



# PHYCOLOGICAL NEWSLETTER

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pectations. I want to thank Blackwell's representative, Liz St. Germain, for her efforts to keep this relationship on track. I also want to send a huge THANK YOU to Pat Wheeler for taking on the Editorship of the *Journal of Phycology* and to Susan Brawley for her hard work and many innovations as editor.

What can you do for the Phycological Society? There is a lot, and all members of the Executive Committee welcome your talent and input. However, let me mention three things:

1) Use our electronic journals — one of the biggest investments we have made is placement of the *Journal of Phycology* on Highwire and Synergy. We want the electronic version of our journal to be as good and widely utilized as the print version. Over the next two years, we will need your input to finalize a long-term strategy to achieve this.

2) Participate in the Society Business - we need volunteers to serve on Committees... contact me if you are interested in Education, Elections, Membership... anything. Student members are welcome on all committees.

## MESSAGE FROM THE PRESIDENT

I love *Postelsia*. Despite my professional attachment to microscopic algae, it is this wonderful, effervescent, resilient resident of wave-swept rocks that speaks to me of the essence of algae. Last year, I think Charlie Yarish, the PSA membership, and the Executive Committee proved that PSA is also wonderful, effervescent, and resilient. We enter 2002 with a solid financial position and exciting plans for annual meetings in Madison this summer, on the Oregon Coast in 2003, at William and Mary in 2004, and in South Africa (with IPC) in 2005. I want to thank all local organizers Linda Graham, Gayle Hansen, and Sharon Broadwater, and IPC representative Dennis Hanisak, for stepping in so early on these meeting. Their generosity helps ensure that we get the many financial and programmatic advantages of advance planning.

This year marks the beginning of the third year of our new publishing arrangement with Blackwell Scientific. In years past, the PSA published its own journal and contracted with Allen Press for production and distribution. Now, we are essentially in a joint venture with Blackwell. Needless to say, there has been a learning curve for both partners in this endeavor, but the slope has been positive, and our financial return for 2001 looks like it will exceed ex-



Michelle Wood, PSA President 2002, Dave Millie, PSA Vice President/President elect and Larry Fritz, PSA Program Director all enjoying the banquet at the PSA2001 Meeting in Estes Park, CO.

3) Recruit new members — If you have colleagues, who read or rely on the *Journal of Phycology* in their research, encourage them to join PSA. Be sure your students know about the many advantages they receive as members.

Finally, help us protect those wave-swept shores. As promised when I ran for President, I have created a new ad hoc committee on Conservation and Public Policy. You will be hearing more about this but, for now, I want to thank past-President Steve Murray and Susan Williams, Director of Bodega Bay Marine Lab, for agreeing to serve the Society by spearheading this new initiative.

Think algae!! See you in Madison.

Michelle Wood  
PSA President 2002

## 2002 *Journal of Phycology* NEWS!

Starting in 2002 PSA membership includes both the print and on-line versions of the *Journal*. Instructions for access are located on the PSA web page [www.psaalgae.org](http://www.psaalgae.org). Registration should roll over for past users. New members and new users may register on-line. Blackwell customer service ([csjournals@blacksci.com](mailto:csjournals@blacksci.com) or toll free phone call 1-888-661-5800) will help with lost membership ID, user name or pass word. Not all 2002 membership numbers have been entered yet, so if you have any problems with access or if you have forgotten your user name and password, contact Blackwell customer service. The toll free number is the quickest way to solve access problems for USA residents. Other members should use the e-mail to reach Blackwell's customer service and contact the *Journal* office if the problem is not solved.

The on-line journal service through HighWire Press [www.jphycol.org](http://www.jphycol.org) offers full-text HTML and pdf options for viewing and printing of current issues and back issues from 1998-2001. Full-text citations include links to past issues on-line. Advance copies of the Table of Contents for coming issues of the *Journal* are posted 2-3 months prior to distribution of the print version on HighWire. Synergy, the on-line service from Blackwell Science [www.blackwellscience.com/journals/phycolgy/index.html](http://www.blackwellscience.com/journals/phycolgy/index.html) has recently upgraded and also offers full-text HTML and pdf options for viewing and printing of current issues and back issues from 2000-2001.

In January 2002, the *Journal of Phycology* initiated pdf proofing in place of hard copy page proofs. Authors receive all proofs and off-print order forms electronically. We expect pdf page proofs to facilitate the publication process and also to reduce postage and courier costs for preparation of the *Journal*. For authors who order off-prints of their articles, an advance copy of the pdf file can be obtained for a fee of \$50. For authors who prefer only pdf file of their articles, these can be purchased for the equivalent fee of 100 off-prints. The pdf files have the same copyright restrictions as the *Journal* itself. The pdf files can be distributed to colleagues as currently done for off-

prints. The files may not be duplicated, distributed or used for any commercial purpose. Contact the *Journal* office for more information. Patricia A. Wheeler, Editor and Chris LeBoeuf, Editorial Assistant phone: (541) 737-9176 email:[jphycol@coas.oregonstate.edu](mailto:jphycol@coas.oregonstate.edu).

## MEMBERSHIP DIRECTOR'S REPORT

It's that time of year when renewals to scientific societies arrive in the mail, and I hope everyone reading the Newsletter has renewed already. But in case you haven't, or in case you're looking for reasons why to get a student or colleague to join, read on. There have probably never been more reasons to join PSA than now.

At the 2001 Business Meeting the voting membership approved a change in dues structure to simplify what was becoming a confusing set of options for receiving print and/or online versions of the *Journal of Phycology*. Members may now choose between (a) "print plus online" *Journal*, or (b) "online only." "Print-only" is no longer offered, but if option (a) is chosen, the cost of "online plus print" in 2002 is the same as "print-only" in 2001. The intent of these changes is to allow members a cost-effective way to take advantage of both versions of the *Journal*, as well as streamline the renewal process. See the Renewal Form to make your choice.

As you know, the PSA is the premier society fostering study and research on algae, and the *Journal of Phycology*, published with the support of membership dues, is the foremost publication on algae in the scientific arena. Not only does the *Journal* hold a leading position in the field of algae research, it is also considered one of the best organismal journals in science publishing according to the Science Citation Index. Our recent publishing partnership with Blackwell Science and online publication with HighWire Press have increased tremendously the exposure of the *Journal of Phycology* and of the Society. These developments are already enhancing the *Journal's* profile in the scientific community in the United States and abroad. Your 2002 Membership will provide you with six issues of the *Journal*, along with online access for 2002 and back issues, which currently cover the last two and a half years (February 1998 through August 2001), and plans are being made to expand availability to back issue abstracts.

