

BULLETIN

"An organization of people in the Natural Sciences"



August/September, 2014 - Vol. 68, #7

President's Message:

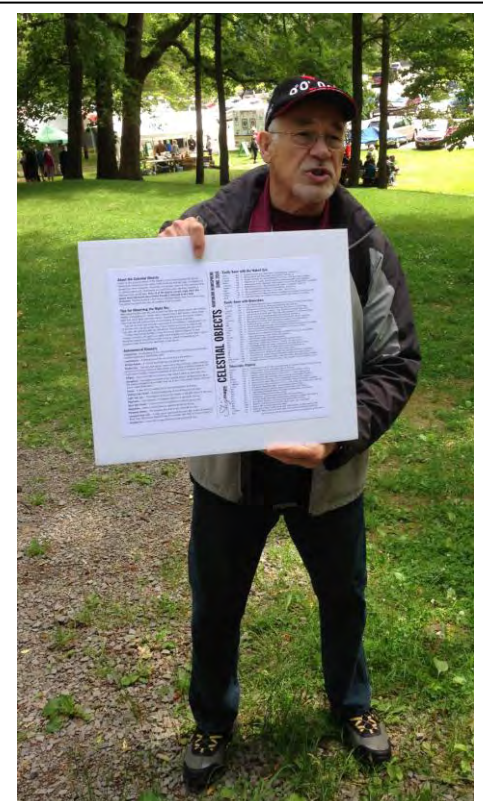
The Academy participated in the popular ADK outdoor fest June 14th at Mendon Ponds Park. It was a surprisingly cold, cloudy, and breezy day that never hit 60 F! The crowd was a bit thinner than previous years but a good number of people engaged us with discussions and questions about the fossil and mineral displays. These encounters included a fair number of kids who were rewarded with minerals or fossils they identified with the help of display materials. Under the RAS canopy that day were folks who helped set up or take down, prepared display materials,

and/or greeted visitors: John Handley, Dan Krisher, Paul Dudley, Jerry Colyer, Kathy Henrie, Andrea Moore, Steven Busschaert, Jutta Dudley, and George Wonder. Up on the hill, astronomy section member Don Chamberlain gave a talk on finding one's way in the night sky that would appeal to hikers and boaters admiring the dark summer skies while in the Adirondacks. Aided by large props, he described how to spot certain constellations and star clusters with naked eye and binoculars. Solar observing was impossible that day much to the disappointment of Frank Bov and Bob Crumrine (and the rest of us)!

Have you thought about presenting a short talk or poster at the RAS annual Fall Paper Session on November 15th? If you have a project you or your colleagues are working on, we'd love to hear about it and so will others in the community. Now is a good time to plan so you'll be ready to respond to the Second Call for Papers from The College
Continued page 2....



Gathering at Don Chamberlain's talk at the Adirondack Mountain Club Outdoor Expo June 14, 2014.



Don Chamberlain displays a list of interesting objects in the sky at the Adirondack Mountain Club Outdoor Expo June 14, 2014 at Mendon Ponds Park.



Fossil Section Exhibit at the Adirondack Mountain Club Outdoor Expo June 14, 2014 at Mendon Ponds Park.



Rochester Academy of Science Exhibit at the Adirondack Mountain Club Outdoor Expo June 14, 2014

at Brockport when September rolls in. This will be posted online and sent to Section newsletter editors.

As the summer continues I hope agreeable weather makes our field trips and events to go without a hitch. Enjoy the opportunities available to you. Help as much as

you can and be sure to thank the volunteers who make these things possible!

*Jutta Dudley, President
Rochester Academy of Science*

* * *

**THE ABUNDANCE OF
IXODES SCAPULARIS AND
THE LYME DISEASE
BACTERIUM, *BORRELIA
BURGDORFERI* IN CENTRAL
NEW YORK.**

Zuzi E. Salais, Carolanne J. Smith, C. Eric Hellquist, Timothy F. Braun
State University of New York at Oswego, Department of Biological Sciences, 329 Shineman Science Center, Oswego, NY, 13126

Recent studies show that more than 75% of emerging human pathogens are zoonotic and that their prevalence is due to both ecological factors and wildlife host abundance and behavior. Lyme disease in North America is primarily transmitted by the blacklegged tick, *Ixodes scapularis*, which acquires the bacteria, *Borrelia burgdorferi*, during a blood meal. In New York, the majority of *Ixodes* are found in the southern part of the state but are becoming more common in central New York. In 2012 and 2013 tick surveys were conducted at the Rice Creek Field Station (RCFS) at SUNY Oswego. Ticks surveys were conducted weekly at 13 locations in meadows, hardwood forests, edges (between meadows and forests) and walking trails. In 2013, we expanded our surveys to

