

The Pennsylvania Academy of Science



# The Pennsylvania Academy of Science



## News from the PAS President - Robert Coxe

### Update on the 2013 PAS Annual Meeting in Bradford

Work is underway for the 2013 Annual Meeting at the University of Pittsburgh-Bradford on April 5 to April 7, 2013. Details on registration for the meeting and a general call for abstracts should be appearing soon in December to early January. A group rate of \$102.46/room for up to 4 people has been arranged at the Best Western in Bradford. This rate includes tax and breakfast in the morning. I strongly encourage you to reserve your room early since a lot of the rooms in Bradford are being used by people involved in the shale gas drilling. If you wait till the last minute you may not get a room or may have to get a room further away from Bradford and at more expense. A field trip to a well drilling site and/or a field trip to the refinery in Bradford are being planned for Friday. The Science Teacher Education Workshop will focus on shale drilling and has a stream activity planned that meeting attendees can participate in on Saturday afternoon. Hope to see everybody in Bradford in April 2013!



### Updates to the Website

#### *Website moves to a new host*

During the summer of 2012, the PAS website sponsor was changed and moved to a Content Management System (CMS), which will allow easier updates to the website and more information to be handled by the time of the 2013 meeting. If you are using an older version of Internet Explorer (IE 8 and below) on a PC you may have noticed that you cannot access the sub-menus on the website. This is apparently due to the website changes. In order to use the full functionality of the website please update your IE browser or use a browser such as Chrome, Firefox, or Safari.

#### *Potential new Software for the Website*

We are also looking at an integrated software package called Cvent for the website that will combine membership and registration for meetings into a much more user friendly experience. If you have experience with this software I would like to hear your comments (302-276-1700; 302-735-8672; [Robert.Coxe@state.de.us](mailto:Robert.Coxe@state.de.us)) for or against. If we do decide to use this software there will be about a \$5.00 to \$10.00 increase in the meeting registration for the 2013 meeting to pay for the software with full implementation by the 2014 meeting, which may be split with the annual membership dues later since the software has an annual maintenance fee. I am interested in your comments about the fee increase as well. I want to iterate that a final decision not been made yet.

## The Pennsylvania Academy of Science

### 2014 PAS Annual Meeting

The 2014 meeting will be held at Susquehanna University in Selinsgrove, PA on March 21, 2014 to March 23, 2014. The preliminary theme will be on “Water” with an emphasis on the Susquehanna River watershed. This will be a great follow-up to the Marcellus Shale theme of the 2013 meeting. Note the meeting date was selected so as not to have a conflict with the National Council on Undergraduate Research (NCUR) meeting that a lot of PAS members attend. More on the 2014 meeting will be discussed, as details become known.

### An invitation to submit manuscripts to the open-access *Journal of the Pennsylvania Academy of Science*

Dear Colleagues,

As the new editor for the journal I would like to extend an invitation to publish in the *Journal of the Pennsylvania Academy of Science*. Instructions for manuscript submission can be found on the academy's web site.

In 2012 the journal has become open-access. It will continue to feature works of significance, originality, and relevance in all areas of biological science, chemistry, physics, geography, geology, curriculum and pedagogy. The journal will be published quarterly and will be found on the academy's web site. It will continue to disseminate significant research and original papers, research notes and case studies that can be of interest to a wide audience of scientists.

Scientists submitting manuscripts will benefit from:

- Open access to all published contents ensuring the widest possible, barrier-free distribution of works at no charge to any readers
- Online submission and editorial management system, professional review and editorial assistance, typesetting, proofreading and publication.

Address all inquiries relating to publication in the *Journal* to the Editor:

Jane E. Huffman  
Department of Biological Sciences  
Northeast Wildlife DNA Laboratory  
East Stroudsburg University  
East Stroudsburg, PA 18301  
Phone: 570-422-7892  
e-mail: [jhuffman@esu.edu](mailto:jhuffman@esu.edu)



**89<sup>th</sup> Annual Meeting of the Pennsylvania Academy of Science**

**April 5-7, 2013**

**University of Pittsburgh at Bradford  
Bradford, Pennsylvania**

**Local Organizing Program Chairman: Assad Panah: [aap@pitt.edu](mailto:aap@pitt.edu)**



**~ Call for Abstracts ~**

submission deadline is **February 15, 2013**

The 89<sup>th</sup> annual meeting of the Pennsylvania Academy of Science [www.pennsci.org](http://www.pennsci.org) is scheduled for April 5-7, 2013 at the University of Pittsburgh at Bradford. Approximately 250-350 participants (mostly college students and faculty and local industry) are anticipated to attend.

We are organizing a special symposium on Shale Gas Resources: on Marcellus and Utica Shale. Sixty-three percent of the total 750 trillion cubic feet of recoverable shale gas resources identified in the United States is located in the Northeast. Marcellus (412.5 trillion cubic feet, 55 percent of the total) is the largest shale gas play in the United States and the second largest gas reserve in the world.

You are invited to present a twenty-minute talk (15 minutes presentation and 5 minute question and answer) on exploration and production of Marcellus/Utica Shale Gas Reserves during the Saturday morning symposium on April 6, 2013.

