

Nebraska Science News



Nebraska Academy of Sciences



Nebraska Association of Teachers of Science

Serving Scientists and Science Educators Across the State of Nebraska

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FROM THE NAS PRESIDENT'S DESK

April 17th is the NAS Annual Spring meeting. We have an exciting 2020 meeting planned with a revised schedule to accommodate more time for networking and visits with vendors. This year's Maiben Lecturer is Dr. Dennis Ferraro, Professor of Practice in the School of Natural Resources at the University of Nebraska-Lincoln. Dr. Ferraro will share his work on amphibian and reptile conservation. I am very excited for Dennis to be our 2020 Maiben Lecturer. He is enthusiastic about conservation, teaching, and sharing the wonders of the natural world. As you would expect from a herpetologist, he also has many fascinating stories about his exploits. Learn more about Dr. Ferraro on the NAS Annual Meeting website. Please don't forget to register for the NAS conference and also renew your NAS membership at <https://nebraskaacademyofsciences.wildapricot.org/SpringMeeting>.

The day before the NAS Annual Meeting, the NJAS State Science Fair for 6th-12th graders will also be held at Nebraska Wesleyan University. This event engages Nebraska's brightest youth in a science and engineering research competition. Even more important than the competition aspect, the State Science Fair provides a venue for students to share their hard work and discoveries with others. If possible, you should check out the NJAS science fair on April 16th. NJAS President Randy Lienemann is always looking for good judges for the competition. Participating in judging is a great way to build your resume and meet Nebraska's next generation of scientists and engineers. To get more information on the NJAS State Science Fair and judging, contact rlienema@gmail.com.

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NATS PRESIDENT NEWS and VIEWS

Have you seen the new website? If you haven't please check it out www.neacadsci.org/NATS. We have a new look and a calendar with all the state Professional Development. Speaking of professional development, NATS has been involved in lots of planning for opportunities for teachers in Nebraska to grow!

NATS January Pop Up conference was a success with over 40 participants that engaged in SCILLSS NE Classroom Assessment Workshop at ESU 10. SCILLSS (Strengthening Claims-based Interpretations and Uses of Local and Large-scale Science Assessment Scores) focused on helping teachers increase knowledge of a principled-approach for developing three-dimensional tasks aligned to NGSS-like standards for use within the classroom. Teachers and teacher-leaders were able to walk away with many strategies, tools, and resources to unpack standards and evaluate student's 3-dimensional learning.

This week NATS is busy planning the part two training of OpenSciEd in Grand Island that started last summer. We are excited to invite OpenSciEd facilitators to our state and to get the second round of training with these exemplary science instructional materials. Over 50 participants will be training February 25th-28th. If you missed this training, keep your eyes open for our next high quality instructional resource training; NGSSenseMakers coming in July 20th-23rd at ESU 9 in Hastings. We plan to host 60 teachers for unit professional development for unit development in Environmental Science for elementary, middle, and high school. Look for more information on our Facebook page and website.

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Congratulations to Nebraska’s newest American Association for the Advancement of Science fellows:

- Lee Ann Brogie, American Junior Academy of Science
- Edgar Cahoon, George Holmes Professor of Biotechnology, University of Nebraska-Lincoln
- Tom Elmo Clemente, Eugene W. Price Distinguished Professor of Biotechnology University of Nebraska-Lincoln
- Samuel M. Cohen, Havlik-Wall Professor of Oncology, University of Nebraska-Medical Center
- Eileen Hebets, Professor of Biological Sciences, University of Nebraska-Lincoln

Since 1874, AAAS has elected fellows recognized for their contributions to the sciences. New fellows were recognized at the AAAS national meeting on February 14th.

On the science engagement front, Nebraska has its own Citizen Science organization; the Citizen Scientists of Nebraska <https://citscinebraska.unl.edu/>. Citizen Scientists of Nebraska is a network of people from Nebraska, Colorado, Wyoming, and Kansas supporting public engagement through citizen science. This group connects members with the purpose of sharing resources and awareness of citizen science through meetings, mail-serv, and Facebook. This group also presents their work as a part of the Nebraska Legacy Conference.

Finally, as we look forward to the spring meeting and beyond, please consider supporting NAS by volunteering on one of its many committees and financially through a donation. Your support is needed to keep NAS vibrant for Nebraska’s next generation of students, educators, and scientists.

Learn more about NAS service opportunities at <https://nebraskaacademyofsciences.wildapricot.org/Committees> .

