



PHYCOLOGICAL NEWSLETTER

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RECIPIENTS OF THE PSA AWARD OF EXCELLENCE ANNOUNCED

The recipients for the 2002 Award of Excellence are James S. Craigie (Institute of Marine Biosciences, National Research Council of Canada, Halifax, Nova Scotia), E. Imre Friedmann (Dept. of Biological Sciences, Florida State University, Tallahassee, FL), John A. Raven (Department of Biological Sciences, University of Dundee, Dundee, Scotland) and Theodore J. Smayda (Graduate School of Oceanography, University of Rhode Island, Kingston, RI). This Award has been established to recognize phycologists who have demonstrated sustained scholarly contributions in, and impact on the field of phycology over their careers. These individuals have also provided service to PSA as well as other phycological societies.

James S. Craigie

In his letter of nomination, Louis Deveau, Chairman & Founder, Acadian Seaplants Limited, refers to him as one of the "premier scientists in the world" who is recognized for his innovations in applied seaweed science. Dr. Craigie has the ability to critically evaluate situations and offer sound scientific, as well as practical, advice on a broad range of phycological issues. To his credit he has received numerous awards including several NRC scholarships, a NATO Science Fellowship, Darbaker Award from the Botanical Society of America, Honorary Certificate from the World Association of Seaweed Processors, Outstanding Achievement Award from the Institute for Marine Biosciences, NRC Industrial Partnership Award, Certificate of Appreciation from the Nova Scotia Minister of Fisheries and Aquaculture, Innovator Award from the Federal Partners in Technology Transfer, and ultimately, his appointment as Researcher Emeritus from the NRC at the Corporate Outstanding Awards Ceremony.

Deadline for submission of information
for the next PSA NEWSLETTER:

January 15th

Please contact Morgan Vis
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Jim Craigie, Ted Smayda, Charlie Yarish, Michelle Wood & Imre Friedmann at the PSA annual banquet.

E. Imre Friedmann

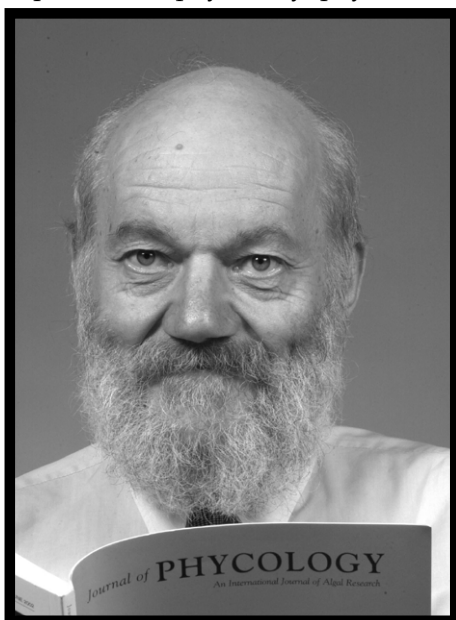
Dr. James Nienow has described the remarkable and distinguished career of Professor Imre Friedmann, the Robert O. Lawton Distinguished Professor (Emeritus) as a career that has revealed a passion to study so many diverse groups of algae including diatoms, brown algae, unicellular green algae, siphonolean algae, cyanobacteria, bangioid red algae, and lichens. He has chosen his techniques to fit the organism and the problem. This has required him to work at different times as a classical taxonomist, a morphologist, a cytologist, a field ecologist, an ecophysiologicalist, and, on occasion, an exobiologist. Even now, he continues to lead one of the biggest scientific projects in astrobiology, stressing the algae.

Theodore J. Smayda

Professor Smayda has been an active member of the Phycological Society for many years as a former member of the Editorial Board of *Journal of Phycology*. He has maintained an extremely productive career and has played a prominent role on international advisory committees from UNESCO/SCOR, Norwegian, Danish and Dutch Universities and many state and federal agencies. He has served on national committees for harmful algal blooms and offered testimony to Congress regarding the emerging problems of HAB species. Ted is a premier phytoplankton ecologist and is also noted for his unparalleled ability to clearly synthesize information regarding contemporary phytoplankton issues. His command of various languages allows him to call upon relevant but little known or cited publications to make his points. Some of these syntheses have become seminal papers. Ted is an outstanding teacher, mentoring no fewer than 34 students, some of which have become prominent in their fields, either as award winners or in holding state and federal positions. He has received the University of Rhode Island's teaching excellence award.

John A. Raven

Professor Susan Brawley, the former Editor of the *Journal of Phycology*, writes that Professor John Raven, the John Boyd Baxter Professor of Biology at the University of Dundee, continues with a remarkable career. He is the Past President of the British Phycological Society, a Fellow of the Royal Society of Edinburgh, Fellow of the Royal Society of London and an Associate Editor of the *Journal of Phycology*. He has been a mentor to many young scientists. He is a "warm and funny man, a perfect colleague-brilliant, but not intimidating." His publication record is quite diverse, reflecting his many interests and thorough training as a biologist. He has studied "plants, lichens, mosses, seaweeds, plankton, aquatic macrophytes, bryophytes."



Dr. John Raven



Student members and Hoshaw travel grant awardees Dale Casamatta, Sarah Hamsher and Nanda Filkin enjoying the meeting.

PSA STUDENT GRANTS IN 2002

Hoshaw Travel Awards (for travel to the PSA annual meeting - amount varies):

Dale Casamatta, Janna Fierst, Nanda Filkin, Susan Frisch, Jennifer Gabel, Brigitte Gavio, Carlos Gurgel, Sarah Hamsher, Kirsten Hoyer, Jeffery Lewandowski, Amy McElhinney, Mary Ann Tiffany, Kenia Whitehead, Brian Wysor

Grants-in-Aid-of-Research (up to \$1,000):

Kevin Bevis - "Competition between the cyanobacterium *Lyngbya wollei* and the green alga *Rhizoclonium* sp.: interactions of secondary metabolites and herbivory."

Daniela Bocioaga - "Research on four species of algae in Berkeley Pit Lake."

Jose Manuel Estevez - "Carrageenans biosynthesized by developed carpospores and tetraspores of the red seaweed *Gigartina tedii* (Gigartinales) followed in culture."

Janna Fierst - "Genetic diversity and spatial structure in the red alga, *Mastocarpus papillata*."

Brian Kinlan - "Linking patch dynamics, dispersal scale, and community structure in kelp forest ecosystems."

Jeannette Weiner - "Atrazine toxicity in phytoplankton: subcellular changes, mechanisms of action, and species-specific responses."

