



Volume 63, No.4

August, 2005

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Pennsylvania Academy of Science

PLAN TO ATTEND THE
Pennsylvania Academy of Science
82nd ANNUAL MEETING

**Holiday Inn
Grantville, PA**

March 31-April 2, 2006

**DEADLINE FOR RECEIPT OF ABSTRACTS:
15 DECEMBER 2005**

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FROM THE DESK OF THE PRESIDENT



The Dog Days of Summer

For a long time I ascribed the phrase *dog days* to the misery suffered in summer by our canine pals. The phrase does have to do with a dog, a very old dog. The ancient Romans also called the six or eight hottest weeks of summer *the dog days*, or, in Latin, *dies caniculares*. The Romans were referring to Sirius, the Dog Star, so named because it is the brightest star in the constellation Canis Major (which is Latin for *Big Dog*). The hottest days of summer happened to coincide with the seasonal ascendancy of Sirius as the brightest star in the heavens, and the Romans believed that it was the added heat of the Dog Star which caused their hot and humid weather. People also used to believe that the *dog days* were the part of the year when dogs, driven to distraction by the heat, were most likely to *go mad*.

As the end of August approaches we are experiencing, not the *dog days*, but the renewed spirit that accompanies the beginning of each new academic year. As faculty, we are ready for another round of teaching, research, and creative activity. As students, you are ready for another round of learning, investigation, and discovery.

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PENNSYLVANIA SCIENTISTS – WILLIAM A. URICCHIO

(1924-2005)



The Pennsylvania Academy of Science lost one of its most distinguished and devoted members when Dr. William A. Uricchio passed from heart failure on July 12, 2005 at the age of 81.

The 1970-71 President of the Pennsylvania Academy of Science was born in Hartford, Connecticut. After attending Trinity College and serving in the US Army in World War II in Europe, he completed his BA in 1949, MA in 1951, and PhD in 1953 at the Catholic University of America.

In 1953 Bill decided to accept a faculty position in the biology department at Mount Mercy College, now Carlow University, in Pittsburgh. He intended to stay for a year, but stayed more than 40, chairing what became the division of natural sciences, until retirement as Professor Emeritus in 1994. Carlow named the division in his honor at that time. His specialties in science were microbiology, parasitology, zoology, sexuality, and family planning. His dedication to students and his efforts in the classroom were notable with many former students stepping forward to attest to his knowledge and skills as a teacher. He helped educate thousands of elementary and secondary science teachers through his classroom and summer institutes. He was using hands-on approaches to teaching as early as 1956 when he developed “Piggyback Science” and “Science is Fun” on Pittsburgh’s PBS station WQED television.

Dr. Uricchio received over forty teaching and research grants in his lifetime from NSF, NIH, PHEAA, state and private foundations. He was co-chair of the first International Conference on Natural Family Planning, sponsored by The Human Life Foundation and the Center for Population Research, National Institute of Child Health and Human Development. He ultimately served as president and chairman of the board of directors, traveling worldwide for many years for The Human Life Foundation and the International Federation for Family Life Promotion, teaching family planning methods that did not require the purchase of expensive supplies that might not be available in lesser developed countries. He joined the PAS in 1955 with the urging of friend and supporter of the Junior Academy of Science, Sr. M. Gabrielle Maze. He served not only as the 44th president of the Academy but in many key positions of the PAS including Editor of the Proceedings of PAS, Director of the Pennsylvania Science Talent Search, the Chair of the Time and Place Committee for at least thirty of the annual meetings of both PAS and PJAS, and chairman of Region 7’s advisory board. These were not just one-year experiences but the records show year after year of service and efforts on behalf of both academies in addition to his dedication to activities in science outside the academy.

Examples of Dr. Uricchio’s dedication to the Academy abound. A few citations from the past illustrate that involvement and interest. In 1973 he and Dr. George Shoffstall held a NSF summer institute at Shippensburg State College for 50 students and 10 teachers on environmental problems which was lauded statewide for its importance to the commonwealth. In 1974, the 50th anniversary year of PAS, he assisted the PJAS in their special 40th anniversary program for science teachers held in Bloomsburg, PA, with an address titled “Modern Trends in Science.” In 1975 he returned to Bloomsburg State College with a Summer Science Leadership Workshop where he taught bacteriology along with Dr. Kurt Schreiber’s biochemical techniques, and Dr. George Shoffstall’s radiochemistry among the topics. In 1979, Bill was the one who at the Executive Committee meeting of September 14 moved to acquire office space in Harrisburg for the Academy. This was approved and accomplished within a year. With assistance from Sr. Gabrielle and Dr. Shoffstall, the rent for the office was underwritten by Mrs. Castro, of the Castro Convertible Furniture company for a number of years until the building was literally demolished for urban redevelopment. This office gave the Academy a presence in the capital city and led to a number of high value state grants for student, book and staff support.

