



President's Message



Best Wishes for the New Year!

We begin our outreach activities of the year at the Mendon Ponds Winterfest on Sunday, January 17. If you've been to this event before you know it's a great family outing bringing together outdoor enthusiasts from a variety of community organizations. For our part, we'll showcase some activities like rock collecting and solar observing. There are always many curious visitors, and we would welcome your help greeting them.

We count on members to make our activities successful each year. So, please include volunteering for RAS in your New Year Resolutions! Thanks, let's have a great year!

Jutta Siefert Dudley
President RAS



*to keep
your RAS membership
updated. Renewal
form is on next page.*



Watch Out for Fire Ants!

The RAS Paper Session highlighted current research by students and faculty. One of these fascinating projects delved into the interaction between an alien fire ant species and certain plants near Buffalo. The ant, *Myrmica rubra*, is aggressive and it stings.



Myrmica rubra worker ant. Scale line = 1 mm

Photo credit: www.antweb.org; photographer unknown

The abstract, submitted by student Katelyn Reed, under the tutelage of Dr. Robert Warren of Buffalo State College, summarizes her investigation.

Biome Invasion: Exotic Ant Dominates Urban Forest Community

Invasive species can severely impact native habitats with overwhelming numbers and no apparent limitations by habitat or other species. Moreover, mutualisms with other invasive species can facilitate these invasions. Here I explore the changes in a European ant population two decades after it invaded Tiff Nature Preserve in Buffalo, NY, USA. I also investigated the interactions between the ants and native and invasive plants. I hypothesized that the *M. rubra* population boundaries had not changed in 20 years due to moisture limitations (desiccation) and that its presence would be enhanced by an abundant invasive plant at Tiff, *Fallopia japonica* (Japanese Knotweed). I measured *Myrmica rubra*, the European Fire Ant, populations by placing sugar bait stations at the same points and times of year as used in 1994 to census the ants. I collected data on soil moisture and temperature to determine limiting factors, and I conducted transect survey to further explore *M. rubra* habitat limitations. Finally, I simulated herbivory on a native nettle plant and the invasive *F. japonica*, the latter known to produce nectar rewards for ants when damaged, to test whether *M. rubra* populations were affected by the plants. I found *M. rubra* more in warmer, moist areas at the preserve, with low moisture appearing to be its strongest limited factor. Additionally *M. rubra* occurred more frequently with invasive plants, particularly *F. japonica* plants that were experimentally damaged.

REMINDER

RAS BOD NOMINATION PETITIONS DUE FEBRUARY 1

The Nominations Committee will present a slate at the January 20, 2016 BOD meeting. December 31 was the deadline to be considered for an open position by the committee. However, if you are interested in any position listed below, Academy by-laws allow a member, with a petition signed by ten other members, to be placed on the ballot. Secretary Helen Haller, (wordbird@rochester.rr.com) must receive this petition by February 1, along with a brief sketch of the candidate's qualifications and desire to serve.

Positions with no candidates: Membership chair- 1 year and Director- 3 year term

Positions with candidates: President- 1 year, Vice President- 1 year, Secretary- 1 year, Treasurer- 1 year, Director- remaining 2 years of a 3 year term

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<p>Membership Form</p> <p>Mail to: R.A.S. c/o William L. Hallahan 6658 North Avon Rd. Honeoye Falls, NY 14472</p> <p><input type="checkbox"/> New <input type="checkbox"/> Renewal</p>

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For your convenience, please pay your dues to the R.A.S. and its sections with a single check. **Make check payable to: Rochester Academy of Science, Inc.**
 CIRCLE the amount you are paying for an Academy category (shaded column) and for the Section(s) in which you wish membership.

Membership Categories <i>R.A.S. dues are a prerequisite for section membership</i>	Rochester Academy of Science	Anthropology Section	Astronomy Section	Life Sciences Section	Fossil Section	Mineral Section	Total
Member (Individual over age 18)	\$10.00	\$2.00	\$17.00	\$2.00	\$5.00	\$5.00	
Family (Including students to age 18)	\$15.00	\$3.00	\$22.00	\$3.00	\$6.00	\$6.00	
Student (age 18 to full-time undergrad.)	\$5.00	\$1.00	\$5.00	\$1.00	\$2.00	\$2.00	
Supporting (Individual or family)	\$20.00	*****	\$30.00	\$10.00	\$10.00	\$10.00	
Patron (Individual or family)	\$30.00	*****	\$50.00	\$20.00	\$20.00	\$20.00	
Life (Individual only)	\$200.00	*****	\$300.00	\$40.00	*****	*****	
Gift (Thank you!) Fill in amount ⇨							
Check box(es) if you are interested in volunteering. ⇨ ⇨ ⇨ ⇨ ⇨							

Events for January, 2016

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

FOSSIL SECTION MEETING

No Fossil Meeting in January.

Fri 8 ASTRONOMY SECTION MEETING

7:30 p.m.–10:00 p.m. RIT, Gosnell Hall, Room A300. ASRAS General Members Meeting. For more information, contact contact Joel Schmid at (585) 533-2097.

Tues 19 MINERAL SECTION MEETING

7:00 – 9:30 p.m. Brighton Town Hall, downstairs community meeting room. Guest speaker Dr Rory Cottrell, is a researcher at the University of Rochester. She will tell us about *An Archeomagnetic Record from Southern Africa and its Bearing on the South Atlantic Anomaly*. A dramatic decrease in the Earth's magnetic field in the past ~160 years may be linked to a low intensity geomagnetic anomaly in the south Atlantic region. Studies of magnetic minerals found in burnt grains, floor and ceramic materials from Iron Age sites in South Africa help researchers understand the phenomenon. Door prizes and refreshments will be available. Visitors are welcome.

Sun 17 LIFE SCIENCES FIELD TRIP

11:00 a.m. Visitors Center, Mendon Ponds Park, Winterfest Event. We will meet in the Visitor Center parking lot. From there we will travel to the Winterfest activities in the park.

If you need directions contact Larry Hirsch at 429-6199.

Sat 16 LIFE SCIENCES HERBARIUM WORKSHOP

10:00 a.m.– 2:00 p.m.: 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 continue work on replacing torn and damaged genus folders, as well as repairing specimens as needed. It is a great way to see interesting plants from the Rochester region and around the world! No experience needed! The Museum café is open until 2 pm, if you wish to buy lunch. 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 epixley@rochester.rr.com).

Wed 20 RAS BOARD MEETING

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

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. Note: We have a new Celestron 11 inch SCT permanently mounted on the deck

outside the Cave observatory. Come and check it out!

NON-ACADEMY EVENTS

Sun 17 WINTERFEST

11:00 a.m. to 4:00 p.m. Mendon Ponds Park. No matter what the weather, join the community at the County's Annual Winterfest at Mendon Ponds Park! You can hike, race, geocache, ride a wagon, watch sled dogs run, meet wild critters, a patrol dog and horse, plus so much more! For detailed information about the activities go to <http://mendonpondswinterfest.org>

You'll find members from Astronomy and Fossil/Mineral Sections stationed with exhibits in Cobblestone House.



Last year's visitors admire fossils with John Handley and Dan Krisher.
Photo credit: JSDudley

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January, 2016 - Vol. 70, #1, 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>

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