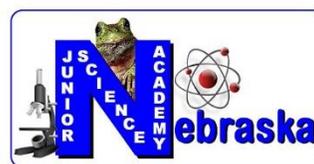
To support NAS through a monetary donation, please visit <https://nebraskaacademyofsciences.wildapricot.org/Donate>

Doug Golick, NAS President
University of Nebraska-Lincoln

MINK&CO is currently helping teachers across five states with equity and 3-dimensional assessment writing. If you haven’t had an opportunity to sign up for the webinar email jmartin-hiner@aea1.k12.ia.us to be added to the list. This is such an amazing opportunity to get an hour of high quality, grade-level specific professional development a couple of times a month from other state leaders and educators. I know I have sure learned a lot being part of this awesome project. Your Nebraska NATS team will be presenting April 16th and 30th followed by a special session from Colorado on May 14th. Don’t miss it!

Finally, as we are already planning the 2020 conference, please consider running for a board position this year. Information is on our website if you would like to get more involved in moving Nebraska science forward. And please take advantage of these amazing free opportunities for high quality professional development going on in our state. If you have any questions always feel free to email me at acovarrubias1@gips.org

Anya Covarrubias, NATS President
Grand Island Public Schools



NJAS NEWS

The American Junior Academy of Science welcomed the Nebraska delegates, their teachers, parents and the Nebraska Academy of Sciences representative Randall Lienemann to the AJAS/NAAS/AAAS conference in Seattle Washington, February 12-16th 2020.

Lee Brogie, the AJAS Director, stated “The 2020 AAAS Annual Meeting’s theme, Envisioning Tomorrow’s Earth, celebrates the scientific endeavors that have improved life on Earth and challenges the scientific community to develop solutions to the problems facing us today and tomorrow.”

The American Junior Academy of Science (AJAS) is the only national honor society recognizing America’s premier high school students for outstanding scientific research.

Each state’s Academy of Science nominates high school students as AJAS delegates. The chosen delegates are then invited to attend the AJAS annual conference. The AJAS mission is to introduce, encourage, and accelerate pre-college students into the professional world of science, technology, engineering, and mathematics.

Each state's Academy of Science determines the guidelines by which their AJAS delegates are chosen.

In many cases, the Academy of Science organizes a Junior Academy of Science. Under the direction of the Junior Academy, a state-wide scientific research competition is held. The winners of these competitions are nominated to represent their state at the AJAS conference.

AJAS meets annually in conjunction with the American Association for the Advancement of Science (AAAS) annual meeting. AAAS is the largest scientific organization in the world and the publisher of 'Science'. AAAS serves as an authoritative source for information on the latest developments in science and bridges gaps among scientists, policymakers, and the public to advance science and science education.

During the conference, AJAS delegates toured local institutions of scientific importance. Tours consisted of Clean Energy Institute Lab for Organic Photovoltaics /Anvil Diamond Lab., Institute for Protein Design, UW Medicine Research, Future of Flight Museum & Boeing Factory, Microsoft Advanced Prototyping Center, and the Institute for Systems Biology. The Nebraska Students shared their research with their peers and with other scientists in a poster and round table session. They attended AAAS Plenary lectures by Bill Gates, and Maryn McKenna who talked about the Second Antibiotic Era. Dr. Soyeon Yi, South Korea's first and only astronaut, was the Keynote speaker at the NAAS/AJAS opening ceremony. The Nebraska Students attended the AJAS Breakfast with scientists and were inducted as lifetime Fellows into the American Junior Academy of Science. NAAS is the national organization for the state science academies and is an affiliate member of AAAS. Nebraska had 5 students that presented their science research at the AJAS conference.

- Tristan Weston-Adams Central
- Gabrielle Krutsinger-Chase County
- Anjali Pullabhotla-Millard High
- Katie Bathke-Allen Consolidated
- Braydon Dreher-UNMC High School Alliance

Randall Lienemann
NJAS President

DATES TO REMEMBER

Click on the date below to learn more

[High School Scholarship Application Deadline – March 1, 2020](#)

[PIE Grant 2nd Quarter Application Deadline – April 13, 2020](#)

[2020 NJAS State Competition – April 16, 2020](#)

[2020 NAS Annual Spring Meeting – April 17, 2020](#)

2020 NAS ANNUAL SPRING MEETING MAIBEN LECTURER

Dennis Ferraro is the resident herpetologist and a professor of practice at the School of Natural Resources at the University of Nebraska-Lincoln. He has been a UNL faculty member since 1990. "My main goal in my career and in life is the conservation of amphibians, reptiles and turtles in North America," he said. Dennis maintains the university's live animal lab of native Herpetofauna for research and educational purposes, and has developed a health and medical protocol for the animals' care. Underlying the many projects that Dennis has in the works are his ongoing goals: to promote the conservation of Nebraska's amphibians and reptiles to the public, and to instill appreciation of and stewardship for natural resources in students and youth.

