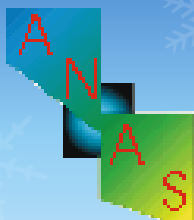


W I N T E R 2 0 0 9

the arizona-nevada academy of sciences



eNews

An Affiliate of AAAS and NAAS



President's Corner

The New Year is here and with it comes much change and many challenges. President Obama promises to reinvigorate America's scientific institutions. He has already brought a Nobel laureate into his cabinet, Secretary of Energy Steven Chu. Together, they plan to develop new technologies to meet our energy needs while addressing the threat of global climate change. Your Board of Directors has also gone through a large change over the last two years, as many of our longest serving officers have retired or moved to other positions. Over 50% of our current officers are serving their first terms. We appreciate your ongoing support as we update our web servers and database to better serve you – our members. Finally, 2009 has been named the 'Year of Science'. The Arizona-Nevada Academy of Science has joined with the [Coalition on the Public Understanding of Science](#) – a nation-wide umbrella group. You can find ANAS announcements on their web pages as well as links to other science groups in our states and local communities.

Best wishes for 2009,

Robert Reavis

The 53rd Annual Arizona-Nevada Academy Meeting in Tucson on April 4, 2009

The 53rd Annual ANAS meeting will be held at the University of Arizona on April 4, 2009. Sessions are planned for the following disciplines: Anthropology, Biology, Chemistry, Conservation, Geography, Geology, Hydrology, Mathematics, Psychology and Science Education. In addition, results in any of these fields may be presented in poster format. We encourage all members to try to attend! Details and instructions to authors are on page 3.

Important Winter 2009 dates!

Submission
deadline for
Annual Meeting

February 27

AZ Science
Olympiad

February 21

Annual
Meeting

April 4

News

National Teach-In on Global Warming: Solutions for the First 100 Days

Last year, Eban Goodstein, Professor of Economics at Lewis and Clark College, Oregon, organized 'Focus the Nation on Climate Change' – a national event held at over 1,600 campuses (including many of our home institutions). This year, his 'focus' is on the implementation of solutions. Campuses, churches and

community groups

can download and show the webcast: 'Solutions for the First 100 Days' (Feb. 4 and after). Organizations are encouraged to hold teach-ins along with the webcast that include all members of their campus, organization, community and government representatives. To find

(or host) an event, go to the website: <http://www.nationalteachin.org/>

Where are they now?

Steve Williams

Steve Williams has been a fixture of the leadership of the Academy since the University of New Mexico graduate returned to the southwest in 1981 from a stint at Penn State to take a faculty position at Glendale Community. During the subsequent years, he served the Academy in several capacities including Central Arizona Director, Newsletter Editor, Annual meeting organizer, and Science Olympiad Liaison. He has been recognized as a [Fellow of the Academy](#) and was also awarded the [Outstanding Service Award](#) in 1997-78. While still an active member, Steve recently stepped down from the Board of Governors to spend his time on other pursuits.

As biology chairman at GCC for 22 years, Steve guided the growth of the department from nine faculty members to its current 16 full-time faculty members. He was instrumental in the design of GCC's new \$26 million three-story Life Science Building that opened officially on January 14, 2009. The building features nine new teaching labs, classrooms with seating for 300, offices for the 72 full-time life science faculty and staff, and state of the art teaching technology. Among the architectural concepts of the building are its coalescence of the Biology, Psychology and Nursing departments into a shared collaborative space, and the creation of many informal areas (including lots of comfortable indoor and outdoor seating and a cafe) that encourage students to stay on campus, interact with each other and faculty. The building also features a water efficient landscaping, a 200-gallon saltwater aquarium, and a working greenhouse that will soon contain a refuge population of threatened Chiricahua leopard frogs.

However, you will not find Steve in the new Life Science building. Instead, he has taken up residence as Assistant Department Chair at the satellite GCC North campus (55th Avenue and Happy Valley Road). With a newly dedicated classroom and laboratory building surrounded by Sonoran desert, Steve enjoys the challenge of fostering enrollment in his new home while still working on college-wide projects and teaching full-time.





Arizona Science Olympiad Tournament, February 21, 2009

interests. Preparing to compete in the various events also provides a vehicle for students to form new friendships and bond as a cohesive team. Many students credit the Science Olympiad with keeping them interested in science academically and potentially professionally.

A number of ANAS members along with GCC faculty and staff and community volunteers help run the competition. Several events are open to the public. For more information or if you are interested in getting involved, contact [Karen Conzelman](#). You can also help support the tournament by adding our "Shop and Give number 25050" to your Bashas' Thank you card and/or scanning our Community Partners code (see next page) when you shop at Albertsons. Additional information can also be obtained by visiting the [Arizona Science Olympiad](#) web site and watching a [short video](#) about the competition.