Croasdale Awards (for field course attendance - up to \$1,000):

Elise Granek, Sarah Hamsher, David Kravesky, Sonia Stephens

These awards are made possible by the generous gifts to the PSA endowment and by funds raised in the headquarters room and auction at the annual meeting. Please consider giving to the endowment when you renew your membership for 2003.

If you are a PSA student member & would like to learn more about these awards for 2003, please visit the website at www.psaalgae.org/student/stugrants.html

PHYCOLOGICAL TRAILBLAZER

No. 17: George Frederik Papenfuss

Two decades have already elapsed since the passing of George F. Papenfuss, and although there are many of us still around who have vivid memories of him as a mentor during our graduate student careers, or as a charismatic personality at meetings or on field trips, or as a significant influence by his scholarly contributions to the broad field of phycology, there is a new generation of phycologists who did not know him. So it seems appropriate to include him as a “phycological trailblazer” in that indeed he was one of the “prominent phycologists” of the 20th century (West, 1996). Because Papenfuss (or “GFP”) has been the subject of several tributes and obituaries (Abbott, 1982; Norris, 1983; Wollaston, 1983), this essay will recall some of Papenfuss’ more off-beat adventures and incidents in his colorful life that I hope will convey a sense of his enthusiastic approach to phycology and to life. Only some of his publications will be cited here, those that are specifically referred to. West (1982) has already provided a complete list of his papers.

Papenfuss was born in 1903 and grew up on a farm in the Orange Free State of the Republic of South Africa. His native tongue was Afrikaans. He had no exposure to or interest in marine algae during that time. He attended the University of Cape Town but soon dropped out and emigrated to America in 1926. He had a variety of jobs, including selling various products as a door-to-door salesman (Norris, 1983). He regarded this work as essential in improving his ability to use the English language. He started an undergraduate program in agriculture at North Carolina State University in Raleigh, and it was a botany course taught by Larry A. Whitford, a founding member of the Phycological Society of America, that opened up the door to algae. He transferred to botany, earning his B. S. degree (with highest honors).

GFP next embarked upon a graduate degree at Johns Hopkins University in Baltimore. Graduate students at that time were required to spend their summers at biological stations. He first went to the Mount Desert Island Biological Laboratory in Maine, where he was exposed to marine algae by Duncan S. Johnson, a professor of Johns Hopkins who did research in Maine during the summers (Silva, 1982). The following summers GFP opted for the Marine Biological Laboratory, where he studied algae from various sites in the vicinity of Woods Hole. He carried out his research on Penikese Island in the Elizabeth Island chain, working at the site of the original MBL before it was relocated to Woods Hole on Cape Cod. More recently, it had served as a leprosarium for the Commonwealth of Massachusetts. The island also had living on it at that time a caretaker and his wife, the only other occupants on the island. It was at the suggestion of his academic supervisor, Prof. Johnson, that GFP undertook the study of culturing the brown alga *Ectocarpus siliculosus*. Over a three-year period

GFP collected material, paying attention to its host(s) and whether the material bore only plurilocular organs or both unilocular and plurilocular sporangia. Around Penikese Island plants bearing plurilocular organs were epiphytic invariably on the host *Chordaria flagelliformis*, and plants bearing both unilocular and plurilocular organs were restricted to the host *Chorda filum*. It was on the former that he recognized that the plants of *Ectocarpus* released swarmers which were sexual (Papenfuss, 1935). GFP later recounted the story of how he was so excited by observing the fusion of gametes that he insisted that the caretaker and his wife come over to his microscope and see for themselves his discovery. That same infectious enthusiasm for the algae was to last him his entire life.

While at Johns Hopkins Papenfuss met and married a fellow graduate student, Emma Jean Johnstone, who was to later earn a PhD in Zoology. After receiving his PhD degree in 1933, it was GFP’s good fortune to receive a James Buchanan Johnston Scholarship from Johns Hopkins University to continue his studies in Sweden with two major phycological figures of the time, Harald Kylin and Nils Svedelius. He spent 1934 and 1935 studying in Kylin’s laboratory at the University of Lund and in Svedelius’ laboratory at the University of Uppsala. He was encouraged by Kylin and Svedelius to return to his homeland to make collections. It was in September, 1935, that he returned to South Africa, where he met up with Mary A Pocock (Phycological Trailblazer No. 4), then at the University of Cape Town. In fact, it was Pocock who took GFP on his first two collecting trips, to Strandfontein (False Bay) and Melkbosch (Table Bay), places that could not be reached by train or bus. Pocock was already familiar with the coastline and knew the best collecting sites. Thus, her collaboration proved critical in insuring that GFP’s forays had maximum value. GFP and Pocock went on many collecting trips, including one to St.



G. F. Papenfuss
in Woods Hole, MA (June, 1973).



Collecting trip, Pigeon Point, California (April, 1963). (l. to r.: Richard Ellis, Esther Gaw [McLaughlin], Al Loeblich, Jim Jensen, Phil Cook, G. F. Papenfuss, unidentified, Mitsuo Chihara).

Lucia Bay in Zululand (now KwaZulu Natal). Some of their samples would later be used for the dissertation research of many of GFP's students: Bob Scagel, Florence Wagner, Paul Silva, K.-C. Fan, Shirley Sparling, Max Hommersand, Rick Searles, Y.-M. Chiang, and Jim Jensen.

With the dark clouds of World War II on the horizon, Mrs. Papenfuss left Sweden for Kansas City, where her mother lived. GFP also decided to head for the relative safety of the States. He made plans to leave by boat from Norway to England, but German U-boats prowling the waters of the North Sea made that escape route too risky. There was a window of opportunity in the late 1930's to leave Europe, but the catch was that the only way out was NOT the obvious way westward but eastward, by train across the expanse of Russia and then across the Pacific, and for the English, across North America and then the North Atlantic to get back to England. So with others caught up in the War, GFP managed to escape Europe, by boarding the Trans-Siberian Railway and riding the rails from Moscow all the way to Vladivostok, its terminus in the east. He related stories about this stressful but exciting adventure and how the spirit of the fellow passengers buoyed up all those aboard. Not deterred by their circumstances, the English boiled up water in the afternoon and served tea on schedule. Finally, in the port city of Vladivostok in easternmost Russia, GFP waited in a harbor to take a ship out for Yokohama, the next leg of his long journey. He later told how he noticed specimens of *Chorda filum*, the distinctive kelp he knew from the North Atlantic and how he felt as if he had run into an old friend. Familiar species of algae can make one feel that way.

