

Volume 30.1  
Spring 2020  
First Quarter

# PSF NEWS

Planetary Studies Foundation

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### *April 25<sup>th</sup>*

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**Observatory Open House**  
**Saturday, Apr. 24<sup>th</sup>**  
**11am to 4pm**

Come tour the observatory to see the telescopes and equipment that are used for public observing. Various astronomy displays will feature: 2020 is a great year for spaceflight, the 90<sup>th</sup> anniversary of Pluto's discovery and others. Observatory staff will be on-hand to answer questions. If the skies are clear, we will have safe viewing of the Sun.

**Getting Started in Astronomy**  
**May 7<sup>th</sup> through June 11<sup>th</sup>**  
**7pm to 9pm**

The observatory is offering a 6-week (one night each week) introductory class for people interested in learning about astronomy, how to use a telescope and instruction to find your way around the nighttime sky. The class is offered through the Freeport Park District and costs \$50. Participants must be +16 years old and limited to 12 people. No astronomy knowledge is required/assumed.

Public Observing Nights are the 1<sup>st</sup> and 3<sup>rd</sup> Saturday of every month, May through October. Viewing begins after sunset.

You can find more information at [www.planets.org](http://www.planets.org) or on the Doug Firebaugh Observatory Facebook page.

2892 W Stephenson Street  
Freeport, Illinois 61032

## PRESIDENT'S MESSAGE

On February 8<sup>th</sup> your Planetary Studies Foundation celebrated its 31<sup>st</sup> Anniversary. This is an amazing achievement for an organization that has experienced a remarkable series of “ups and downs” over those many years. The glue that has held us together has been the loyalty and dedication of so many diverse people who chose to join our ranks to support our common cause. Together we have shared a love for science and knew the value of education. Looking at our historical records I see we have had members who have walked on the Moon, appeared in television series, achieved a place on the Forbes 400 List and served the educational communities at every level. I certainly do not want to forget everyone else who has contributed so much of their valuable time and financial support over all these years. PSF's success has been a result of the combined efforts of all our members and words cannot properly express how grateful I am to each of you.



Anniversaries are always a catalyst for me to reflect back and remember all those people who were initially supportive of and involved with the PSF in those early formative years. It is with a sense of sadness that I mention the recent passing of Drs. Raymond Moehrlin and Edward J. Olsen. Ray was one of the original five founding members of the PSF and contributed in so many different ways to the development and success of our organization. I first met Ray in 1976 when I became a member of the faculty at William Rainey Harper College. Over the years we became very close personal friends sharing many common interests. When the idea to build a planetarium for Harper College came about it was obvious that we needed Ray's expertise to make it happen. Included in the early plans for the Harper College Planetarium was a research component for the study and curation of meteorites. During my years at Harper College I had always been involved with meteorite research.

In 1976 I became a research associate with Dr. Edward J. Olsen at the Field Museum of Natural History in Chicago, Illinois. Knowing and working with Ed was so important to the early development of my scientific career and I will always be in his debt. So it was natural to invite Ed to become one of PSF's first Advisory Board members. Ed was there to guide us in our efforts to achieve international scientific credibility in meteorite research. On the personal level it was Ed who inspired me to apply to the Antarctic Search for Meteorites Program, a program that he helped develop. Participating in that program changed my life forever in so many different ways. Ed Olsen was one of the most productive and respected scientists of his era. His research contributions to the field of meteoritics goes without saying, but he will be best remembered as being a good friend with so many interesting stories to tell. PSF will miss both Ray and Ed, but we will never forget the many contributions they made as friends and colleagues.

***Paul P. Szipiera***

# DONORS' SPOTLIGHT

## 2019 YEAREND ANNUAL FUND

### Douglas Firebaugh Astronomical Observatory

Harriet Stauffacher

#### General/Operations Fund

Anonymous\*\*\*  
Leo & Karen Baren  
Kate Butler\*  
Cecilia Cooper\*  
James Hagen\*  
Anne Swan-Johnson  
Aras Jonikas  
Richard & Ellie Leary\*  
John & Jane Yoder\*

#### Meteorite Research

Joan & Larry Reylek  
Ralph Winrich

#### Student Internship Program

Anonymous\*  
Carleton B. Moore  
Caroline A. Sipiera\*  
Marilyn E. Quas

## 2020 SPRING DONATIONS

#### General/Operations Fund

Mary & Alan Becker\*\*\*  
Matt Harmston\*  
Paul & Diane Sipiera\*\*  
Herbert Windolf\*\*