## The Pennsylvania Academy of Science

### **The Pennsylvania Academy of Science Annual Meeting: April 5-7, 2013 University of Pittsburgh at Bradford, Bradford, PA**

**Marcellus and Utica Shale Natural Gas Reserves Symposium topics** - Contributions are invited, however not limited, to the following areas:

- The Geologic Setting of Marcellus/Utica Shale
- Economic Impact of Shale Gas Exploration
- Marcellus Shale Workforce Needs and Training
- Environmental Impact: Surface and Groundwater Protection
- Hydraulic Fracturing Technology and Fluids
- Shale Gas Lease Acquisition, Permitting and Drilling
- Frac Wastewater Recycle and Reuse
- Fracking Related Earthquake
- Depositional Setting of Marcellus/Utica Shale
- Drilling, completion and stimulation processes of Unconventional Shale Gas Resource
- Future Prospects of Unconventional Shale Gas Energy Resources
- Geochemistry of Shale Gas Reservoir Rocks and Fluids
- Natural Gas Gathering and Transportation (pipeline)

### **Registration and Abstracts**

Registration and Abstract submission should be done exclusively on-line, at the Academy Web site <http://www.pennsci.org>. **The abstract submission deadline is February 15, 2013.** Abstracts must be prepared in accordance with instructions that can be downloaded from the PAS Website.

The following PAS program chairs are available to answer your questions pertaining to registration and abstract submission:

Heather Sahli  
Department of Biology  
Shippensburg University  
1871 Old Main Drive  
Shippensburg, PA 17257-2299  
717-477-1580  
[hfsahli@ship.edu](mailto:hfsahli@ship.edu)

Alyssa Bumbaugh  
Forensic Science  
Pennsylvania State University  
115 Whitmore Laboratory  
University Park, PA 16802  
814-863-9572  
[acb134@psu.edu](mailto:acb134@psu.edu)

**The Pennsylvania Academy of Science Annual Meeting: April 5-7, 2013  
University of Pittsburgh at Bradford, Bradford, PA**

## **Student Poster and Oral Presentation Competition**

At the 2013 meeting, students (undergraduate and graduate) presenting posters and oral presentations will be able to compete for prizes for the best presentation. Students in the poster session will be judged based on the visual quality of their poster and their ability to describe their project and answer questions about it. Oral presentations will be judged on the quality of the oral presentation. To be eligible, the student must be the presenter and first author.

## **Judges needed for Student Poster and Oral Presentation Competition**

Judges are needed to evaluate posters and oral presentations of student competitors at the 2013 PAS meeting. Judges will be needed in each oral session as well as poster sessions. Faculty, senior researchers, and senior level graduate students who are not enrolled in the competition are eligible to judge. Additional information regarding volunteering for judging will soon be available on the meeting website page.

## **PAS/PJAS Teacher Workshop**

### **“Fracking or Not: Town Hall Meeting”**

By Vivian Coxe, Liaison for PAS/PJAS Teacher Workshop

[Vivian.Coxe@Comcast.net](mailto:Vivian.Coxe@Comcast.net)

PJAS teacher Sue Morgan and PAS retired teacher Vivian Coxe shared curriculum ideas over breakfast during the PAS Board Meeting in State College. Coxe developed a Marcellus Shale/Utica Shale activity that combines a science lab and a related lesson in how local government works.

Morgan field-tested the shale activity recently. She said, “We had a lot of fun.” Sue also reported the sixth grade students at St. Elizabeth’s School in Pittsburgh were excited about their roles for the mock town hall meeting.

The shale activity and much more will be presented at the Teacher Workshop to be held at the University of Pittsburgh-Bradford on 6 April 2013. Registration information will be available soon.

## The Nature of a Name

### “The Tuna”

McKean County, Pennsylvania and Cattaraugus County, NY

By Robert Coxe

This is the first installment in a series on places named for natural features in Pennsylvania for a column in the PAS Newsletter. I thought I would start with the creek that flows next to the location of our 2013 meeting at the University of Pittsburgh-Bradford. Tunungwant Creek, or known locally as the “The Tuna”, is a tributary to the Allegheny River and has two branches which come together in Bradford, Pennsylvania. The East Branch begins north of Bradford Regional Airport and flows north to Bradford. The West Branch, where the UP-Bradford Campus is located, begins southwest of Bradford near Miller Airport and flows northeast through Reservoir Number Five. The Tuna is considered to be a high quality-coldwater fishery in its upper reaches on both branches and a cold water fishery in the lower reaches.

The exact origin of the name of the creek is unknown, but the most popular is a Seneca translation meaning “crooked creek.” The U.S. Board on Geographic Names spells the name of the creek as “Tunungwant Creek”, but road signs and the Tuna Valley Trail Association<sup>1</sup> gives the spelling of “Tunungant Creek.” Many other spellings have been given as well.

Today, most people in the valley shorten the name to the “Tuna” and the valley called, “Tuna Valley” is unique to the Bradford, Pennsylvania area. Numerous businesses in the area use the name in their title including The Tuna Valley Cutlery Company.<sup>2</sup> Wicks Chapel on the campus of UP-Bradford was recently built next to the Tuna. Some fossil locations are present in the Tuna Valley in road-cuts and quarries<sup>3</sup>, which may be the location of a field trip. Be sure to visit the Tuna during the 2013 annual meeting.

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<sup>1</sup> Tuna Valley Trail Association (<http://www.tunavalleytrail.com/About.html>).

<sup>2</sup> Anthony, David. 2010. Tuna Valley Cutlery. Knife World Pages 28-29.