By ship GFP eventually reached Hawaii, where he had earlier been offered a temporary appointment as an assistant professor in Botany at the University of Hawaii. This is where his first graduate students came under his influence, Lois (Eubank) Egerod and Isabella (Aiona) Abbott. His wife also joined him there, and in 1941 their only child, a son Theodore, was born. It was on a Sunday morning, 7 Dec. 1941, in Honolulu that Japanese planes bombed the

nearby Navy facility at Pearl Harbor. GFP told how he was taking a shower when Mrs. Papenfuss alerted him as to the bombers flying overhead.

He was awarded a Carnegie Fellowship for two years, which was responsible for his going to the University of California, Berkeley. He arrived in June of 1942, thus overlapping with William A. Setchell until the latter's death the following year. GFP's tenure at UC Berkeley changed from being a Carnegie Fellow to becoming an assistant professor in 1944. The rest of his professional career was on that campus, where he thrived and gained recognition as one of the foremost phycologists of his time. He also mentored a total of 17 PhD students, including a cohort who entered following World War II: Florence (Signaigo) Wagner, Richard Norris, Robert Scagel, and Paul Silva. GFP's contributions included synthetic works such as his chapter on brown algae (1951a), his historical treatment "Classification of the algae" (1955), his summary of phycological advancements (1957), and his "Landmarks in Pacific North American marine phycology" (1976). He reviewed classification of genera within the orders Ulvales (1960) and Dictyotales (1977) and the red algal subclass Florideophycidae (1966). The depth of his grasp of the literature is demonstrated by his catalogue of Antarctic and Sub-Antarctic benthic marine algae (1964) and his catalogue of Red Sea benthic algae (1968b). He maintained a keen interest in the taxonomy of South African algae (1947, 1952, 1968a) and in nomenclature (1956, 1958, 1967b). He was a master at detecting problems in phycology (1951b, 1953, 1967a) and in pointing out areas that needed a re-examination (1962). He showed a knowledge of essentially all groups of algae, greens, browns, and reds (1972; Papenfuss & Jensen, 1967; Papenfuss et al., 1982).

Papenfuss thoroughly enjoyed being on field trips and having the chance to sample new sites. It was in the latter months of 1962 GFP and his former student Bob Scagel of the University of British Columbia participated in their 2-man expedition in connection with the International Indian Ocean Expedition sponsored by the United States Program in Biology. The adventure got underway in mid-Sept. in Djibuti, French Somaliland, near the "Horn of Africa". They hired a Landcruiser for the long journey, and it came in handy when they had to ford swollen rivers. They also purchased a revolver in case of trouble. By early Oct. they were collecting at Casurina Point near Malindi in Kenya. Next they were at Diani Beach near Mombasa. By mid-Oct. they had reached Dar-es-Salaam, Tanzania, and also Zanzibar Island, where they collected at Chuwani Beach. In early Nov. they were in Mozambique collecting at Xai-Xai and Inhaca Island. Much of Nov. was spent in Natal Prov., South Africa, sampling at such sites as St. Michaels-on-the-Sea, Shelley Beach, and Port Edward. By Dec. 1st they were at Fossil Head, Cape Prov., and then a week later at Sharks Bay, Port Alfred. By mid-Dec. they reached Mungo Bay at Cape Agulhas, the southernmost point on the continent. Eventually they concluded their expedition at Cape Town. All in all it was an arduous but productive trip.

Papenfuss' legacy includes his scholarly approach to phycology, such as his meticulously detailed papers on *Vanvoorstia* and *Claudea* (1937), *Taenioma* (1944), and *Caloglossa leprieurii* (1961), the influence he had on a generation of students, and his pivotal role in the establishing the International Phycological Congresses. But he is also remembered for his "joie de vivre", his animated nature featuring a distinctive laugh that could be heard at some distance in the Life Sciences Building on the U. C. campus, and his gregarious nature reflected by his conspicuous and joyful presence at meetings.

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M.J. Wynne

University of Michigan, Ann Arbor

Next issue:

**Phycological Trailblazer No. 18:
Jacob W. Bailey**

BOTANICAL SOCIETY OF AMERICA NEWS:

DARBAKER PRIZE AWARDED

Dr. Arthur Grossman of the Carnegie Institution of Washington was selected for the 2002 Darbaker Prize. This award has been given by the Botanical Society of America since 1955 for meritorious work on microalgae, as judged by publications over a two-year period. Dr. Grossman's recent publications reflect his long-standing and diverse interests in algal biology, and include studies on cyanobacterial nutrient and light responses, and the characterization of light-harvesting systems in two major groups of algae. Dr. Grossman is also enthusiastic in promoting algae as model organisms, being deeply involved in the development of genomics tools for the study of gene expression in the green alga, *Chlamydomonas*, and instrumental in the development of one of the first transformation systems for diatoms. We congratulate Dr. Grossman on his Darbaker Prize!

VICE PRESIDENT ANNOUNCED

Linda Graham is the new VP/President Elect of the Botanical Society of America.



In Good Company

Present PSA president, Michelle Wood, and next year's president, Dave Mille, surrounded by former PSA presidents (L-R) Annette Coleman, Susan Waaland, Charlie Yarish, Bob Waaland, Dennis Hanisak, Paul Kugrens, Steve Murray, Russ Chapman, Mike Wynne and Rick McCourt.

Minutes of the PSA Business Meeting

University of Wisconsin, Madison August 7, 2002

I. Members present

There were 49 members initially present.

Officers present: Michelle Wood (President), Charles Yarish (Past President), David Millie (Vice President/President-Elect), John La Claire (Secretary), Lawrence Fritz (Program Director), Richard McCourt (Membership Director), Patricia Wheeler (Journal Editor), Robert Waaland (Fund Manager), and Dennis Hanisak (Board of Trustees Chairman).

Members absent: Sharon Broadwater (Treasurer), Morgan Vis (Communications Director), and Are Pedersen (Student Rep.)

Guest present: J. Rodman (National Science Foundation)

The meeting was called to order at 4:06 p.m. by Dr. Wood.

