

# Nebraska Science News



Nebraska Academy of Sciences



Nebraska Association of Teachers of Science

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

Fall, 2019-2020

Volume 23, No. 1

*Published by the Nebraska Academy of Sciences*

## FROM THE NAS PRESIDENT'S DESK

Many of us can remember when we first fell in love with science. In my case, it started during the 1980's growing up in Hastings, Nebraska. I loved spending time outdoors collecting insects, fish, and reptiles and exploring the fields and shelterbelts neighboring my childhood home. My enjoyment of the natural sciences was boosted by a very excellent elementary science teacher, Mrs. Cafferty. She engaged my classmates and I in science inquiry before it became commonplace in classrooms. She made science exciting by engaging us in investigations like, "Which diet made our classroom rats A.L.F. and Axl grow heavier?" Mrs. Cafferty also taught us that science wasn't something that just "nerds" did, but was instead an invaluable part of how we understand our universe.

As we prepare for a new school year, it is a good time to reflect on the experiences that helped us to become scientists and science educators. Was a teacher involved in helping you become passionate about science? I encourage you to also think about what you can do to help build passion for science in your students and mentees. What self-development activities do you need to immerse yourself in to become a better science teacher and science communicator?

For several years, the Nebraska Academy of Science (NAS) member leaders have been hard at work exploring ways to better support Nebraska's scientists and science educators.

## NATS PRESIDENT NEWS and VIEWS

Happy Summer! It is hard to believe the 2019-2020 school year is right around the corner and the next round of implementation of NCCRSS will be underway in grades 1, 4, 7 and 10. NATS and NDE were busy this summer providing learning opportunities to support teachers in their shift to 3D teaching. Several of our members participated in the following:

- Formative, interim and summative assessment development
- OpenSciEd workshop
- Open Educational Resources Hub work

In addition, Jodi Bahr was elected as the NSTA District XI Director. Congratulations Jodi! We are excited to have you in this leadership position representing Nebraska. Jodi and Scott King (treasurer) also represented us at the NSTA Congress in July. Thank you Jodi and Scott!!!

Our summer has flown by and we once again are looking forward to our fall conference and continued partnership with the math organization NATM. This year's theme is *Empowering Teachers and Cultivating Leaders*. Both organizations have been busy working on an engaging lineup of presenters as we continue to transition to our NCCRSS. This year the conference will once again be held in Kearney at the Younes Center. Please look to our website for additional information about the fall conference.

Betsy Barent, NATS President  
Norris School District

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## Continued from Page 1 – From the NAS President’s Desk

Some of these better supports have included; new topical lunch-hour discussion sessions as a part of the spring NAS meeting, Nebraska Association of Teachers of Science sponsored professional development on emerging technologies like 3D printers, and broadened opportunities for undergraduate and graduate students to help younger researchers with their Nebraska Junior Academy of Science research projects. While much progress has been made, we need your assistance in helping us to make NAS even better. We want your ideas on how NAS can facilitate science collaboration across K-12 schools, post-secondary institutions, and industry. We want your ideas on what NAS can do to meet the needs of a changing Nebraska workforce. More importantly, what want to know what NAS can do to help you teach and mentor students in a way that they better understand, engage-in, and become passionate about science and eventually become STEM professionals.

As the 127<sup>th</sup> president of NAS, I look forward to helping NAS become a meaningful part of your science research and teaching career. Please let us know what new programming or benefits that you would like NAS to offer by contacting me at [dgolick2@unl.edu](mailto:dgolick2@unl.edu). With your input and involvement, NAS can become a premier organization for your science career development!

We are saddened by the passing of [Dr. David R. Swanson](#), Director of the Holland Computing Center and the 2019 Nebraska Academy of Science’s Maiben Lecturer. During his career he served in roles as a NSF-NATO Postdoctoral Fellow at the Wroclaw University of Science and Technology (Poland), NRC Fellow at the Naval Research Lab in Washington, D.C., and as the Director of HCC since 2005. Dr. Swanson is survived by his wife Ronda, and his four children Abigail, Caleb, Sophia, and Livia.

Doug Golick, NAS President  
University of Nebraska-Lincoln



## NJAS NEWS

As the 2019-2020 school year will soon began, it’s time to begin planning for the next AJAS meetings

with AAAS February 12-16 of 2020. Seven Nebraska students were selected from the NJAS State Science Fair to present their science research in Seattle, Washington. Seattle, located in the center of Puget Sound, is a wonderful city with has much to offer at the leading edge of science and engineering, from studies in the deepest oceans to the farthest reaches of space.

The Nebraska Junior Academy of Sciences is designed to promote science and technology in Nebraska by providing incentives for students to apply creativity and critical thought to solutions of science, technology, engineering, 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.

