# Nebraska Science News





Nebraska Academy of Sciences

Nebraska Association of Teachers of Science

### Serving Scientists and Science Educators Across the State of Nebraska

Spring, 2019-2020

Volume 22, No. 3

Published by the Nebraska Academy of Sciences

# FROM THE NAS PRESIDENT'S DESK

This year has gone by fast and here I write my final letter for the academy. I've learned much over the course of the year, including there are plenty of passionate people out there who want to carry on the traditions of science, but also carry on the traditions of teach our youth science properly! A most recent example of this are the pop up conferences supported by NATS. Another continuing example is the escorting of young, bright minds headed to Washington to display and talk about their research with NJAS. When possible, I recommend going to a conference and/or coming to Lincoln on April 11 to see to some new, young minds present their science! Feel to volunteer to help judge them and provide them with constructive feedback.

And the next day is our next NAS Annual Spring meeting, April 12 in Lincoln. Attend if you can and please encourage others to join you (colleagues, science students, community members, etc.). While the meeting is a wonderful way for our Nebraska researchers to share their work and experiences, it is also the best way to communicate to each other our thoughts on where we are finding successes within the academy, and where we must make changes. Look for conversations to take place over lunches and near the end of the day in the main lecture hall. But don't let it end there! Volunteer to be on a committee of NAS! Work with others like yourself to continue to improve the NAS website, to find better ways to recruit new members, to find sponsors to fund our various endeavors, and work to support the efforts of each other in NAS, NATS, and NJAS to name a few things. Please visit the NAS website to stay up-to-date on efforts and where you might be needed.

Speaking of the NAS Annual Spring meeting, I'm happy to announce that Dr. David Swanson will be the Maiben Lecturer this year. He is the computational coordinator of the Holland Computing Center at the University of Nebraska – Lincoln. He will talk about some research currently being facilitated by the Holland center and how you could possibly utilize the center for your own research. A short biography of Dr. Swanson and a more detailed abstract for the lecture will be posted on the NAS website soon.

To end, thanks to all of the academy for having me as your president for this past year, and I look forward to continuing to help as a past-president. I hope to see many of you at the NAS Annual Spring meeting, and remember the words the engineer Robert B Johnson, "The world is run by those who show up!"

> Todd Young, NAS President Wayne State College

#### NATS PRESIDENT NEWS and VIEWS

Spring is right around the corner and this means the 2018-2019 school year will be coming to an end before we know it. Assuming, of course, that we aren't all still going to school in June to make up snow days! It has been a very busy school year so far with the implementation of Nebraska's Career and College Ready Standards for Science at the kindergarten, third, sixth and ninth grade levels. NATS and NDE are once again providing opportunities (see below) for teachers to engage in professional development to help with navigating to threedimensional teaching and learning.

(Continued on Page 2)

#### Continued from Page 1 – NATS President News and Views

- The MINK (Missouri, Iowa, Nebraska, Kansas) collaboration is a series of interactive webinars designed to help teachers transition to their new standards. You can still get involved! <u>CLICK HERE</u> to learn more!
- Dr. David Harwood will again be leading an inquirybased geoscience field course this summer. <u>CLICK</u> <u>HERE</u> to read more!
- Unwrapping NCCRS-S Open Educational Resources Workshop - Date: Saturday, March 23 Time: 9:00-3:30 Location: Lincoln (venue TBD) Lunch and snacks will be provided Sign-up by <u>CLICKING HERE</u>.

It is difficult to start to think about the next school year but just as this year flew by so will our summer. We once again are looking forward to our continued partnership with the math organization NATM. Both organizations have been busy working on our fall conference for 2019. This year the conference will once again be held in Kearney at the Younes Center. Please start to look at our website for additional information about the fall conference. We will be starting to ask for presentation proposals in the near future. I personally am looking forward to the next step of implementing our new standards and can't wait to see what amazing things our science teachers are doing in our state.

> Betsy Barent, NATS President Norris School District



### 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 Washington D.C. February 13-17<sup>th</sup>.

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 precollege 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, policy-makers and the public to advance science and science education.

During the conference, AJAS delegates toured local institutions of scientific importance, Tours consisted of Beltsville Agricultural Research Center, Carnegie Science, Goddard NASA and the National Institute of Health, The Nebraska Students share their research with their peers and with other scientists, attend conference sessions, and are inducted as lifetime Fellows into the American Junior Academy of Science. AJAS is a program of the National Association of the Academics of Science (NAAS). NAAS is the national organization for the state science academies and is an affiliate member of AAAS. Nebraska had 10 students that presented their research at the AJAS conference: Christine Gilmore-Omaha Central; Bria Gilmore-Omaha Central; Morgan Baker-Adams Central; Daniel Stara-Aquinas Catholic; Jasmine Galvin-Laurel-Concord; Sydnie Reeves-Central City; Hanna Olson-Zoo Academy; Anjali Pullabhotla-Millard North; Amirtha Arun-Omaha Marian; and Katie Bathke-Allen Consolidated