The 21st annual Arizona Science Olympiad tournament will be held this year at Glendale Community College on February 21, 2009. The AZ Science Olympiad is one of ANAS's affiliated organizations; the Academy contributes \$1000 in awards to competitors' supply accounts and \$100 in prizes in memory of one of ANAS' founders and long time director of Science Olympiad, Albert "Bud" Ellis. Salt River Project has been the tournament's presenting sponsor since 2003.

State Co-Directors, Hal Eastin and Agripina Paluch indicate that there will be 32 teams (of up to 15 high school students each) competing this year in 25 different events covering a broad spectrum of scientific disciplines, including astronomy, cell biology, chemistry, ecology, epidemiology, forensics, geology, herpetology, physics, technical writing, and remote sensing. Unlike many other competitions, the Science Olympiad does much more than test factual knowledge; participants are also engaged in problem solving, laboratory investigations and hands-on activities such as designing and testing bridges, vehicles and trebuchets to meet certain parameters. The Science Olympiad models the friendly competitive spirit that drives scientific research. It provides an opportunity to demonstrate skills, knowledge and to interact with others who have similar





Dear Friends,

We are participating in the Albertsons Community Partners Program. There is no cost to get involved and we will benefit greatly with your help.

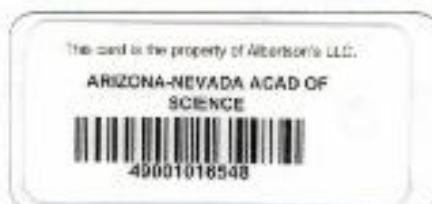
Please cut out the card at the bottom of this notice and scan it at check out each time you shop at Albertsons. We will earn 1% of your shopping each time you scan this card.

If possible, please make copies of the card and distribute to friends, family, neighbors and co-workers who may be willing to help us as well.

Thank you in advance for your support in this campaign. We sincerely appreciate it.

ANAS - Science Olympiad

[Your organization name]



Dear Friends:

Please scan the enclosed key tag every time you shop at Albertsons.



This will help us earn much
needed funding.

Thank you for your support!



Instructions to Authors for The 53rd Annual Meeting

1. Title and Abstracts:

A title and abstract must be submitted for each paper or poster to be presented at the meeting. Abstracts will be published in the Proceedings issue of the Journal of the Arizona-Nevada of Science exactly in the form and condition submitted by the author. Every error which appears in the submitted abstract will appear in the printed abstract. Each author must, therefore, prepare his/her abstract with extreme care. Please read the following instructions carefully before preparing your abstracts. Refer to the attached Sample Abstract for the proper format.

General Requirements:

Type the abstract, single spaced, using a size 12 font (Times New Roman or equivalent)

Use a recent version of MS Word to prepare file copies.

Either Macintosh or Windows format is acceptable. Abstracts submitted in Macintosh format will be converted to Windows format for printing.

One hard copy (may be optional, contact session chair) and one electronic file of the abstract must be sent with registration fees on or before Feb. 15, 2009. See the various options under "6" below.

More than one abstract may be submitted together by paper mail, but all such multiple-abstract submissions must be to the same section. Label each e-mail attachment with:

Title of Abstract(s)

Author(s)

Format Specifications for the Abstracts

Titles. Use a short, concise title that indicates the content of the abstract. Capitalize all letters of the title.

Double space between title and author's name and between author's name and the body

of the abstract.

Authors and Institutions. Capitalize only the first letter of the author's names. If the paper is of joint authorship, underline the name of the author who will make the presentation. Each author should be listed by institution, city and state. Do NOT include department, division, professional titles, etc.

Abstracts are limited to a maximum of 17 single-spaced lines (12 pt. font, not including the title and author-affiliation lines). Do not exceed this line count.

2. Deadlines:

February 27, 2009

Complete abstracts (emailed file and printed copy [optional, contact session chair]) and required registration fees must be mailed in time to reach the appropriate [session chairperson](#) NO LATER than February 27 2009. The session chairperson will forward the abstracts to the Proceedings Editor.

March 13, 2009

Session schedules, abstracts, and other materials must be sent by the session chairpersons to arrive at the address of the Proceedings Editor before this date.

April 4, 2009

Annual Meeting at the University of Arizona, Tucson.