Other benefits of membership include hard copy and electronic copies of the biannual *Phycological Newsletter*; waiver of page charges for publishing in the *Journal*, special rates at annual meetings, discounts on Blackwell Science books, and, for students, eligibility for various awards and grants (see below). To find out more and renew your membership, visit the PSA website, [www.psaalgae.org](http://www.psaalgae.org).

If you have any questions about PSA membership, please do not hesitate to write me at the email or regular mail address below. Subscription inquiries may also be made to Blackwell at the toll free number: (888)661-5800 or via email at [csjournals@blacksci.com](mailto:csjournals@blacksci.com).

Finally, for David Letterman fans out there, here are the top 10 reasons to be a member to PSA: (drum roll please...)

1. The print version of the *Journal of Phycology*.
2. The online version of the *Journal of Phycology*.
3. The Croasdale Award for student study at field stations.
4. The Hoshaw Travel Awards to help students attend the annual meeting.
5. The Bold Award for best student paper at meetings.
6. The Provasoli Award for best paper in the *Journal*.
7. The PSA Award of Excellence.
8. Grants-in-Aid for support of student research.
9. The annual meeting, for its science and fellowship, and
10. The auction at the annual meeting, where normally staid phycologists let it all hang out!

Actually, there are more than 10 reasons. If you would like to contribute your own, write me at the addresses below.

Thanks for your membership,  
Rick McCourt  
PSA Membership Director  
Department of Botany  
Academy of Natural Sciences  
1900 Benjamin Franklin Parkway  
Philadelphia, PA 19103  
Email: mccourt@acnatsci.org

## PSA 2002 MEETING

The 56th annual meeting of the Phycological Society of America will be held 4-7 August 2002 at the Pyle Conference Center, University of Wisconsin campus, Madison, Wisconsin (USA). The PSA will meet jointly with the Botanical Society of America and other botanical societies.

### BOLD AWARD

Students are invited to participate in the 2002 Bold Award competition, awarded for the outstanding student research presentation at the Annual PSA Meeting. This award, named in honor of the late Professor Harold C. Bold, has been awarded at PSA Annual Meetings since 1974. The winner will be awarded a certificate and monetary prize. For more information, please see the following webpage:

[www.psaalgae.org/student/student.html](http://www.psaalgae.org/student/student.html)

### DISCUSSION SESSION

Mark Chase and Annette Coleman are organizing a discussion session on the uses of nuclear ribosomal repeat ITS2 DNA sequences, for the joint PSA/BSA meeting this summer. We hope to hold it Monday evening, and when a room has been arranged, we will post a notice on the general notice board. Everyone is welcome!

The three fundamental topics are:

1. Techniques: what works, what doesn't, cloning vs direct sequencing, contaminants and how to recognize them.

2. RNA transcript folding and how it can help alignment, and perhaps other uses.

3. Hybrids and consequences, pseudogenes, and how to recognize and what to do.

### CONFERENCE UPDATE FROM BSA

#### **BOTANY 2002 – *Botany in the Curriculum: Integrating Research and Teaching***

BOTANY 2002 will be held in Pyle Conference Center on the University of Wisconsin, Madison campus from August 2-7, 2002. In addition to the regular program, which will run from Sunday through Wednesday night (August 4-7), BOTANY 2002 will include an expanded format. A special FORUM focusing on botanical education and outreach will be held on Friday evening and Saturday (August 2-3), and it will be linked to the annual scientific meeting on Sunday (August 4) via workshops and field trips. Approximately 14 hands-on workshops will be available as two-hour, half-day, or full-day events. This diversity will allow attendees to participate in multiple workshops, and/or participate in field trips. Similarly, a broad range of field trips are planned as half-day, full-day, and multi-day events.

Another new feature for BOTANY 2002 will be the opportunity for presenters to deliver computer-based presentations as a standard presentation option. This will be possible, in part, because the Pyle Conference Center is outfitted with an integrated instructional technology system. Both 35 mm slide and overhead projectors will also be standard options.

For the latest information about the conference, please visit the BOTANY 2002 web site at: <<http://www.botany2002.org/>>. The site is regularly updated with programmatic details, and registration information will be posted in April. A Registration Brochure will also be mailed to all BSA members later this spring.

#### **FORUM – Session submissions due March 15, 2002**

*“...Teaching students about plant biology is as critical to the future of the field as is research and must take its proper place as an equally laudatory endeavor for botanists. Equally vital are activities that communicate the excitement of plant biology to students and teachers involved in K-12 education and to the general public...”*

This passage from the *Botany for the Next Millennium Report* (BSA, 1995) emphasizes the important role of education and outreach, at all levels. However, there continues to be a reduction in the number of Botany courses taught at the undergraduate level, many Botany Departments and programs have been eliminated nationwide, and the National Research Council no longer recognizes Botany as a valid graduate education program. Despite this, the global significance of plants continues to grow. It is therefore vital that botanists and their professional societies work to ensure that plants

are represented in the undergraduate and graduate curriculum, as well as in science outreach initiatives. To that end, the BOTANY 2002 conference will include a new FORUM that specifically focuses on undergraduate education and related outreach. K-12 teachers will also have the opportunity to participate. In addition to hands-on workshops focusing on undergraduate topics, several workshops will be specifically targeted for K-12 teachers.

All members are invited and encouraged to attend the FORUM, as well as further participate by organizing Sessions.

The FORUM will begin on Friday evening with early registration and a reception. The main FORUM sessions will occur on Saturday. Although some informational sessions will be included, the program will primarily include interactive panel and roundtable discussions as well as breakout groups focusing on a range of topics. Individual sessions will be grouped within topical themes, or 'threads,' that span the entire FORUM. The six general threads are listed below, and each is followed by several example session titles. Organizers can submit their own session titles as well as select the most appropriate thread for their session. The final threads may be slightly modified or expanded based on the range of session topics submitted.

