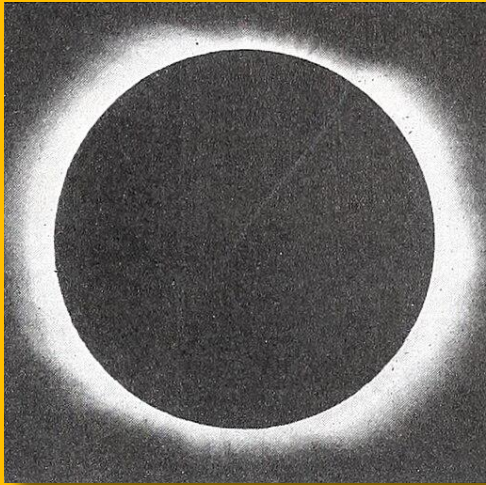


From Shadow to Light: A Century of Keystone Science, Framed by Eclipses

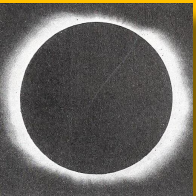
Robert Coxe, Silphium Design LLC



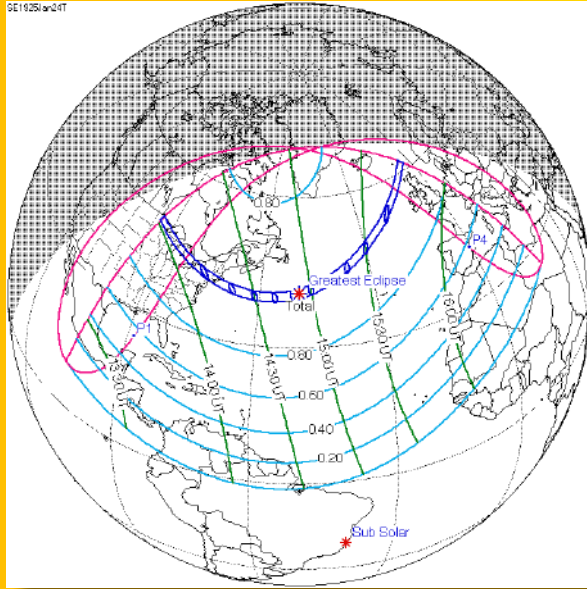
1925 Total
Solar Eclipse in
Pennsylvania



2024 Total Solar Eclipse in
Pennsylvania



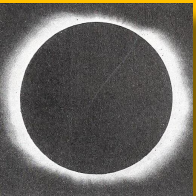
Total Solar Eclipses in PA



January 24, 1925

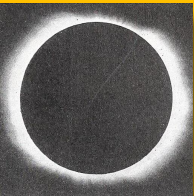


April 8, 2024



Early Scientific Societies

- Before the formation of the United States in 1787, most scientific groups were loosely organized societies in Europe with Philosophical underpinnings from the Age of Enlightenment (1685-1815).
- **1660** - Royal Society of London
- **1666** - Académie Royale des Sciences in Paris
- **1743** - American Philosophical Society – Philadelphia, Ben Franklin
- **1780** – American Academy of Arts and Sciences (AAAS) – Boston



Scientific Societies in United States

- **1797** – Maryland Academy of Science formed* but was not incorporated until 1822.
- **1812** – Academy of Natural Sciences (Drexel University) – Philadelphia
- **1924** – PAS is the 25th State Academy to form* along with Alabama and West Virginia.

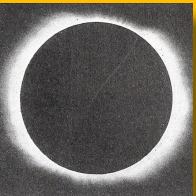


Academy of Natural
Sciences

Formation of the State Academies

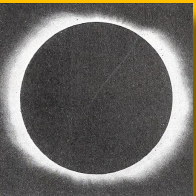
The State Academies of Science believed in the power of collective wisdom and the following principles.

- Promote Scientific inquiry and discovery.
- Foster collaboration and knowledge exchange among scientists; strengthening connections.
- Train the next generation of scientific leaders.
- Harness scientific knowledge for societal benefit and stimulating economic growth.
- Showcase scientific achievement.
- Contribute to cultural enrichment and intellectual prestige.
- Provide a platform for public engagement.



Pennsylvania Academy of Science

- **December 1923 (AAAS Mtg. – Cincinnati, OH):** Two botanists (C.R. Orton and E.M. Gress) and an entomologist (W.A. McCubbin) proposed to form PAS. A committee was formed to canvas interest in forming the Academy – 1,000+ letters were mailed.
- **April 18, 1924:** 1st meeting held in the Senate Caucus Room of the Pennsylvania State Capitol in Harrisburg, PA. – 42 people attended out of 1,000 interested in forming the Academy. This meeting was presided by Frank D. Kern. Two Committees formed (Constitution and Nominating).
- **November 28, 1924:** 1st Executive Committee Meeting held – Senate Caucus Room. Governor Gifford Pinchot was present with 50 scientists. Dinner at Beachfront Hotel in Wormleysburg, PA, where Dr. H.C. Cowles of the University of Chicago presented on “The Present Function of a State Academy of Science.”