\* Recognizes a donation of \$100 to \$499

\*\* Recognizes a donation of \$500 to \$999

\*\*\* Recognizes a donation of \$1,000 & up

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**In Remembrance of:**

**Cecile L. Krok**  
From her loving sister  
Eugenia Krzyzanski

*In Financial Support of:*  
1876 Banwarth House & Museum  
General Operations  
Student Internship Program

**Francis G. Stokes (CAPT USNR ret.)**  
From his dear friends  
James & Sandra Napolitan

*In Financial Support of:*  
General Operations

# MEMBERS' CORNER

## NEW MEMBERS

### Individual Membership

Alma A. Mariano

## RENEWING MEMBERS

### Contributing Membership — Family

Kevin & Mary Ramsden

### Contributing Membership — Individual

Eugenia Krzyzanski

### Family Membership

Jim, Beth & Alex Baranski  
Jeff, Judith & Philip Glenn  
Gary & Mary Jobgen  
Ken & Kim Thorsen

### Individual Membership

Aras Jonikas  
Janet Moote  
Dave Smith  
Gerald Speer  
Carol Walmann  
Ralph Winrich

# OUR DEEPEST SYMPATHIES

## RAY MOEHLIN

Ray Moehrlin was one of the original founders of the PSF along with Paul Sipiera, Mary Becker, Meyer Rudoff and David Lauerman in 1989. These five individuals worked at William Rainey Harper College at that time and shared dreams of how they could promote the sciences of meteorite research and astronomy throughout the Chicago suburbs.

Ray passed away at the age of 84 on February 6. He was an avid equestrian, runner and kayaker. For most of his professional life, he taught mathematics at William Rainey Harper College in Palatine, IL. He earned a D.A. degree in Mathematics and served as the Staff Organizations Faculty Senate Vice President.

Ray was very much a family man. He was the loving father of Michael and Greg and proud grandfather of Aaron, Emily, Devin and Madison. Ray enjoyed attending his grandchildren's sporting events.

Ray and his late wife, Cindy, attended numerous PSF Fundraising Dinners. Most recently, Ray and his son, Mike, attended PSF programs at the Gail Borden Library in Elgin, the Earth & Space Science Museum in Elizabeth and stargazing at Horse Shoe Mound in Galena, IL. Ray will be missed by so many PSF members.

## EDWARD J. OLSEN

PSF member, Edward "Ed" Olsen, passed away on January 30 at the age of 92. Ed was born and raised in Chicago. Early on, he attended school in Hyde Park and later attended the University of Chicago. He earned his undergraduate and Ph.D in Geology.

His doctoral dissertation provided the basis for what he considered one of his best papers, a set of thermodynamic calculations that permitted the determination of the specific



Ray Moehrlin

temperature and partial water pressure of serpentinization.

In 1960, Ed became the curator of Mineralogy and Meteorites at Chicago's Field Museum of Natural History. He was instrumental in increasing the number of meteorites in their collection and making specimens easily available to researchers. One of Ed's major contributions was acquiring the largest collection of specimens from the 1969 Murchison meteorite fall in Australia. This particular meteorite has proven to be invaluable for studies dealing with the formation of life on Earth.

In later years, Ed became involved in research concerning the dinosaur extinction impact event, as originally proposed in 1980 by a team of scientists led by Luis Alvarez. Ed's curiosity would lead him to partner with George McGhee, a paleontologist at Rutgers University and Carl Orth of Los Alamos National Laboratory. Together they would look for evidence for an iridium-rich sedimentary layer that could be used to mark an extinction horizon.

In addition to his research interests, Ed was associated with the John Deere Planetarium at



Ed Olsen

Augustana College, Rock Island, IL. He loaned meteorite specimens from the Field Museum for their public displays and participated in the Augustana Space Week Symposium with Neil Armstrong. For his many contributions to the college, Ed was awarded an Honorary Doctor of Humane Letters in 1978. After his retirement from the Field Museum in 1991, Ed continued as an adjunct faculty member at the University of Chicago for another decade. During these years he also acted as a consultant for an exhibit design company for earth science and planetarium exhibits in museums in several U.S. cities.