II. Announcements & Adjustments to the Agenda

Dr. Wood introduced guest, J. Rodman (Systematic Biology Program, NSF), who addressed the membership. He distributed a handout listing recent grants in systematic phycology, showing that the list is a modest one compared to awards to mycologists and embryophyte systematists. He declared that the number of awards is commensurate with the number of proposals received, and that there is no bias against the algae. He encouraged phycological researchers to become organized in order to take advantage of NSF. The Society should consider other opportunities, such as team approaches toward large scientific questions and issues. The "Research Coordination Networks" in Biology (RCN) funds (\$100K per year) up to five years for attending meetings. The topic should be a good question that crosses research disciplines, pulling together a group of researchers who normally do not collaborate. The RCN program will probably only continue for another 2-3 years. The "Frontiers in Integrative Biology Research" (FIBR) competition happens once a year, for which there is an elaborate set of preproposal deadlines, a separate planning-grant activity, etc. This program will continue for another 4-5 years and funds up to \$5 million for a period of up to five years. It is designed to involve a cluster of people from different disciplines with integration across disciplines. Although the core NSF programs are not receiving substantial increases in their budgets, there are opportunities in some of the growth areas within NSF. Currently, the funding rate in Systematic Biology is 17-19%. He recommended talking to the program officers for advice on proposals to any particular competition. He noted that algal proposals have fared well in the "Partnerships for Enhancing Expertise in Taxonomy" (PEET) Program. Dr. Russell Chapman asked whether it would be desirable for every new faculty member to spend time on an NSF panel, and just how junior

may a panelist be and still be acceptable to NSF. It was explained that panel work is time-consuming, so it is not preferable to appoint untenured faculty. Also, performing well on a panel does not necessarily help a person obtain his/her next grant, but instead this work falls more in the realm of community service. Today, most regular panels do have untenured faculty who are in their 4th or 5th year. A few younger faculty are included on the Doctoral Dissertation Improvement panels to bring fresh perspectives. Dr. Arthur Grossman asked if Systematic Biology is interested in funding large genomics projects. The response was negative, due to the joint USDA/NSF program specifically for genomics. Dr. Yarish asked whether economically significant algae might be considered in the Plant Genome Program, which is primarily concerned with agriculturally important plants. The reply was that due to the cost of whole-genome sequencing, it was difficult for core programs to fund such work. The "Microbial Observatories" (MO) Program might help with microorganisms. Dr. Waaland commented that some of the candidate species for genome sequencing have microscopic phases. Dr. Rodman explained that he was not involved with the MO program, but he thought that approach might not be successful. Dr. Wood explained that seaweed researchers sometimes have problems with targeting their proposals, and she asked whether the RCN and FIBR grants are program- or NSF-wide. The response was that these programs are specific to biology. He added that Systematic Biology does not make any distinctions regarding seaweeds.

III. Approval of Outstanding Minutes (Dr. La Claire)

A motion was made by Dr. Russell Chapman (seconded by Dr. Charles Yarish) to accept the draft minutes from the 2001 PSA Business Meeting in Estes Park, CO. The motion was adopted unanimously by acclamation.

IV. President's Report (Dr. Wood)

Copies of her report were distributed. She explained that she took office with the philosophy that PSA officers should serve the members and with a sense of obligation to have our discipline and the PSA be healthy. Three areas that she concentrated attention on were:

A. Financial Stability. The PSA is in partnership with Blackwell Scientific, and this was very new when she joined the Executive Committee (EC). She has been working closely with Dr. Broadwater and Blackwell. There had been a lean projected budget, and the income was better than was expected. So the PSA is in good shape financially. She expressed gratitude to Drs. Broadwater and Wheeler, and to Blackwell.

B. Scientific Initiatives.

1. She wanted to make sure that the PSA is serving science and scientific infrastructure. There has been much attention and funding paid to the generation of an electronic journal. It is very important to have a first-rate electronic journal that is as good as the print version. The EC has been steadfast in being responsible with money and responsive to where the field will go. The *Journal* is an effective place to publish the best work on algae. She expressed confidence that in ten years if the Society did not have a good electronic product, the *Journal* would not remain the publishing venue of choice. So there is a need for continued support financially and for ideas.

2. The PSA is having an aggressive annual meeting and the EC is trying to plan ahead so that symposia will be set up in advance to aid in soliciting funds and other planning. The EC has already planned the meeting at Salishan Resort (Gleneden Beach, Oregon) next year, at William & Mary in 2004, and with

the International Phycological Congress in 2005. Presently, sites are being solicited for 2006. This needs to be decided next year. She solicited ideas and requested that these be given to her or to Drs. Fritz or Broadwater. She also requested ideas for symposium topics and plenary speakers for 2004 in Virginia.

3. Board of Trustees' (BOT) Targeted Areas. The BOT had a workshop in 2000 in San Diego, and there were five major areas where people felt the PSA would do well in having its membership take targeted approaches to certain topics. She was charged with two of these: "Algal Genomics" and "Conservation and Public Policy". There is a need to create funding for these important issues. The "Algal Genomics Initiative" is moving along well. There was an excellent symposium on the topic last year, and they are working on a review manuscript. They are hoping for a proposal on at least one macroalgal genomics project. Dr. Arthur Grossman has done much of the work on this and he has kept it at the forefront. Drs. Waaland and John Stiller have created text about which algae would be most appropriate and why. A report on the "Conservation and Public Policy" initiative is attached to her report. Drs. Susan Williams and Steve Murray have drafted material on this. There will be a symposium next year entitled: "Changing Coastal Ecosystems: A Challenge to Phycologists", and she is hoping to develop this into a book.

C. Membership Involvement. She has tried to involve people who are good and yet may not have been active recently.

V. Endowment Fund Report (Dr. Waaland)

He distributed a handout with a spreadsheet on one side, and a narrative on the other. The latter says that the formerly pooled Life Members and Treasury Reserve funds were split into three separate accounts in the spring of 2002. The reasons for this are explained in another handout. There are Bylaw restrictions on how the endowment funds can be invested, but no restrictions on the Treasury Reserve and Life Members Fund. Each has different categories of disbursements, *etc.* This was reorganized so that now he receives three reports that are easier to allocate expenses, dividends, *etc.*, to the various funds. The named funds within the Endowment Funds are listed on the spreadsheet. The Life Members Fund supports the benefits of membership for those who joined as life members. This fund has to generate enough income to offset the costs of providing benefits of membership to them. The Treasury Reserve Fund had a different purpose originally. The BOT had wanted to gain higher returns to generate a "rainy day" fund to use when/if the PSA needed it, such as the transition from Allen Press to Blackwell. Some of these funds have regular/annual obligations that are predicted and planned for. The Treasury Reserve Fund has irregular ones, which may or may not be predictable. The recent stock market volatility has had effects. The value of the bond portfolio went up, so it canceled out the decline in equity funds. Last week may have reduced the Treasury Reserve a bit. The calculations are based on the value of the funds in March when all were pooled and June, after they were split up. If the amounts that were disbursed in the last quarter are added back in, there is only \$1K less than what was there before, so we are doing fine. The details of each endowment fund are also given in the spreadsheet. These include the principle, estimated income for 2002 and disbursements that were already made or will be made after the meeting from each fund. Planned activities for 2003 are also given, which are similar to those in 2002 with one exception: the Hoshaw Travel Fund may have a little less in it next year because a little extra was disbursed this year. But by 2004, it will be all right again. Dr. Waaland added that he does carry

with him all the specific details of the mutual funds, *etc.*, and that he would be willing to share them with anyone.

