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Rochester Academy of Science
BULLETIN

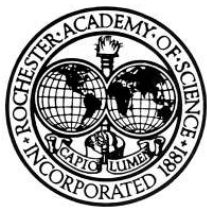
"An organization of people in the Natural Sciences"



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ABOUT THE **ACADEMY** - The Rochester Academy Of Science, Inc. is an organization which 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 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 Frank Bov, 16 Gladbrook Rd., Pittsford, NY 14534 Phone (585) 422-9910 (days) and (585) 385-1518 (evenings), e-mail <editor@rasny.org>

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**PRESIDENTS MESSAGE
DECEMBER 2007**

What do you want RAS to look like?

I would really like to know what each and every one of you would like to see RAS doing to enhance your membership.

Some of you may just want to attend your monthly Section meetings, go to a few activities each year from that Section and nothing else. Some of you may have enjoyed the Fall Scientific Paper Session just past, hosted at SUNY Geneseo, and want to continue coming to that type of event, maybe even presenting a poster or a talk. We hope some of you come to the Spring Lecture as well.

If you want the RAS to be doing something more or something different, let me know.

If you have subjects or speakers that you would like to recommend the RAS Board consider for the Spring Lecture, we would love to hear from you. You can e-mail me at President@RASNY.org and let me know or contact your Section President who attends the Board meetings so they can present us your idea.

If you have some expertise that could help organize or publicize any of these events, we are always

looking for help.

I hope you all have a safe and happy holiday season.

Stan Spector
President, RAS

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**REPORT ON THE 34TH
ANNUAL FALL
SCIENTIFIC PAPER
SESSION**

This year's Scientific Paper Session went very well. The staff and facilities at SUNY Geneseo were great, attendance was high and even the weather was cooperative.

We had very good participation by the universities that we invite to the paper session, to the tune of about 60 posters and 21 presentations. 135 to 140 people attended the morning sessions, including a small showing from the RAS membership, but a good showing of RAS Board members. Some of the Mineral Section members even came down after their field trip that morning.

Roughly 130 people came to hear our keynote speaker, Dr. Charles E Mitchell's talk on Intelligent Design. While fewer poster session presenters came to hear the keynote speaker than last year, a lot of Geneseo students showed up for this presentation, perhaps

at the insistence of their teachers. Everyone seemed to enjoy the talk.

The facilities were excellent. There were two medium sized rooms and a third, larger room for presentations. The larger room was used for the introduction and the keynote speaker. There were four laboratory rooms for the poster sessions and the hallway outside. This was nice; having the four rooms allowed plenty of space for each poster spokesperson to talk with visitors without blocking other posters. It also kept the noise down.

The logistics were excellent. The moderators for the presentations kept things on schedule without interfering with the speaker. Checking in at reception was quick and there were enough abstracts and schedules to go around. The abstracts were a final printing and were available 2 days ahead of the conference. The lunch was very good for the price charged.

The presentations addressed a wide range of topics. They were grouped by topic, Ecology and Geography, Cell and Molecular Biology, and Geology and Astronomy, and a mid-session break insured sufficient time to change rooms so no one was "stuck" in a talk they didn't like.

As in past years, most of the presentations were delivered by faculty or graduate students while the poster session was mainly undergraduates.

The Hubble Space Telescope exhibit next door at the library was a pleasant, unexpected add-on which many of us used to advantage. In every way, this was an excellent event. Major thanks to Dr. Jani Lewis of the Biology Department, Dr. Dave Gordon, Associate Provost. and all the students and staff who helped make this event a success.

(Compiled from member reports)

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ORAL PRESENTATION PROGRAM
(here's what you missed)

Session I: Ecology and Geography

- BIOGEOCHEMISTRY OF CORAL REEFS
- A MULTI-ALGAL BASED *DAPHNIA PULICARIA* FEEDING EXPERIMENT: IS THE FATTY ACID COMPOSITION OF AN ORGANISM REPRESENTATIVE OF ITS DIET
- POPULATION VIABILITY ANALYSIS IN THE RED-BACKED SALAMANDER, *PLETHODON CINEREUS*
- SEX TRAFFICKING IN CAMBODIA: MAPPING DISAFECTED VULNERABLE COMMUNITIES.
- DATA RESCUE: AGING ENVIRONMENTAL DATABASES. .

- EXAMINING THE VERTICAL EXTENT OF DROUGHT IN THE WESTERN UNITED STATES
- VISUALIZATION OF SPATIO-TEMPORAL VARIABILITY IN PALEO-FIRE REGIMES.