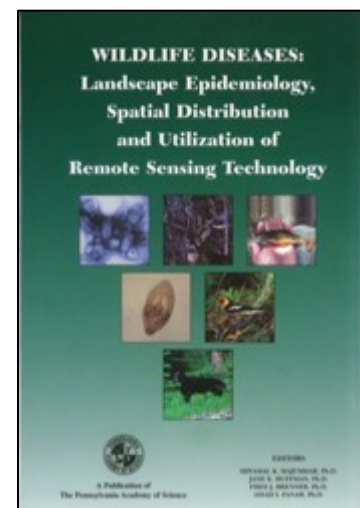
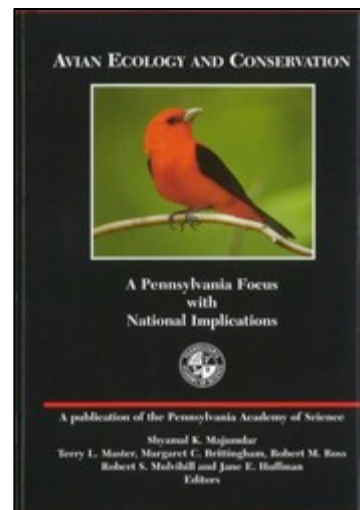
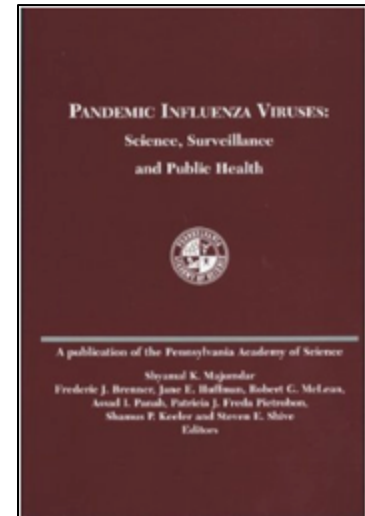
<sup>3</sup> <http://fossilsites.com/STATES/PA.HTM>

## PAS Books on the Move

The most recent PAS book publication is now available for purchase through Amazon and the PAS web-site! *Pandemic Influenza Viruses: Science, Surveillance and Public Health*, edited by Shyamal Majumdar (Lafayette College), Frederic Brenner (Grove City College), Jane Huffman (East Stroudsburg University), Robert G. McLean (National Wildlife Research Center), Assad I. Panah (University of Pittsburgh), Patricia J. Pietrobon (Sanofi Pasteur), Shamus P. Keeler (University of Georgia), and Steve Shive (East Stroudsburg University) features introductory chapters on the history and science of influenza diseases, plus contributions on surveillance and tracking technology, public health strategies and planning, and vaccines. This book is a compilation of up-to-date scientific information of pandemic influenza with particular focus on the 2009 pandemic H1N1 virus and the 2005 highly pathogenic H5N1 virus, and contains chapters on the biology, ecology, immunology, and genetics of influenza viruses.

Check out the other recent PAS books on sale through Amazon. *Avian Ecology and Conservation: A Pennsylvania Focus with National Implications* (edited by Shyamal Majumdar, Terry Master, Margaret Brittingham, Robert Ross, Robert Mulvehill, and Jane Huffman) published in 2010 offers 27 chapters by dozens of ornithological experts from Pennsylvania and other states, with cutting edge insights on habitats of PA breeding birds, migration and wintering ecology, conservation issues and challenges, and emerging issues such as climate change, wind power development, contaminants, and emerging diseases. The other recent book to buy is *Wildlife Diseases: Landscape Epidemiology, Spatial Distribution and Utilization of Remote Sensing Technology*, published in 2005. It has been a great seller, but a few copies are still available.

Finally, a unanimous vote by PAS Board members approved advancement of the next book project, tentatively entitled *Ecology and Conservation of Pennsylvania's Bats in a Time of Crisis*, with editors Howard P. Whidden (East Stroudsburg University), DeeAnn Reeder (Bucknell University), with Cal Butchkoski and Greg Turner (Pennsylvania Game Commission).



## The Pennsylvania Academy of Science

### PAS Grant and Prize Opportunities

#### 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:  
Jane Huffman, Editor of PAS Journal  
[jhuffman@po-box.esu.edu](mailto:jhuffman@po-box.esu.edu)

#### PAS Research Grants

Make sure you check out the PAS web-site (under "funding opportunities") for announcements, instructions, and deadlines for our *college and high school student research grants*.

Contact David Singleton (York College) for details at [dsinglet@ycp.edu](mailto:dsinglet@ycp.edu)

## The Pennsylvania Academy of Science

### **Reminder of PAS Mission**

The mission of PAS is to “encourage scientific research; to promote interest in the teaching of science; to stimulate exchange of ideas among those engaged in scientific work especially in Pennsylvania; to assist in the development and distribution of information about the material, educational, and other resource and riches of the Commonwealth; and to arrange and prepare for publication such reports as may further these objectives, all of which purposes do not contemplate pecuniary gain or profit, incidental or otherwise, to the members of the corporation.” *Excerpt from PAS Constitution*

### **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 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 with 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 interest from our recently established Journal of the Pennsylvania Academy Endowment.

If you would like to contribute to either of these endowment funds please print off and complete the form on the following page.

Thank You.

Fred J. Brenner, Audit and Fundraising, Investment, Director-at-Large

## 2013 Annual Dues Notice Pennsylvania Academy of Science

***If you are planning to attend the annual meeting at the University of Pittsburgh at Bradford (April 5-7, 2013), then you do NOT need to complete this form. Your membership dues will be included in the meeting registration fee. If you are not attending the annual meeting, you may either complete this form and mail it to the PAS Treasurer, or you may complete the online membership form using the PayPal option available through the PAS website.***

Please check the appropriate boxes below.