Dr. Wood thanked Dr. Waaland for all the work he has done with the Endowments for so many years. There was a round of applause for him and for Dr. Susan Waaland for her work in the BOT room.

VI. Board of Trustees Chairman's Report (Dr. Hanisak)

Dr. Hanisak explained that the BOT consists of himself, Dr. Waaland, three members of the EC (the President, the Vice President and the Treasurer), and three other 'ordinary' members: Drs. Chapman, Sylvia Earle, and Robert Sheath. He presented an update on BOT activities. The most important was that Dr. Sheath (Chair of the Publication Committee) responded to the charge to energize the committee and get back into publications. In the past, publication was a significant means of raising money for the PSA. He expressed satisfaction that the first project Dr. Sheath was working on was to publish an update of Dr. Janet Stein's "Handbook of Phycological Methods. Culture Methods". Dr. Robert Andersen is the editor and there is a fairly established outline for chapters and authors. Publication is expected by the end of 2004. The EC is prepared to provide seed money to get it rolling, but all the royalties come back to the Endowment Fund. There was a nice discount for all members in the past, so members benefit in many ways. Dr. Sheath is also looking at other potential projects. One is a molecular handbook that might primarily include methods and trends. This project is in the early stages and Dr. Sheath is interested in people who might like to contribute, edit, or suggest other people. Another project from last year is to convert and update the PSA slide collection, perhaps putting it on a CD-ROM. The Publication Committee recommends creating an image-based site on the PSA website. Drs. Vis and Sheath will look into this option. The notion is to make it more readily available and to send out a call for new images. It will be a showcase for the PSA. Dr. Sheath urges anyone with ideas to contact him. Historically, the PSA published certain types of symposia, and Dr. Sheath and the Publication Committee will work with Drs. Wood and Millie on considering a PSA-sponsored publication on the symposium, and will continue to update the Publication Committee roster. Anyone wishing to serve on this committee should contact Dr. Wood.

He also discussed education activities. The EC allocated \$3K for an education symposium on teaching with algae. Unfortunately it did not materialize this year, so the BOT recommended that it be done at next year's meeting in Oregon. Anyone interested in being a presenter, organizer, or who has any other suggestions should contact Dr. Hanisak.

He mentioned fund-raising scenarios. Some roles on the BOT have been reassigned. Dr. Chapman agreed to spearhead a subcommittee of the BOT to pursue a development campaign. Dr. Sheath will be involved with this also.

He thanked the BOT and Dr. Susan Waaland for her work in the BOT room, and Dr. and Nancy Murray and others for help with the auction. He announced that the revenue from the auction was \$3700, which is impressive in light of the size of the meeting. The revenue goes into the Hoshaw Fund. He would like to target programs that provide money and resources to students and young professionals. Dr. Murray complimented Stephanie Hanisak for all of her help in the Headquarters room and at the auction.

VII. Journal of Phycology Editor's Report (Dr. Wheeler)

Dr. Wheeler distributed her report and noted that there is a

longer version available that she presented to the EC in May. She noted that the *Journal* office moved to Oregon State University last August/September with only minor glitches. During 2001, 254 manuscripts were submitted, 110 were published, so there was a ~40% acceptance rate. The turnaround time averaged less than two months from submission to the initial response to authors. Because of its quality, the *Journal* has a good reputation for all types of phylogenetic research. The impact factor for 2001 was 2.06; any value above 2.0 is considered good. It is determined by the number of citations divided by the number of papers published over a two-year period. The *Journal* ranked #5 among Marine & Freshwater Biology journals, and it ranked #25 among all journals in the Plant Sciences. The excellent reputation and ratings were due to the expertise and work of the Associate Editors, the Editorial Board, the reviewers and the authors who submitted their best papers to the *Journal of Phycology*. The *Journal* is expensive to print and produce. It is more expensive than many primarily because of the expectations and the delivery of high quality half tones. This requires expensive paper and ink. In 2001 she initiated page charges for non-members, in order to increase revenues for journal production. It is \$30 per page, and it affected papers starting in October, 2001. About half of the authors choose to join the PSA, but the rest pay the page charges. If that continues, they should generate about \$10K per year. Only about 50% of publishing authors are members, and this is part of the rationale for page charges. Less than 50% of the average cost per page is covered by member dues. The cost is \$225/issue; dues are under \$100. So dues are not keeping pace with the increasing costs of journal production. Readership of the *Journal* is expanding, as it is now online with HighWire Press and with Synergy. Everyone with print copy has online access. One advantage to the online version is an early posting of the Table of Contents. Her office notifies authors of this when their papers are accepted. Anyone can check to see what is coming out 1-2 months in advance of the print version. Her office is presently discussing print previews with Blackwell, *i.e.*, having an online version of the papers available 1-2 months before they appear in print. Blackwell is looking into this, and it may start sometime in 2003-2004. On HighWire, back issues are available through 1998. She expressed a desire to put more online, and that this will likely be done in 10-year batches until it is completed. She noted that more and more work in the Editorial Office is done electronically. They receive digital files from authors and this is how they are distributed to the Associate Editors and reviewers. Blackwell will enroll the *Journal* in 'ScholarOne' so that all submissions in 2003 will be online through this package. She thanked her assistant, Ms. Chris LeBoeuf, for being so dedicated to serving the Society, the Associate Editors and the Editorial Board.

VIII. Treasurer's Report (Dr. Steven Murray for Dr. Broadwater)

Dr. Murray (former Treasurer and President) distributed the Treasurer's two-page report. He transmitted Dr. Broadwater's apology for not being present, but she had to leave earlier than expected. The PSA is financially healthy and the partnership with Blackwell is going well. A great deal of effort went into the transition and it appears that all of the initial predictions are coming to fulfillment. On the final page is a summation of relevant information. The new working relationship gives PSA two major sources of income: payments made to the Editorial Office and the profit share. This is how the PSA obtains money at the end of the fiscal year. In 2001, there was \$84,326 in income. Disbursements included an accounting firm for end-of-year tax reports, the *Newsletter*, HighWire costs,