Locations of the First Meetings



Senate Caucus Room
Image – State Capitol Visitors Guide



Beachfront Hotel – Wormleysburg, PA
Image – West Shore Historical Society

First Annual Meeting of PAS

- **April 10-11, 1925:** Senate Caucus Room of the State Capitol – Constitution was adopted, Dr. Otto Jennings was elected 1st President, and Dr. Jennings presented on “The Basis of Plant Geography in Pennsylvania.”

Transportation to First Meeting



PGH-HBG = 10+ hours



PGH-HBG = 5-6 hours

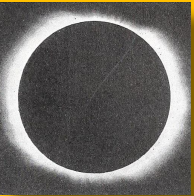
PAS - 1920s

Resolution on the State Tree and Flower (1929)

The Academy resolved to have the tuliptree (*Liriodendron tulipifera*) be made the state tree and flower. Ultimately, the mountain laurel (*Kalmia latifolia*) was selected as the state flower and the hemlock (*Tsuga canadensis*) as the state tree (1933).

Time of the Meetings (1925-1968)

Meetings were held during the Easter vacation (written into Constitution), until 1968. Easter was the only time of the year, where you had two holidays together. Workers had 6 day workweeks until 1938 – Fair Labor Standards Act. In 1979, there was one meeting from Sunday to Tuesday.



PAS - 1930s

Formation of the Junior Academy of Science (1934)

The Junior Academy of Science was proposed in 1932 and had its first meeting in 1934 at Albright College in Reading, PA.



PENNSYLVANIA JUNIOR ACADEMY OF SCIENCE.
First meeting, Albright College, Reading, March 30, 1934.

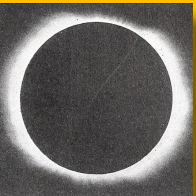
PAS - 1930s

Committee on Certification of Science Teachers in Pennsylvania (1936)

This committee was started in 1936 by Dr. John C. Johnson with the goal of establishing minimum requirements for science teachers in secondary schools in Pennsylvania. In the 1950s, it was continued by Thomas Knepp. The certification was adopted in 1959 by the State of Pennsylvania and took effect in 1963.

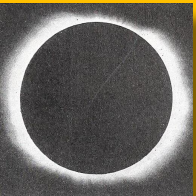
Conservation Committee (1936)

This committee was started in 1936 by Dr. Thomas Cope and chaired by M. Graham Netting, “to keep in touch with legislators in an endeavor to conserve our wildlife.”



PAS - 1940s

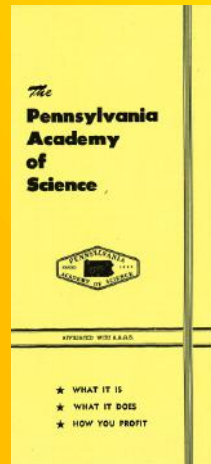
- **1940:** Anna A. Conn (Uniontown High School) – Elected to VP-West, 1st Female Officer
- **1943:** The first newsletter was planned in 1943 and was to be published six times a year. It was thought at the time that it would help keep members who could not make it to the meetings due to the war informed of what was happening in the Academy.
- **1945:** First meeting was cancelled (due to hardships of WWII).
- **1948:** Students were encouraged to present at Academy meetings. This helped to drive more participation in the meetings and brought more papers. However, at this same time there was a decline in governmental and institutional members. Led to the format we have today.



PAS - 1950s

During the 1950s work continued on passing the minimum requirements for secondary science teachers. The requirements were finally passed in 1959.

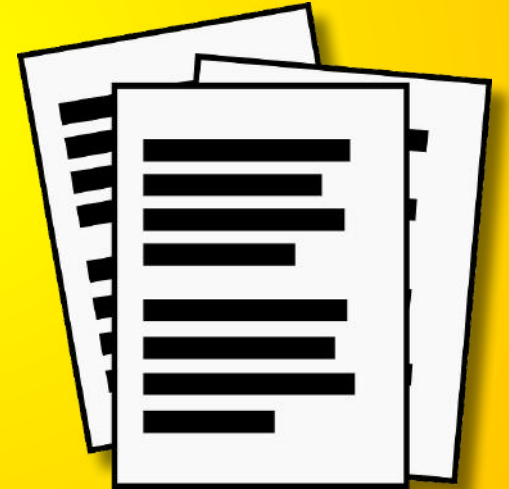
1958: A brochure was produced and distributed to Pennsylvania science faculty in order to boost membership in the Academy.



PAS - 1960s

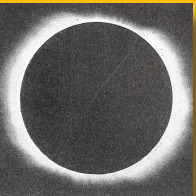
Incorporation of the Academy

The Academy was formally incorporated on October 29, 1964.