As Time and Place Chair he traveled extensively with his wife Toni and/or his friend George Shoffstall to inspect numerous sites in Pennsylvania for academy meetings. He skillfully yet tactfully negotiated the best possible prices and conditions for the annual meetings. Before the meetings he would meet with the convention managers to insure the meeting rooms would be properly equipped and that the menus were finalized. During the meetings he and wife Toni, who often served the PJAS as resident nurse for students in attendance, monitored the events and facilities, making corrections with the management quietly but forcefully to provide a smooth flow to the schedule. Following meeting he would meticulously peruse invoices with a representative of the hotel for possible errors and questionable items. As years went by hoteliers came to know Bill for his honesty and forthright qualities and he was always welcomed as the lead person for the PAS at their establishments. Making arrangements for the annual meetings in recent years was a continual challenge as changes in format and technology were affecting the manner in which scientific information was being presented. The increased use of poster sessions was a special problem at the beginning as the convention managers would indicate

Continued on Pages 4 & 5

familiarity with poster boards and poster sessions, but would prove to be sadly ignorant when the time of the meeting arrived. Bill was always alert to such possibilities and had alternate plans for each occurrence. Other technologies starting with overhead projectors and proceeding to the latest computer generated presentations provided similar challenges at first but were handled in stride by Dr. Uricchio.

Dr. Uricchio was well published in science, education, sexuality, and family planning. He was author of books: *Natural Family Planning*; *A Course of Study for Advanced Placement Biology*; *A Laboratory Manual in Microbiology*; and, *Independent Research in the Sciences*, a 1974 book edited with Sr. Gabrielle and Alex McCredie. He was a fellow of AAAS, recipient of numerous awards including recognition in Outstanding Educators of America, Pennsylvania Scientist Educator Award, and was honored by PAS with the George and Kathryn Shoffstall Science Leadership Award in 1997 and the PAS Lifetime Achievement Award in 2005. He also served as President of Delta Epsilon Sigma Society.

One of his most valued honors indicating his adherence to his faith and his efforts on behalf of humanity in both civic and religious affairs was the presentation of the knighthood of St. Gregory the Great, a high lay honor of the Catholic Church, conferred by Pope Paul VI.

He served for over 30 years on the board of directors of Duquesne University and was chairman also for more than 30 years of the McGuire Memorial School in New Brighton PA, an institute for severely disabled children. He was also active in the Pittsburgh Serra Club.

Bill "gave his children, grandchildren and indeed all around him a passion for learning and education, a love of travel, an enjoyment of cooking and eating as well as a strong sense of religion and spirituality and a belief that each person that we would meet in life was truly important," his daughter Barbara said. For many years he took biology majors on an annual weekend retreat to Cooks Forest State Park where he did all the cooking which he loved to do.

His wife of 55 years, Toni, three sons, two daughters, and eight grandchildren survive Dr. Uricchio. His funeral mass in Pittsburgh's Cathedral was presided over by Bishop Donald Wuerl and concelebrated with several other bishops and priests from Carlow University, Duquesne University, and the diocese of Pittsburgh. Attending were many of the city's notables from the academic, scientific and religious communities including many PAS and PJAS members and officers, past and present. Also in attendance were presidents and board members of both universities. The family suggested remembrances to McGuire Memorial, Carlow University, or Duquesne University.

Prepared by Bruce Martin and Clarence Murphy with assistance from Kurt Schreiber, Leonard Rosenfeld and Sherman Hendrix. Thanks are expressed to all who offered assistance with recollections and references.



This is a photo from the April 1984 PAS meeting in Seven Springs. This was probably taken in the president's suite. Seated l-r back: Sr. Gabrielle Maze, Bruce Martin, Mrs. Toni Uricchio, Kurt Schreiber, Karl Oerlein; seated floor l-r: George Shoffstall, William Uricchio.