the Editorial Office, the midyear EC meeting, and miscellaneous other costs. There was a small surplus of \$3,546 in 2001. There needs to be an increase in membership dues. He displayed a graph showing the increasing costs for library subscriptions *vs.* membership dues from 1965-2003. It is apparent that the PSA has asked for library subscriptions to pay a bigger percentage of the revenue that it receives for running our operation. In 1965, when the *Journal* was founded, it cost \$9 to be member, \$10 to be an institutional subscriber. He displayed a pie chart showing the income distribution which indicated that 69% is from institutions *vs.* 29% from individual members (plus 2% from consortia). A bar graph in the written report tracked trends of how much the *Journal* costs per page as a percent of the median family income. It is apparent that members are paying less today as a percentage of median family income for printing each page of the *Journal*. He presented a bar graph showing dues rates. There are several plateaus from 1965-2003. The EC tried to hold dues constant for long periods but then reached points when it asked for substantial increases. Blackwell has a broader perspective on societies, journal costs, *etc.*, and they present a justification for what our rates for institutions should be and make recommendations to the EC. This year, the EC agreed and has decided to raise the institution rate from \$443 to \$448. They provide the EC with input about membership dues structures also. Although there would be no dues increase for students, **Dr. Murray made a motion to increase membership dues from \$95 to \$100 for regular members, and from \$100 to \$110 for joint memberships. The motion was seconded by Dr. Chapman and was adopted unanimously.** He added that as costs rise, there would be a tendency to have small annual adjustments to the dues instead of the plateau effect in the past. He expressed gratitude to Dr. Broadwater for putting together the data in such a clear fashion.

IX. Student Member's Report (Dr. Wood for Mr. Pedersen)

Dr. Wood solicited information and input from students and their advisors.

X. Communications Director's Report (Dr. Waaland for Dr. Vis)

Dr. Waaland announced that Dr. Vis would be *incommunicado* in French Guiana until Sept. 1. She would like to receive information from members for the *Newsletter*.

XI. Membership Director's Report (Dr. McCourt)

Dr. McCourt noted that the membership numbers are down slightly, but there are ~1500 total paid subscriptions (members and institutions), so people are seeing the *Journal*. This is a little below what was projected, however the numbers are on a trajectory of what was expected last year since people continue to renew until December. He expects 1700-1800 by the end of the year. There are 870 from the U.S., 85 from Canada and Mexico, and 530 from the rest of the world. He thanked the Membership Committee members (Dr. Wytze Stam and Mr. Jeff Lewandoski). He encouraged any one who would like to be involved to do so, and added that they receive any suggestions at any time. He expressed uncertainty about the terms of office, however. Dr. Wood responded that the Bylaws are specific on this. She will try to have staggered appointments so there are always positions open. Dr. McCourt said that the Membership Directory will be published soon, and that the delay in publication was due to hacker-induced damage to the computer, which required the attention of the database director. The Directory is always being changed and is ~60-70% accurate. He is planning to have a sale of the back-issue inventory. Also, the PSA is participating in the Soros

Foundation (through Blackwell), donating copies of the *Journal* to Eastern European institutions. He requested that members familiar with colleagues in that part of the world should have them contact him or Blackwell. About 2-3 times per month he learns that a person has not received the *Journal*, and Blackwell is very responsive. He asked people to contact him if they are having problems. He encouraged people to sign up their students since student member numbers were down a little this year. Dr. Kugrens asked what percentage of members were students. Dr. McCourt replied that in the U.S., it was roughly 70 out of 330 (or ~21%). Dr. Curt Pueschel asked if there are any long-term trends in institutional subscriptions. Dr. McCourt answered that it is difficult to say, but the numbers are down a few this year, and there may be a long-term trend of slight decreases. He asked members to have their students print out PDF files from their libraries, since this activity is monitored, unlike doing so at home or in the office. Dr. Michael Wynne asked whether Allen Press shipped the *Journal* inventory to Blackwell. Dr. McCourt responded in the affirmative, and that the inventory is stored near Boston.

XII. Program Director's Report (Dr. Fritz)

Dr. Fritz noted that the PSA was joined by four other societies at the present meeting. The total registration was ~1100, with ~150 from the PSA. Final counts are not yet available from the BSA. There are ~100 abstracts, which is down a bit from last year. This year there was a special lecture (Dr. Earle), and a very successful workshop on modern instrumentation (funded by NSF) that Dr. Michael Gretz assembled. There were two symposia, one on "Green Algal Conquests of the Land: Many Conquests, One Victory?" by Dr. Chapman and one on "Mycosporines: Detection Methodologies and Assessment" by Dr. Paul Zimba. There were also several sessions. The program seems to have been a success. He thanked Dr. Linda Graham (local representative) for all her work. Next year the PSA meeting is slated for the Salishan Resort in Oregon. Dr. Gayle Hansen is the local representative. The meeting dates will be June 15-20, 2003. We meet at William & Mary in 2004, and in Durban, South Africa in 2005, but the EC is open to venue and symposium ideas for 2006. He prefers that the phycological community come forth with a venue, rather than the Program Committee. He solicited ideas for 2006 and for future years. He indicated that the Society should be looking at university campuses, for lower costs and for ease of finding local representatives.

This year there was electronic registration and abstract collection. He and Dr. Millie would like to continue this in the future. He also hopes to have abstract collection and registration information appear closer together temporally than they did this year.

The EC decided that symposium costs would be absorbed by registration fees. So the Program Committee will try to keep costs down. There is a ceiling of about \$300 for registration that they will try to achieve, but something may have to give.

He welcomed ideas about workshops, symposia, etc. He noted that there was a student-run symposium last year, and he solicited these as well. Dr. Wynne asked if there would be a supplement to the *Journal* with abstracts. Dr. Wheeler responded that they would be published online only. She will soon indicate how to cite them. Dr. Millie added that next year, abstracts may not be published prior to the meeting depending on how the abstracts are collated. They will be supplied with the program booklet.

Dr. Wood commented that the decision to recover symposium costs in the registration fees is not a radical decision.

This has to do with how the budget is projected. She noted that last year in Colorado, the cost of symposia was well over \$15K, even above what the BOT contributed. So it had to be covered by the registration fees. So this is what will be done officially and thoughtfully in the future. Dr. Fritz added that he would like more symposium organizers to look for external funding to add to this. Dr. Wood noted that Dr. Fritz has much insight into NSF to help us in this regard. Dr. McCourt recommended pursuing some of the NSF initiatives that were described earlier in the meeting.

XIII. Other Business

Dr. Wood thanked Drs. Fritz and Graham for a great meeting. She also thanked Dr. Kugrens and introduced Ms. LeBoeuf. She also expressed gratitude to Drs. Millie, Yarish and Waaland of the EC.

She presented the results of the 2002 election. There were 215 ballots received, and Dr. Thierry Chopin was elected Vice President/President-Elect, and Dr. Jeff Johansen was elected Secretary. New members elected to the Editorial Board are Drs. Robert DeWreede, Michael Foster, Linda Medlin, and John West. She announced that next year there will be elections for the Treasurer and the Program Director, so nominees would be sought. She explained that the Election Committee uses nominations democratically, so members do have an impact when they make their desires known to the committee.

