### **Rochester Academy of Science**

# BULLETIN

"An organization of people in the Natural Sciences"



August/September, 2012 - Vol. 66, #7

#### PRESIDENT'S MESSAGE

Where were you during the Venus transit of the sun? I hope you didn't miss it! How lucky we were to have a clear sky over Rochester and be able to witness such a rare event. Whether seen through a telescope great or small, binoculars, or eclipse viewing "spectacles," people were thrilled by the once in a lifetime experience (or twice in a lifetime if you saw the transit eight years ago)! On the observatory grounds in Ionia, members and friends were excited by the views presented through our telescopes. Other RAS folks witnessed the transit from other locales—along the Lake Ontario shoreline, in their yards, and even on the pool terrace of a downtown hotel.

Many of you enjoyed the June 14<sup>th</sup> Roche Star Fest at our Marian and Max Farash Center for Observational Astronomy. The sun was shining and the telescopes revealed nice sunspots and prominences to everyone's delight. The youngsters were occupied with many different activities that included artistic endeavors, bone and stone digging, as well as rocket launches, while the oldsters attended lectures, checked out the door prizes, and bid on silent

auction items. The post dinner lecture featured the story behind "Galaxies, Quasars and Supermassive Black Holes" by Dr. Andy Robinson of RIT. To top off the evening, Dave Bishop opened the Cave telescope so a few night owls could view a few objects before the cirrus clouds took over the late evening sky.



Be sure to visit the Central Library in Rochester, take a look at the RAS exhibit on the third floor of the Bausch and Lomb Building. We have herbarium plants on display and a large sampling of Bill Pinch's eyecatching minerals. The exhibit is expected to be up through August.

We are happy to report that Gage Slade is willing to undertake the task of RAS Bulletin Editor. Members of the BOD have been taking turns being "Editor of the Month" and I am grateful for the help everyone has provided in this endeavor. I would like to thank Eric Drum, the RAS Secretary for volunteering to lay out the issue you have before you.

The RAS *Proceedings* is finished and we look forward to publishing Volume 20 in July.

Our activities continue... See you in the field!

# MARCHING ACROSS THE SUN

Did you know John Philip Sousa (1854-1932) composed a Transit of Venus March (he also penned a novel, Transit of Venus in 1920)? Apparently it wasn't a hit (I don't think the book was either), and after the original manuscripts were lost in a flood, the composition was forgotten for over a century. In 2003, a search in the Library of Congress for music related to the transit of 1882 (other musicians besides Sousa composed music commemorating the event visible from the United States) resulted in the discovery of published 1896 sheet music. Just in time for the 2004 transit! The piece has made a comeback since its rediscovery and I got to play this lively piece with the Penfield Symphony Orchestra only two days before the June 5 transit. There are links on the Web to various musical groups playing this march, in case you want to hear it.

# Events for August/September, 2012

For updates to events, check the Academy website, http://www.rasny.org, and Section websites.

The premiere of Sousa's transit march was at the unveiling of a statue of physicist Joseph Henry (1797-1878) on the Smithsonian grounds in April 1883, coinciding with a meeting of the National Academy of Sciences. Professor Henry had been President of the Academy and the first Secretary of the Smithsonian Institution. While he was President, the Commission for the Transit of Venus was organized. This group oversaw Congress-funded expeditions that would make observations during the 1874 and 1882 transits. Hence the fitting musical tribute by Sousa.

Professor Henry was born in Albany and is known for his research and inventions in various branches of physics, in particular, electromagnetism. Did you know he discovered with a thermo-galvanometer that sunspots radiate less heat than the surrounding photosphere and devised a telegraphic system of simultaneous weather observations that enabled daily weather data to be plotted and forecasts made? Another interesting activity that RAS members will appreciate knowing Henry did, was taking a trip along the canal (from Albany to Lake Erie) with the famous geologist Amos Eaton. On his way home via another route he recorded his observations and collected rocks for Eaton. Over his lifetime, his accomplishments as a scientist and as a leader in promoting science in the United States were so remarkable, that at

his death in 1878 government buildings closed so that the President Hayes and Congress could attend his funeral! Unfortunately, Joseph Henry did not live to see the 1882 transit, which was visible in the United States.