This is notable as one of the few photos of Toni Uricchio who not only accompanied Bill, but also was the registered nurse on site for PJAS student in attendance. During this era PAS and PJAS held their meetings concurrently or consecutively until PJAS outgrew the facilities.

Also note that not only was Sr. Gabrielle present, probably as State Director of PJAS but also Karl Oerlein who is credited with being the founder of PJAS in 1934 and long time supporter of the student activity.



This is a photo taken at the 1986 PAS meeting at Seven Springs. Although not all names were recorded, a list of those who are recognized: Standing l-r-Howard Pitkow, William Uricchio, name not recorded, Bruce Martin, Dan Klem, Kurt Schreiber, Robert Denoncourt, Stanley Zagorski; Seated l-r-Shyamal Majumdar, George Shoffstall, Sr. M. Gabrielle Maze, Ernest H. Braue, Jr, Sherman Hendrix.



A snapshot of some of the Executive Council members enjoying a break in Fall 1992 at the Nittany Lion Hotel, State College.

Left to Right: Fred Brenner, pres-elect; George Shoffstall, Executive Secretary; Bruce Martin, State Director PSTS; Kurt Schreiber, chair Finance Committee; William Uricchio, Chair Time & Place Committee.

UPCOMING MEETINGS

The **82nd Annual PAS Meeting** will be held at the *Holiday Inn, Grantville, PA, March 31-April 2, 2006.*

The joint meeting of **PAS and PJAS** will be held at the *Innovation Center, Sept. 23-24, 2005.*

The *Entomological Society of America (ESA) Annual Meeting* will take place on *November 6-9, Fort Lauderdale, FL.* Please visit the website for more information <http://www.entsoc.org/>

The *National Conference on Undergraduate Research (NCUR)[®] 20th Annual Meeting* will take place on *April 6-9, 2006, UNC Asheville, NC.* Please visit the website for more information <http://www.ncur.org/>

The **American Society for Microbiology 106th General Meeting** will take place **May 21 - 25, 2006, Orlando, FL.** Please visit the website for more information <http://www.asmtusa.org/>

The **Ecological Society of America 91st Annual Meeting** will take place Aug. 6-11 2006, Memphis, TN. Please visit the website for more information <http://www.esa.org/memphis/>

RECENT MEMBER PUBLICATIONS AND ACCOMPLISHMENTS

Schneck, Jessica L. and Bernard Fried. 2005. Growth of *Biomphalaria glabrata* (NMRI strain) and *Helisoma trivolvis* (Colorado strain) under laboratory conditions. *American Malacological Bulletin* 20: 71-73.

Kanev, I., V. Radev, and B. Fried. 2005. Family Philophthalmidae Looss, 1899. In: *Keys to the Trematoda, Volume 2* (eds., A. Jones, R. A. Bray, and D. I. Gibson). CAB I Publishing Co., Wallingford, UK., pp. 87-97.

Fried, B. and J. L. Schneck. 2005. Cercarial tail loss in *Echinostoma caproni*: the influence of *in vitro* encystment and copper sulphate. *Journal of Helminthology* 79: 177-178.

Chordas, S. W. III, R. N. Ferreira, and R. L. Stewart Jr. 2005. Synopsis of the backswimmers (Hemiptera: Notonectidae) of New Hampshire. *Northeastern Naturalist*. 12: 187-194.

Please submit contributions to the editors: rlstew@ship.edu

2005 Annual Meeting: PAS Leaders-Advisory Council Meeting

Background: In the fall of 2002, then Academy President Clarence Murphy determined that the Advisory Council to the PAS be completely reformed and reinvigorated. Leonard Rosenfeld, a past-president of the PAS, was appointed as Chairman and continues in this position to this date. Over the past 21/2 years, Rosenfeld has recruited an impressive roster of leaders in Academia, education, corporate science and public policy to membership in the Council. Council's mandate is to guide the Academy and support it in increasing its' visibility, membership and relevance in maximizing the environment for science within the Commonwealth of Pennsylvania. At its 2005 meeting Council endorsed and agreed to fund a strategic planning effort for the Academy. An MBA candidate in science from Penn State University has been retained to carry out this study, working with members of Council, leaders of the Academy, external corporate and scientific entities as well as government.