- ☐ Active Membership, active or associate \$35.00  
☐ Sustaining Membership \$40.00 or more  
☐ Student Membership \$17.50  
☐ Life Membership (installment plan available) \$525.00  
☐ Honorary member-Please return without remittance  
☐ Tax deductible donation to the (dollar amount in addition to dues)

**Student Research Fund** \_\_\_\_\_

**Journal Endowment Fund** \_\_\_\_\_

I am a member of \_\_\_ AAAS, \_\_\_ PSTA, \_\_\_ PASA, \_\_\_ Pa. Wildlife Society  
\_\_\_ SCST (Pa.), \_\_\_ Pa. Biol Survey, \_\_\_ PAEP \_\_\_\_ Other : Please write in \_\_\_\_\_.  
(This information influences our grant support for research)

Name: \_\_\_\_\_ Institution: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

9 digit zip code: \_\_\_\_\_ Fax number: (\_\_\_\_) \_\_\_\_\_

Office telephone number: (\_\_\_\_) \_\_\_\_\_ Email: \_\_\_\_\_

My field of interest is \_\_\_\_\_

Please print this sheet and mail with check payable to **Pennsylvania Academy of Science** to:

Matthew Wallace, Treasurer  
East Stroudsburg University  
Department of Biological Sciences  
200 Prospect Street  
East Stroudsburg, PA 18301

**Revisions to the PAS Constitution and By-Laws were approved at the 2012 PAS Annual Meeting. The following are the revised versions of the PAS Constitution and By-Laws.**

# **Constitution of the Pennsylvania Academy of Science, Inc.**

**As Adopted** April 11, 1925 and  
May 2, 1975

**As Amended:** April 11, 1983,  
April 13, 1987,  
April 16, 1988,  
April 5, 1992,  
April 4, 1998,  
March 31, 2001, and  
March 27, 2004  
April 1, 2006  
April 24, 2012

## **Articles of Incorporation**

**As adopted** May 2, 1975

**As amended:** April 11, 1983  
April 13, 1987  
April 16, 1988 and  
April 5, 1992

# **PENNSYLVANIA ACADEMY OF SCIENCE**

April 2012

# **Constitution of the Pennsylvania Academy of Science, Inc.**

## **ARTICLE I - INITIAL MEMBERSHIP**

**SECTION 1** The initial membership of the Academy shall consist of those members of the various classes of membership who have heretofore been members of the Pennsylvania Academy of Science as an unincorporated association.

## **ARTICLE II - MEMBERSHIP**

**SECTION 1** Membership to the Academy shall be made up of the following classes: a. active members; b. student members; c. life members d. honorary members; e. emeritus members; f. sustaining members; and g. institutional members.

**SECTION 2** Any person engaged or interested in scientific work shall be eligible to active membership

**SECTION 3** Honorary members may be elected by the Board of Directors to this class of membership in the Academy on account of special prominence in science or other branches of learning. They shall be exempt from the payment of dues.

**SECTION 4** Active members who elect to pay an increased rate of annual dues shall be designated as sustaining members.

**SECTION 5** Members in current standing will be allowed to attend the annual meeting.

**SECTION 6** Any business or professional organization, or educational institution, that is interested in science may be elected to institutional membership.

**SECTION 7** Applications for membership will be accepted by the Chairperson of the Membership Committee. Upon receipt of the official notification of acceptance to membership, the new member will have all the rights and privileges of membership.

**SECTION 8** Election of honorary members shall be by a three-fourths vote of the active, life, sustaining, honorary, and emeritus members, present at any meeting. No election is required to permit active members to advance to the sustaining or emeritus membership category.

**SECTION 9** To qualify for emeritus status, a member must have been in good standing for a minimum of ten years, active in the Academy as judged by the Board of Directors and no longer gainfully employed either because of disability or retirement.

**SECTION 10** Members of all categories shall pay at a rate set annually by the Board of Directors and subject to a three-fourths vote of the voting members present at the Annual Meeting. The rates set should reflect the programs and operating costs of

the Academy as determined by the membership. Life membership is conferred upon active members upon payment of an amount equal to fifteen (15) times the regular annual membership dues rate. Honorary members shall be exempt from the payment of dues.

**SECTION 11** Scientific organizations within the Commonwealth, following application and approval by the Board of Directors and the General Membership, shall have the right to affiliate with the Pennsylvania Academy of Science.

**SECTION 12** The privilege of voting in the Academy shall be restricted to the classes of: active, life, sustaining, student, emeritus and honorary membership who are in good standing prior to the Annual Meeting. The privilege of speaking from the floor at meetings of the Academy shall be available to all classes of membership.

### **ARTICLE III - DIRECTORS AND OFFICERS**

**SECTION 1** The Board of Directors shall be composed of the persons holding office as provided in this article and four Academy Directors-at-Large elected to staggered two-year terms by the membership. The at-large Directors will serve as chairs of Academy committees, defined in Article VI, Section 4 of this Constitution.

**SECTION 2** The officers of the Academy shall be and consist of the President, the President-Elect, the Immediate Past-President, the Recording Secretary/Archivist, the Corresponding Secretary, the Treasurer, the Treasurer-Elect, the Book Treasurer, the Editor of the *Journal*, the Editor of the *Newsletter* the Webmaster, and the State Director of the Junior Academy of Science

**SECTION 3** The offices shall be held initially by those persons who are elected to the comparable offices of the Academy prior to its incorporation, and they shall serve for the terms for which originally elected.