First Female President (1963)

Dr. Phyllis Martin, of Point Park Junior College, was elected the first female President of the Academy in 1963.



PAS – 1970s to 2020s

Proceedings becomes the Journal and Books were published

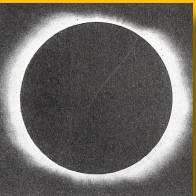
In 1988, the Proceedings of the Pennsylvania Academy of Science became the Journal of the Pennsylvania Academy of Science. Minutes and schedules of meetings were no longer included in the Journal.

Meetings were held at Resorts and Conference Centers, then back to Institutions

From 1924 to 1976, meetings were held at member institutions. In 1977, the Academy started meeting at conference centers till 2010. In 2011, the Academy again started to meet at member institutions. The format for the meetings was having a keynote speaker, a symposium, and contributed papers.

A lot of Change to Publications and Meetings (2010s)

In 2014, the last issue of the newsletter was published. The Journal went electronic in 2012 till 2017, when it was again printed; by Penn State Press. Some meetings did not have symposiums.



Summer Meetings – 1920s - 1960s

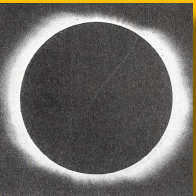
Summer meetings were held in notable locations around Pennsylvania to have field trips to places of science interest and to induct new members. Some of the locations include:

- Presque Isle
- Pennsylvania State College/University Labs
- Poconos
- Carnegie Museum
- Grand Canyon of Pennsylvania
- Mount Davis
- Slippery Rock (Wolf Creek)
- Ohiopyle Falls



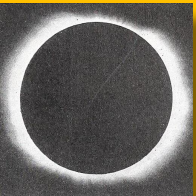
Conservation Committee

- **The Conservation Committee was formed in 1936 by Dr. Thomas Cope – “to keep touch with legislators in an endeavor to conserve our wildlife.”**
 - A motion was made to protect a virgin hemlock stand in Somerset County – now part of Hemlock Natural Area in Laurel Hill State Park.
 - Collaborated with the Missouri Academy of Science.
 - M. Graham Netting chaired this committee and included Edgar T. Wherry
- **1940s: The committee worked on conservation teaching in Pennsylvania schools.**
 - Used a conservation course at Connellsville H.S. as a model.
- **1950s: The committee helped to plan a natural program in Pennsylvania with TNC.**
 - Led to natural heritage/area inventories and preservation of special concern areas.



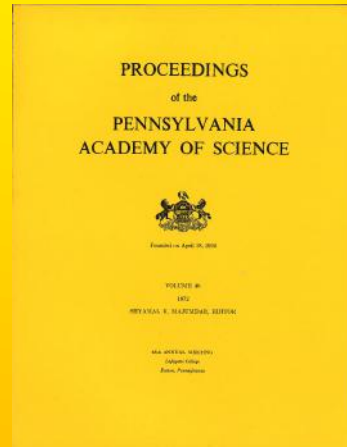
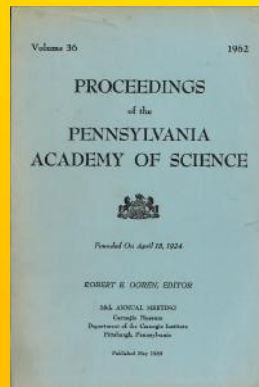
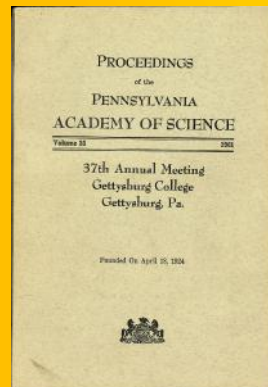
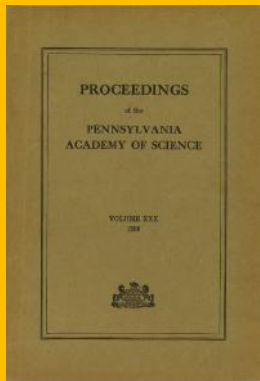
Certification of Science Teachers Committee

- The Certification of Science Teachers Committee was formed in 1936 by Dr. John C. Johnston and continued by Thomas D. Cope (1940s) and Thomas Knepp (1950s).
- Comprehensive and long lasting effort by the Academy to have minimum requirements for science teachers in the Commonwealth.
- Proposed that science teachers have at least 18 semester hours in the science they teach.
- **1959:** Requirements became law and effective during the Fall Semester of 1963.



