation was considered most appropriate because many new societies had recently formed and they would be reluctant to lose their identity at this stage. A working party would be set up by Geoff Codd (Chair), Matt Dring and other BPS members, to arrange a meeting of society Presidents at the next ECP meeting in 2007. It is hoped that a steering committee will be set up, with a member from each country, and that this committee will meet every four years at the ECP. The BPS would be willing to publish the EJP on behalf of the Federation. There was also a surplus of money from previous ECP meetings which could be used by a newly formed Federation Committee.

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) Honorary Secretary

Jackie Parry opened by thanking Alison Taylor for acting as local organiser for the winter meeting. Thanks were also expressed to those members of the Marine Biological Association and the University of Plymouth who had helped in organising such a successful meeting. The meeting had drawn 108 delegates and the programme comprised 51 oral and 27 poster presentations. She thanked all authors and those who had chaired sessions or judged the Manton and

Poster prizes. Special thanks went to Jeanine Olsen and Jim Callow for organising the genomics symposium.

b) Honorary Treasurer

Mike Guiry reported on behalf of Michelle Tobin that the general financial situation of the Society was good. The accountants had made one error with regard to the external examiner's fee on page 3, but this would be checked before submission of the final report. The Journal had yielded £26K from Volume 39 but publication costs appeared higher than usual due to Taylor & Francis invoicing the Society for the 2003 and 2004 issues together, due to an error on their part. This payment was made from the short-term deposit account which explained the decrease in balance in this account and the higher than usual balance in the current account. The winter meeting at Birmingham in 2005 had yielded a surplus of £1253, mainly due to refund on accommodation, and Barry Leadbeater and Maureen Callow were thanked for organising this. This surplus had been used to support the 2006 winter meeting. Mike also reported that an affordable method for processing credit cards via the web would be instigated by the Society. Members would be reminded of subscription dues via BPS-L and they would enter their credit card details in a secure area on the BPS website. This information would be emailed to Michelle who would then process the cards manually. Members could still pay by standing order and cheque but this would be discouraged. Michelle wished to thank the membership for their patience and support during the year.

The Hon Treasurer's report was accepted: proposed by Elliot Shubert and seconded by Gerald Boalch.

c) Honorary Membership Secretary

Mike Guiry reported on behalf of Graham Scott that the total active membership of the Society was 427, with only 75 members one year in arrears. Of the 352 paid-up members, 135 members are from the UK, 104 are from Europe (excluding UK), 59 are from North America and 54 are from the rest of the world. Thus, half the membership is outside the UK.

d) Honorary Editors of the Journal & EJPMC

Matt Dring reported that 34 papers had been published in the four issues of Volume 40 (2005), which was 26 pages short of the newly increased size budget for the year. The current rejection rate stood at around 70-75% and the backlog of accepted manuscripts reported in 2004 had now disappeared. However, there had been a number of distribution problems this year with the incorrect journal being sent to the membership, and delays in publishing the November issue. These would be resolved with Taylor & Francis. Daryl Birkett continued to work part-time as an Editorial Assistant and John Anderson and Klaus Valentin had settled in well as Associate Editors. Craig Bailey had stepped down as Associate Editor for macroalgal systematics, and Olivier De Clerck replaced him from the autumn of 2005. There had been

some difficulty replacing Paul Kugrens as Associate Editor for microalgal systematics, so Eileen Cox had to act in this capacity for much of the year. The news that journal was now the top phycological journal with an SCI impact factor of 2.506 was greeted with a round of applause. Matt, on behalf of himself and Eileen Cox, thanked Daryl Birkett, the Associate Editors and all the reviewers, for their sterling work during the year.

e) Honorary Editor of *The Phycologist*

Alison Taylor reported that Issues 68 and 69 were published on schedule in April and November respectively. She thanked all those who had contributed items, Ms Agnes Marhardour for providing the layout, all the staff at the MBA and those members who had sent letters complimenting her on the new design of the publication. Alison also wished her successor well, as this was her last year in office.

f) Awards and Training Committee

Barry Leadbeater reported that twelve bursaries had been awarded to support student attendance at the BPS winter meeting at Plymouth. Five students had received funding to attend training courses and two had been funded to attend overseas conferences. This totalled £5727. He expressed concern that there had not been any applications for the “Special Projects” or the “Summer Research Bursaries” and encouraged the membership to apply for these awards.