1) *Emphasizing Botany across the Curriculum* – Examples: Sessions on what is the vital content to cover, and what's at the cutting edge within disciplinary areas (e.g., systematics, phycology, development, etc.), "How to promote plants if you are the only botany faculty member in a department," "Developing interdisciplinary courses/curricula," "Careers in botany and related fields," "Educating pre-service teachers about plants"

2) *Designing Investigative Laboratories* – Examples: Sessions on 'model,' or best-practice, labs (e.g., "Using Wisconsin Fast Plants to study plant development," "Using instructional technology to examine photosynthesis")

3) *Engaging Undergraduates in Research* – Examples: "What are the challenges of mentoring undergraduate research students," "Publishing with undergraduates in peer-reviewed journals," "Using your courses to feed your research program"

4) *Developing Effective Teaching and Mentoring Skills* – Examples: "How to become a teacher-scholar," "How to review manuscripts and grant proposals," "Tips on balancing your academic time," "Graduate student training programs: The do's and don'ts"

5) *Supporting Effective Teaching and Learning* – Examples: Sessions on funding (e.g., information about grant sources, tips on writing proposals and grant management); "Managing a university greenhouse or herbarium," "Tips for Chairs and Deans," "How to best prep an Introductory Lab," "How to assess the effectiveness of an advanced course"

Continued on P. 11

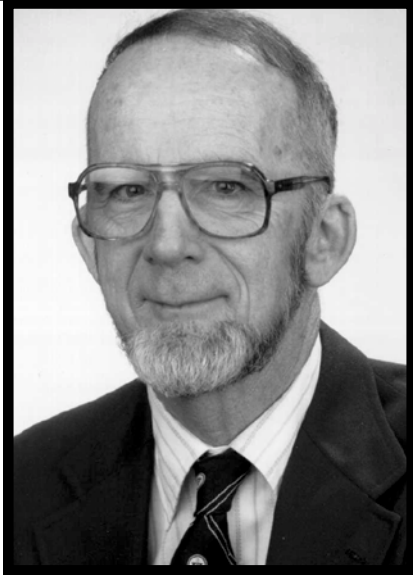
## PSA AWARD OF EXCELLENCE

The Award of Excellence was established by the Phycological Society of America in 1993 to recognize those individuals who have demonstrated sustained scholarly contributions in, and impact, on the field of phycology. It was my distinct pleasure to announce on behalf of the Award Committee and the Phycological Society of America that the 2001 Award of Excellence was given to Professor Chengkui (C.K.) Tseng, Prof. Francis R. Trainor, Prof. In Kyu Lee and Dr. Robert L. Guillard at the 55<sup>th</sup> Annual Meeting.



**Prof. Chengkui (C.K.) Tseng**  
Institute of Oceanology, Qingdao, PR China

Professor Tseng has been recognized by our Society as one of the most important phycologists of our age! He has inspired generations of Chinese phycologists while his pioneering efforts and successes in mariculture have had profound effects worldwide. His contributions have been very diverse and seminal in the fields of phycology and aquaculture. Dr. Tseng's major contributions were in building a viable seaweed mariculture industry in the People's Republic of China. His successes began with kelps, including *Laminaria* and *Undaria*, but his work has resonated across the entire modern industry. Each of his published papers shows insights into biogeography, ecology, as well as taxonomy and life histories of the algae. Prof. Tseng was a founding member of both the Chinese Phycological Society, as well as, a charter member of the PSA! That latter fact was published in the Phycological New Bulletin 3, January, 1948. He was also a founding member of the Institute of Oceanology and a former Director of that Institute. Prof. Tseng's son, Dr. William Tseng, graciously accepted the Award on behalf of his father. In early October, 2001, The Institute of Oceanology held a special ceremony whereby the PSA Award was presented to Prof. Tseng by William, on my behalf, as President of the Phycological Society of America.



**Prof. Francis R. Trainor**  
Dept. Ecology & Evolutionary Biology,  
Univ. of Connecticut, Storrs, CT, USA

Professor Trainor exemplifies an innovative and dedicated scientist who has had sustained scholarly contributions in the field of phycology for over 45 years. During this time, Prof. Trainor has published over 100 articles in peer-reviewed journals, as well as two books. He has been the major advisor and mentor to more than 25 graduate students. The impact of his contributions in advancing the knowledge of algal physiology, ecology and taxonomy is visible in the citations by others of his research papers in the published literature and in textbooks. His most important contributions have been in the field of polymorphism or phenotypic plasticity in the algae, using *Scenedesmus* (now *Desmodesmus*) as the model organism. Among his other achievements have been an understanding of soil algal distribution and ecology, development of dilute culture media for freshwater algae and advancing our knowledge of gamete formation and mating in both *Chlamydomonas* and *Scenedesmus*. Other honors received by Prof. Trainor include The Darbaker Award of the Botanical Society of America, Fulbright Research Scholarships, a Distinguished Teaching Award, and the Bishop Harkins Award. Prof. Trainor was President of PSA 32 years ago and served the Society in many other capacities. Accepting the Award for Prof. Trainor was Prof. Peter Siver.



Shown left to right - Prof. In Kyo Chung (Pusan National University), Prof. Jin Ae Lee (Inje University), Karen Yarish, Prof. Lee and Charlie Yarish at the PSA Banquet 2001.

**Prof. In Kyu Lee**  
Dept. of Botany, Seoul National Univ., Seoul, South Korea

Professor Lee has inspired several generations of phycologists in South Korea. He mentored more than 52 graduate students including 25 Masters and 27 Ph.D. students. Starting from a monographic study on the Rhodymeniales, he has dedicated his life work in the taxonomy, morphology, development and ecology of marine algae. His contributions and impact in the field of basic science, technology and environment science is enormous in Korea. He has served as President of the Botanical Society of Korea, the Korean Society of Phycology, the Korean Association of Biological Sciences and the Korean Biodiversity Council. He was awarded the Ha-Eun Biological Science Prize (highest award given to a biological scientist in Korea) and was awarded the Korea Science and Technology Prize by the President of South Korea for his invaluable contributions to science and technology. Professor Lee was also instrumental in the establishment of the Korean Phycological Society and the Asia Pacific Phycological Forum. Professor Lee graciously accepted the Award at the Annual Meetings at Estes Park, CO.

### **DARBAKER PRIZE** **(Botanical Society of America)**

The Darbaker Award is given by BSA for meritorious work in the study of microscopic algae based on papers published by the nominee during the last two full calendar years. The award is limited to North America and only papers published in English are considered.