Ed had so many interests in history, literature, languages, music and science. Ed had a deep appreciation for the natural world and spent his later years in retirement with his wife Lorain at their home in central Wisconsin. Ed is survived by his wife of 38 years, Lorain Olsen, his daughters Andrea Southwood and Ericka Olsen and his grandson Jacob Taggart. He will be deeply missed by his scientific colleagues and friends who enjoyed so many interesting conversations with him. ♦

# TOPSS UPDATE: “Sponsor A Kilo” Program

By: Grant Harkness

What kid doesn't like rocks? Sure, not everyone of them is passionate on the subject, but present something special and you'll likely have a gaggle of eager onlookers!

That's the concept behind the new “Sponsor A Kilo” program. In partnership with PSF, The Organization for the Proliferation of Space Studies (TOPSS) has successfully launch a now-global starter kit for educators in the Pre-K through 12<sup>th</sup> grade space.

Containing 1kg of assorted chondrites, sandpaper, a USB microscope and a book, this \$100 kit offers a way to inject meteorites into the classroom like no other option currently available! We've seen rave reviews from our current program participants, with uses ranging from simple explanations of meteorites to utilizing the specimens to create impact craters to demonstrate concepts in physics.

Along with the kits, students get a solid introduction to meteorites with Paul Sipiera's book in-hand. The fundamentals conveyed in the text pair perfectly with the program goals and create a better sense of

understanding to not only the students but also the eager teachers and program instructors. Acting as a launch pad, this kit has since sparked many great conversations in participating classrooms and will continue to do so as the program spreads.

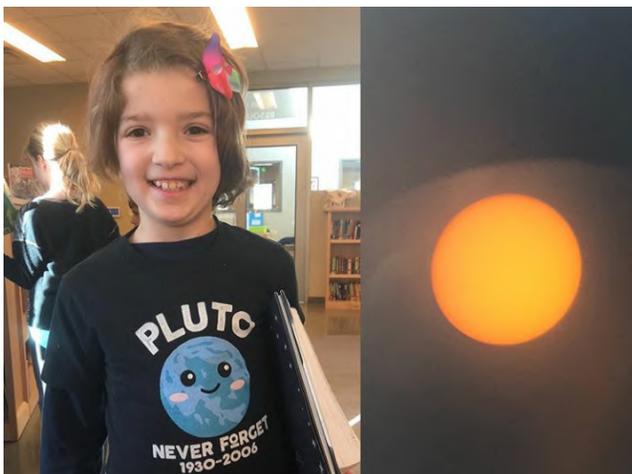
TOPSS has also partnered with meteorite programs in India, Italy and Japan, along with stateside installations in Alaska, Alabama, Iowa, Michigan, Texas and Wisconsin. Upcoming additions include Ireland, Germany and further expansion in India and throughout the United States.

Beyond the exciting world of meteorites and into the realm of astronomy, TOPSS continues to build a bright path for educators and students! Two new astronomy programs launched near the end of 2019, one with Creative Montessori School in Homewood, Alabama and the other with Mahone Middle School in Kenosha, Wisconsin. Both venues present unique opportunities by virtue of their design alone, making perfect partners and test beds for creative educational approaches.

Creative Montessori School received a full sponsorship from TOPSS by way of a fund maintained for just this purpose. The sponsorship included day/night telescopes with eyepieces and filters for their area, a meteorite lab with slices, whole specimens, microscope and book, along with a book stipend to reinforce their current selection.

The meteorites and microscope were an instant hit with the students and the natural excitement of our partnered educator, Sara Glassman, radiated throughout the school! The day and night capabilities of the telescope were very much appreciated and allowed the school to better meet the schedule needs of the younger students and to expand availability.

Following a robust injection of funds from sales of meteorite specimens, a partnership was forged with Mahone Middle School in Kenosha, Wisconsin. They have since become our flagship for the “Reach For The Stars” sponsorship model. This model has seen the school's STEM Coordinator and Astronomy Club head, Brittany Chase, receive a tailored astronomy



Photos submitted by Creative Montessori School in Homewood, AL (left) and our partnered outreach program in Houston, TX (right)

club, filled to the brim with potential! It included a 10 inch Dobsonian telescope, eyepieces and filters to address light pollution and local needs, solar observation glasses, a full meteorite lab, a "Moon to Mars" kit with lunar and Martian specimens, a set of three customized tablets with apps for rocket modeling and astronomy, along with books and continued operational support. They are now beginning to incorporate the full complement of resources into their club design and are excited by what the future now holds for their students!