Instructions for The 53rd Annual Meeting (cont'd)

3. Notification of Acceptance

Provide an e-mail address (or enclose a self-addressed, stamped post card for paper mail submissions) to the (contact [Session Chair](#)) so that they may notify you of acceptance of your paper and the time of your presentation.

4. Length of Platform Presentation:

Expect to be limited to the time of presentation stated. In general, a maximum of 15 minutes will be allowed for oral presentations; any longer time must be arranged in advance with the Session Chairperson.

5. Projection Equipment:

Projection equipment will include computers (MS Windows, PowerPoint) with projectors.

6. Registration Fee:

Authors are required to submit with their abstracts a REGISTRATION FEE of \$15 for student members, \$20 for student non-members, \$35 for members, or \$45 for non members. Registration fees include lunch at the Annual Business Luncheon.

For papers with more than one author, THE PRESENTER should submit the appropriate registration fee. Co-authors planning to attend the meeting should register separately using the registration options provided below. For paper-mail payments, make checks payable to the Arizona-Nevada Academy of Science (ANAS). If fees for more than one presenter are included in a single check, please indicate on the check exactly who the fees are for. Clip (DO NOT STAPLE) the check to one of the copies of the abstract. Abstracts submitted without the registration fee will be rejected!

Pre-Registration Forms:

PRESENTERS: Deadline is February 27, 2009. See [Abstract Form](#) on website:

<http://www.arizonanevadaacademyofscience.org/anmtindx.html>

As described above, this needs to be sent as an attachment to the appropriate [session chair](#) (see [website](#) at URL below)

Registration fees can either be mailed to session chair as a check or money order (payable to ANAS) along with a hard copy of the abstract or may be submitted electronically using [PayPal](#) through the ANAS website.

CO-AUTHORS AND ALL OTHER ATTENDEES:

Deadline for pre-registration - March 13, 2009
[On-line Registration and Fee Payment](#)
[Registration by US Mail with Check](#) (see [website](#))

(Note: On-site registration will not include admission to Annual Awards Luncheon so be sure to pre-register so that you can join us).

7. Additional Information:

Questions concerning the Annual Meeting and submission of papers may be directed to:

<http://www.arizonanevadaacademyofscience.org/secchair1.html>

or, Robert Reavis, ANAS President
reavis@ccmail.maricopa.edu



Sample Abstract

THE VARIABILITY OF SOIL MOISTURE UNDER DESERT VEGETATION

Theodore Sammis (New Mexico State University, Las Cruces, NM)

Soil water content was measured every two weeks during 1975-1976 using a neutron probe at selected locations around the desert plant species of creosote (*Larrea divaricata*), bursage (*Ambrosia deltoidea*), and in open space. The purpose of the measurements was to estimate the evapotranspiration rate of the desert plants by measuring changes in soil moisture. The sampling problem associated with measuring soil moisture using neutron access tubes is the number, location, and installation depth of the tubes. Analysis of variance of the total soil moisture beneath the creosote plant showed a greater variability between tubes of different plants the same distance from the crown of the plant than between tubes located around the same plant. Because of the size of the bursage plant, the variety in total soil moisture beneath the plant was greater among tubes around the same plant than between tubes at the same location at different plants.

Best Student Paper / Poster Awards

Up to four "Best Student Paper" awards (\$50 each) will be presented for platform presentations and posters. Entrants will be grouped based on their discipline and type of presentation (platform or poster).

Undergraduate or graduate students wishing to participate in the "Best Student Paper" (platform presentation or poster) competition must follow all the directions above for "Instructions to Authors" as well as meet the requirements below:

Place an asterisk (*) at the beginning of the title of the abstract.

Abstracts to be considered for this award may be co-authored by the student and their major professor. The student **MUST**, however, be listed as the first author, and their name underlined to indicate they are the presenter.

Entrants not meeting ALL of these requirements will not be considered for the award.

Scoring rubrics to be used in judging each may be downloaded from the website:

[Rubric Best Student Paper:](#)

<http://www.arizonanevadaacademyofscience.org/paperjudgeform.pdf>

[Rubric Best Student Poster:](#)

<http://www.arizonanevadaacademyofscience.org/posterjudgeform.pdf>

See more details at: <http://www.arizonanevadaacademyofscience.org/anmtindx.html>

News or kudos?



If you have any news, requests, kudos, announcements, or the like, please forward to Michael Menke, newsletter editor: menke@u.arizona.edu

Happy New Year!

Arizona-Nevada Academy of Science
<http://www.arizonanevadaacademyofscience.org>

[Robert H. Reavis, Ph.D.](#)

ANAS President
Department of Biology
Glendale Community College
6000 W Olive Avenue
Glendale, AZ 85302