Nominations should be sent by **May 1, 2002** to: Louise A. Lewis, Dept. of Ecology & Evolutionary Biology, Univ. of Connecticut, Storrs, CT 06269-3043. Or by email to: [louise.lewis@uconn.edu](mailto:louise.lewis@uconn.edu)

## Dr. Robert L. Guillard

Senior Scientist, Bigelow Laboratory for Ocean Sciences,  
West Boothbay Harbor, Maine, USA

Dr. Guillard has had very distinguished career that extends beyond phycology, being an author or co-author of over 100 scholarly papers. He was important in the establishment of the Provasoli-Guillard National Center for Culture of Marine Phytoplankton at the Bigelow Laboratory. His research on nutrition, analytical techniques, genetic variability, physiological processes and taxonomy of marine micro algae has been fundamentally important to phycology and biological oceanography. His studies of the nutrient requirements and deficiencies for many groups of marine phytoplankton have formed the basis for understanding algal cultures. He was the first to show that trace metals are extremely important in regulating phytoplankton growth and diversity in the sea. He has taught legions of young investigators how to work on phytoplankton in the lab environment and has been unselfish with his time. Dr. Guillard has also received the Darbaker Award of the Botanical Society of America and was honored by the National Shellfisheries Association with an life membership for his life work that has been essential to the development of shellfish and finfish aquaculture. Accepting the Award for Dr. Guillard was Prof. Michelle Wood.

Charlie Yarish  
PSA President 2001

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## CALL FOR NOMINATIONS 2002 PSA Award of Excellence

The Award Committee is soliciting nominations for 1 or more Awards of Excellence at the August, 2002 meeting (Madison, Wisconsin, USA). The purpose of the Award is to recognize individuals who have demonstrated sustained scholarly contributions in, and impact, on the field of phycology. Nominations will be welcome for all fields of research on algae before **March 12, 2001**. Nominations of individuals who reside outside the US are welcomed. Letters of recommendation should highlight the candidate's service to PSA (as well as other phycological societies). Please send a letter of nomination and a curriculum vitae (by email) to:

Charles Yarish,  
Chairman, Award of Excellence Committee,  
Email: charles.yarish@uconn.edu

Michelle Wood  
President  
Phycological Society of America  
Email: miche@darkwing.uoregon.edu

Previous recipients include:  
1996 Greta A. Fryxell & Richard C. Starr  
1999 Sarah P. Gibbs, Grethe R. Hasle & Paul C. Silva  
2001 Robert R. L. Guillard, In Kyu Lee, Francis R. Trainor & C. K. Tseng

## PHYCOLOGICAL TRAILBLAZER

### No. 16: A. H. S. Lucas

Arthur Henry Shakespeare Lucas was born 7 May, 1853, his third given name reflecting that his place of birth, Stratford-on-Avon in England, was also the hometown of the bard. As a young man, he was sickly and had a long bout with pneumonia, requiring a slow convalescence. The two attending physicians, Dr. Rix and Dr. Ward, consulted one another and announced to his parents that his life would be extremely critical up to the age of twenty-two, but that if he reached that age, then he would be able to look forward to a long life. Their judgment was right on the money. His early schooling had not a single science class. In the "fourth division", he found his life miserable, the Masters being bullies. Lucas recalled being caned for leaving some meat on his plate at dinner. But it was in the next year that he abruptly announced that he was "going to the top of the class". Although his friends laughed at that remark, Lucas soon showed that he was serious and was on his way.

In his autobiography (1937), Lucas recalled that his introduction to seaweeds came when his older sister Celia took him to the fishing village of Porthleven, near Helston in Cornwall. The tidepools were covered with 'bladderwrack' (*Fucus* and *Ascophyllum*), and even in his old age he remembered the distinctive odor of that maritime scene.

It was from his father, a Methodist minister, that he inherited a deep love for biology and geology (Ducker, 1981). The father supplemented his meager minister's stipend by hunting for fossils and minerals in mines and selling them. The father made a small cabinet for the young Lucas to display the specimens of iron pyrite, serpentine, galena, quartz, and examples of fossiliferous strata of England. He also collected and pressed botanical specimens. Despite his innate shyness and his humble background (being "poorly clad"), Lucas won various academic prizes and scholarships. Eventually, he won the Entrance Science Scholarship at the London Hospital, enabling him to start medical school. But midway through medical school, Lucas' father died, and his brother (with three motherless young children) became very ill. So Lucas dropped out of medical school and began teaching Mathematics and Science at the Leys School, Cambridge, which he did for the next five years. This selfless act was typical of Lucas' spirit that characterized him throughout his life. The other qualities which marked him were his love for justice and his indignation toward cruelty and dishonesty. It was at the Leys School that he founded a Natural History Society and a Museum. He presented to that Museum his family's collection of plants (which contained 1,200 of the 1,400 described species of flowering plants and ferns then known from England) as well as the valuable collection of fossils. At the Leys School, Lucas played rugby, which is the only record of his having competed in field sports.

In 1883 an appointment came through for Lucas to teach Mathematics and Science at Wesley College in Melbourne.

His older brother had emigrated to Australia because he had contracted tuberculosis, and a life 'down under' was considered to be conducive to improved health. The previous year Lucas had married Miss Charlotte Christmas, and so in a belated honeymoon he and his wife traveled across Europe to Naples to join the S. S. *Cuzco* for the voyage to Australia. On this honeymoon trip they saw the sites of Paris, including climbing the towers of Notre Dame, attended the opera, and strolled through the Jardin des Plantes and the Bois. In Rome they "botanized in the Coliseum" and attended half a dozen Masses at once in St. Peter's. In Naples there was time to ascend Mount Vesuvius and tour the surrounding volcanic district and to visit the relatively new Aquarium, built by the German scientist Anton Dohrn. This was later to become the Stazione Zoologica Napoli. Lucas was greatly impressed by the marine animals on display. They then sailed on the long voyage to Australia. Steamships at that time traveling across the Indian Ocean made a refueling stop at the coral island of Diego Garcia lying on the Equator. 'Coaling' was done by Mauritian natives, requiring two days. So Lucas went ashore, exploring and beach-combing, and became oblivious to the ship's imminent departure. The ship's manager, Mrs. Lucas, and some natives paddled in a dug-out to retrieve Lucas and get him back to the ship just in time to leave the island, or he would have been left behind.

