



## President's Message

The RAS Spring Lecture featured astrophysicist Dr. Eric Mamajek who spoke about the galactic neighborhood. About 75 people attended the lecture held at RIT. The audience was very interested and kept the speaker busy afterwards with questions and conversation. We enjoyed socializing over refreshments and a cake adorned by the Milky Way.



Photo credit: Carol Latta

Many thanks to my colleagues on the Board who are volunteering their time and talent once again to serve as officers in the upcoming year (see election results notice page 2 in this issue). We still lack a special person to oversee membership, and someone to serve as director.

Mark November 12 on your calendar. The Fall Paper Session will be held that day at Roberts Wesleyan College. A public lecture will be offered by RAS at the event and we welcome

recommendations for topics of interest or specific speakers. The Academy will participate at two upcoming events: Science Exploration Days in mid-May (see article below) and the ADK Outdoor Expo in early June. Do volunteer to help at these events! Spread the joy of learning about the natural world and promote the Rochester Academy of Science!

*Jutta Siefert Dudley*

\* \* \*

## RAS at Science Exploration Days 2016 Volunteers Needed

On Thursday evening, May 12 and on Friday the 13<sup>th</sup>, the Academy will again have an important presence at Science Exploration Days, an annual event at St John Fisher College that is organized by the Central Western Section of the Science Teachers Association of NYS. For 45 years the program has focused on acquainting young people with research, scientific concepts, applied technology, local natural history, and various topics beyond the standard classroom fare.

RAS hands-on activities and informative displays in the exhibit hall teach and enlighten visitors of all ages. We provide

telescopes, minerals, fossils, and edible plants, so visitors stopping at our tables have something interesting to see, do, and learn. To do all this well, we need your help!

As a volunteer, at the Thursday evening program for example, you will meet families excited to learn something new. During the school program on Friday, you'll interact with some of the 1000 registered students in grades 7 through 12.

Let your Section Leader know you can help! Section leaders, for information about section table set up on Thursday afternoon contact Karen Wolf, who serves as RAS exhibits liaison with the SED committee:

[karen\\_wolf@urmc.rochester.edu](mailto:karen_wolf@urmc.rochester.edu)

### SED Volunteer Schedule:

**Thursday afternoon:** exhibit set up in Student Life Center 2 p.m.

**Thursday evening, 7- 9 pm:** Exhibit hall open to the public.

**Friday: 9:30- 1:00 pm:** Registered students attend seminars and visit exhibit hall

**Friday: 1:00 pm:** Free wine reception and luncheon for presenters and exhibitors.

For information about the overall program contact Jutta Dudley, a member of the CWS-STANYS SED committee.

\* \* \*

## **Election Results Announced April 9.**

President: Jutta Siefert Dudley,  
Ph.D.

Vice President: Michael Grenier

Secretary: Helen Downs Haller,  
Ph.D.

Treasurer: William Hallahan,  
Ph.D.

Director (2016-2019): Jeff S.  
Gutterman, P.E.

Director (2016-2018): Chris  
Collins, Ph.D.

Positions remaining open are  
Director and Membership Chair.

\* \* \*

The following abstract represents  
a talk presented at the 2015 RAS  
Fall Paper Session.

### **STARRY STONEWORT**

*(Nitellopsis obtusata L.)*

### **INVADES CANANDAIGUA**

**LAKE.** Bruce Gilman,  
Department of Environmental  
Conservation and Horticulture,  
Finger Lakes Community  
College, 3325 Marvin Sands  
Drive, Canandaigua, New York  
14424 and Emily Staychock,  
Invasive Species/Watershed  
Educator, Yates County  
Cooperative Extension, 417  
Liberty Street, Penn Yan, New  
York 14527.

Canandaigua Lake can now add a  
new name to its growing list of  
invasive aquatic species – starry  
stonewort. Observed during an  
aquatic vegetation training event  
along a northern shoreline two  
years ago and this year at the  
south end of the lake near the  
West River, starry stonewort is  
now estimated to be covering at

least 30 acres of the lake bottom.  
Native to Europe and western  
Asia, this invasive species was  
first observed in the St. Lawrence  
River in 1978, presumably  
released in ballast water. It was  
discovered in the Great Lakes in  
1983 and spread to inland lakes  
shortly thereafter.