Students will develop a scientific research project, write an abstract of the project, and give an oral presentation the day of the fairs. Students will compete in two divisions: Grades 6-8 in the Junior Division and Grades 9-12 in the Senior Division. Each Regional Fair will select 6 junior and 6 senior high projects to advance to the State Science Fair. Judges at the State Science Fair will nominate ten Senior Division projects to attend the American Junior Academy of Sciences Conference.

### Regional Directors:

- Central – Hastings College – Neil Heckman, [nheckman@hastings.edu](mailto:nheckman@hastings.edu)
- Eastern – OPS – Dan Sitzman, [daniel.sitzman@ops.org](mailto:daniel.sitzman@ops.org)
- Northeast – Wayne State College – Adam Davis, [addavis1@wsc.edu](mailto:addavis1@wsc.edu)
- Panhandle – ESU #13 – Lisa Myles, [lmyles@esu13.org](mailto:lmyles@esu13.org)
- Southeast – UNL – Julie Thomas, [julie.thomas@unl.edu](mailto:julie.thomas@unl.edu)
- Western – NCTA – Tina Smith, [tsmith24@unl.edu](mailto:tsmith24@unl.edu)

The State Science Fair will be April 16<sup>th</sup>, 2020 at Nebraska Wesleyan University at the Weary Center. For rules and forms visit the NJAS website at: [www.nebraskajunioracademyofsciences.org](http://www.nebraskajunioracademyofsciences.org).

Randall Lienemann  
NJAS President

## DATES TO REMEMBER

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

[2019 NATS/NATM Fall Conference Vendor Registration Deadline – September 1, 2019](#)

[2019 NATS/NATM Fall Conference – September 19-21, 2019](#)  
[PIE Grant 4<sup>th</sup> Quarter Application Deadline – October 7, 2019](#)

## 2019 NATS/NATM FALL CONFERENCE

### LESSONS FROM THE STEP UP PROJECT

Did you know that encouragement from high school teachers is the primary reason undergraduate women in physics chose that degree? That's right! And what's more, if half of the high school physics teachers in the United States successfully encourage a single woman to pursue a physics career, the percentage of women in undergraduate physics will jump from 20% to 50%. The STEP UP project is here to help you do just that. Together, we can ensure that women play an equal role in the future of physics.

STEP UP provides two free, self-contained lessons that are backed by research and shown to increase interest in physics, especially among young women. Think of the great gains that physics will make when powered by the full might of the future generations! Register to join our community or download these lessons and other pedagogical tools by visiting [www.STEPUPphysics.org](http://www.STEPUPphysics.org).

### YOUTH INCENTIVE AWARD PROGRAM

The Coleopterists Society, an international organization of professionals and hobbyists interested in the study of beetles, has established a program to recognize young people studying beetles. The Society has pledged to provide up to \$600 each year for the Youth Incentive Award Program. The Junior award is a monetary grant of \$200 and the Senior award is \$400. Award recipients also will receive up to \$200 (Junior) and \$400 (Senior) of equipment credit from the BioQuip Products catalog. In addition to monetary and BioQuip grants, award recipients will each receive a one year subscription to the society journal, The Coleopterists Bulletin. This is for children of grades 7-12 only.

Additional details and application forms for The Coleopterists Society Youth Incentive Award Program can be obtained from: Dr. David G. Furth; Entomology, NHB, MRC 165; P.O. Box 37012; Smithsonian Institution; Washington, D. C. 20013-7012 (phone: 202-633-0990, FAX: 202-786-2894, email: [furthd@si.edu](mailto:furthd@si.edu)). Also check The Coleopterists Society [WebPage](#)

Applications for this year must be submitted by 1 November 2019.

The 2019 NATS/NATM Fall Conference is scheduled for September 19-21, 2019, at the Younes Conference Center in Kearney, NE. To view the schedule, learn more about this year's speakers, and to register, visit the website by [CLICKING HERE](#). Pre-registration closes September 13, 2019.

Are you a vendor interested in purchasing a sponsorship opportunity and/or an exhibit booth? [CLICK HERE](#) to review the registration packet. Vendor registration closes September 1, 2019.

### 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/>

Nine third quarter 2019 PIE grant applications were received and processed in July. Applicants include the Nebraska Recycling Council – Annual Awards Luncheon and Workshops: Year of the Community; Central Platte NRD – Husker Harvest Days Pollinator Awareness Project; Audubon’s Rowe Sanctuary – Audubon’s Rowe Sanctuary a Refuge, a River, and a Half-Million Cranes; Upper Niobrara White NRD – Range Day; Aquatic Society of Omaha INC. – Helping the Community Water Quality and Conservation; Asian Community and Cultural Center – Serving and Supporting Refugees through Natural Experiences; ESU #5 – Nebraska’s Resources; NE Extension in Burt County – Tekamah Pollinator Garden (Phase II); and NE Wildlife Federation – Urban Pollinator Flyway Phase II. Recipients will be selected in September.

Fourth quarter 2019 applications are due October 7, 2019.

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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