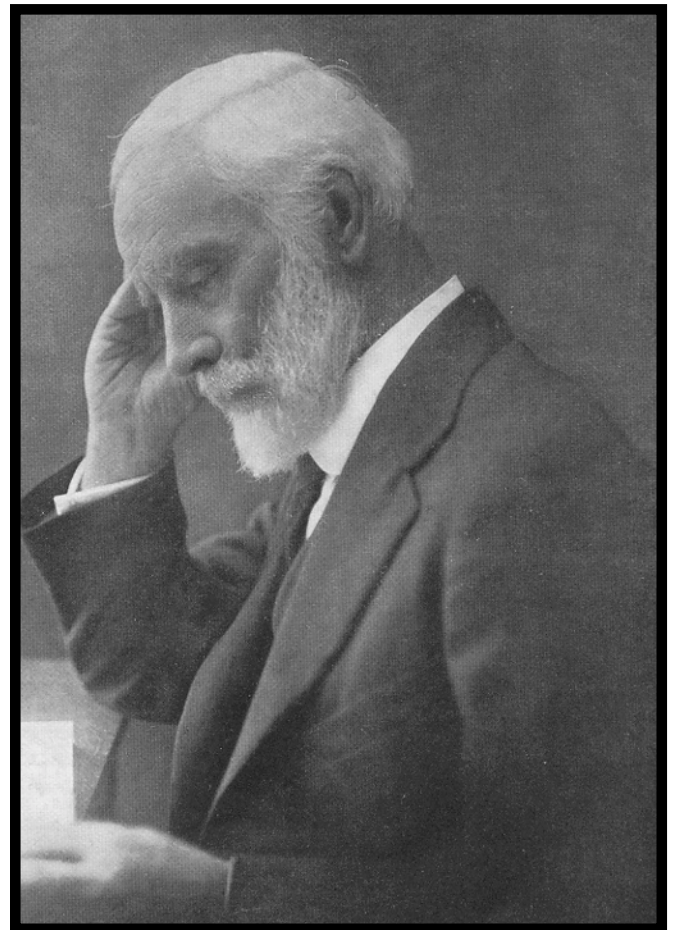
The first point of Australia detected by Lucas at a distance was Cape Leeuwin, the extreme SW point of the continent. He had no idea that many years later he would be scrambling over those same rocks in quest of marine algae. In January, 1883, Lucas and his wife landed at Williamstown, southwest of Melbourne. Once settled in, he began his appointment as mathematical and science master at Wesley College. After 10 years at that post, he was appointed in late 1892 to headmaster at Newington College, Sydney. During the six years he spent at Newington the number of pupils increased by 50%, and the school had considerable academic success. He became senior mathematical and science master at the Sydney Grammar School in 1899 and was acting headmaster there during part of the years of World War I, finally becoming headmaster from 1920 to 1923. His career as a school teacher in Australia was for more than 40 years. It was later said that he could have occupied with credit almost any Chair of Natural Science or Mathematics at any Australia University at that time (Chisholm, 1958), but he was content at being a schoolmaster.

He did not restrict himself to schoolwork. While at Wesley College, he lectured on natural science to the colleges of the University of Melbourne and later lectured on physiography at the University of Sydney. During his Melbourne period he served as president of the Field Naturalists Club of Victoria and edited the 'Victorian Naturalist' for many years. He served as president of the Linnean Society of New South Wales in 1907-09.

Lucas ventured out on some collecting trips. One such

expedition he participated on was organized by Joseph H. Maiden of the Sydney Botanic Gardens and was to Mt. Kosciuszko in the 'Southern Alps' and the highest point in Australia. On the very first day Lucas became so enamored of all the flowering world, among the steep granite rocks, that he quickly became lost. Luckily, he was able to locate an observatory hut at the summit, where a blizzard of blinding snow lasted for the next two days. Back at the base camp at the edge of the timberline below, his fellow trekkers became more and more alarmed, and a horseman returning to Sydney carried their concern that Lucas was missing. The Sydney evening papers carried the headline 'Naturalist Lost on Mount Koscius[z]ko', with a photo of Lucas and that of a murderer both on page one! It did not help the situation that an 'overzealous clergyman' quickly brought the paper to Mrs. Lucas. Lucas had some explaining to do, and so that expedition was short-lived.

Not only was Lucas an English scholar, when called upon being able to present lectures on English literature, but he also showed remarkable linguistic talents. He became proficient in French and German, and on a holiday at Twofold Bay south of Sydney, he learned Spanish. In order to understand DeToni's *Sylloge Algarum*, he taught himself Italian. He even learned Russian, mainly so that he could understand some literature on lizards written in Russian.



**A. H. S. Lucas**

(With permission from Proc. Linn. Soc. N. S. W. vol. 62).

Lucas' lengthy list of publications (Carter, 1937) includes papers on hermit crabs, cicada, sharks, freshwater and marine fish, birds (and bird eggs), and numerous papers on lizards. This zoological bent (Lucas, 1909a) occupied most of his professional career, and it was only in the latter part of his life, particularly in his retirement years, that he turned his attention to seaweeds, becoming the Australian authority (Serle, 1949). His accepting an honorary curatorship of the algae in the herbarium of the Sydney Botanic Gardens (now Royal Botanic Gardens, Sydney) in January 1899 that determined that his scientific interest would turn exclusively toward seaweeds. He collected algae in southern Queensland, New South Wales, Victoria, and Tasmania, where he dredged for algae in the Tamar River with Mrs. Florence Perrin of Hobart. Every January he returned to Victoria to spend time with his friends, Mr. and Mrs. Herbert Brookes, collecting algae at Point Lonsdale, Flinders, Port Fairy, and Warrnambool. Besides working up his own collections, in which he described many new species (1913, 1926, 1931a), he also published (1919b) on the algae from the Mawson Antarctic Expedition. He corresponded with noted phycologists of the day and was delighted when W. A. Setchell visited Sydney and consulted his collections.