Proceedings of the Pennsylvania Academy of Science

- **Volume 1 (1924-1926) to Volume 34 (1960):** Printed using a brown cover and included meeting minutes, abstracts, and contributed papers.
- **Volume 35 (1961):** Printed using a buff color.
- **Volume 36 (1962) to Volume 45 (1971):** Printed using a blue cover. Individual volumes became quite large.
- **Volume 46 (1972) to Volume 61 (1987):** Printed using a yellow cover. The Proceedings was also made larger in size.



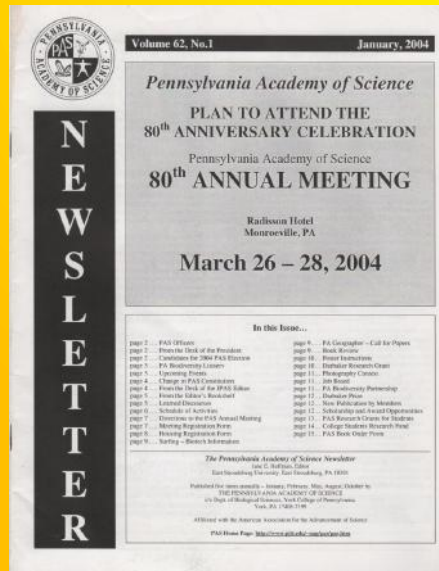
Journal of the Pennsylvania Academy of Science

- **Volume 62 (1988) to Volume 90 (2016):** Printed using a glossy yellow and blue cover.
- **Volume 91 (2017) to present:** Printed using a brown cover with images. The journal became smaller and is now printed by Penn State Press.



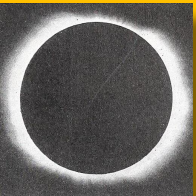
Newsletter of the Pennsylvania Academy of Science

The Newsletter of the Pennsylvania Academy of Science was started in 1943 to provide a way for members to keep up-to-date with happenings in the Academy, especially during the war. It was published six times a year through the 1960s and then roughly quarterly. The last newsletter was in 2014, at which time information was conveyed via the website.



Membership

- **Founding Members:** 43 – Those who attended the April 18, 1924 meeting.
- **Charter Members:** 193 – Those who joined before the 1st Annual Meeting – April 10, 1925.
- You had to apply and be voted into membership by the Executive Committee at the Summer Meetings until about 1950.
- In 1947-1948, there was an effort to increase the memberships of students, which up until this time had been in the single digits.
- By about 1955, members joined by paying dues and there was no membership acceptance process.



Longest Serving Officers

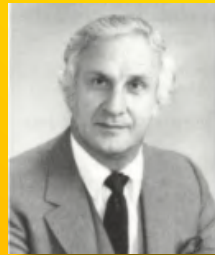
1. **Dr. Shyamal Majumdar:** 39 years (35 as Journal Editor, 4 as President-Elect and President)
2. **Dr. Fredric Brenner:** 20 years (14 as Newsletter Editor, 6 as PE, P, and IPP)
3. **Dr. George C. Shoffstall:** 20 years (10 as Exec Secretary, 4 as PE, P - 6 as PE, P, and IPP)
4. **Dr. Matthew Wallace:** 18 years (6 each as TE an T, 6 as PE, P, IPP)
5. **Dr. Homer C. Will:** 18 years (16 years as Newsletter Editor and 4 as PE and P)



1



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Logos of PAS



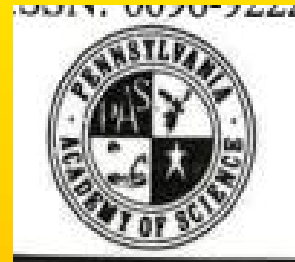
1924-1961



1962-1971



1972-1987



1987-2019



Pennsylvania
Academy of Science

2019-2025

The Future of PAS

The 2024 eclipse metaphorically sheds a new light on the second century of the Pennsylvania Academy of Science. It is incumbent on all of us to keep the light lit.

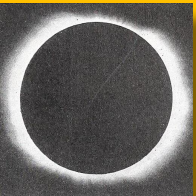


Shadow



Light

Pennsylvania Academy of Science History:
<https://pennsci.org/history-of-the-pennsylvania-academy-of-science-1923-2025>



Famous Members

- **Dr. Elmer Hoke:** Became President of Catawba College in N.C.
- **Gov. Gifford Pinchot:** First American Forester and Governor of Pennsylvania
- **Arthur E. Pew, Jr.:** Pew Charitable Trusts
- **Jerome Rodale:** Founder of the Rodale Institute for Organic Gardening.
- **Dr. Roger Conant:** Wrote the Field Guide to Reptiles and Amphibians of NA – Peterson FG
- **Dr. Ralph Chermock:** collected 34,000 lepidoptera specimens – Chermock's Mulberry Wing
- **Dr. Greg Forbes:** Severe storm expert on Weather Channel
- **Dr. Deborah Ricker:** President of Hood College
- **Dr. Assad Panah:** President of American Association for the Advancement of Science (AAAS).