> Randall Lienemann NJAS President

#### 2019 MAIBEN LECTURER ANNOUNCED

NAS is excited to announce the 2019 Maiben Lecturer! This year's lecture will be provided by Dr. David Swanson, PhD. Dr. Swanson is the Research Associate Professor in the Department of Computer Science and Engineering at UNL. Look for more information about this year's event on the website: <u>https://neacadsci.org/SpringMeeting</u>

In addition to a great Maiben Lecture scheduled for the 2019 NAS Annual Spring Meeting, we'll have round table discussions during lunch and a few workshops throughout the day. These workshops and discussions are open to anyone who would like to join. Don't forget to register for this year's event: <u>https://neacadsci.org/page-1228210</u>

# DATES TO REMEMBER

\*Click on the date below to learn more\*

PIE Grant 2<sup>nd</sup> Quarter Application Deadline – April 15, 2019 NJAS State Science Competition – April 11, 2019 NAS Annual Spring Meeting – April 12, 2019 Nebraska State Science Olympiad – April 27, 2019

# GEOSCIENCE BRIDGE PROGRAM FOR HIGH SCHOOL STUDENTS

The primary aim of this program is to expose high school students with an interest in the Earth Sciences to the Earth and its history, and to provide an introductory "bridge" into college life and studies with a cohort of other learners. Students can join a discovery-based field course where they will spend 9 days camping in Wyoming, Nebraska, and South Dakota, and 2 days on the University of Nebraska-Lincoln campus. <u>CLICK HERE</u> to learn more. You can also email Dr. Mindi Searls at <u>msearls2@unl.edu</u>.

# **GENES IN SPACE CHALLENGE**

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 winning experiment is conducted by astronauts on the International Space Station! The contest is free, and does not require equipment. Proposals will be judged solely on their creative and scientific merit. This challenge makes for a great classroom assignment in the 7-12 classroom.

Submission deadline is April 19<sup>th</sup>, 2019. <u>CLICK HERE</u> for more information!

# **IIHS IN THE CLASSROOM**

Explore free educational resources to help you learn or teach about the science of car crashes. This website offers videos, demonstrations and teacher-developed, classroom-tested activities aligned to the latest standards bring crash safety STEM applications to grade 5-12 classrooms. <u>CLICK HERE</u> to learn more!

### **MISSOURI RIVER EDUCATION**

The Missouri River is historically significant, ecologically diverse, culturally important, and right outside your back door. Missouri River Relief, a non-profit organized to connect people with the river, is hosting a student summer opportunity. <u>CLICK HERE</u> to learn more. Registration closes June 27, 2019!

#### POPULATION EDUCATION'S ONLINE PROFESSIONAL DEVELOPMENT COURSE

Population Education is excited to announce that registration is open for our Summer 2019 online professional development course for science and social studies educators of grades 6-12! Discover student-centered learning strategies that use contemporary issues and real-world data to examine the social and environmental impacts of human population and engage in meaningful dialogue with teachers across the world. The course is asynchronous, which means students can work at their own leisure and pace while still abiding by the pre-set submission deadlines. There are weekly discussion boards, journals, and a final project, all built to provide participants with meaningful feedback and materials to use within their own educational setting. <u>CLICK HERE</u> to learn more!

# 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 5, 2018 in Lincoln. The project is one of the 105 projects receiving \$18,301,819 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 \$289 million in grants to over 2,000 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. <u>http://www.environmentaltrust.org/</u>

Nine first quarter 2019 PIE grant applications were received and processed in January. Applicants include the Nebraska Recycling Council – US Composting Council NE Chapter Kickoff and Tours; Upper Loup NRD – Adventure Camp about the Environment; NE Wildlife Federation – Urban Pollinator Flyway; Prairie Pines Partners – Prairie Pines Nature Preserve "Second Saturdays" Nature Experience & Education Project; City of Atkinson – Bluebird Nature Trail; Lincoln Friends of Chamber Music – Time and the River Concert; Platte River Whopping Crane Trust – Assessing the Western Distribution of the Mid-continent Sandhill Crane Population; Santee Sioux Nation – Litter Reduction and Recycling Youth Engagement Project; and Audubon NE – Audubon's NE Crane Festival. Recipients will be selected in late February.

Second quarter 2019 applications are due April 15, 2019.

Grant forms and information can be found on our website by <u>CLICKING HERE.</u>



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. NAS President: Todd Young NATS President: Betsy Barent NJAS President: Randall Lienemann NAS Executive Secretary: Michelle Lopez Nebr. Sci. News Editor: Michelle Lopez Membership information can be obtained by writing to P.O. Box 880339, Lincoln, NE 68588-0339 E-mail: <u>nebacad@unl.edu</u> Telephone: (402) 472-2644 Website: <u>www.neacadsci.org</u> Donations are tax deductible.