Lucas retired at the age of 70, but then he became Acting Prof. of Mathematics at the University of Tasmania for two years. It was rather daring of him to take on these new responsibilities at that age, but the two years in Tasmania proved to be a time of rejuvenation, when he actively worked on algae. With the help of Mrs. Perrin, he also collected algae on the Great Barrier Reef and out at Lord Howe Island (Lucas, 1935). He was commissioned by the Commonwealth Government to explore the economic potential of the seaweeds of Western Australia. This involved his being given special permission to spend some time on Rottnest Island, then reserved as a penal colony. He arrived by tugboat and was met at the wharf by the prisoners' van along with two convicts, who drove him to the Governor's quarters. For the next week Lucas had the use of the prison van to collect at various sites along the coastline, assisted by the two convicts. The convicts were so impressed with Lucas' humane attitude that they continued to make collections for him after he left and stayed in communication with him.

In May of 1936, at the age of 83, Lucas had been working on the rocks in stormy weather at Warrnambool, a port west of Melbourne and contracted a cold, which developed into pneumonia. On the train returning to the city, he collapsed and was hospitalized at Albury, where he passed away on 10 June, 1936. His handbook, Part 1 of "The Seaweeds of South Australia", was published posthumously. Most of the illustrations were based on his own drawings, slides, and photographs. The second part of the handbook, co-authored with Mrs. Perrin, appeared in 1947.

Carter, H. J. 1937. Arthur Henry Shakespeare Lucas. 1853-1936. Proc. Linn. Soc. New South Wales 62: 243-252, pl. 12. [This contains a complete list of his papers.]

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- Lucas, A. H. S. 1909a. *The animals of Australia; mammals, reptiles and amphibians*. Whitcome & Tombs, Ltd., Melbourne.
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- \_\_\_ 1912. Supplementary list of the marine algae of Australia. Proc. Linn. Soc. N. S. W. 37: 157-171.
- \_\_\_ 1913. Notes on Australian marine algae. i. Proc. Linn. Soc. N. S. W. 38: 49-60, 5 pls.
- \_\_\_ 1919a. Notes on Australian algae. ii. Descriptions of four new species. Proc. Linn. Soc. N. S. W. 44: 174-179, 1 pl.
- \_\_\_ 1919b. The algae of Commonwealth Bay. Australasian Antarctic Expedition 1911-1914. Sci. Rep. Ser. C: Zool. & Bot. 7(2): 1-18, 9 pls.
- \_\_\_ 1926. Notes on Australian marine algae. iii. The Australian species of the genus *Nitophyllum*. Proc. Linn. Soc. N. S. W. 51: 594-6-7, 9 pls.
- \_\_\_ 1927a. Notes on Australian marine algae. iv. The Australian species of the genus *Spongoclonium*. Proc. Linn. Soc. N. S. W. 52: 460-470, 9 pls.
- \_\_\_ 1927b. Notes on Australian marine algae. v. Proc. Linn. Soc. N. S. W. 52: 555-562, 8 pls.
- \_\_\_ 1929a. The marine algae of Tasmania. A classified list of the algae which have been recorded from Tasmania and the adjacent islands. Papers & Proc. R. Soc. Tasmania 1928: 6-27.
- \_\_\_ 1929b. A census of the marine algae of South Australia. Classified after De Toni, Sylloge Algarum. Trans. R. Soc. S. Australia 53: 45-53.
- \_\_\_ 1931a. Notes on Australian marine algae. vi. Proc. Linn. Soc. N. S. W. 56: 407-411, 5 pls.
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- \_\_\_ 1935. The marine algae of Lord Howe Island. Proc. Linn. Soc. N. S. W. 60: 194-232, 5 pls.
- \_\_\_ 1936. *The Seaweeds of South Australia. Part I. Introduction and the green and brown seaweeds*. Handbooks of the Flora and Fauna of South Australia, Government Printer, Adelaide, S. Australia. Pp.1-105.
- \_\_\_ 1937. *A. H. S. Lucas, Scientist, his own story*. xx + [2] + 198 pp. Angus & Robertson Limited, Sydney.
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I thank Tim Entwisle and Stephen Skinner for their kind assistance in providing information from the Lucas autobiography.

M.J. Wynne  
University of Michigan, Ann Arbor

**Next issue: Phycological Trailblazer  
No. 17: G. F. Papenfuss**



## PSA STUDENT GRANTS

The Phycological Society of America supports graduate student members development through 3 programs including the Croasdale Fellowships, the Hoshaw Travel Awards, and the Grants-in-Aid of Research.

The Hannah T. Croasdale Fellowships are designed to encourage graduate students to broaden their phycological training by defraying the cost of attending phycology courses at field stations. The purpose of the award is to broaden phycological training and not necessarily to further research goals. Proposals to study at field stations associated with universities other than the student's own are especially encouraged. Awards are made directly to the student in amounts up to **\$850**. each. The deadline for receipt of completed application is **March 15, 2002**. Note: Fellowship support to attend technique courses should be requested from the Grants-in-Aid of Research Program.

The Hoshaw Travel awards are to help students with travel expenses to the annual PSA meeting. All other factors equivalent, students who will present their research at the meeting (lecture or poster) will be given priority. The deadline for receipt of completed application is **April 1, 2002**. Successful applicants will be notified prior to the meeting and the awards will be presented at the meeting.

Grants-in-Aid of Research awards are made in amounts of up to **\$800**. by the PSA in support of graduate student research in any area of phycology. Awards are intended to enable the student to accomplish work not otherwise possible. Awards are made directly to the student. No part of the award may be used to pay indirect costs to the applicant's institution, or stipends. Selection of recipients will be based primarily on the applicant's research proposal and two supporting letters. Additional criteria will include evidence of past research achievements and the perceived future of the applicant as a researcher. In the course of a student's graduate education, no more than two GIA grants will be awarded. Travel to meetings should be requested from other PSA programs. Tuition and expenses for taking critical techniques courses not available at the home institution will be considered. Applicants must include a brief research proposal, a budget and two letters of recommendation. The deadline for receipt of completed applications is **April 5, 2002**.

For further information and application materials, please visit the PSA website at:

[www.psaalgae.org/student/stugrants.html](http://www.psaalgae.org/student/stugrants.html)

## NEWS OF COLLEAGUES

Mr. Richard Gordon completed his M.S. degree at the University of Maine in December (2001) with Susan Brawley. He has accepted a position as Project Manager for Saigene in Seattle, WA.



photo courtesy of A. Whittick

## OBITUARIES

### Natasha Calvin

Natasha Ivanovna Calvin died in her home town of Sitka, Alaska, Sept. 7, 2001, after a hard-fought battle with cancer. She was 68. Natasha worked in a number of professions during her career, but she is best known to phycology for her work as a marine biologist, primarily with the National Marine Fisheries Service at the Auke Bay Laboratory, near Juneau, Alaska. Her interest in marine biology came naturally. She was the elder daughter of Jack Calvin, author with Ed Ricketts of *Between Pacific Tides*. She grew up on the shores of Sitka Sound. She obtained an M. S. in marine biology from Western Washington University, the only time she lived outside Alaska, although the work for her degree was conducted in Alaska, just north of Juneau, in Berners Bay.