Starry stonewort is a macro-algae,  
a simple multi-celled organism  
descended from some of the  
earliest lifeforms on the planet. It  
resembles a vascular plant but the  
main body consists of large stem-  
like cells, up to 30 cm long,  
together with branch whorls  
resembling leaves that radiate  
upward from nodes of smaller  
cells. It is anchored by colorless  
rhizoids that contain several star-  
shaped bulbils, vegetative  
propagules with a long dormancy.  
Rhizoids as well as the entire  
surface of the organism can  
absorb nutrients. Starry  
stonewort can grow to 2 meters in  
height but is often smaller  
creating dense, mounded colonies  
in the littoral zone of lakes and  
slow flowing rivers. Dispersal to  
adjacent waters is likely by  
fragments moved on boats as well  
as oocytes attached to bird  
feathers and fur of aquatic  
mammals. Local spread after  
establishment is likely by bulbils.

Starry stonewort thrives in marl  
sediment of alkaline lakes. It  
establishes under oligotrophic to  
mesotrophic conditions with a  
Carlson Trophic State Index (TSI)  
ranging from 38-46. TSI is  
generally lowered after invasion  
from water clarity improvements  
associated with less sediment  
resuspension and less  
phytoplankton due to competitive

interactions with starry stonewort.  
Scientific studies report that starry  
stonewort releases allelopathic  
substances that reduce the  
occurrence of native submerged  
vegetation. Dense colonies  
impede fish movement, alter their  
spawning beds and fry habitat.  
Water flow may be restricted, and  
passage by recreational vessels  
negatively impacted. Control by  
manual pulling is difficult due to  
fragile nature of the plant.  
Dormant bulbils left in sediment  
after hand pulling will rapidly  
recolonize the site. Chemical  
herbicides will only kill the upper  
portions of dense stands, allowing  
regrowth from beneath. No  
effective biological controls are  
known at this time.

Starry stonewort has been  
observed by the authors in Sodus  
Bay, Oneida Lake, Keuka Lake,  
Cayuga Lake, Seneca Lake and  
Owasco Lake. It should be  
searched for elsewhere and  
documented on *iMapInvasives*.  
Accurate distributional records  
are critical for future management  
of this impending threat.



*Starry stonewort.*

*Photo credit: Vermont  
DEC Watershed  
Management Division*

# Events for May, 2016

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

## **Fri 6 ASTRONOMY SECTION MEETING**

7:30 p.m.–10:00 p.m RIT, Gosnell Hall, Room A300. ASRAS General Members Meeting. Brad Timerson will speak about seismology and Peter Bonneau will speak about photography. For more information, contact Joel Schmid at (585) 732-5321.

## **Fri 6 FOSSIL SECTION MEETING**

7:30 p.m. Brighton Recreation Center off Winton Road north of 590 interchange. Our speaker will be Dr. Gordon Baird of SUNY Fredonia and he will be talking about his ongoing stratigraphic work in northeastern Ohio. The field trip schedule through the middle of July is in place and will be published in the May issue of the Fossil Newsletter. For more information, contact Dan Krisher at 293-9033.

## **Sat 7 MINERAL SECTION FIELD TRIP**

6:45 a.m – noon. Penfield Quarry Open House, 746 Whalen Road. All ages welcome – open to the public! Hard hats (children may wear bicycle helmets), safety glasses, sturdy foot-wear, & long pants required. Expect to find fluorite, calcite, selenite, sphalerite, dolomite, gypsum, galena & fossils. For more information, contact Paul Dudley

at [mineral@rasny.org](mailto:mineral@rasny.org) or 585-385-2368.

## **Tues 17 MINERAL SECTION MEETING**

7:00 p.m.-9:00 p.m. Brighton Town Hall, downstairs community meeting room. Paul Cassarino, FGA, co-owner and lead gemologist at The Gem Lab will discuss lead-glass filled rubies and laboratory-grown diamonds. Visitors are welcome. Door prizes and refreshments. For more information contact Stephen Busschaert at 585-732-5321 or [mineralvp@rasny.org](mailto:mineralvp@rasny.org).