GENES IN SPACE

Genes in Space is a science contest that challenges students to design original DNA experiments that address real-life challenges and opportunities of space exploration. The contest is free and does not require equipment. Proposals will be judged solely on their creative and scientific merit. The winning experiment is conducted in space, and samples are returned to Earth for you to analyze! **Submission deadline is April 17th, 2020.** Learn more about the contest [HERE](#).

SOCIETY FOR SCIENCE & THE PUBLIC'S ADVOCATE PROGRAM

We invite you to apply for the Society for Science & the Public's Advocate Program, which provides a \$3,000 stipend and training to an individual (teacher, scientist, counselor, or mentor) who agrees to serve as an advocate for a minimum of 3 additional underserved students to transition them from conducting scientific or engineering research (science fair-type) projects to completing applications to scientific research competitions. There are four different types of Advocates, which allow both beginners and more advanced applicants to further expand their capabilities to support student research competition participation.

For eligibility information and to apply for the Advocate Grant Program, [click here](#). Advocates must already have a formal role with students completing research projects. This program is sponsored by Arconic Foundation, the Jack Kent Cooke Foundation, and Regeneron. The application deadline is **March 4, 2020**.

NATURAL RESOURCES CAMP

The Natural Resources Camp is a great way to gain exposure to the world of natural resources, including fish, plants, wildlife, soils, invertebrates, and water. The camp offers opportunities to gain hands-on experiences in natural resource ecology and management. The camp is intended for high school students, entering grades 9, 10, 11, and 12, who have a strong desire to learn more about the natural world or who have an interest in pursuing a career related to natural resources. Permission of parent or guardian is required.

Date: July 20-24, 2020

Place: Oak Lake Field Station, Astoria, SD

The Oak Lake Field Station is located 22 miles northeast of the SDSU Campus in Brookings County, South Dakota. Space is limited and is available on a first-come, first-serve basis. Lodging and meals are included in your camp registration. Please **register by June 12, 2020**. [CLICK HERE](#) to learn more!

INSPIRE EDUCATORS WORKSHOP

The USA Science & Engineering Festival is excited to announce a special program for educators taking place this April in Washington, DC!

The Inspire Educators Workshops – presented by [AstraZeneca](#) and [Discovery Education](#) – is a special event for educators designed to inspire and equip teachers with the most current and innovative STEM learning tools for the classroom. Industry leaders will share their STEM perspectives and resources while implementing realistic teaching models through hands-on and interactive discussions. [CLICK HERE](#) to learn more and to register!

When: Saturday, April 25, 2020, 9:00am to 2:30pm

Where: Walter E. Washington Convention Center in Washington, DC

Who Should Attend: K-12 educators currently teaching in a public, private, or charter/magnet school

PIE GRANTS REPORT

NAS announced that it will receive \$57,600 from the Nebraska Environmental Trust for the “Nebraska Environmental Public Information and Education Minigrant Program”. The Trust Board announced funding for the project at its meeting on April 4, 2019 in Lincoln. The project is one of the 117 projects receiving \$19,501,444 in grant awards from the Nebraska Environmental Trust this year.

The Nebraska Environmental Public Information and Education Minigrant Program will award 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 grants seek to expand dialogue on important current conservation topics and to provide information on emerging or highly useful conservation methods. All Nebraska individuals, private organizations, and public entities are eligible to apply for these funds. This program will be administered by the Nebraska Academy of Sciences.

The Nebraska Legislature created the Nebraska Environmental Trust in 1992. Using revenue from the Nebraska Lottery, the Trust has provided over \$305 million in grants to over 2,200 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/>

Eleven first quarter 2020 PIE grant applications were received and processed in January. Applicants include the Upper Loup NRD – Fire Hall Arboretum; NE Recycling Council – Compost Operations Training Course Scholarships; NE Wildlife Rehab Inc – NE’s Wild Heart-NE Wildlife Web Series; Katy Ayers and Lauren Gillespie – Bee McyHotel Project; Dwayne Wilson – Lesson Plans Involving Pollinators and Habitats; Keep Omaha Beautiful – Only Rain Down the Storm Drain; Lincoln Earth Day – Lincoln Earth Day 2020; Board of Regents UNL – Citizen Scientists of NE; Annemarie Shibata and Eric Noll – Technodifficulties: Building Green; and UNK – Native Birdscaping Garden project and NE Migratory Bird Species project. Recipients will be selected in February.

Second quarter 2020 applications are due April 13, 2020.

Grant forms and information can be found on our website by [CLICKING HERE](#).



The Nebraska Science News is a publication of the Nebraska Academy of Sciences, a private foundation associated with the American Association for the Advancement of Science.

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