Standing Left to Right Daniel Kiely (Chief Scientist, Applied Research Lab, Penn State University), Anthony Dent (National Organization of Black Chemists and Chemical Engineers), Leonard Rosenfeld (President PAS 192-94, Current Chair PAS Advisory Council), Deborah Ricker (PAS President-Elect, Advisory Council Liaison to PAS), Fred Loomis (Director, Workforce Development, Penn State University), Damian Braga (Chairman and CEO, Sanofi-Pasteur), Chris PAK (Chairman and CEO, Molecular Targeting Technologies), Kenneth Geller (Assistant Vice President for Research, Temple University Health Sciences Center)
Seated Left to Right Shyamal Majumdar (President PAS 1986-88), Jorge Santiago-Aviles (Professor of Electrical Engineering, Moore School of the University of Pennsylvania), Assad Pannah (PAS President, 1998-2000), Fred Brenner (PAS President 1994-96)

CALL FOR ABSTRACTS

82nd Annual Meeting of the Pennsylvania Academy of Science

March 31- April 2, 2006

Holiday Inn
Grantville, PA

DEADLINE FOR RECEIPT OF ABSTRACTS: 15 December 2005

INSTRUCTIONS FOR PREPARING AND SUBMITTING ABSTRACTS

**

Read All Instructions Before Writing Abstract

PLEASE NOTE: ALL ABSTRACTS MUST BE SUBMITTED

****ELECTRONICALLY****

RULES GOVERNING SUBMISSION AND ACCEPTANCE OF ABSTRACTS

- 1. The corresponding author must be a member of PAS in order to submit an abstract.**
- 2. One person cannot be listed as the presenter on more than three abstracts.**
- 3. Once the Program Committee has accepted an abstract, it cannot be withdrawn.**
- 4. The abstracts will be published in a supplemental issue of the *Journal of the Pennsylvania Academy of Science* to be distributed at the annual meeting.**
- 5. Any abstracts received after December, 15, 2005 will not be published.**
- 6. Authors will be notified when the abstract is received and again in February concerning the acceptability and presentation time of the abstract.**

SCHEDULE OF ACTIVITIES AT A GLANCE

82st Annual Meeting of the Pennsylvania Academy of Science

March 31 – April 2, 2006 – Holiday Inn, Grantville PA

FRIDAY, March 31

1:00 pm	Board of Director's Meeting	Congressional Suite
3:00-8:00 PM	Registration	Lobby
6:30-8:00 PM	<i>Dinner</i>	Majestic I & II
8:15 PM	Speaker	Majestic I & II

SATURDAY, April 1

7:30-9:00 AM	<i>Breakfast</i>	Majestic I & II
8:30-11:00 AM	Registration	Lobby
9:00-5:00 PM	Exhibits	Royale 1,2,3
9:00-12 Noon	Paper Presentations	
	I	Congressional Suite
	II	Regency Suite
	III	Pennsylvania Suite
9:00 AM-12 Noon	Poster Session I	Royale 1,2,3
10:00-10:30 AM	<i>Coffee Break</i>	Foyer
10:00AM-2:30PM	Advisory Council Meeting	Winners' Circle Saloon
12 Noon-1:15 PM	<i>Lunch</i>	Majestic I & II
1:00-5:00 PM	Paper Presentations	
	IV	Congressional Suite
	V	Regency Suite
	VI	Pennsylvania Suite
1:00-4:00 PM	Poster Session II	Royale 1,2,3
2:30-3:00 PM	<i>Coffee Break</i>	Foyer
5:00 PM	Business Meeting	Congressional Suite
5:00-6:30 PM	<i>Social Hour (Cash Bar)</i>	Winners' Circle Saloon
6:30-8:00 PM	<i>Dinner</i>	Grande Ball Room
8:15 PM	<i>Mixer</i>	Winners' Circle Saloon

SUNDAY, April 2

7:30-9:00 AM	<i>Breakfast</i>	Majestic I & II
8:30-11:00 AM	Registration	Lobby
8:30-11:00 AM	Paper Presentations	
	VII	Congressional Suite
	VIII	Regency Suite
	IX	Pennsylvania Suite
8:30-11:30 AM	Poster Session III	Royale 1,2,3
11:00 AM	Board of Director's Meeting	Congressional Suite

