

Nebraska Science News



Nebraska Academy of Sciences



Nebraska Association of Teachers of Science

Serving Scientists and Science Educators Across the State of Nebraska

Spring, 2016-2017

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FROM THE NAS PRESIDENTS' DESK

Eight Nebraska delegates were selected as the overall senior high winners at last year's Nebraska Junior Academy of Sciences State Science Fair competition. These students were invited to present their science research at the AJAS/NAAS conference in the historic city of Boston MA. The students presented their research in a poster session.



Attending the AJAS conference representing Nebraska were Allison Kohl, Jasmine Wilson, and Amanda Macke of Central City; Marcella Jurotich, Wayne; Brent Miller, Lyons-Decatur;

Emily Skinner, Papillion; Dan Stara, David City; and Edward Niemann, Omaha. The conference was held from February 15-19, 2017. At this conference there were 126 student delegates, ranging in age from 13 to 19 and representing 21 affiliated science academies. They presented their research covering fourteen STEM categories. It offered an opportunity for students to meet, exchange ideas, and discuss career possibilities with scientists and engineers from colleges and industries. The students were invited to the opening ceremonies with Stephen Wolfram who talked about Developing Personal Strategies For Scientific Discovery. They had the opportunity to choose tours of Harvard University, Northwestern University or MIT. At MIT students attended the Koch Institute of Integrative Cancer Research, Department of Brain and Cognitive Sciences, Computer Science and Artificial Intelligence Laboratory, Novartis Institute of Biomedical Research, X-ray Diffraction Facility, Media Lab and the MIT Museum. They attended the AAAS Plenary lecture with Naomi Oresikes who talked about "Scientists as Sentinel".

The Nebraska delegates attended the AJAS Breakfast With the Scientists at the Massachusetts Institute of Technology. They presented their research again in either an oral presentation or a round table session.

The Nebraska students and chaperones toured the Freedom Trail at the Boston Common and later that evening attended the AAAS Plenary Lecture with May Berenbaum and listened to her lecture on "Can Science Save the Honey Bees". The AJAS/NAAS conference was vital in promoting scientific literacy and scientific research for our next generation of scientists. It was a pleasure to sponsor these eight students at the AJAS/NAAS conference.

Randall Lienemann, NAS President

GREETINGS FROM THE NATS PRESIDENT

What is NATS? Of course, NATS is the Nebraska Association of Teachers of Science. But what does NATS mean to me, to you, to our administrators, and to the body of students that we teach? I have been reflecting on these thoughts.

As president of NATS, I have a deep passion for the association and the value that it brings to all the stakeholders mentioned above. This association provided me with my first taste of professional development as a preservice teacher and then later was the “go to” conference to better myself as a science educator. Consequently, before I became a member of the board I viewed NATS as only a conference that provided professional development. After I became a member of the board, my view of the association changed. We are a group of science teachers working to make science education better across the state, a network of colleagues, and a place for collaboration. My goal as this year’s president has been to make all these ideas a little easier to access and last throughout the year. Here is how the NATS board has been addressing these thoughts.

We are very excited to announce that the 2017 NATS Fall Conference will be combined with the NATM, Nebraska Association of Teachers of Mathematics, at the Younes Center in Kearney on September 7-9. Please mark your calendars and plan on attending. We are anticipating that Derrick Nero will keynote for us and present some sessions on being a STEM educator. We have also identified six strands for science presentations to take place on Friday. Please be watching for the call for presentations as we are hoping to have those out before the end of March. Registration information will follow soon after that.

NATS is also hosting a series of webinars on the last Monday of each month. On March 27th at 4:15 p.m. CST, we will be hosting a webinar about using phenomenon. On April 24th, the topic is 3-dimensional learning. And finally on May 22nd, the topic is gather, reason, communicate lesson development. Please watch the NATS website, Facebook, and Twitter pages for links to the upcoming webinars. There will also be links to the recorded webinars which include the following: the New Vision for Science in Nebraska from February, and a PLN How to Guide from January on the NATS website.

These are the things that the board is currently working on, but NATS means so much more than this. There is a NATS History link on the website that highlights the association. On that note, we are looking for people that want to be

actively involved in the association to run for a position on the board.

Shauna Roberson, NATS President



NEW NJAS AWARDS

The Nebraska Academy of Sciences (NAS) is offering two new \$500 awards to be offered at the state meeting of the Nebraska Junior Academy Society (NJAS) in April 2017 **thanks to a \$2500 sponsorship by Nucor Steel of Norfolk, NE.** The sponsorship also includes meeting expenses and support of the Maiben Lecture Series. Terry Rasmussen, chief metallurgist said “it is important for Nucor Steel to stay active in our support of young people and their interest and enthusiasm in science. With this collaboration with NAS we hope to further encourage that enthusiasm”. Further information can be found at <http://nebraskaacademyofsciences.wildapricot.org/>

NJAS News

Spring is just around the corner and science competitions are beginning. The six regional science fairs will occur across Nebraska. Each region will select six senior and six junior high projects to compete at the Nebraska Junior Academy Science competition on April 20th at the University of Wesleyan Weary Center. The regional fairs bring brilliant young minds together with students and teachers to win various awards, establish new collaboration for future research and to make a host of new friends. The science research competitions is designed to promote science and technology in Nebraska by providing incentives for students to apply creativity and critical thought to solutions of science, mathematics and engineering problems. It offers an opportunity for students to meet, exchange ideas and discuss career possibilities with scientists and engineers from colleges and industries. Each student will develop a scientific project, write an abstract of the project and give an oral presentation of the project the day of the fair. Students can win awards and scholarships.