A transit commissioner who did see the 1882 transit, as well as the one in 1874, is William Harkness (1837-1903), a graduate of the University of Rochester (degrees in 1858, 1861, 1874) and an astronomer with the U.S. Naval Observatory. In 1874 he led a transit expedition to Tasmania but in 1882 he was able to observe from D.C. Great weather and better photography promised good results for determining the solar parallax and hence the distance between the sun and the earth. The work done at this time was the best to be expected, yet the desired precision had to wait for technological advances many decades later.

At the AAAS meeting in 1882, Harkness gave an address where he said:

"We are now on the eve of the second transit of a pair, after which there will be no other till the twenty-first century of our era has dawned upon the earth, and the June flowers are blooming in 2004. When the last transit season occurred the intellectual world was awakening from the slumber of ages, and that wondrous scientific activity which has led to our present advanced knowledge was just beginning. What will be the state of science when the next

transit season arrives God only knows".

Now we wonder, what will the state of science be when Venus once again marches across the Sun in December 2117?

Jutta Siefert Dudley

\*\*\*

#### **ONGOING EVENT**

#### August Saturdays – ASTRONOMY, OBSERVING At the STRASENBURGH PLANETARIUM

See the ASRAS website for time as they change with the seasons. A small Mars, a beautiful Saturn, and the brighter deep sky objects will be the main targets each night. Unless at least mostly clear, we may not be open for observing. If in doubt, call the planetarium box office at 585-697-1945. Contact Jim Seidewand 585-703-9876 for more info.

#### **AUGUST EVENTS**

#### Fri 3 ASTRONOMY GENERAL MEETING

7:30 PM. Farash Center, Ionia, NY. Join us at the Farash Center for the August general meeting of ASRAS. We will be touring the observatories at the site and teaching members how to open, close, and operate the observatories. Come early for hot dogs and other snacks on the decks starting at 7:00 p.m. and stay afterwards for observing (weather permitting). For more info, contact Lori Englund at <a href="mailto:lenglund@frontiernet.net">lenglund@frontiernet.net</a>

# Events for August/September, 2012

For updates to events, check the Academy website, http://www.rasny.org, and Section websites.

## Sat 4 MINERAL SECTION FIELD TRIP

Willsboro, NY area. Collect wollastonite studded with diopside and garnet. Drive on Friday, stay overnight to visit quarry. 8:00am – 'til. Well-supervised teenagers allowed. Must have hard hat, safety glasses, sturdy footwear, long pants. To participate, contact mineralpres@rasny.org or 585-395-1713.

## Wed 8 LIFE SCIENCES FIELD TRIP

10:00 AM We will join the Burroughs Audubon Nature Club on their field trip/hike in Durand Eastman Park-the Durand Eastman Arboretum.

Did you know that Durand Eastman Park has an arboretum with many unusual trees from around the world? Ginny Wilterdink, Master Gardener and Urban Forester, will be our guide on a tour of this wonderful tree collection and will share its fascinating history with us. Meet on Zoo Rd. at the kiosk by the parking lot at the maintenance area.

Contact: Karen Wolf 670-9709.

# Fri 10 ASTRONOMY PUBLIC STAR PARTY

10:00 PM – 11:00 PM The fifth party of the year is scheduled for August 10th at Northampton Park. The "party" starts at 9:30, but members appear about 45 minutes early to set up and are available for conversations about equipment and astronomy while

the skies darken. If it's clear, why not stop out and have a peek? The main targets of the Aug 10th party will be dimmer, deep sky objects like star clusters, nebulae, and galaxies. Contact Jim Seidewand at 585-703-9876.

# **Sat 11 MINERAL SECTION Junior Rockhound Open House**

7:30pm - At the home of Bill & Carol Coons in Greece. Bill will show children his species collections, and fluorescent mineral collection. He will talk about what's important when making a collection. Refreshments. For more information & to sign up contact

information & to sign up contact mineralpres@rasny.org or 585-395-1713.