MANUSCRIPTS FOR *THE PENNSYLVANIA GEOGRAPHER*

The editors of *The Pennsylvania Geographer*, a peer reviewed, semi-annual journal of the Pennsylvania Geographical Society, are soliciting manuscripts for the Spring/Summer 2006 edition. The journal is in its 44th consecutive year of publication. The general topic for this issue (Volume 44, #1) of the journal is: **ECOTOURISM**. Papers dealing with the above theme, or any other geographical topics, will be considered for publication. The deadline for submitting materials for the spring/summer 2006 issue is **February 15, 2006**. Please send manuscripts and/or inquiries to Dr. William B. Kory, Editor, or Dr. Gregory Faiers, Associate Editor, *The Pennsylvania Geographer*, Geography Department, University of Pittsburgh at Johnstown, Johnstown, PA 15904. Phone: (814) 269-2994; 2993 or 2990. E-mail: koryupj@pitt.edu

TOPICS FOR FUTURE ISSUES:

Fall/Winter 2006 (Volume 44, #2):

“Geography and Terrorism”

August 15, 2006 deadline for receiving material

Spring/Summer 2007 (Volume 45, #1):

“Cultural Geography”

February 15, 2007 deadline for receiving material

Fall/Winter 2007 (Volume 45, #2):

“Water Resources”

August 15, 2007 deadline for receiving material

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SCHOLARSHIP & AWARD OPPORTUNITIES

Spencer Foundation Major Research Grants Program

The grants program is intended for research projects requiring more than \$35,000 in grant support. Awards of up to \$35,000 are made. Inquiries and preliminary proposals are accepted at any time. The principal investigator must have an earned doctorate in an academic discipline or a professional field and must be affiliated with a college, university, research facility, or cultural institution. The foundation supports research that promises to contribute new knowledge to the improvement of education, broadly conceived, in the U.S. and abroad. A variety of disciplinary and interdisciplinary approaches are favored, though emphasis is given by charter to the behavioral sciences. The foundation is interested as well in the related research areas of cultural knowledge, socialization, and the production and distribution of knowledge. Research may range from medium-sized studies that can be completed in a year by an individual researcher to more extensive collaborative studies that last several years. Grants are not made to maintain organizations or infrastructures of educational research. Additional information can be found on the Web at <http://www.spencer.org/proginfo.htm> For further information, contact: John B. Williams, Vice-President, Spencer Foundation, 900 North Michigan Avenue, Suite 2800, Chicago, IL 60611-1542.

LEARNED DISCOURSES

Timely Scientific Opinions

Intent. **Learned Discourses** provide a forum for open discussion by and for PAS members. These articles will reflect the professional opinions of the authors regarding scientific issues. They will not represent PAS positions or policies. And, although they are subject to editorial review for clarity, consistency, and brevity, these articles will not be peer reviewed. The success of the **Learned Discourses** depends on our contributors. We encourage submissions that are timely and will inform and stimulate discussion. If you disagree with an opinion expressed here, **submit a reply**.

Rules. All submissions must be succinct: no longer than 1,000 words, no more than 6 references, and at most one table or figure. Reference format must follow that of the Journal of the Pennsylvania Academy of Science. Topics may fall within any area of science.

Submissions. Send submissions as e-mail attachments (Word), to Richard Stewart (rlstew@ship.edu). Submissions will be printed on a first-received basis when space limitations apply.

Learned Discourses Editors

Richard Stewart and Pablo Delis

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PENNSYLVANIA SOCIETY FOR BIOMEDICAL RESEARCH

The Pennsylvania Society for Biomedical Research (PSBR) is a 501(c)(3) non-profit science education organization which was founded in 1990 and became operational in 1991.

The society was formed by universities, medical schools, pharmaceutical firms and professional societies in Pennsylvania. Current members and supporters include many of the Commonwealth's leading biomedical research and educational institutions, professional societies, and hospitals.

Our mission is to foster a better understanding of the benefits of biomedical research and the vital role it plays in improving the quality of human and animal health and expanding our economy.

The society is governed by a board of directors elected from its membership. The board meets three times a year, usually at a member organization. PSBR's annual meeting provides an opportunity for participants to be briefed of the status and activities of PSBR and to discuss important issues.

The PSBR strongly supports the continued role of animals in research when no reliable alternative exists.

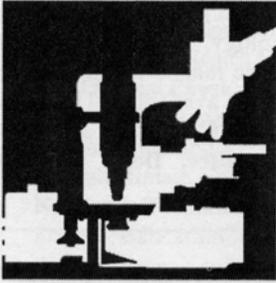
Our goals include:

1. Develop PSBR as a resource for pertinent facts about the indispensable use of animals in biomedical research.
2. Serve as a credible resource for the general public, educators, students, legislators and member organizations.
3. Responsibly manage our resources to enhance an environment which supports biomedical endeavors to improve human and animal health.