Dr. Kugrens announced that he has many (~125) pictures from the meeting. Anyone who would like them should E-mail him and he will send a free CD of the entire set.

Dr. Louise Lewis announced that the BSA Darbaker Prize was awarded to Dr. Grossman.

Dr. Zimba mentioned that he checked the requirements for the Bold Award in the Bylaws, and only graduate students are currently eligible to enter the competition. Because of the confusion associated with registration, etc., he did not know who was eligible. Given the quality of talks, he wondered if it might make sense to delete "graduate" or add a separate category for undergraduates. He suggested putting together a group to consider this change. Dr. Wood noted that this would require a Bylaws change. Dr. Chapman thought it was a good idea, but that when there was a large slate of entrants, it could be a problem if there were a good turnout. Also, travel money for Bold participants may be complicated and problematic. Dr. Craig Bailey agreed that this change could cause problems. He suggested adding another forum where all undergraduate entrants would be gathered together, or they could be interspersed among sessions. Dr. Waaland pointed out that this is an endowed award, and that this actually cannot be changed. Dr. Zimba noted that there is a statement in the Bylaws that one or



2002 Bold Award Competition

Front row (L-R) Paul Zimba, Award Chair, Stephen Snyder, Brigitte Gavio, Janna Fierst, Mary Ann Tiffany, Kenia Whitehead, Dale Casamatta. Back row (L-R) Carlos Gurgel, Brian Winsor, Kirsten Hoyer, Brian Piasecki, Amy McElhinney, Susan Frisch. See next page for more information.

more awards could be given, according to the committee's discretion. So there could be one for graduate students and one for undergraduates. Dr. Waaland explained that the consequences to the endowments have to be considered. The Bold Award does have sufficient funds to endow another award for \$100. Dr. Millie commented that only once was this encountered, when there were 17 students competing. He felt that a strict policy is not needed until more undergraduates are present. Dr. Rachel Wilson suggested that we allow undergraduates to be recognized aside from getting an award. Dr. Wood agreed that there are various options and that it was important to get undergraduates involved. The original notion was that a student competed toward the end of his/her graduate career, rather than entering each year. However, this topic deserves more discussion. Dr. Kugrens added that sometimes competitors already have a Ph.D., and Dr. Millie explained that there is a 12-month window after completion of the degree. Dr. Wood agreed that the EC should discuss this and that she will look into this matter.

Dr. Wynne announced that Dr. Graham was elected Vice President/President-Elect of the BSA.

As there was no further business, Dr. Yarish made a motion (seconded by Dr. Murray) to adjourn the meeting and this motion was adopted unanimously by acclamation.

The meeting was adjourned at 5:54 p.m.

John W. La Claire II
Secretary (2000-2002)

2002 BOLD AWARD

The Bold Award was established in 1973 to honor Harold C. Bold, a Charter Member of the Society, and its President in 1955-56. The Award is for the outstanding student research presentation at the Annual PSA Meeting.

From the 13 excellent student presentations, the Bold Award for the best student presentation was awarded to **Kenia Whitehead** for her presentation entitled "The use of liquid chromatography-mass spectrometry (LC-MS) in the identification and characterization of mycosporine-like amino acids (MAAs)" co-authored by J.I. Hedges.

To learn more about the competition for 2003 please visit the PSA website.



Michelle Wood (PSA president) and Paul Zimba (Bold Award Committee Chair) presenting the award to Kenia Whitehead (middle)

OBITUARY



Elenor R. Cox (1930-2002)

Professor Elenor Ray Cox, a past President of P.S.A., was born November 4, 1930, in Georgetown, Texas, and died at her home on June 2, 2002, in College Station, Texas. She attended public schools in Houston, Texas, and obtained a Bachelor of Arts degree in Biology and French from Rice University and a Master of Education from the University of Houston. She did post-graduate work in education at Texas Southern University in the same city. After teaching science in junior high school and then biology and chemistry in high school in Houston, she returned to graduate school at the University of Texas in Austin, where she received a Master of Arts in Zoology. She was awarded competitive National Science Foundation and University of Texas Fellowships and continued her education in the Botany Department under the noted phycologist, Professor Harold C. Bold, receiving her Ph.D. in 1966 with the dissertation, "Taxonomic, Morphological and Physiological Studies of the Algal Genus *Stigeoclonium*." As a graduate student she listed the following interests: teaching, research in fresh-water and marine phycology, fresh-water and marine dinoflagellates, and epiphytic algae, as well as algal ultrastructure, systematics, and morphology. These interests continued throughout her professional career, and many were carried forward by her students.

After spending a year back in Houston as coordinator for a Title III project, "Innovative Approaches to Science Teaching," in which she set up cultures of protozoa and algae for use in teaching in the Houston public schools, she became Assistant Professor in the Department of Biology, Texas A&M University, College Station, Texas, in 1967. In fact, she carried the use of cultures in teaching and research with her to TAMU. There Elenor Cox remained until her retirement in 1993, advancing to full Professor in

1981, teaching 12 different courses in botany, phycology, and biology, and often taking on special duties for the Department, the College of Science, and the University, including service as Assistant Dean of the Graduate College from 1984-1988. When TAMU got its first Faculty Senate, Elenor Cox was in the "first class," and she served two terms, including serving on the Executive Committee. It was especially gratifying for Prof. Cox to join the TAMU faculty, since her father, W.O. (Bill) Cox was a graduate; however, he could not send his daughter to TAMU because at that time women could not enroll as undergraduates.

In addition to the many students in her classes, she advised three in Post Doctorate positions and chaired committees of 12 M.S. students and 14 Ph.D. students (listed below). Her students remember her from field trips to the Gulf of Mexico, scattering seagulls on the beach at Padre Island, knee-deep in the Gulf of Mexico, or bobbing in the swells, with water up to her neck in the surf, collecting algae off rocks along the shore. The rule was that none of the students could go further out than she did. These well-planned trips went off on schedule, even during the famed Texas "Blue Northerners." Her teaching was excellent and challenging, and she was recognized at TAMU in 1993 by a Distinguished Achievement Award for Excellence in Teaching from the Association of Former Students. Her students received recognition, as well. One of them, Dr. Joby Chesnick, and Prof. Cox received the Distinguished Paper Award from the Phycology Section of the Botanical Society of America, for the paper, "Fertilization and Zygote Development in the Binucleate Dinoflagellate *Peridinium balticum* (Pyrrophyta)" published in the American Journal of Botany 76:1068-1072 (1991). Another student, Dr. Susan Carty, received a University Award for the Outstanding Dissertation of 1986.