Session II: Cell and Molecular Biology

- LOCALIZATION OF MELANIN-CONCENTRATING HORMONE RECEPTOR-1 TO CAVEOLAR MEMBRANES.
- BIOENGINEERED MAIZE PRODUCING QUORUM SENSING SIGNALS TO DISRUPT BIOFILM FORMATION IN *PANTOEA STEWARTII*.
- INTERFERON mRNA PRODUCTION CORRELATIONS WITH NF-KB ACTIVATION IN CELLS INFECTED WITH M-DEFECTIVE STRAINS OF VESICULAR STOMATITIS VIRUS.
- CONTROL REGION ANALYSIS OF THE GENE, *ENHANCER OF RUDIMENTARY*, IN *DROSOPHILA MELANOGASTER*.
- EFFECT OF DNA SUBSTITUTIONS ON PLANT CHS STRUCTURE AND EXPRESSION
- MULTIPLE ANTIBIOTIC RESISTANCE FOUND IN BACTERIA FROM WILD GREEN FROGS.
- EXAMINATION OF THE

MITOCHONDRIAL GENOME FOR THE CAUSE OF PRESBYCUSIS.

Session III: Geology and Astronomy

- PALEOCLIMATIC PERSPECTIVES ON THE GLOBAL WARMING PETITION PROJECT.
- THE EOCENE-OLIGOCENE CLIMATIC TRANSITION IN NW ARIZONA: IMPACT ON LANDSCAPE EVOLUTION AND RELEVANCE TO THE ORIGIN OF GRAND CANYON.
- A RE-EXAMINATION OF DIRECTIONAL AND PALEOINTENSITY RESULTS FROM THE KIAMAN REVERSED POLARITY SUPERCHRON AT KIAMA: A SINGLE CRYSTAL APPROACH
- USING TOPOGRAPHIC RELIEF AS A STRAIN MARKER IN NEOTECTONIC SETTINGS.
- THE FORMATION OF THE UNIVERSE.
- A PALEOECOLOGICAL APPLICATION OF PROBABILISTIC LATENT SEMANTIC ANALYSIS
- THE FLYNN CREEK IMPACT STRUCTURE AND THE INFILLING OF A DEVONIAN CRATER

(Ed. Note: Attributions have been deleted in the interest of space, but all contributors will be acknowledged when the abstracts are published in the next *Proceedings of the RAS*.)

EVENTS for DECEMBER 2007

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

Sat Dec 1 LIFE SCIENCES DINNER MEETING

2:00 p.m.. Karen Wolf's home, 1397 Five Mile Line Road, 670-9709. We will have a workshop to learn how to prepare gifts/table centerpieces for Christmas, with pines, dried flowers, grasses, etc. Karen will walk us through the many ways to use natural materials to make a variety of gifts and centerpieces. All materials will be furnished from Karen's gatherings over the year(s). Dinner at 6-6:30 will be turkey cooked by Karen and a dish to pass from all other participants to compliment the turkey. Please call Karen Wolf to reserve a place at the decoration table and dinner table.

Tue 04 FOSSIL SECTION MEETING

7:30 PM at the Brighton Town Hall, 2300 Elmwood Ave., in the downstairs Community Meeting Room. Ursula Smith, from Cornell University, will talk about her paleontological research. Her specific topic will be forthcoming. For information, call Chuck Hiler at 924-7496 or check the Academy web site <http://www.rasny.org> for updates.

Fri 07 ASTRONOMY GENERAL MEETING

7:30 PM at the Strassenburgh Planetarium, located on East Avenue at the corner of Goodman Street. We're moving our December meeting to the Strassenburgh Planetarium for our

holiday party. We'll have food in the lobby starting at 7:30, followed by a meeting and star show in the planetarium dome. This is a lightweight meeting in terms of talks and a great time to bring family members to socialize. Bring a dish to pass if you'd like, but come anyways if not!. Visitors are always welcome. For information, contact Carol Latta at 230-9548, or <cosmos@rochester.rr.com>. See you there!

NOTE: Please don't come prior to 7PM as there is a wedding scheduled to end at that time.

Sat 08 MINERAL SECTION ANNUAL DINNER

7:00 PM at St. Louis Church, Main Street, Pittsford. NY. Set up and social hour before dinner, starting 6:00 PM. Please bring a dish to pass. Speaker TBD. Check the Academy web site for details, www.rasny.org The Rochester Lapidary Club is Invited. For more information, contact Charles Hiler at 924- 7496.

ONGOING EVENTS

Sat 1, 8, 15, 22, 29 ASTRONOMY PUBLIC TELESCOPE VIEWING

Dusk to 10:30 PM every clear Saturday night at the Strassenburgh Planetarium. Call the planetarium box office 697-1945 after 7:30 if in doubt about the skies or contact Jim Seidewand at 723-6225 for general info.