PSBR seeks to meet its goals through the following programs in cooperation with our member organizations:

1. **PSBR Information**
 Publish PSBR Bulletin, a newsletter which documents items of interest to the biomedical research community
 Maintain a PSBR home page and web site on the Internet (<http://www.psbr.org>)
 Maintain a database and resource library of biomedical research information.
2. **Educational Programs**
 Conduct contests for students on topics related to animals in research
 Provide information for teachers through workshops and training programs
 Provide educational materials and speakers to elementary, secondary and college classrooms
 Provide reference materials on biomedical research to school and public libraries
 Exhibit materials at scientific and educational conferences
 Develop and maintain a hands-on exhibit about animals in research
 Coordinate all PSBR programs with the Pennsylvania Department of Education
3. **Membership support – Public Relations/media**
 Media/speaker training
 Assistance in crisis management planning
 Provide resources and information to members dealing with requests from the media and animal rights organizations
 Contribute editorials and press releases on items of interest to biomedical research
 Enlist the governor to proclaim October 21 as Biomedical Research Day, Pennsylvania
4. **Staff Orientation and Information**
 Assist animal care staff in explaining their contribution to biomedical research
 Enlist member personnel to participate in PSBR educational programs
5. **National Cooperation**
 Network with other state biomedical research organizations, and with national organizations in order to maximize effectiveness through information exchange and development of cooperative projects and programs
6. **Animal Rights Movement**
 Maintain a current knowledge of the animal rights movement by review of animal activist publications, web sites and information hotlines
 Cooperate with national and other state biomedical research organizations
 Seek opportunities to counter negative representations about biomedical research
7. **Legislation and Government Relations**
 Monitor and review newly introduced legislation for impact on biomedical research
 Provide information on key issues to legislators
 Keep members informed of the status of important legislation

For further information contact:
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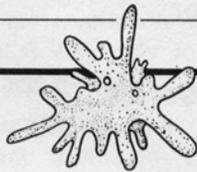
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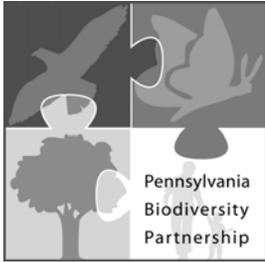
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**PENNSYLVANIA BIODIVERSITY
PARTNERSHIP SOLICITS INPUT ON
PENNSYLVANIA BIODIVERSITY
CONSERVATION PLAN**



The Pennsylvania Biodiversity Partnership (PBP) is a broad-based public-private partnership formed in 2000 to promote the conservation of native species and their habitats. PBP members include conservation and

environmental organizations; government agencies; business and industry; scientists and academic organizations; sportsmen and women; and private landowners.

A consensus quickly emerged with the Partnership that a statewide plan, focusing on strategies and opportunities for protecting Pennsylvania's natural resources, while at the same time maintaining economic vigor and quality of life for all Pennsylvanians, must be developed and implemented.

The development of this comprehensive plan for biodiversity is a multi-year process with a projected completion date of 2005. *Biodiversity in Pennsylvania: Snapshot 2002*, released in December 2002, marked the end of the first phase. This 48-page document is a concise literature-based report that synthesizes the present status of Pennsylvania's biodiversity.

Building on *Biodiversity in Pennsylvania*, PBP is actively soliciting input from all stakeholders, including biologists and other scientists, in developing the first draft of the Pennsylvania Biodiversity Conservation Plan. Please tell us what issues are important to you and what you would like the plan to contain by visiting the PBP website (www.pabiodiversity.org) and completing a short comment form online.

Additional information about PBP and copies of *Biodiversity in Pennsylvania* and the executive summary, may be found on the PBP website. Free copies of the report or executive summary may be obtained by contacting PBP, 16 Terminal Way, Pittsburgh, PA 15219, telephone (412) 481-4100, pbpinfo@pabiodiversity.org



**THE PENNSYLVANIA ACADEMY OF
SCIENCE**

Dear Colleague:

At the Executive Board Meeting of the Pennsylvania Academy of Science held at the Pennsylvania State University on 2 October 2004, the board voted to establish an Annual Fund Campaign to endow the Journal of the Pennsylvania Academy of Science and increase the endowment for Undergraduate Research Grant. At the present time approximately 50 percent of the cost of publishing the journal is covered by page charges and the remainder of the publication cost must be covered from the operating fund of the academy. It would be the objective of The Pennsylvania Journal of Science Development Fund to generate sufficient funds to completely cover the cost of publishing the journal. Likewise, the current undergraduate/Charles Reif research endowment only generates sufficient funds for two research grants and any other student grants must be supported by the operating fund. We realize that this will take time to generate sufficient income to support these programs that are vital to the success of the Pennsylvania Academy of Science, but with your help, we will begin this journey together.