New planting will occur in March for the Wilton High School Interplanetary Agriculture hydroponics unit, utilizing cutting effluent as plant food. Next school year TOPSS will be launching a unit focused on industrial effluent capture and utilization as it relates to planned development and mining operations at future Mars settlements. This will see high school students plant seeds in actual shergottite powder captured from cutting activities, a process that simulates conditions we will encounter on Mars.

With a broad offering of sponsor and membership options, the future of TOPSS and their partnered educators looks endlessly bright! With a global canvas and an endless appetite for development and expansion, TOPSS looks forward to continuing their robust partnership with PSF and spreading the excitement of space-related STEM to all corners of the world!

Visit us online to become a member or sponsor a project or goal, donate or seek sponsorship for your educational entity.

#### Contact Us:

[info@expandspacestudies.org](mailto:info@expandspacestudies.org)

#### Membership Options:

[www.expandspacestudies.org/membership](http://www.expandspacestudies.org/membership)

#### Sponsorship Options:

[www.expandspacestudies.org/sponsorship](http://www.expandspacestudies.org/sponsorship)

## SPRING EVENTS

### Gem, Mineral and Fossil Show: March 28 & 29 Hawkeye Downs Expo Center, Cedar Rapids IA

Hosted by Cedar Valley Rocks and Mineral Society, this year's theme is *Meteorites: Earth's Oldest Rocks*. PSF President & CEO, Dr. Paul Sipiera, will be presenting "Messengers from Space and Time" at 12:00 p.m. on Saturday, Mar. 28th. The PSF will also have its own display table to educate people about meteorites.

For more information about the event, speakers and fees, please visit [www.cedarvalleyrockclub.org](http://www.cedarvalleyrockclub.org).



### Calling All Quilt Enthusiasts: April 25 @ 1:30pm 1876 Banwarth House & Museum, Elizabeth, IL

Presented by PSF member, Martha Purchis, this event will explore the history and art of quilting. Considered as a pictorial history of the lives and experiences as told from the quilter themselves, "bed turning" became a social gathering where women would take turns telling the story of her quilt.

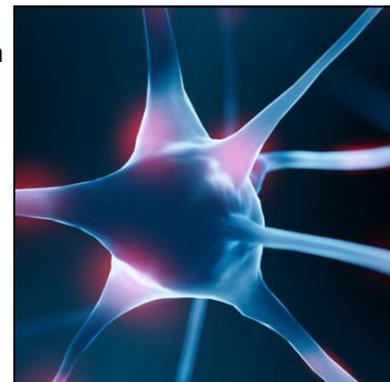
Join this unique program sponsored by the Elizabeth Historical Society and hosted by the 1876 Banwarth House & Museum.



### Living & Coping with Lyme Disease: May 9 @ 1pm 1876 Banwarth House & Museum, Elizabeth, IL

Living with Lyme disease or neurological Lyme can cause havoc to the body, but when it affects the brain, it can cause anxiety, depression, sleeplessness, fatigue, and the list goes on. PSF Executive Director, Diane Sipiera, who suffers from Lyme disease will share her journey and coping mechanisms.

She will also share the 2018 Illinois Human Exposure Data for LD. Those with and without LD are welcome. The presentation is free.



For more information about upcoming events, visit [www.planets.org](http://www.planets.org)

# MEMBERSHIP FORM

Regular Membership      \_\_\_ \$ 20.00 1 year    **or** \_\_\_ \$ 35.00 for 2 years  
 Family Membership      \_\_\_ \$ 35.00 1 year    **or** \_\_\_ \$ 60.00 for 2 years  
 Sponsoring Membership   \_\_\_ \$ 50.00 1 year    **or** \_\_\_ \$ 90.00 for 2 years  
 Contributing Membership   \_\_\_ \$ 100.00 1 year   **or** \_\_\_ \$180.00 for 2 years  
 Student Membership      \_\_\_ \$ 10.00 1 year  
 Life Membership         \_\_\_ \$ 500.00  
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For more information about our mission  
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**www.planets.org**



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& 1876 Banwarth House & Museum



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- **SPREAD THE WORD:** Encourage your family and friends to choose the PSF, too. Amazon earned over \$232 billion in revenue in 2018 alone — help us receive a tiny piece of that pie! — it's free to you and helps us earn valuable funds.