g) Biodiversity and Conservation Committee

Juliet Brodie reported that Jan Krokowski and Francis Bunker had joined the committee and Martin Dokulil had agreed to become the overseas representative. The *Important Freshwater and Marine Algal Sites in the UK* document was near completion and Bob Fletcher had submitted a report on the progress of the *Brown Volume* with publication by June 2006 being a possibility. The current stock of the Flora Volumes was still being dealt with and 300 copies of the revised *Seaweed Atlas* (Hardy & Guiry) were being printed by Koeltz. This would sell at a retail price of €60, a special introductory price for members. She thanked all members of the committee and particularly Chris Maggs, Dave John and Linda Irvine for their extra input this year.

h) Communication and Education Committee

Jackie Parry reported that the Society continued to be a member of the Biosciences Federation and that Mike Guiry had attended a Federation Dinner on our behalf. Mike reported that the key take-home message had been that Biological Sciences as a research area in the UK is in decline and pressure needs to be put on the Government. He was very impressed with members of the Federation and was convinced this was an excellent medium for lobbying. Jackie then reported that the Society would be submitting an application to

become a member of the Federation of European Microbiological Societies (FEMS) on the 31st January. Council considered provisional membership to be the most appropriate as it allowed for reduced membership fees during the first three years. Provisional members were still eligible to apply for all the funding opportunities available. Jackie went on to report that the provision for on-line credit card payments was in hand and that the generated database would be the beginnings of a members only intranet. When it was in place, members would be contacted via BPS-L, given a username and password, and asked to check their contact details and key words. As a member they would eventually have access to the full membership list and a search engine to process key words. The membership was asked to submit any ideas regarding the desired content of the intranet to her.

**Members to submit ideas for Intranet
content to Jackie Parry**

The reports from council were accepted: proposed by Christine Maggs and seconded by Juliet Brodie.

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

6. Constitution

Mike Guiry reported that Council had proposed changes to the BPS constitution. The old and new versions had been published in Issue No 69 of *The Phycologist* and the membership was asked to submit comments. None had been received and no opposition was recorded by members at the AGM.

The new BPS constitution, as printed in Issue No 69 of *The Phycologist*, was accepted by members: Proposed by Gerald Boalch and seconded by Wytze Stam.

**Jackie Parry to lodge new constitution
with the Charity Commission**

7. Future Meetings

Mike Guiry reported that Hull would no longer be the venue for the winter meeting in January 2007 and that the new venue would be Belfast. Mike thanked Matt Dring and Chris Maggs for agreeing to be the local organisers at such short notice, and a provisional starting date of January 3rd was agreed. No accommodation would be organised for this, or any future, meeting and members would be expected to stay at recommended hotels and guest houses. Some ideas regarding special topics were suggested and included Molecular Genetics and the Framework 7 Programme. The 2008 and 2009 winter meetings would be held in Bristol and London, respectively.

8. Honorary Membership

Mike Guiry reported that Council had considered that the award of Honorary membership of the Society should not be limited to those who have retired. The AGM accepted the two nominations proposed by Council, Prof John Raven and Prof Gerald Boalch. Both received a round of applause from the membership.

9. Nominations to Council and Auditor

Mike Guiry informed members that the terms of office of a number of council members had ended this year. Jackie Parry and Graham Scott had agreed to serve on Council for a further three years as Honorary Secretary and Membership Secretary, respectively. Alison Taylor had declined a further term of office and Mike thanked her for her excellent role as Honorary Editor of *The Phycologist*. Council proposed that Jan Krokowski would be the new Honorary Editor. The terms of office of three ordinary members, Stephen Maberly, Dagmar Stengel and Dave John, had also ended, together with the one-year term of office of Sara Marsham as the student representative. Mike thanked them for their input during their terms of office. Jackie Parry informed members that three nominations for ordinary membership had been received and these were for Graham Underwood (proposed by Elliot Shubert and seconded by Graham Scott), John Anderson (proposed by Jackie Parry and seconded by Mike Guiry) and Gill Malin (proposed by Jackie Parry and seconded by Barry Leadbeater). Council had expressed concern at the rapid turnover of student membership to council and proposed that each student member should serve a period no less than 2 years. Sara Marsham had agreed to remain on council for a further year. Finally, one further ordinary member for a period of one year was required to complete the three-year term of office of Jan Krokowski and Council proposed to second Dave John onto Council for a further year.

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

10. AOB

Juliet Brodie advertised a 2-day meeting at the Natural History Museum (11-12th April 2006) entitled “Unravelling Algae: Past, Present and Future”.

Elliot Shubert reported that £760 had been raised from the auction/quiz night.

Gerald Boalch, on behalf of the membership, expressed thanks to Mike Guiry for chairing the AGM.

The next Council meeting would take place in the restaurant of the Holiday Inn Hotel and 8am on Saturday 7th January.

The meeting ended at 5.10pm

Jackie Parry