



NEWSLETTER

WINTER 2010

Pennsylvania Academy of Science

PLAN TO ATTEND THE

Pennsylvania Academy of Science

86th ANNUAL MEETING

Radisson Hotel

Camp Hill, PA 17011

www.radisson.com

April 9 – 11, 2010

In this Issue...

Academy Officers
Presidents Message
Photo Contest
Winter in Pennsylvania
What in the Woods is That
Watchable Wildlife
Recent Member Publications and Accomplishments
Learned Discourses and Darbaker Prize
PAS High School Student Research Grants
PA Biodiversity Partnership
Undergraduate and Graduate Research Fund
PA Society for Biomedical Research
Annual Fund Campaign

The Pennsylvania Academy of Science Newsletter

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President's Letter

Our 2010 Annual Meeting will once again be held at the Camp Hill Radisson April 9-11. The Abstract deadline will be February 1, 2010. Please encourage your students and colleagues to submit their work and consult the Academy website (www.pennsci.org) for more information. I look forward to seeing you at the meeting.

6th ANNUAL MEETING SATURDAY NIGHT EVENTS

CALLING ALL SHUTTERBUGS!!

I's time to enter your best photographs for the PAS photography contest.

Contest winners will have their photographs featured on the PAS web page. Shutterbugs are invited to "show their stuff" at the PAS Annual Meeting in April. Think you have some great shots? Don't miss this opportunity to show your colleagues all the cool places you've been, what you've done, and your great photographs. For details contact Dr. Greg Paulson, email: gspaul@ship.edu



SATURDAY NIGHT RAFFLE

Nominations for Pennsylvania Academy of Science Officers

| | | |
|--------------------------|------------------|-----------|
| President | Michael Campbell | 2010-2012 |
| President Elect | | 2010-2012 |
| Immediate Past President | Debbie Ricker | 2010-2012 |
| Recording Secretary | K. Joy Karnas | 2010-2012 |
| Webmaster | A. Panah | 2010-2014 |
| Corresponding Secretary | Robert Coxe | 2010-2012 |
| Treasurer | Jennifer White | 2010-2012 |
| Treasurer Elect | Matt Wallace | 2010-2012 |
| Book Treasurer | Steve Mauro | 2010-2012 |
| Newsletter Editor | Michael Elnitsky | 2010-2014 |
| Directors at Large (2) | Sherri Bergsten | 2010-2012 |
| | Dana Harriger | 2010-2012 |

Winter in Pennsylvania

A time of shortened days and extra clothing.

R. B. Winter State Park

R. B. Winter State Park covers 695 acres of the Ridge and Valley Province in central Pennsylvania. Located within Bald Eagle State Forest, the park lies in a shallow basin surrounded by rocky ridges covered with an oak and pine forest. The focal point of the park is Halfway Lake which is filled by spring-fed mountain streams and contained by a hand-laid, native sandstone dam. Open year-round, the park provides diverse opportunities for recreation.

For More Information Contact

R. B. Winter State Park
17215 Buffalo Road Mifflinburg, PA 17844-9656
570-966-1455 Manager: Bob Deffner
E-mail: rbwintersp@state.pa.us

Wildlife Facts

Some bacteria, such as *Salmonella*, are very hardy and can survive in very cold temperatures. It can go into a dormant state, waiting until conditions improve. The Avian Pox virus is similar. Some studies of *Mycoplasma gallisepticum* (the bacteria that causes House Finch Eye Disease), however, have shown it to be relatively delicate. It will survive on your feeders for 24 to 48 hours during moderate temperatures, but it does not survive at very cold temperatures.

Not only can disease organisms, particularly *Salmonella*, accumulate on seed, but many cold-loving molds can grow on seed as well. Don't rely on extreme cold to *wash away* disease organisms from your feeder. Be sure to clean your feeders frequently, and always rake underneath feeders to clean up seed hulls and waste.

Pennsylvania Academy of Science Members

This is your chance to contribute to your organization. Please submit articles of interest, news from your university, wildlife disease updates, emerging issues, recent accomplishments, or job, education, or conference announcements for publication in the PAS newsletter. The newsletter is published 4 times per year. Please send submissions by the 1st of October, January, April, or July. Minor editing for length or readability may be required but most articles will be published as you submit them.

Submit to newsletter editor Jane Huffman at jhuffman@po-box.esu.edu
Thank you.

WHAT IN THE WOODS IS THAT?
Our Newsletter Guessing Game!

Each issue we will run a photo of something unusual found in the woods or a sample from the laboratory. Guess what it is and you'll be eligible to win a publication from the Pennsylvania Academy of Sciences. A prize winner will be drawn at random from all the correct entries. The correct answer, and the winner's name, will appear in the next issue.

What in the woods could have caused this?



email your response to jhuffman@po-box.esu.edu

Watchable Wildlife

Winter is eagle watching time – The Eagle Institute
Eagle Watch Weekend January 16-17, 2010



The Eagle Institute is located in the heart of one of the largest bald eagle wintering areas in the Northeast U.S. Their winter field office is in Lackawaxen, PA, just across the Roebling Bridge from Minisink Ford, NY. Their program area reaches New York, Pennsylvania and New Jersey

locations in the **Upper Delaware Scenic and Recreational River** and **Delaware Water Gap National Recreation Area** watersheds and the **Mongaup Valley** Wildlife Management Area. The Eagle Institute public programs are held during the winter months, when 150-200 bald eagles migrate to this region.



