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For applications and/or more information contact membership chairman Stephen Busschaert, 54 Keswick Rd., Rochester, NY 14609; by telephone 288-5683; or by e-mail <sbusschaert@msn.com>.

The *Academy* Internet web page is <http://www.rasny.org>

The *Astronomy Section* Information phone number is (585) 987-5330. The *Astronomy Section* Internet web page is <http://rochesterastronomy.org>

This “**BULLETIN**” is produced monthly, *except July and September*, by the *Astronomy Section, Rochester Academy of Science*. The editor is Bob Crumrine, 3 Timway Court, Fairport, NY 14450 Phone (585) 265-5292 (days) and (585) 425-7448 (evenings), e-mail <editor@rasny.org>

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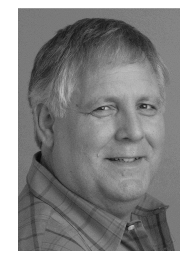
Rochester Academy of Science

BULLETIN

“An organization of people in the Natural Sciences”



February, 2010 - Vol. 64, #2



**PRESIDENT’S MESSAGE
FEBRUARY, 2010**

Last call for nominees for the RAS Board of Directors. We still are actively looking for someone to run in an open director’s position and the secretary’s position. Both of them require only a minimal amount of time outside of the 10 two hour-long meetings. Please contact Stan Spector 461-1272 if you have any interest so he can get you on the ballot. We are also looking for someone to coordinate content for the monthly bulletin and for the web calendar.

* * *

**ASSESSING THE
CONDITION OF SUGAR
MAPLE STANDS IN THE
NORTHEAST FOLLOWING
DEFOLIATION BY FOREST
TENT CATERPILLAR.**

N.E. Pitel, R.D. Yanai, and D.M. Wood. Department of Forest and Natural Resources Management, State University of New York, College of Environmental Science and Forestry, 1 Forestry Drive, Syracuse, NY 13210. *M.S.,

SUNY-ESF, 2008.

Sugar maple (*Acer saccharum* Marsh.) is a keystone species of the northern hardwood forest type. A common stressor of sugar maple in the Northeast is forest tent caterpillar (*Malacosoma disstria* Hübner, FTC), an indigenous defoliator. The recent outbreak of FTC (2002-2007) affected millions of acres of forest in the northeastern U.S. and Canada. Defoliated trees can exhibit crown dieback and loss in vigor, which can lead to mortality. This research involved assessing the condition of sugar maple trees in 48 new or previously monitored NAMP stands in New York, Vermont, and Massachusetts, in 2007 and 2008, following the collapse of the FTC outbreak. Crown damage was assessed two ways: tree crown dieback (%) and mortality (%). Objectives were: (1) to see if crown dieback in 2007 affected the amount of crown dieback in 2008 (2) to see if mortality within stands in 2008 could be predicted using the crown dieback percentage from 2007 and (3) to determine if sugar maple stands in the Northeast appeared to be recovering or declining following the latest outbreak of FTC.

Results showed that all but two stands had less crown dieback and appeared to be recovering.

Recent mortality in 2008 was highest in the two stands that exhibited the highest amount of crown dieback in 2007. Trees dead in 2008 had significantly higher ($p = <0.001$) crown dieback in 2007 than trees still alive. Although results do show some relationships, further investigation and statistical analyses are needed. The overall goal of this research is to determine why some sugar maple stands appear to recover, while others decline following defoliation and investigate the factors involved. We are currently investigating soil chemistry factors and working on statistical analyses.

* * *

**RAIDING ACTIVITY OF
TWO SPECIES OF
SLAVEMAKING FORMICA
ANTS.**

Sara L. Lewandowski, Jennifer L. Apple

Department of Biology, SUNY Geneseo, 1 College Circle, Geneseo, NY 14454

Slavemaking ants are social parasites that conduct periodic raids on neighboring colonies of a related ant species to steal the developing brood. The slavemakers return to the slavemaker colony with the captured brood, which is raised as

a workforce to forage, maintain the nest, and care for slavemaker offspring. The Roemer Arboretum of SUNY Geneseo has two species of slavemaking ants, *Formica subintegra* and *F. pergandei*, which parasitize colonies of *F. glacialis*. We identified eight *F. subintegra* colonies and three *F. pergandei* colonies in a 155 m by 310 m area of the Arboretum that contained over 220 colonies of the host species. Raid activities of eight *F. subintegra* colonies and three *F. pergandei* colonies were monitored from July 7th through

August 6th, 2009. Over 50 raids were observed during this period and target host mounds were identified for 37 of these raids. We measured raid distances for these tracked raids using ArcGIS and found intercolony variation in median raid distance (ranging from 4.1 to 26.9 m) and raid frequency. In addition, there was a marginally significant difference in raid frequency between the two slavemaker species. These raid characteristics are useful in describing the dynamics of this host-parasite interaction and its impact on our local ant populations.