Her phycological publications provide information from a region that has received little funding for phycological studies. Most of the work she recorded was derived secondarily from projects with other focuses, and most was done in collaboration with her partner and husband Bob Ellis:

- Calvin, N. I. 1977. A qualitative description of the intertidal plants and animals of Berners Bay, southeastern Alaska. *Syesis* 10: 11-24.
- Calvin, N. I., and R. J. Ellis. 1978. Quantitative and qualitative observations on *Laminaria dentigera* and other subtidal kelps of southern Kodiak Island, Alaska. *Mar. Biol.* 47: 331-336.
- Calvin, N. I., and S. C. Lindstrom. 1980. Species and distribution of intertidal algae in Port Valdez, Alaska: an annotated list. *Bot. Mar.* 23: 791-797.
- Calvin, N. I., and R. J. Ellis. 1981. Growth of subtidal *Laminaria groenlandica* in Southeastern Alaska related to season and depth. *Bot. Mar.* 24: 107-114.
- Lindstrom, S. C., and N. I. Calvin. 1975. New records of marine red algae from the Gulf of Alaska. *Syesis* 8: 405-406.
- Lindstrom, S. C., M. J. Wynne, and N. I. Calvin. 1982. *Pleonosporium pedicellatum* sp. nov. and notes on *Pleonosporium* spp. (Rhodophyta, Ceramiaceae) from Alaska. *Syesis* 15: 57-63.
- Lindstrom, S. C., N. I. Calvin, and R. J. Ellis. 1986. Benthic marine algae of the Juneau, Alaska area. *Contr. Nat. Sci. (B. C. Prov. Mus.)* No. 6: 10 pp.
- Wynne, M. J., S. C. Lindstrom, and N. I. Calvin. 1982. Occurrence of *Omphalophyllum ulvaceum* Rosenv. (Phaeophyta, Pogotrichaceae) in the North Pacific. *Syesis* 15: 65-66.

Natasha spearheaded the translation of Kjellman's 1889 *Beringhafvets algflora* and a number of Russian phycological works from the North Pacific. Her Russian heritage led her to learn Russian after she retired, and she and her husband made a number of trips to Russia in the 1990s.

Natasha would be honored to be called a phycologist. Her major contribution to the field, aside for her infectious enthusiasm and scientific perspective, are collections of subtidal and intertidal seaweeds from the many areas of Alaska she visited on various projects for the National Marine Fisheries Service. These collections are deposited in the herbaria of the University of Alaska Southeast in Juneau (*ALAJ*) and the University of British Columbia (*UBC*). She was an excellent collector, and her contributions will be missed, as are those of her former Auke Bay Laboratory colleague, H. Richard Carlson, who was killed in a hit-and-run accident in July 1999. Natasha's efforts as a collector were honored in the naming of *Neodilsea natashae* Lindstrom 1984. Natasha will be missed as a personal friend as well as a friend of phycology.

Sandra Lindstrom  
Department of Botany and Herbarium  
University of British Columbia  
Vancouver, B. C., Canada

### **Irma Jane Pintner**

Irma Jan Pintner, a member of the Phycological Society of America for many years until her recent illness, died on December 9, 2001 in Carlsbad, California. She had a BA from Vassar College (1938) and an MS from Cornell (1940). For many years she was a research microbiologist at the Haskins Laboratories at Yale University and worked closely with the late professor Luigi Provasoli, with whom she co-authored a number of publications.

Walter M. Pintner  
Professor emeritus of Russian History  
Cornell University

### **German Bula-Meyer**

Word has reached his American colleagues of the recent death of PSA member German Bula-Meyer of the Universidad del Magdalena, Santa Marta, Colombia. His family sent out a notice that he died on Feb. 6, 2002. Dr. Bula-Meyer published extensively on the benthic marine algae of the Caribbean and Pacific coasts of Colombia. He published several papers with R. Schnetter of Giessen, Germany. He spent time working in the lab of Art Mathieson at the Univ. of New Hampshire. In the July, 2001 issue of *Botanica Marina* he co-authored a paper with Jim Norris on new records of red algae from the Colombian Caribbean.

## **NOTABLES**

Congratulations to Brian Wysor and Dr. Suzanne Fredericq of the University of Louisiana at Lafayette, the recipients of the Mia J. Tegner Memorial Research Grants in Marine Environmental History and Historical Marine Ecology, for their research entitled "Establishing the historical presence of macroalgal species in the vicinity of the Panama Canal". They will use their grant to apply DNA sequencing techniques to determine whether seaweed species off Panama are natives or recent invaders.

Dr. Mia J. Tegner, a marine biologist at Scripps Institution of Oceanography, lost her life in January 2001 while carrying out research off Southern California. She studied the ecology of kelp forest communities and abalone populations, and was particularly interested in understanding how marine populations and ecosystems have changed as a result of human activities. Mia J. Tegner Memorial Research Grants were started to honor her memory by Marine Conservation Biology Institute (MCBI) with funding from the Oak Foundation.

Numerous popular press and general science magazines have recently featured articles about phycologists and phycology. The following is a sample:

"The Coming Plague," about the outbreak of *Pfiesteria* was featured in the Oct 2001 issue of *Maxim*.

"Algal Research," highlighting aquaculture research by numerous phycologists was featured in the Oct 29, 2001 issue of *The Scientist*. (Nice cover photo of Charlie Yarish).

"The Challenge of Siphonous Green Algae," written by Peter Vroom & Celia Smith was published in the Nov/Dec 2001 issue of *American Scientist*.

## **MEETING SUMMARY**

### **The 23<sup>rd</sup> Southeastern Phycological Colloquy**

The annual colloquy convened at the handsomely commodious Center for Marine Science in Wilmington, North Carolina on October 12-14, 2001. The meeting was hosted by Don Kapraun from the Department of Biological Sciences at the University of North Carolina, Wilmington and Craig Bailey from the Center of Marine Science, UNC, Wilmington.