**SECTION 4** Officers elected hereafter shall hold office for terms in accord with the following schedule: President, President-Elect, Immediate Past-President, Recording Secretary/archivist, Corresponding Secretary, Treasurer, Treasurer-Elect, and Book Treasurer - Two Years; Editor of the *Journal*, Editor of the *Newsletter*, and Webmaster - Four Years; State Director of the Junior Academy - Three Years (limited to two successive terms).

**SECTION 5** The duties of the officers shall be those that usually pertain to the respective offices. The Recording Secretary/Archivist shall take minutes, and keep a record of all official business, shall collect and preserve all information of interest to the Academy and submit it to the Pennsylvania State Archives. The Corresponding Secretary is responsible for all Academy correspondence. The Treasurer shall accept, deposit, and disburse funds, maintain investments and records (including records of the Academy's membership) and issue membership cards. The Treasurer-Elect shall assist the treasurer and become familiar with financial

operations of the Academy. The Book Treasurer is responsible for all financial matters relating to book publication including the book fund. The Webmaster shall maintain the Academy website.

**SECTION 6** In case of the inability of the President to perform the functions of his office, the following succession shall assume responsibility of the Office of the President: President-Elect, Recording Secretary/Archivist, Corresponding Secretary, Treasurer, Treasurer-Elect and Book Treasurer. In the case of the inability of the Treasurer to perform the duties of the office, the following succession shall assume responsibility of the office of Treasurer: Treasurer-Elect, and Book Treasurer.

**SECTION 7** Interim vacancies on the Board of Directors may be filled by appointment by the President with the approval by the majority of the Board of Directors. The office will be open for election at the next annual meeting. In the event that any officer, other than the President or Treasurer, is unable to complete the term of office by virtue of inability, resignation, disability, or death, the interim vacancy may be filled by the President with the approval by a majority of the Board of Directors. The Board position will be open for election at the next annual meeting.

**SECTION 8** Voting privileges at Board of Directors Meetings are restricted to the Board of Directors, as defined in Article III, Section 2 of this constitution.

#### **ARTICLE IV - ELECTION OF OFFICERS AND DIRECTORS**

**SECTION 1** The officers and directors of the Academy shall be elected at the Annual Meeting of the Academy by majority vote of the membership entitled to vote by provisions in this constitution.

#### **ARTICLE V - MEETINGS**

**SECTION 1** The Annual Meeting of the membership of the Academy shall be held in the spring of each year, at such a time, date and place as may be determined by the Board of Directors, and need not be held at the registered office of the corporation.

**SECTION 2** Other meetings of the membership shall be held at such time and place as may be determined by the Board of Directors from time to time.

#### **ARTICLE VI - COUNCILS AND COMMITTEES**

**SECTION 1** The membership may elect an Honorary Council to consist of the Governor of the Commonwealth and others as may be determined from year to year.

**SECTION 2** The President shall appoint an Advisory Council to be composed of twelve to fifteen members appointed for three-year terms with reappointment at the

discretion of the President.

**SECTION 3** All Past-Presidents of the Academy, including those who held the office of president prior to the incorporation hereof, shall constitute a committee representing the membership delegates to any and all meetings of the Board of Directors.

**SECTION 4** The following standing committee chairpersons shall be appointed by the President: a. Membership; b. Editorial; c. Time and Place of Meetings; d. Local Arrangements; e. Program; f. Auditing; g. Finance; and h. Investment. Special committees may be appointed by the President.

**SECTION 5** The Nominating Committee shall consist of the immediate Past-President as chairperson, the other two members being the second Past President and a current long-standing member of the Academy to be appointed by the President.

#### **ARTICLE VII - DUTIES OF COUNCILS AND COMMITTEES**

**SECTION 1** The Honorary Council shall assist the Academy in Resource Planning.

**SECTION 2** The Advisory Council shall promote greater Academy interaction with the public, industry, and public and private educational institutions.

**SECTION 3** The Membership Committee shall direct the maintenance and development of the membership of the Academy.

**SECTION 4** The Editor shall study all submissions to determine their quality and suitability for publication in the *Journal*. The Editor shall appoint an Editorial Committee. The purpose of the Editorial Committee will be to advise the Editor.

**SECTION 5** The Nominating Committee shall prepare the slate of nominees for the Academy offices, and shall present the slate at the Annual Meeting.

**SECTION 6** The committee on Time and Place of Meetings shall determine the dates and the location of the annual spring meetings subject to the final vote of the Board of Directors.

**SECTION 7** The program committee shall develop a program suitable for the annual spring meeting.

**SECTION 8** The committee on Local Arrangements shall make all necessary arrangements for the Annual Spring Meeting.

**SECTION 9** The Audit Committee shall audit the Treasurer's books.

**SECTION 10** The Finance and Investment committees shall oversee and recommend action on Academy finances and investments.

**SECTION 11** Special committees shall function in accordance with the purpose for which they were appointed.

## **ARTICLE VIII - JUNIOR ACADEMY OF SCIENCE**

**SECTION 1** This Academy shall sponsor a Junior Academy of Science open to students in secondary schools and preparatory schools who have exhibited an interest in science.

**SECTION 2** The officer of this Academy who serves as State Director of the Junior Academy of Science shall attend the meetings of the Academy and report to the PAS Board of Directors and membership for approval of the activities of the Junior Academy.

**SECTION 3** Th Junior Academy shall conduct its own meetings and election in accordance with its own and PAS constitution.

## **ARTICLE IX - PUBLICATIONS**

**SECTION 1** The regular publication of the Academy shall be the *Journal of the Pennsylvania Academy of Science*, which shall include the transactions and all papers deemed acceptable by the Editor and his/her committee.