# **Sat 18 MINERAL SECTION FIELD TRIP (Tentative)**

North River, NY. Barnet Garnet Mine. We'll go into Pit #1 that the public has access to (no tools allowed), and then Pit 8/9 where we can use tools. After visiting the gift shop, we'll drive a few miles to Hooper Mine which is on state land. We'll hike uphill for about a half-mile and collect in the old abandoned, open pit. Very well-supervised children allowed. Garnet porphyblasts surrounded by hornblende in gneiss. For more information & participation contact mineralpres@rasny.org or 585-395-1713.

#### **SEPTEMBER EVENTS**

# Fri 7 ASTRONOMY GENERAL MEETING

Join us at the Farash Center in Ionia, NY for the September general meeting of ASRAS. Check the ASRAS website for meeting details. Come early for hot dogs and other snacks on the decks starting at 7:00 p.m. and stay afterwards for observing if the weather cooperates.

## Tue 18 MINERAL MONTHLY MEETING

#### Annual Show & Tell/Swap &

**Sale!** 7:30 – 9:30pm, Downstairs Meeting Room, Brighton Town Hall, 2300 Elmwood Ave., Rochester, NY 14618. Members can show and tell what they collected or purchased over the summer, and sell or swap items they would like to get rid of. Also for sale will be numerous specimens donated to the club at very reasonable prices, plus some giveaways. Come early to set up your items. Refreshments. Visitors welcome. For more info, please contact Stephen Busschaert at mineralvp@rasny.org or 585-288-5683.

#### **NON-RAS EVENTS: (Sept)**

#### Sat 15 & Sun 16 OUTREACH

EVENT – Greentopia Ecofest, "Kids Zone" at High Falls area, Rochester. Mineral Section has been invited to be involved for the first time. The hours we will greet the public are Saturday, 10:00am – 6:00pm & Sunday, 1:00-5:00pm. Volunteers are needed! Please contact mineralpres@rasny.org or 585-395-1713.

**Rochester Academy of Science** P.O. Box 92642 Rochester, NY 14692-0642

Return Service Requested

NON-PROFIT ORG. U.S. POSTAGE

**PAID** 

ROCHESTER, N.Y. PERMIT NO. 220

August/September, 2012 - Vol. 66, #7, Page 4

ABOUT THE ACADEMY - The Rochester Academy Of Science, Inc. is an organization that has been promoting interest in the natural sciences since 1881, with special focus on the western New York state region. Membership is open to anyone with an interest in science. Dues are minimal for the Academy and are listed in the membership application. Each Section also sets dues to cover Section-related publications and mailings.

For applications and/or more information, contact Jutta Dudley, 140 Railroad Mills Road, Pittsford, NY 14534; by telephone (585) 385-2368; or by e-mail e-mail

The Academy Internet website is http://www.rasny.org

This "BULLETIN" is produced monthly, except July and September, by the Astronomy Section, Rochester Academy of Science. The Astronomy Section Information phone number is (585) 987-5330. The Astronomy Section Internet web page is http://rochesterastronomy.org

#### ROCHESTER ACADEMY OF SCIENCE OFFICERS

		Phone	
		(585) home	work
Jutta Dudley	President	385-2368	
Jeff Gutterman	Vice President	392-8299	789-1364
Eric Drum	Secretary	216-9313	
William Hallahan	Treasurer	624-1628	389-2552
Open	Membership		
Stan Spector	Past President	461-1272	
Karen Wolf	Anthropology	670-9709	273-4500
Lori Englund	Astronomy	334-5744	242-3226
Karen Wolf	Life Sciences	670-9709	273-4500
Dan Krisher	Fossil	293-9033	
Nancy McCann	Mineral	395-1713	
Elizabeth Pixley	Herbarium	334-0977	
Jutta Dudley	Publications	385-2368	
Gage Slade	Bulletin Editor		
William Hallahan	Student Grants	624-1628	389-2552
Paul Dudley	Website Coordinator	385-2368	
Reginald Smith	Director '13	244-4979	
	Director '13		
Frank Bov	Director '15	385-1518	422-9910
Douglas Kostyk	Director '14	943-3419	
Lee Tutt	Director '14	872-3033	
Helen D. Haller	Director '15	387-9570	

The Academy Postal address is P.O. Box 92642, Rochester, NY 14692