Annual Fund 2005-2006

Amount of Gift

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May I count on your generous gift to our 2005-2006 Annual Fund Campaign?

Sincerely,

Fred J. Brenner
Past President and Fund Raising Chairman

DARBAKER PRIZE - \$1,000

The Darbaker Prize is a Pennsylvania Academy of Science (PAS) award given for outstanding scholarly contributions which use microscopic techniques and present microscopic illustrations in the reporting of biological research. The award is competitive amongst qualified papers submitted in association with the Academy's annual meeting.

The Pennsylvania Academy of Science established the Darbaker Prize in 1952. Funds for the award are made available through a bequest of the late L.K. Darbaker, 1939 PAS President. Referring to the award, Dr. Darbaker stated: "Any sum applicable to the Pennsylvania Academy of Science shall be for grant or grants in Microscopical Biology."

To qualify for the Darbaker Prize, a scientist or scientists must: (1) have used microscopy (light, SEM, TEM or other technologies) in the research they report, (2) submit in proper format a manuscript reporting the results of the completed study for consideration to be published in the *Journal*, (3) specifically state a request to the Editor of the *Journal* to have their manuscript considered for the Darbaker Prize for the current calendar year, and (4) be a member of the Pennsylvania Academy of Science. Darbaker Prize competition manuscripts are expected to be presented and submitted at the PAS annual meeting, but if not, manuscripts will be accepted for consideration within four weeks (28 calendar days) following the last day of the annual meeting. Only manuscripts that have successfully completed the review process and have been accepted for publication in the *Journal* will be eligible for the award.

The Editor of the *Journal* will examine all manuscripts submitted for award consideration to determine the fulfillment of requirements. The editor will then forward the eligible manuscripts with his/her and reviewers' recommendations to the PAS President for final decision. The Darbaker Prize will be made in the *Journal* at an appropriate time.

For further information contact:

Shyamal K. Majumdar, Ph.D,
Editor of the Journal
Professor of Biology
Lafayette College
Easton PA 18042
Ph: (610) 330 5464; Fax: (610) 330 5705
E-Mail: majumd@lafayette.edu

PAS HIGH SCHOOL STUDENT RESEARCH GRANTS

The PAS has funds to provide modest financial support, not in excess of \$100, for student research projects. Students working on projects in the Natural or Physical Sciences under the direction of PAS member scientists at high schools, colleges, or in industry may submit an application for support.

Proposal Guidelines:

1. Funds are to be used primarily for supplies; secondarily, for small pieces of equipment if essential.
2. Funds are not to be used for major pieces of equipment, student stipends, travel, etc.
3. Proposals are encouraged that involve groups of students working together on a project.
4. Students are encouraged to present their findings at the next meeting of the Pennsylvania Junior Academy of Science (PJAS).

Proposal Requirements:

1. A title page with project title, name and grade of the student; sponsor name (PAS member); school name, address and phone number; characterization of school location (urban, suburban, or rural). The title page should also include the total amount requested (not to exceed \$100) and the signatures of student and sponsor.
2. A short summary of the project, including pertinent background information, a statement of the hypothesis, a description of the planned experiments, and a statement of the expected results.
3. Budget, including a statement of how the money will be used and a statement of the time frame during which the project will be performed.

Proposal Deadlines:

March 30 and November 15. Proposals received after a deadline will be reviewed during the following period. Send completed proposals or requests for further information to:

Dr. Jane F. Cavender
Chairperson, PAS Research Grant Committee
Department of Biology
Elizabethtown College
Elizabethtown, PA 17022-2298.

Information on various research grants can be found on the PAS web site at <http://www.pennsci.org/>

COLLEGE STUDENT RESEARCH FUNDS AVAILABLE

The Pennsylvania Academy of Science has funds available to support UNDERGRADUATE AND GRADUATE COLLEGE STUDENT research in the natural, physical, or social sciences. Proposals should be written and submitted by the student under faculty guidance. Proposals will be accepted until May 1 at which time they will undergo review by professional referees, and evaluation by the PAS Research Grant Committee. Authors of proposals selected for funding will be notified by October 15. Unsuccessful applicants will be notified by November 15. Grants are normally made in the amount of \$500 or less, as requested in the proposal and, therefore, proposal budgets should take this limit to consideration.