**SECTION 2** The Academy shall sponsor the *Pennsylvania Academy of Science Newsletter* which shall include notices pertinent to Academy business, and information about the activities of the Academy and its members.

**SECTION 3** The Academy shall sponsor PAS Books.

**SECTION 4** Current members will be able to publish in the open access *Journal of the Pennsylvania Academy of Science*, as a privilege of membership. Books and other publications shall be sold to members at a predetermined price.

## **ARTICLE X - ASSETS UPON DISSOLUTION OF THE ACADEMY**

**SECTION 1** In the event of the dissolution of the Academy, the monetary and other assets of the organization shall be transferred to the American Association for the Advancement of Science for its use and benefits.

## **ARTICLE XI - AMENDMENTS**

**SECTION 1** This Constitution may be amended at any Annual Meeting by a favorable vote of three-fourths of the members present and entitled to vote thereon, provided that a copy of the proposed amendment shall be sent to all members at least thirty (30) days prior to the annual meeting. For purposes of this section, publication of the proposed amendment in the *Newsletter* shall be sufficient notice, provided that copies thereof are mailed at least thirty (30) days prior to the annual meeting.

## **ARTICLE XII**

All matters not covered by this Constitution shall be governed by Robert's Rules of Order.

## **ARTICLES OF INCORPORATION FOR THE PENNSYLVANIA ACADEMY OF SCIENCE AND CONSTITUTION AS ADOPTED MAY 2, 1975 AND AS AMENDED APRIL 11, 1983 APRIL 13, 1987; APRIL 16, 1988; and April 5, 1992**

### **Articles of Incorporation**

1. The name of this corporation shall be Pennsylvania Academy of Science which name has been registered with the Department of State of the Commonwealth of Pennsylvania within six (6) months prior to the date of application made to the Court of Common Pleas of North Hampton County for approval of corporate charter
2. The registered office of the corporation is in East Stroudsburg, Pennsylvania with post office address as follows: Biological Sciences, 200 Prospect Street, East Stroudsburg, Pennsylvania 18301.
3. This corporation is formed for the following purposes: To encourage scientific research; to promote interest in the teaching of science; to stimulate exchange of idea among those engaged in scientific work especially in Pennsylvania; to assist in the development and distribution of information about the material, educational, and other resource and riches of the Commonwealth; and to arrange and prepare for publication such reports as may further these objectives, all of which purposes do not contemplate pecuniary gain or profit,

- incidental or otherwise, to the members of the corporation.
4. This corporation shall exist perpetually.
  5. This corporation is organized upon a non-stock basis.
  6. IRS Modification

Said corporation/organization is organized exclusively for charitable, educational and scientific purpose, including, for such purposes the making of distributions to organizations that qualify as exempt organizations under section 501(c)(3) of the Internal Revenue Code of 1954 (or corresponding provision of any future Internal Revenue Service Law).

No part of the net earnings of the corporation/organization shall inure to the benefit of, or be distributable to its members, trustees, officers or other private persons, except that the corporation/organization shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in the preceding paragraph. No substantial part of the activities of the corporation/organization shall be the carrying on of propaganda or otherwise attempting to influence legislation, and the corporation/organization shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office.

Notwithstanding any other provision of these articles, the corporation/organization shall not carry on any other activities not permitted to be carried on (a) by a corporation/organization exempt from Federal income tax under section 501(c)(33) of the Internal Revenue Code of 1954 (or the corresponding provision of any future United States Internal Revenue Law) or (b) by a corporation, contributions to which are deductible under section 170(c)(2) of the Internal Revenue Code of 1954 (or corresponding provision of any future United States Internal Revenue Law).

Upon the dissolution of this corporation/organization, assets shall be distributed for one or more exempt purposes within the meaning of section 501(c)(3) of the Internal Revenue Code of 1954 or corresponding section of any future Federal tax code or shall be distributed to the federal government, or to a state or local government, for public purposes.

## Article 1

SECTION 1 This Association shall be called the Pennsylvania Academy of Science.

SECTION 2 The object of this academy shall be scientific research and the diffusion of knowledge concerning the various departments of science: to promote intercourse between those engaged in scientific work, especially in Pennsylvania; to assist by investigation and discussion in developing and making known the material, educational, and other resources and riches of the Commonwealth; to arrange and prepare for publication such reports of investigation and discussion as may further the aims and objects of the Academy as set forth in these articles.

## Article 2

SECTION 1 Membership in this academy shall be made up of the following classes: 1. active members; 2. associate members; 3. honorary members, and 4. nonresident members.

SECTION 2 Any person engaged in any department of scientific work, or in any original research in any department of science, shall be eligible for active membership. Active members shall pay an admission fee of two dollars which shall also cover the first year's membership fee, and thereafter an annual fee of two dollars. Active members who have removed from the commonwealth may continue as active members by the payment of annual dues.

SECTION 3 Any resident of Pennsylvania interested in science but who does not qualify for active membership may be elected to associate membership. Fees for associate members shall be the same as for active members.

SECTION 4 Honorary members may be elected to this class of membership in the Academy on account of special prominence in science or other branches of learning. They shall be exempt from the payment of dues.

SECTION 5 Any persons not residing in Pennsylvania who are eligible for membership in the Academy may be elected to non-resident membership. Such members shall pay the regular admission fee and annual dues.

SECTION 6 Application for membership in any of the foregoing classes shall be referred to a Membership Committee, which shall consider such application and report to the Academy before the election. In any case a three-fourths vote of the active members present at any meeting shall elect membership.

SECTION 7 The privilege of voting in this Academy shall be restricted to the class of active membership.