Green Lakes State Park (Fayetteville, NY) to compare the prevalence of *Borrelia* infected ticks to those of RCFS. Surveys were conducted using the transect drag sampling method consisting of a 1-m² white corduroy cloth that was dragged and examined every 20 meters along each transect. In 2012, a total of 213 ticks were collected only in the forested (n = 210) and trail (n=3) locations at RCFS. Ticks were most often found in August-October. Following collection of ticks, we used polymerase chain reaction (PCR) of homogenized *Ixodes* to determine the presence of *Borrelia* within each habitat at RCFS. Of the 213 ticks collected, one tick tested positive for *Borrelia*. For 2013, a total of 51 ticks have been collected at RCFS in forested (n = 44) trail (n = 6) and edge (n = 1) locations. A total of 120 ticks have been collected at Green Lakes State Park in forested (n =108) trail (n = 9) and edge (n =3) locations. Tick surveys will continue until November and polymerase chain reaction will begin in late October to further understand the prevalence of *Borrelia* in central New York *Ixodes* populations.

* * *

Events for August / September, 2014

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

AUGUST EVENTS

Fri Aug 1 ASTRONOMY SECTION

7:30 p.m.–10:00 p.m. at the Farash Center. ASRAS General Members Meeting. For more information, contact Valerie Rapson at (585) 301-3424.

Fri Aug 8 LIFE SCIENCES

6:00 p. m. Life Sciences Section will join the Burroughs Audubon Nature Club for their Potluck Dinner at the BANC Sanctuary and their program titled THE LIVES OF BATS. After the program and after dark, we will walk to see how many and what kinds of bats we can find on the trails. Bring a small flashlight if you wish and enjoy the night sights and sounds. Contact Karen Wolf for details on how to get to BANC Sanctuary, 670-9709.

Wed Aug 20 RAS BOARD

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

Sat Aug 23 LIFE SCIENCES

10 a.m. Life Sciences Section will hike in the Webster Arboretum at 1700 Schlegel Road in Webster. Bring a lunch to eat if you'd like, trails are many including around a pond, rose gardens, wildflower gardens, woodland trails, and named trees abound. A real treat if you have never been there. Contact Karen Wolf for details, 670-9709.

SEPTEMBER EVENTS

Fri Sept 5 ASTRONOMY SECTION

7:30 p.m.–10:00 p.m. at the Farash Center. ASRAS General Members Meeting. For more information, contact Valerie Rapson at (585) 301-3424.

Wed Sept 10 HERBARIUM

1:00-4:00 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! 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).

Tue Sept 16 MINERAL SECTION

7:00 – 9:00 p.m. Brighton Town Hall, 2300 Elmwood Ave., Rochester, NY 14618 in the Downstairs Meeting Room. Annual Show and Tell / Swap and Sale! Members can show and tell what they collected or purchased over the summer, and sell or swap surplus items. Also for sale at very reasonable prices will be

numerous specimens donated to the club, plus some giveaways. Come early to set up your items. Refreshments. **Club members only for the sale.** This is a chance to build your collection and is currently our only club fund raiser. For more info, please contact Stephen Busschaert at mineralvp@rasny.org or 585-288-5683.

Wed Sept 17 RAS BOARD

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

Sat Sept 27 LIFE SCIENCES Field Trip

10 a.m. Abraham Lincoln Park Empire Blvd, top of the hill just south of Plank Road.

This is a fairly new park with many children friendly apparatus and nature trails to explore. Since the beginning of summer, on several hikes, we have identified around 40 wildflowers, trees and shrubs. Full list to appear in the November bulletin. Come and explore what the fall plants have to offer. Rain date Sept 28. For more information, contact Karen Wolf at 670-9709

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.

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, 2014 - Vol. 68, #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 <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 10th of the month, and may be emailed to editor@rasny.org

ROCHESTER ACADEMY OF SCIENCE OFFICERS

		Phone	
		(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	
Karen Wolf	Life Sciences	670-9709	273-4500
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 '15	385-1518	422-9910
Douglas Kostyk	Director '17	943-3419	
Lee Tutt	Director '17	872-3033	
Open	Director '15		

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