Other science competitions that students can enter are the ISEF affiliated fairs in Curtis and Nebraska City, Google Science Fair, Broadcasters for Junior High and the Junior Science & Humanities Symposium in Stillwater OK.

Randall Lienemann, NJAS President

MAIBEN LECTURER ANNOUNCED

Eileen Hebets is a leader in the fields of animal behavior, evolution, and arachnology, with specialized research programs that focus on the evolution and function of animal communication, sensory systems, and mating

strategies. Her research combines field work, laboratory-based behavioral assays, electrophysiology and neuroanatomy to address fundamental questions about the diversity of animal life on our planet. She is also a pioneer in formal and informal education and her science education efforts involve the development, testing and refinement of creative approaches to help students of all ages engage and persist in science.



Eileen is a Professor in the School of Biological Sciences at the University of Nebraska-Lincoln and a Courtesy Faculty in the Department of Entomology. In addition to her numerous roles on university committees, she serves as the Director of the American Arachnological Society and is currently an editor for the

journal *Ethology*. Her lecture will be held at 11:00 a.m. in Olin Lecture Hall B. The title of her presentation is **“Life on Eight Legs – Arachnids as Models for Behavioral Research.”**

ACADEMY WEB SITE UPDATES

The NAS/NATS/NJAS web site is adding new content all the time.

Our newsletter is available to members and can be downloaded saving money and resources. The Transactions and the Program and Proceedings has been converted to on-line digital copy available through UNL Digital Commons as well as EBSCO Publishing. Publishing digitally allows us to upload research articles as they are submitted resulting in more timely distribution of research information. For information about accessing or submitting Transactions articles go to our website: www.neacadsci.org. Click on NEWS; then click on Publications (found on the left side bar). Proceedings articles will continue to be submitted through section chairs. Don't forget to “friend” the NATS Facebook as well.

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NAS President: Randall Lienemann
NATS President: Shauna Roberson
NJAS Acting President: Randall Lienemann
NAS Executive Secretary: Cecelia Dorn
Nebr. Sci. News Editor: Cecelia Dorn
Membership information can be obtained by writing to P.O. Box 880339, Lincoln, NE 68588-0339
E-mail: neacad@unl.edu Telephone: (402) 472-2644

PIE GRANTS REPORT

NAS received six applications for the fourth quarter of 2016. Applications were received from NE Midwest Fish and Wildlife Conference Foundation, Hosting the 77th Midwest Fish & wildlife Conference; Board of Regents-UNL, Stormwater Slueth Demonstration; UNL Dept of Computer Engineering, Auto Component-based Dynamic Plant Phenotyping Analysis; Community Crops, Urban Homestead Series; Board of Regents-UNL, Pilot Watershed Mgt Curriculum for Water Resources Managers; and NE Assistive Technology Partnership, Managing Waste Through Reuse of Durable Medical Equipment. A total of \$11,550 was awarded to the NE Midwest Fish and Wildlife Conference Foundation, the two UNL Projects – Stormwater Slueth Demonstration and Pilot Watershed Management Curriculum, and to the Nebraska Assistive Technology Partnership.

13 first quarter 2017 PIE grant applications were received and processed in early January. Applicants include the UNL Environmental Sustainability Committee –Earthstock: Four Weeks to Learn and Grow; The Nebraska State Fair – Interactive Sustainability Display; Southern Heights Food Forest – Enhancing Educational Partnerships; Middle Niobrara NRD – 100% Recycling Education; Envirorun – Envirorun-Lincoln; Lee Simmons Conservation Park – Girls Covering Ground; Center for Rural Affairs – Santee Community Gardens Soil Testing and Amendment; Duchesne Academy of the Sacred Heart – Recycling Behavior Change Campaign; Nebraska Wildlife Federation – Nebraska’s Climate Future for Civic Leaders; Habitat for Humanity of Omaha – ReStore Deconstruction Program Outreach; Keep Columbus Beautiful – Be Recycled Campaign; Keep Omaha Beautiful – Omaha Spring Cleanup: Promoting Proper Disposal and Recycling; and The Nature Conservancy – Prairie Perspectives: Seeing Nature with Drones. A total of \$37,528 was requested. Five awards totaling \$14,478 were granted to the UNL Environmental Sustainability Committee, the Center for Rural Affairs, the Nebraska Wildlife Federation, Habitat for Humanity-Omaha, and Keep Omaha Beautiful.