General Guidelines for proposal:

- (1) Projects should be of such nature that they can be initiated and completed within one year.
- (2) The PAS funds are to be used primarily for expendable supplies, small pieces of equipment, and travel, living and/or housing expenses, if essential for the project.
- (3) Funds are not to be used for major pieces of equipment.
- (4) Results of the project are normally communicated at the next meeting of the PAS following completion of the research. The student is encouraged to submit a manuscript for consideration of publication in the *Journal of the Pennsylvania Academy of Science*.

Proposal Format should include the following Sections:

- (1) A titled INTRODUCTION describing the nature of the project and discussing the novelty or significance of the research. A general summary of the pertinent literature must be provided to demonstrate to the reviewers that the author has adequate knowledge of the research area.
- (2) A titled METHODS & MATERIALS describing how the research will be carried out; the kinds of materials and equipment used; the procedures to be employed regarding the care, use and disposition of research animals; the approximate starting and finishing dates of the research for which PAS funding is requested.
- (3) A titled STUDY PARTICIPANTS identifying the student(s) and supervising PAS member, their affiliation (e.g., academic institution or employer), and position or section status. The role of the student(s) must be CLEARLY identified. The previous relevant experience of the PAS member in supervising research must be discussed. A statement is required that the research supervisor is a current PAS member. A statement should be made regarding primary responsibility for writing the proposal, if not the author(s) given.
- (4) A titled BUDGET will include an ITEMIZED budget showing how PAS funds are to be used, and identifying the piece of equipment and facilities currently available to do the research. If funding is to be supplied by other sources, this should be identified. Additional guidance regarding format can be found in the "Guidelines for Authors" in *Journal of the Pennsylvania Academy of Science*.

Submit an original and FIVE (5) copies of the proposal and clearly list on the cover page, the area to which the grant most closely applies: Biochemistry, Chemistry, Cell Biology, Ecology, Environmental Science, Genetics, Geology, Microbiology or other. All proposal reviews will be evaluated by the PAS Research Grant Committee, and the proposals will be ranked for preference for funding. Only those proposal judged worthy of funding will receive funding to the extent funding is available. Unsuccessful proposals may be reconsidered after revision in accordance with suggestions by the PAS Research Grant Committee and proposal referees.

Send all materials to:

**Dr. Jane Cavender,
Chairman PAS Research Grant Committee
Department of Biology
Elizabethtown College
Elizabethtown, PA 17022**

PENNSYLVANIA ACADEMY OF SCIENCE-APPLICATION FOR MEMBERSHIP

Date: ____ / ____ / ____
 Last Name: _____ First Name: _____ Middle Initial or Name: _____
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 Office Phone: (____) _____ Home Phone: (____) _____ Fax: (____) _____
 Branch of Science Main Interest: _____
(Biology, Zoology, Botany, Physiology, Chemistry, Physics, Engineering, Spectroscopy, Biochemistry, Psychology, Medicine, Mathematics, Geology, Geography, etc.)
 Degrees: _____ Title: _____

Where did you learn about PAS? _____

Member of AAAS? Yes **PSTA** Yes **PASA** Yes **PA Chapter Wildlife Society** Yes
Society of College Science Teachers Yes **PA Biological Survey** Yes **PA Assoc of Environmental Professionals** Yes
Comm of PA Univ Biologists Yes **MidAtlantic Assoc College Biologists** Yes
 Active Member - \$ 35.00 per year Student Member - \$17.50 per year Sustaining Member - \$35.00 or more per year
 Life Member - \$525.00 (*can pay in installments*) Non-profit Institution/Library Member - \$45.00 per year
 For-profit Institution/Library Member - \$150.00 per year
 Back Issue of *Journal* - \$15.00 each (List desired issue) _____ Contribution to PAS _____

Please return this application and first year's membership dues, made payable to the **Pennsylvania Academy of Science**, to:
Dr. Valerie G. Kalter, Membership Chairperson, Biology Department, Wilkes University, Wilkes-Barre, PA 18766.
(570) 408-4752 or e-mail: vkalter@wilkes.edu

Book Order Form

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