Watchable Wildlife

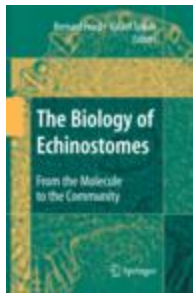
What's your favorite watchable wildlife spot? In 40 words or less tell us your favorite PA wildlife viewing spot or experience. Photos welcome. E-mail your responses to jhuffman@po-box.esu.edu We'll publish the best responses.

RECENT MEMBER PUBLICATIONS AND ACCOMPLISHMENTS

The Biomphalaria Snail and Larval Trematodes
Editors: Rafael Toledo and Bernard Fried. Springer Pub Co.

This book will provide an overview of the biology of the planorbid snails belonging to the genus *Biomphalaria* mainly with emphasis in their role as a host of larval trematode. These snails are of great importance in medical and economic zoology as a vector of important trematode (fluke) diseases in human and veterinary medicine and in wildlife biology, particularly schistosomiasis. Moreover, these snails are a useful model for numerous basic studies in biology and chemistry. This book should appeal to a wide audience of malacologists, parasitologists, biologists, ecologists, biochemists, public health workers, epidemiologists, and graduate and advanced undergraduate students in biomedical and allied health sciences. The coverage of the book will comprises aspects such as systematic, population ecology, physiology, control, genetics, immunology or molecular biology of these snails in relation to their ability to harbor and transmit parasitic digeneans.

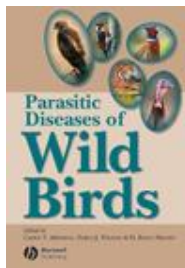
The Biology of Echinostomes
From the Molecule to the Community
Fried, Bernard; Toledo, Rafael (Eds.)
2009, Approx. 480 p. 40 illus., Hardcover
ISBN: 978-0-387-09576-9



The *Biology of Echinostomes* presents the echinostomes in the context of modern parasitology and shows applications of new methodologies and concepts to a group of trematodes that may be useful to obtain information of great value in both parasitology and general biology. Several chapters cover the research and literature on such echinostome-like trematodes as *Ribeiroia* spp. Emphasis is placed on recent advances and gaps in knowledge that must be filled to determine the importance of this group of digeneans as experimental models. This is critical to gain a full understanding of the potential role of echinostomes in the field of experimental parasitology. All chapters are covered from a modern point of view, considering matters such as the applications of novel techniques and analysis of data in the context of host-parasite interactions. *The Biology of Echinostomes* is an ideal volume for researchers and advanced students concentrating on echinostomes as experimental models.

Written for:

Researchers and advanced undergraduates/graduate students in parasitology, immunology, microbiology, molecular biology, physiology, invertebrate biology, and malacology; researchers concerned with trematodes and other helminths; medical and veterinary personnel.



Parasitic Diseases of Wild Birds

ISBN: 978-0-8138-2081-1

Hardcover, 592 pages, January 2009, Wiley-Blackwell **Section III: Helminths** 12. Trematodes (Jane E. Huffman) & 13. Schistosomes (Jane E. Huffman and Bernard Fried)

Parasitic Diseases of Wild Birds provides thorough coverage of major parasite groups affecting wild bird species. Broken into four sections covering protozoa, helminths, leeches, and arthropod parasites, this volume provides reviews of the history, disease, epizootiology, pathology, and population impacts caused by parasitic disease. Taking a unique approach that focuses on the effects of the parasites on the host, *Parasitic Diseases of Wild Birds* fills a unique niche in animal health literature.

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: preferably no longer than 1,000 words, no more than 6 references, and at most one table or figure. Reference format should 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 (Microsoft Word), to Jane E. Huffman jhuffman@po-box.esu.edu. Submissions will be printed on a first-received basis when space limitations apply.

DARBAKER PRIZE - \$1000

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.

For further information contact:

Shayamal K. Majumdar, PhD

Editor of the Journal

Professor of Biology

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e-mail: majumdas@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, e-mail: cavender@etown.edu

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

UNDERGRADUATE & GRADUATE 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 could 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*.

Submission by email is strongly encouraged. You may also 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. The PAS Research Grant Committee will evaluate all proposal reviews, 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 emails or materials to:

Dr. Jane F. Cavender

Chairperson, PAS Research Grant Committee

Department of Biology

Elizabethtown College

Elizabethtown, PA 17022-2298, e-mail: cavender@etown.edu

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.

Universities, medical schools, pharmaceutical firms and professional societies in Pennsylvania formed the society. 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. A board of directors elected from its membership governs the society. 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 that 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:

PSBR Post Office Box 1163

Camp Hill PA 17001-1163

Ph: (717) 731 3557; Fax: (717) 731 3506; e-mail: psbr@psbr.org

PENNSYLVANIA ACADEMY OF SCIENCE ANNUAL FUND CAMPAIGN

Fellow members of the Pennsylvania Academy of Science:

I would like to thank all of those who contributed to our first Annual Fund Campaign and to ask for your continued support. In order to adequately fund our undergraduate research program, we need to increase our Undergraduate Research Endowment. Currently we are funding the Journal by page charges and the operating fund of the Academy, but we would like to be able to create a sufficient endowment so that the interest can be used to support our excellent peer reviewed journal. The executive board of the Academy established the annual fund drive to increase our endowment for undergraduate research and to endow the Journal of the Pennsylvania Academy of Science. It is our desire to have the journal be self-sufficient and to be supported entirely through page charges and interest from our recently established Journal of the Pennsylvania Academy Endowment.

Please apply my contribution of: _____ to the Undergraduate Research Fund _____ to the Journal of the Pennsylvania Academy of Science Endowment
Signature _____

Thank You. Fred J. Brenner, Past PAS President

86th Annual Meeting
Pennsylvania Academy of Science
APRIL 9-11, 2010
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(717) 763-7117