### Article 3

- SECTION 1 The officers of this Academy shall be chosen by ballot at that annual meeting and shall hold office one year or until their successors may be chosen. They shall consist of a President, Vice President, Secretary, Assistant Secretary, Press Secretary, Editor, and Treasurer, who shall perform the duties usually pertaining to their respective offices and in addition, with the ex-Presidents of the Academy, shall constitute and Executive Committee. Additional members of the Executive Committee shall be elected annually, sufficient to bring the total number of such additional members to four, until such time as past-Presidents become available. The President shall, at each annual meeting, appoint a Program Committee and a Local Arrangements Committee, each of two or more members, which shall prepare the programs and have charge of the arrangements for all meetings for one year. There shall also be a Committee on Publications, consisting of the President, Secretary and Editor.
- SECTION 2 The Academy may also elect an Advisory Council to consist of the Governor of the Commonwealth and an indefinite number of others as may be determined from year to year.
- SECTION 3 The annual meeting of the Academy shall be held during the Easter vacation of each year and at such place as may be determined by the Executive Committee. Other meetings may be called at such time and place as may be decided upon by the Executive Committee. The Executive Committee shall transact any necessary business not especially provided for in this constitution, in the interim between general meetings.
- SECTION 4 The regular publications of the Academy shall, include the transactions and all other papers deemed suitable by the Committee on Publication. All members shall receive gratis all current publications of the Academy.
- SECTION 5 This constitution may be altered or amended at any annual meeting by a favorable vote of three-fourths of the members present, provided that a copy of the proposed amendment shall be sent to all members at least thirty days previous to the annual meeting.

Document Last Updated 9/12/06  
by S. Hendrix, Constitution Committee Chair

## **BY-LAWS**

### **OF THE PENNSYLVANIA ACADEMY OF SCIENCE AS ADOPTED BY THE MEMBERSHIP, APRIL 21, 1990**

**As Amended April 25, 1995, September 27, 1997, April 4, 1998, September 26, 1998,  
September 16, 2000, September 13, 2003, and April 24, 2012**

These By-Laws serve to clarify provisions of the Constitution and to delineate procedural matters. Nothing in these By-Laws shall contradict the provisions of the Constitution. In case of conflict the constitutional provisions shall govern.

#### **Article I. NAME (reference Article I. of the PAS Constitution)**

The organization known as THE PENNSYLVANIA ACADEMY OF SCIENCE, INC, is hereafter referred to as the Academy or PAS.

#### **Article II. MEMBERSHIP (ref.: Article II, PAS Constitution)**

- A. Active members:** Members whose current dues are paid are Active Members in Good Standing and shall enjoy all rights, privileges, and responsibilities of membership in the Academy including the Academy's Journal and Newsletter.
- B. Emeritus members:** In order to obtain emeritus status, a member shall request it in writing indicating the length of membership in the Academy and the activities in which the member participated. Such a request shall be forwarded to the Corresponding Secretary no later than September 1 if it is to take effect on January 1 of the following calendar year. The request shall be presented for action at the Fall meeting of the Board of Directors. The action of the Board shall be conveyed to the applicant no later than 30 days after the meeting.
- C. Honorary members:** Although not required to pay dues, honorary members have the same rights and privileges as active members. No more than three honorary members may be elected in any one year.
- D. Institutional members:** Any institution (business, educational institution, foundation, or governmental agency) may join the Academy by making annual contributions of no less than five times the active membership fee. Institutional members are entitled to receive an annual choice of one book published by the Academy. A non-profit scientific or educational organization may become an institutional member by paying \$45.00. The gratis book is NOT applicable. For meetings of the Academy, each institutional member may designate one person as its representative who will be registered at the standard member rate.

- E. Student members:** Students at an educational institution that are members of the academy may participate in the discussions at meetings, and they have the right to vote. Their dues are set at half of the dues paid by active members. They are entitled to publish in the Newsletter and the Journal.
- F. Delinquent members:** A member is considered delinquent when the dues for the current year have not been received by the Treasurer by January 31 of that year. Delinquent members will be dropped from the membership rolls on July 1st of that year.  
Individuals dropped from membership for nonpayment of dues, or who have resigned, may be automatically reinstated upon payment of current dues.
- G. Life members:**
1. Presidents automatically become paid-up life members at the conclusion of the presidency.
  2. Partial payment schedule--In order to make it easier for individuals to become life members the following partial payment program has been adopted:
    - a. Initial payment: One-third of the current life membership fee shall be submitted together with the request for life membership.
    - b. Subsequent payments: The balance of the life membership may be paid in two equal installments, one no later than 12 months after the initial payment and the final payment no later than 24 months after the initial payment.
  3. Payment notice: The Treasurer shall send a reminder notice to the member one month prior to the due date of subsequent payments.
  4. Delinquent accounts: If payments are not received by the due date, the assumption is that the member no longer desires to be a life member. The amount received shall be credited to active membership dues for unpaid past, current, and/or future years commensurate with the amount paid. The Treasurer shall notify the member of such action.
  5. Refunds: Once the initial request of life membership is received no refunds will be made. If the member changes his mind about life membership, the amount received will be credited to annual active membership dues for past, current and/or future years.

### **Article III. DIRECTORS AND OFFICERS (ref.: Article III, PAS Const.)**

#### **A. Duties of Officers:**

The duties of officers are delineated by the PAS Constitution. Furthermore, they are outlined in the Guidebook for Officers of PAS. In addition, duties not specifically mentioned in the Constitution or the Guidebook may be assigned by the Board of

Directors or the President.

