



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 13th, 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

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 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.

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).

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.

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

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

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