## **Wed 18 RAS BOARD MEETING**

7:00 p.m. Brighton Town Hall, Stage Conference Room.

## **Fri 20 LIFE SCIENCES**

6:00 p.m. BANC Sanctuary. We will join BANC for a potluck dinner and a talk/hike by Martha Zettel. Bring a dish to pass, your place settings and a flashlight. Please contact Karen Wolf so she can let BANC know how many extra people to expect. 670-9709.

## **Sat 21 HERBARIUM**

Life Sciences section will hold a workshop at the RAS Herbarium, located in the basement of the Rochester Museum and Science Center (RMSC). We will be repairing and remounting plant specimens. No experience needed! The Museum café is open until 2 pm, if you wish to buy

lunch. Space is limited - if you plan to attend, please send an RSVP to Elizabeth Pixley. Then, at RMSC, go to the front desk and ask staff person to call ext. 368, phone in the Herbarium. For more information, contact Elizabeth Pixley, herbarium curator (334-0977 or [eypixley@gmail.com](mailto:eypixley@gmail.com)).

## **Fri 27 ASTRONOMY STAR PARTY**

9:45 – 11:00 p.m. Mendon Ponds Park Youth Camping Area. For more information, contact Jim Seidewand at (585) 703-9876.

## **ONGOING EVENT**

ASRAS will operate the telescope, or one on the sidewalk, at Strasenburgh Planetarium on mostly clear Saturday nights. Contact Jim Seidewand at (585) 703-9876.

## **OUTSIDE RAS EVENT**

### **Thurs 12, Fri 13 SCIENCE EXPLORATION DAYS**

St. John Fisher College, Student Life Center.

Thursday, 2:00 p.m. RAS sets up exhibit tables.

Thursday, 7:00 – 9:00 p.m.

Exhibit Hall open and free to families.

Friday, 9:40 a.m.-12:45 p.m. Junior and High School Students' schedules include time in the Exhibit Hall.

Friday, 1:00 p.m. Free wine reception and luncheon for presenters and exhibitors.

**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

«RASCat» «Sections» «YearPaid»

«FirstName» «LastName»  
 «CO»  
 «Street»  
 «City», «State» «Zip»-«Zip4»

May, 2016 - Vol. 70, #5, Page 4

**CHANGING ADDRESS?**

Temporary or Permanent?  
 Notify whallah3@naz.edu.  
 A returned newsletter costs us 59¢  
 Please help stop this waste.

**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 <pres@rasny.org>. The **Academy** Internet website is <http://www.rasny.org> Or see us on Facebook at <https://www.facebook.com/RochesterAcademyOfScience>

---

This “**BULLETIN**” is produced monthly, *except July and September*, by the **Astronomy Section, Rochester Academy of Science**. Submissions are due by the 10<sup>th</sup> of the month, and may be emailed to editor@rasny.org

**ROCHESTER ACADEMY OF SCIENCE OFFICERS**

		<b>Phone</b>	
		(585) home	work
Jutta Dudley	President	385-2368	
Jeff Gutterman	Vice President	392-8299	789-1364
Helen D. Haller	Secretary	387-9570	
William Hallahan	Treasurer	624-1628	389-2552
Open	Membership		
Stan Spector	Past President	461-1272	
Karen Wolf	Anthropology	670-9709	273-4500
Valerie Rapson	Astronomy	(cell) 301-3424	
Lawrence Hirsch	Life Sciences	429-6199	
Dan Krisher	Fossil	293-9033	
Stephen Busschaert	Mineral	732-5321	
Elizabeth Pixley	Herbarium	334-0977	
Jutta Dudley	Publications	385-2368	
Bob Crumrine	<i>Bulletin</i> Editor	(cell) 813-4157	
William Hallahan	Student Grants	624-1628	389-2552
Paul Dudley	Website Coordinator	385-2368	
Reginald Smith	Director '16	244-4979	
Michael Grenier	Director '16	671-8738	
Frank Bov	Director '18	385-1518	422-9910
Douglas Kostyk	Director '17	943-3419	
Lee Tutt	Director '17	872-3033	
Open	Director '18		

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