The Nebraska Environmental Public Information and Education MiniGrant Program awards MiniGrants of up to \$3,000 each, to support the presentation and dissemination of information and perspectives that will stimulate enhanced environmental stewardship in any category eligible for Nebraska Environmental Trust (NET) funding. These categories are habitat, surface and ground water, waste management, air quality, and soil management. The grant expands dialogue on important current conservation topics and provides information on emerging or highly useful conservation methods. All Nebraska individuals,

private organizations, and public entities are eligible to apply for these funds.

The Nebraska Legislature created the Nebraska Environmental Trust in 1992. Using revenue from the Nebraska Lottery, the Trust has provided over \$250 million in grants to over 1,700 projects across the state. Anyone – citizens, organizations, communities, farmers and businesses – can apply for funding to protect habitat, improve water quality and establish recycling programs in Nebraska. The Nebraska Environmental Trust works to preserve, protect and restore our natural resources for future generations. <http://www.environmentaltrust.org/>

Second quarter 2017 applications are due April 14, 2017.

Grant forms and information can be found on our website, www.neacadsci.org. Click on NAS and then click on Grants and Scholarships.



OTHER NEWS AND EVENTS

What's new at NASA Space Place – Check out the following link - <http://spaceplace.nasa.gov/educator-newsletter/en/>



What's new at NOAA/NASA SciJinks

All About Clouds!

DATES TO REMEMBER:

Postmark NAS Ballots by April 12, 2017
PIE Grant 2nd Quar App Deadline – April 14, 2017
Last Day for Ann Mtg on-line general registration – April 14, 2017
NJAS State Competition – April 20, 2017
NAS Annual Meeting – April 21, 2017
State Science Olympiad – April 22, 2017

Backstage Pass 2017 UNMC College of Allied Health Professions

Join us to experience an in-depth look at 12 allied health professions.

Backstage Pass is intended for individuals who want to explore each profession more closely. High school juniors and seniors and college students, interested in a career in health care, will have the opportunity to learn more about several allied health professions. Parents and advisors are also welcome! An informative & explorative experience Interaction with program faculty & current students Test-drive technology currently used in the field Programs include:

- Clinical Perfusion
- Computed Tomography
- Cardiovascular Interventional Technology
- Cytotechnology
- Diagnostic Medical Sonography
- Magnetic Resonance Imaging

Kearney

Saturday, April 22, 2017
12:30 PM - 4 PM
UNMC Health Science
Education Complex

Omaha

Saturday, April 1, 2017
8:30 AM - 1 PM
Truhlsen Events Center in the
Michael Sorrell Center

- Medical Laboratory Science
- Medical Nutrition
- Physical Therapy
- Physician Assistant
- Radiation Therapy
- Radiography

Register online:

unmc.edu/alliedhealth/events/backstagepass.html

NAS SPRING GENERAL REGISTRATION FORM

THE NEBRASKA ACADEMY OF SCIENCES, 127th ANNUAL MEETING AND AWARDS RECEPTION, APRIL 21, 2017
NEBRASKA WESLEYAN UNIVERSITY
50th AND ST. PAUL, LINCOLN, NE

PLEASE: REGISTER BEFORE THE MEETING. WE WOULD LIKE TO SAVE YOU TIME AND
AVOID CONGESTION AT THE REGISTRATION TABLE.

Name _____

Mailing _____

Address _____

City/State _____ ZIP _____

Area _____ Daytime _____

Code _____ Phone # _____

E-mail address: _____

REGISTRATION FEE \$ _____

\$ 15 Students w/ ID

\$ 70 Member Registration, includes dues

\$ 25 Members Reg, 2017 dues previously paid

\$ 70 Registration, non-members

\$ 25 Life Members

DUES

\$ 10 Students w/ ID \$ _____

\$ 45 General membership, NOT
attending the meeting

CONTRIBUTION* \$ _____

LUNCH TICKET \$ _____

@ \$ 7.95 each

TOTAL \$ _____

MAKE CHECKS PAYABLE TO:

THE NEBRASKA ACADEMY OF SCIENCES or NAS

302 MORRILL HALL, 14th and U STREETS

LINCOLN, NE 68588-0339

nebacad@unl.edu

(402) 472-2644

_____ I plan to attend the **MAIBEN MEMORIAL LECTURE**
11:00 a.m.

_____ I plan to attend the **LUNCH** (use the cafeteria line and pay there
or send in payment and receive a ticket)

**PLEASE INDICATE WHETHER YOU WISH TO EAT
LUNCH NO LATER THAN APRIL 5TH.**

*Contributions are tax deductible; dues and registration are not.

To Pay with a Credit Card please complete the following:

Circle: Visa, MC, Discover

Name on Credit Card _____

Credit Card Address if different _____

_____ cc zip code _____

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