2010 Rochester Academy of Science, Inc.

Membership Form

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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 R.A.S. category 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 (K to full-time undergrad.)	\$5.00	\$1.00	\$5.00	\$1.00	\$2.00	\$2.00	
Supporting (Individual or family)	\$20.00		\$30.00				
Patron (Individual or family)	\$30.00		\$50.00				
Life (Individual only)	\$200.00		\$300.00	\$40.00			
Donations (Thank you!) Gift							
Community Outreach Fund							

☐ ⇐ Check here if you are interested in serving on the R.A.S. Board of Directors

EVENTS for February, 2010

(For updates to events, check the Academy web site, <http://www.rasny.org>, or appropriate Section web site.)

FEBRUARY EVENTS

Tues 02 FOSSIL MEETING

7:30 PM Downstairs Meeting Room, Brighton Town Hall. 2300 Elmwood Ave., Fossil Section member John Handley will give a talk on the Ordovician of the Cincinnati Arch and adventures at the North American Paleontological Convention. Visitors welcome. Contact John Handley at <fossil@rasny.org> or 585-802-8567 for more information.

Fri 5 ASTRONOMY GENERAL MEETING

7:30 PM, RIT Gosnell Hall A-300 Lecture Hall. RIT Professor Michael Richmond will present the latest updates from the Kepler mission. For information, contact Lori Englund at 334-5744, or <lenglund@frontiernet.net> or visit www.rochesterastronomy.org.

Sat 06 LIFE SCIENCES GENERAL MEETING

3:00 PM – 10:00 PM at Karen Wolf’s home. 1397 Five Mile Line Road (come anytime, leave anytime) bring a dish/snack to pass; Section will supply sandwich makings and drinks. We will have a late afternoon luncheon for afternoon attendees and early evening meal for later in the day attendees. We will have Herbarium samples and other materials on display and discuss the many things the Life Science section and RAS are involved with and could be involved with.

Bring your thoughts and ideas for field trips and meeting topics. For more information and to let me know how many will attend, contact Karen 670-9709.

Fri 12 ASTRONOMY LECTURE

7:30 PM, RIT Gosnell Hall A-300 Lecture Hall. “Deep Sky Filters” Frank Bov. Frank will discuss the use of filters for viewing nebulae. For more information, contact Lori Englund at 334-5744.

Mon 15 – Fri 19 ASTRONOMY EXHIBIT

12:00 PM – 4:00 PM at the Strassenburgh Planetarium. ASRAS members will be in the lobby presenting astronomy topics. For more information, contact Carol Latta at 230-9548 or <cosmos@rochester.rr.com>.

Mon 15 RAS BULLETIN DEADLINE

Deadline for events and articles the March, 2010 issue. To submit articles, contact the editor at editor@rasny.org.

Tues 16 MINERAL GENERAL MEETING

7:30 PM. at Brighton Town Hall, 2300 Elmwood Ave., in the Downstairs Meeting Room. Dr. Asish Basu, U of R Professor, Earth & Environmental Sciences Dept., will speak on **Eruption of Nyiragongo Volcano in the African Rift Valley**. For information, call Nancy McCann at 395-1713 or

<mineralvp@rasny.org> or check the Mineral Section Web page <www.rasny.org/mineral>.

Wed 17 RMSC SHULTZ LECTURE

7:30 PM Rochester Museum and Science Center. "In the Footsteps of Mammoths and Mastodons – from Siberia to the North American Great Lakes," Professor Daniel C. Fisher, University of Michigan. Admission charge. Order tickets at (585) 697-1942.

Sat 20 LIFE SCIENCES HERBARIUM

10:00 AM – 1:00 PM Life Sciences section will hold a workshop at the RAS Herbarium, located in the basement of the Rochester Museum and Science Center (RMSC). No experience needed! Plan to come and help with this valuable collection – and learn about plants in the process. Lunch is served in the RMSC Cafe until 2 pm. If you plan to attend the workshop, please send an RSVP to Elizabeth Pixley. Then, at RMSC, go to the front desk and ask staff person there to call ext. 368, the phone in the Herbarium. For more information, contact Elizabeth Pixley, herbarium curator (334-0977 or epixley@rochester.rr.com).

Wed 24 RAS BOARD MEETING

7:00 PM Brighton Town Hall 2300 Elmwood Ave. in the downstairs conference room. Everyone is welcome.