During her career at Texas A&M University, she was active in research with funding from the National Institutes of Health and the TAMU Sea Grant program. Her work often centered around dinoflagellates, as when she and her student, Ronald N. Tomas, in conjunction with Karen Steidinger, published proof in 1973 of the existence of two nuclei of different origins in the dinoflagellate *Peridinium balticum* (Levander) Lemmermann, (J. Phycol. 9 (1): 91-98). Later that year Tomas and Cox published more evidence that symbiosis plays a significant role in evolutionary theory (J. Phycol. 9 (3): 304-323.) Later pigments, histones, and the sexual life cycle of the dinoflagellate and its symbiont were studied by research teams in which she took part.

Elenor Cox had wide interests and was concerned with the periodicity of "red tides" when large populations of dinoflagellates would cause fish kills and respiratory problems in humans. She and her students also worked with the oil-producing alga, *Botryococcus braunii*. She travelled to Brazil in 1976 to consult with a shrimp culture project about growing algae to feed shrimp, giving a series of lectures on mass culturing techniques and supervising the training of a scientist at an algal laboratory to help develop resources in northeast Brazil. Later, in 1980, she edited the volume,

Phytoflagellates: Form and Function, published by Elsevier.

Prof. Cox was a long-time member of the Phycological Society of America, and she served in numerous leadership roles in that organization, including Secretary (1976-1978), Vice President (1978-1979), and President (1979-1980). Many of her books and papers are being donated to the PSA fund-raising auction, under the care of her valued colleagues, Dr. C.O. Patterson and Prof. Clarissa Kimber.

Elenor Ray Cox is remembered as a special person by many at Texas A&M University, in the field of phycology, and by many personal friends. A professional colleague, Dr. Karen Steidinger, remembers travelling with her – to Germany and Japan, where she carried Elenor's bags up and down the train stairs. Dr. Greta A. Fryxell remembers enjoying Elenor's company on collecting trips along the Gulf of Mexico, first as a student.

Forceful in expressing her opinions on academic matters, on evolution, and on the position of women in society, Elenor Cox was among the first women in the professorial ranks at TAMU and was the first Professor Emerita in the College of Science. Her parents and one brother preceded her in death. She is survived by her brother, Jack Bolan Cox and his wife, Frances Ann Cox, several nieces and nephews, many dear friends, colleagues, and former students, who remember her wit, organization, and excellent teaching – and how hard they worked in her classes!

Former students of E.R. Cox:

Ph. D. - Ron Arneson, Bart Baca, Susan Carty, Joby Chesnick, Steven R. Hill, William Kirk, Linda K. Medlin, Cynthia McKenzie, Richard Newman, Donald Shelton, Betsy Smith, Ronald N. Tomas, Richard J. Wahrer, Fred Wolf

M.S. degrees - Glen Bailey, Richard Dickensheets, Jana Farwell, Ralph Gouldy, James Thomas Ivy, Debra Kiessel, Glen Lowe, James Metcalf, Sara Marquis, Michael Postek, Donald Shelton, Elaine Stamman

Greta A. Fryxell, Ph.D.

Adjunct Professor

Integrative Biology

University of Texas - Austin

BOOK ANNOUNCEMENT

A new publication, entitled "Identifying Harmful Marine Dinoflagellates", Smithsonian Institution Contributions from the United States National Herbarium, Volume 42:1-144 by Maria A. Faust and Rose A. Gullledge is now available. The guide is a taxonomic resource, lab manual and the most comprehensive reference source for identifying 48 HAB dinoflagellate species.

Receiving a copy is free while supplies last. Interested persons can contact Dr. Maria Faust, either at the Smithsonian National Museum of Natural History, Department of Systematic Botany-Biology, 4210 Silver Hill Rd., Suitland, Maryland 20746, or by E-mail:Faust.Maria@NMNH.SI.EDU

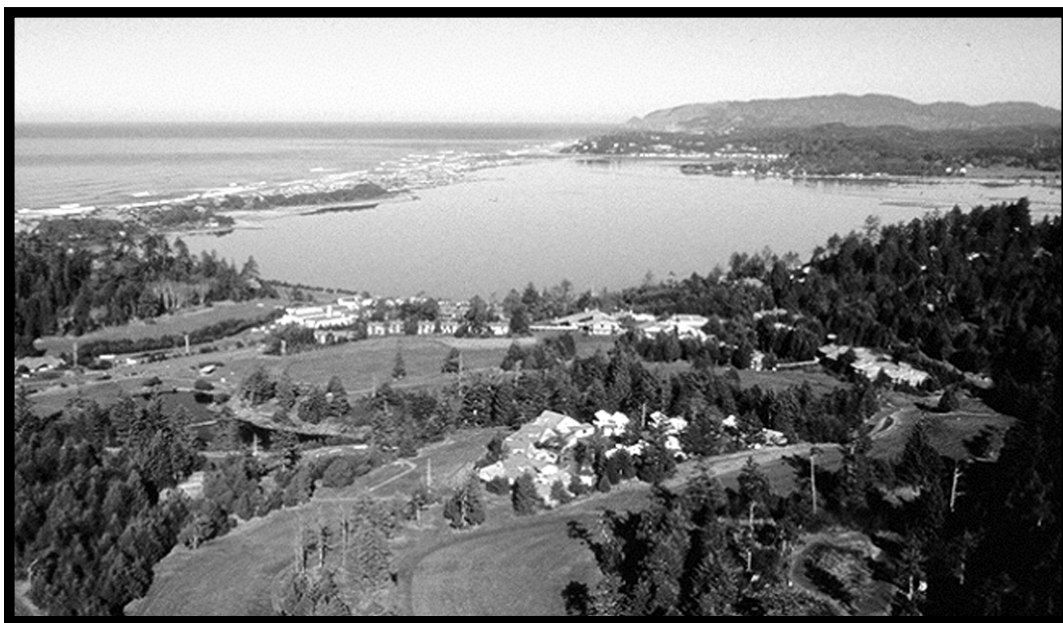
**For other news, conference dates, job openings, please visit the PSA site at:
www.psaalgae.org**

PSA 2003 ANNUAL MEETING

The meeting will be June 15-19, 2003. PSA will be meeting jointly with the American Society of Protozoology. It will be held at the Westin Salishan Lodge and Golf Resort, a beautiful AAA Four Diamond resort located in Gleneden Beach, about half way down the Oregon Coast. Pre-meeting low tide collecting and post-meeting sightseeing trips are being planned. The tides are going to be incredible right before the meeting (and throughout it).

For more information as it becomes available, please check the PSA website at:

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



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