- B.** When the Board of Directors receives written allegations by at least four (4) members of the Board or by at least fifteen (15) members of the Academy eligible to vote, that an officer is not faithfully performing the duties of his office, or has otherwise acted in a manner adversely affecting the image of the Academy, the Board shall carefully investigate the allegations giving all concerned parties the opportunity to be heard. Based on the evidence presented, the Board may take no action, or may, by a two-thirds vote, suspend or remove the officer. Upon suspension of an officer other than the President or President-Elect, the President with majority consent of the Board of Directors shall appoint a member of the Academy to carry out the duties of the office on an interim basis.

#### **Article IV. FINANCES**

- A. Officer Expenses:** Travel expenses for officers of the Academy to attend Academy and Committee meetings shall be authorized in advance by the Board of Directors or the President in consultation with the Treasurer. All travel expenses must be supported by receipts.

Academy officers shall receive no salary.

Officers who receive advances of funds for the conduct of their offices (*Journal*, *Newsletter* and Book Editors) shall keep an itemized accounting of disbursements and submit the same to the Treasurer in time for inclusion in the annual statement by the Treasurer. Unexpended balances revert to the Treasury.

**B. Considerations for officers and others at the Annual Meeting:**

1. Line Officers: President, President-Elect, Immediate Past President, Recording Secretary/Archivist, Corresponding Secretary, Treasurer, Treasurer-Elect, Book Treasurer, Editor of the *Journal*, Editor of the *Newsletter*, Webmaster, and the State Director of the Junior Academy of Science, are entitled to one housing package and reasonable travel expenses but not the registration fee.

2. Others: Program Chair, Local Arrangements Chair, and Time and Place Chair are entitled to one housing package and reasonable travel expenses but not the registration fee.

- C. Fiscal Year:** The fiscal year of the Academy shall be January 1 to December 31.

- D. Audits:** The books of the Academy shall be examined by a professional accountant on an annual basis. An internal audit by an Auditing Committee of the Academy shall be conducted whenever there is a change in Treasurers. The Auditing Committee shall consist of three members, one of whom shall be a past president and one of whom shall be a current member of the Board of Directors. The committee shall be appointed by the President by January 1 of the year in which the internal audit is to be performed. The names of the members of the committee shall be published in the *Newsletter* prior to the annual meeting.
- E. Budget:** On an annual basis, the Finance Committee shall prepare a budget for approval at the Fall Meeting of the Board of Directors. Mileage allowance for travel in the conduct of PAS activities shall be set at the IRS rate in effect at the time.
- F. Investment Committee:** The Committee shall consist of three appointed PAS members and the Treasurers (non-voting). The Committee shall administer the investment of all funds of the Academy, including the working reserve account. The Treasurer shall have under his/her control a maximum amount of money equal to six months of expenditures of which he/she can move in and out of the money market account.

#### **Article V. ANNUAL MEETING (ref.: Article V, PAS Constitution)**

- A. Invited Speaker Honoraria:** Honoraria or stipend plus expenses for invited guest speakers and symposium speakers shall be determined in advance by the Board of Directors.

#### **Article VI. PUBLICATIONS (ref: Article IX, PAS Constitution)**

- A. Book Rebates:** Members of the Academy shall have the privilege of buying one copy of each book published by the Academy at a 25% discount.
- B. Newsletter Advertisements:** Newsletter advertisements fees shall be set by the Board of Directors. The Treasurer shall bill the advertisers on an annual basis.

#### **Article VII. SPECIAL AWARDS & CITATIONS**

- A. Special Awards** in the name of the Pennsylvania Academy of Science can be made only with approval of the Board of Directors.
- B. Citations** to members of the Academy for outstanding performance in activities relating to the goals of the Academy can be made at the discretion of the President.

#### **Article VIII. AFFILIATES (ref.: Article II, sect. 11, PAS Constitution)**

- A.** Scientific organizations within the Commonwealth may request to become affiliates of the Academy. Such requests, which must include the constitution and by-laws of the organization as well as a list of its officers, shall be forwarded to the chairperson of the Affiliate Committee. The request must be approved by both the Board of Directors and the general membership.
- B.** The affiliates of the Academy have the opportunity to co-sponsor annual meetings and to organize special sessions at any of the annual meetings. Requests for such activities must be conveyed to the Chairman of the Affiliate Committee no later than September 1 of the year preceding the annual meeting in question and preferably in time for the previous Spring meeting.
- C.** The Chairman of the Affiliate Committee shall be an invited guest at all Board of Directors meetings of the Academy.
- D.** There is no fee associated with becoming an affiliate of the Academy.

#### **Article IX. AMENDMENTS TO THE BY-LAWS**

- A.** These By-Laws may be amended in one of the following manners:
  - 1. A proposed amendment may be acted upon at any duly called meeting of the Board of Directors. Notice of the proposed change must have been given, in writing, to the members of the Board at least thirty (30) days prior to the meeting.
  - 2. An amendment may be proposed by any voting member of the Academy, using the following procedure:
    - a. Such a proposal, with the signature of a minimum of twelve (12) members, shall be submitted to the Board of Directors for action.
    - b. If the proposal is not approved by the Board, it must be published in the *Newsletter* at least six weeks prior to the next annual meeting in order to be acted upon by majority vote of the membership.
- B.** Any change in the By-Laws adopted by either method must be published in the next issue of the *Newsletter*. In addition, changes approved by the Board must be reported at the next annual meeting.

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By S. Hendrix, Chair, Constitution and By-laws Committee