Over 40 attended the meeting with representatives from Maryland, Virginia, North and South Carolina, Florida, Louisiana, Alabama, and an outlier from Pennsylvania. Eighteen papers were presented mostly by undergraduate and graduate students. Eight informatively detailed posters were tacked up and generated lively discussions as did the paper presentations. The subjects were wide-ranging from biogeography, algal blooms, phylogeny, ultrastructure, cell cycle regulators of macroalgae, phytoplankton, and sea-grasses.

Dr. Charles F. Delwiche from the Dept. of Cell Biology & Molecular Genetics, Univ. of Maryland gave the keynote address, "The Age of Aquarius: Progress and Prospects for a New Millennium of Phycological Research."

Dennis Hanisak will host the 24<sup>th</sup> Colloquy next fall at the Harbor Branch Oceanographic Institute in Fort Pierce, Florida. The dates to be announced.

## FIELD COURSES

Numerous courses are available at field stations. The following is a sample of courses for which more information can be viewed at:

[www.psaalgae.org/student/friday.html](http://www.psaalgae.org/student/friday.html)

### **Biocomplexity of oxygenic protists and prokaryotes**

Dates: 29 May - 23 June 2002.

Location: Lake Itasca Forestry and Biological Station

### **Seaweeds and Phytoplankton**

Dates: 15 July - 17 August 2002

Location: Friday Harbor Laboratories, University of Washington

### **Ecology and Systematics of Diatoms**

Dates: 23 June - 19 July, 2002

Location: Iowa Lakeside Laboratory

### **Freshwater Algae**

Dates: 20-27 July 2002

Location: Kindrogan Field Centre, Scotland

### **Practical Algal Ecology**

Dates: 28 July to 3 August, 2002

Location: Kindrogan Field Centre, Scotland

### **Algae in Freshwater Ecosystems**

Dates: 24 June - 16 August 2002

Location: University of Michigan Biological Station

## STUDENT POSITION

### **MS Graduate Student Positions-Algal Bioremediation**

I am looking for 2 graduate students for the upcoming year (Fall 2002). A MS degree at Montana Tech with emphasis in the Mine Waste Technology Program is 2 years ([www.mtech.edu](http://www.mtech.edu)). The project is fully funded with a graduate stipend of \$1000/mo and tuition waiver. Student research possibilities may be in the following areas:

1) evaluation the bioremediative potential of our four most rapidly growing species: (*Chromulina freiburgensis* Dofl., *Chlorella ellipsoidea* Gerneck, *Chlorella vulgaris* Beyerinck and *Chlamydomonas acidophilla* Negoro) in Berkeley Pit Lake System Water with the additions of NaNO<sub>3</sub> and NaPO<sub>4</sub> by using an experimental matrix. 2) Determination of which combination of nutrients will stimulate growth of the best bioremediator of our four isolated species in natural Berkeley Pit Lake System waters. 3) Determination of a temperature profile for these four species in order to determine their optimal growth temperature in Berkeley Pit Lake System water. 4) Continuation of isolation of organisms from the Berkeley Pit Lake System and determine their bioremediative potential. 5) Monitor algal and bacterial counts from a profile of Pit Lake System waters.

For more information, please contact:

Dr. Grant Mitman (GMITMAN@po1.mtech.edu)

Associate Professor of Biology

Department of Biological Sciences

Montana Tech of The University of Montana

Butte, Montana 59701

Continued from P. 5

6) *Reaching Out beyond the Ivory Towers* – Examples: “Linking up with botanical gardens and arboreta,” “Linking up with teachers” (separate sessions for elementary, middle school, and high school levels), “Linking up with the media,” “Designing and implementing workshops for teachers,” Sessions on best-practice initiatives (e.g., individual and departmental)

Submission of Session topics should be conducted online at: <<http://www.botany2002.org/>>. The deadline for receiving session proposals is **March 15, 2002**.

### **SCIENTIFIC MEETING – Abstract and Discussion Session submissions due April 1, 2002**

All members are invited and encouraged to present some aspect of their scholarly work in a contributed paper, contributed poster, invited symposium, or special lecture, and/or lead a Discussion Session.

Each scholarly presentation requires an abstract. The same individual should not be a first author on more than three (3) abstracts. Contributed papers, or oral/podium presentations, will be 15 minutes in length (inclusive of questions). Contributed posters will fit onto bulletin boards that are 4 ft tall and 8 ft wide. Invited symposium contributions and special lectures are arranged in advance and coordinated by the symposium organizer(s), societies, and/or societal sections. Symposium presentations will be 30 minutes in length (inclusive of questions).

Discussion Sessions provide the opportunity for individuals or groups to submit proposals for, and later moderate, sessions that are focused on timely, controversial, or perennial topics. Session topics might include a wide range of research issues (e.g., new techniques in a particular field; the value of collaborative, interdisciplinary research, etc.), publishing issues (e.g., publishing in an electronic era, etc.), etc.

The number of one-hour sessions that will be able to be accepted will be contingent upon the size of the overall scientific program and the availability of rooms in the Conference Center. Although session topics should be reasonably focused, it is hoped that proposals that are submitted have broad appeal to a disciplinary section, an entire society, or the plant biology community at large.

Submission of abstracts and discussion session topics should be conducted online at: [www.botany2002.org/](http://www.botany2002.org/). The deadline for receiving session proposals is **April 1, 2002**.

\*\*\*\*\*

Deadline for submission of information for the next PSA NEWSLETTER:

**September 1st**

Please contact Morgan Vis  
([psa@psaalgae.org](mailto:psa@psaalgae.org))

**MARK YOUR CALENDAR NOW!**

The PSA 2002 Annual Meeting will be held at the Pyle Conference Center,  
University of Wisconsin campus,  
Madison, Wisconsin (USA)  
Forum on Botanical Education & Outreach August 2-4  
Scientific Sessions August 4-7

The PSA will meet jointly with the Botanical Society of America, American Fern Society, American Society of Plant Taxonomists, Canadian Botanical Association / L'Association de Botanique du Canada (CBA/ABC). For more meeting information please see page 3 of this newsletter, the meeting website [www.botany2002.org](http://www.botany2002.org) and the PSA website

<http://www.psaalgae.org/meeting/meeting.html>



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