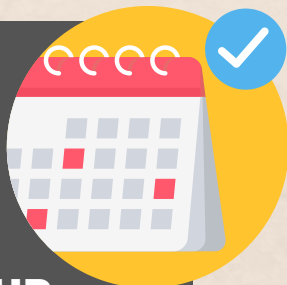


NEWSLETTER



Summer 2023

Nebraska Academy of Sciences



Letter from the President

MARK YOUR CALANDARS

April 19th, 2024 – Annual Spring Meeting, UNL East Campus (NEW LOCATION)

Please watch for announcements on Facebook for science-related event around the state



Greetings, NAS Membership,
I am thrilled to be serving as your NAS president this year. For those of you that do not know me, I would like to provide some background. I am a Professor of Biology at Creighton University and my research focuses on the study neuroimmune responses during development and in neurodegenerative disease. I love working with undergraduate and graduate students who power my lab and make research enjoyable on a daily basis! As a member of NAS, I have served on the Policy Committee and I have helped organize a section of the Annual Meeting for more than a decade- yikes , time flies...

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Letter from the President

Speaking of the Annual Meeting, this year was a huge success! We had an excellent turnout with **388 total registrants**. Dr. Jason Bartz, a leader in prion research, gave an excellent annual Maiben lecture. The quality of the research presentations was as high as I have experienced. I commend all presenters for the effort they put into their research and for preparing for the meeting. Please check out the scholarships, awards and best presentation winners in our newsletter! The social hour after the meeting at Morrill Hall was so enjoyable, and I thank the museum for opening up the entire space where we could socialize and be educated. I also thank NE-INBRE for their financial support of the gathering. Finally, thank you to our past-presidents, Drs. Julie Shaffer and David Harwood, Kim at Nebraska Academy of Sciences, and the Section Chairs for their hard work in organizing the meeting! We look forward to **hosting the 2024 Annual Spring Meeting at UNL's East Campus on April 19th, 2023**. Please look for updates on the event as spring approaches.

Until the next spring meeting, I look forward to facilitating new change at NAS. We have many new board and committee members and extend our deepest gratitude to those that served for years in leadership positions for NAS. Thank you for all of your hard work and commitment to the organization.

We welcome a new president-elect, Dr. Bradley Peterson, at Hastings College and a new treasurer, Dr. Justin Andersson, with Omaha Public Schools. We have new long-range planning committee members and policy committee members. With all the new membership and participation, NAS hopes to grow and modernize. We aspire to help Nebraska scientists network and promote their research. Please see our information about the [Transactions of the Nebraska Academy of Science](#), where you can publish your work! NAS's mission is to provide opportunities for Nebraskans interested in learning more about science. As an example of new education initiatives, please see a summary of the recent and wildly successful NAS field trip hosted by Dr. David Harwood of UNL (page 5). The GEO field trip involved camping, hiking, and learning about the geology in Nebraska and neighboring states. NAS hopes to continue the field trip initiative into 2024 and beyond. NAS strives to be a resource to its members. Please feel free to [connect with us](#) and share your ideas. Look for our new events [online](#) or in our Newsletter!

Thank you for membership!

Sincerely,
Annemarie Shibata Ph.D.

2023 Annual Meeting Wrap-up

As we look back on the conference, we hope that the knowledge gained, connections made, and inspiration ignited continue to propel you toward new achievements. We encourage you to implement the lessons learned and leverage the connections established to make a meaningful impact in your academic and professional endeavors. We extend our heartfelt gratitude to each and every speaker, moderator, session chair, support staff, and attendee. Your presence and active engagement made the conference a memorable and transformative experience. We are honored to have had the privilege of hosting such an exceptional group of individuals. We were honored to have welcome

- **388 registrants,**
- **The renewal of the Science Education Section**
- **Growth in abstract submissions in nearly every section area**
- **190 new members**
- **2023 Programs and Proceedings** now available

Thank you for making our annual conference a resounding success. We eagerly anticipate future opportunities to gather, connect, and continue our journey of growth and discovery together.

Section Student Awards

EAR Section

Best student presenters for the Earth Sciences section of the Nebraska Academy of Sciences annual meeting 2023:

- **Logan Soluri** - IDENTIFYING MANTLE PYROXENITE IN NORTH AMERICAN MORBS USING HIGH-PRECISION GE/SI RATIOS. Logan Soluri, Lynne Elkins, Shuying Yang, and Munir Humayun
- **Md Ariful Islam** - TECTONIC HISTORY OF THE DIEBOLD KNOLL ON THE JUAN DE FUCA PLATE FROM INTEGRATED GEOPHYSICAL ANALYSIS. Md Ariful Islam and Irina Filina
- **Corey Griffin** - COMPARATIVE ANALYSIS OF KNOW YOUR WELL DATA ON NUREP DATA TO UNDERSTAND CHANGES IN GROUNDWATER CONTAMINATION. Corey Griffin, Michael Leite, Mary Kiethly, and Tawny Tibbits.

Congratulations to the winners; the Nebraska Geological Society – awarded \$100 to these students.

BIO and BMS Section

UNMC's awards for Outstanding Undergraduate Research in Biological and Biomedical Sciences.

In recognition of the important contributions made by emerging scientists in the state of Nebraska, the University of Nebraska Medical Center (UNMC) is pleased to provide two awards for research presented at the 2023 Nebraska Academy of Sciences meeting. Each award comes with a plaque and a \$500 cash prize.

The Biological Sciences award is sponsored by UNMC's Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS) and is being awarded to Ms. **Alisiara Hobbs** from Bellevue University for the project "The Role of Soil Microbial Communities in the Growth of the Prairie Grass *Bouteloua Curtipendula*". This work was performed under the supervision of Drs. John Kyndt and Tyler Moore at Bellevue University.

The Biomedical Sciences award is sponsored by UNMC's MD/PhD Scholars Program and is being presented to **Jordan Rasmussen** from the University of Nebraska, Lincoln for the project "Amyloid Precursor Protein is a Factor in Zika Virus-Mediated Paralysis". This work was performed under the supervision of Dr. Luwen Zhang at the University of Nebraska, Lincoln.

Welcome New Executive Committee Members

President-Elect Bradley Peterson

I have just completed my 5th year of teaching physics and astronomy at Hastings College, where I also serve as director of the campus observatory. I am originally from Lincoln and got my bachelor's degree in physics from UNL, so this position has been something of a homecoming for me after many years out-of-state. I went to Iowa State for my Ph.D., with a 6-month stop in Pasadena, where I was a visiting Graduate Student Fellow

at the Infrared Processing and Analysis Center (IPAC) at Caltech. My research has focused on galaxy interactions and their effects on star formation. After grad school, I spent 6 years at the University of Wisconsin - Barron County.

Since arriving at Hastings College, I have seen the NAS Spring Meeting as a very important opportunity for our students to present the results of their senior projects, so I am excited to help keep things going and look for ways to make Spring Meeting and NAS in general, even more impactful.

Treasurer Justin Andersson

I have a background in ecology and evolutionary biology, but for the past 13 years, I have taught secondary science in both Maryland and Nebraska while earning a degree in curriculum and instruction and then working as a science instructional coach in Nebraska. Most recently, I taught pre-service teachers and methods in educational research at UNL during my doctoral work in educational psychology. I am involved with local, regional, and state science fairs and also serve on committees for the National Association for Research in Science Teaching and the Metropolitan Science and Engineering Fair, among others. My research has focused on secondary students' out-of-school time opportunities to learn science. Outside of the professional realm, I enjoy time with my family and outdoor recreation such as climbing, skiing, running, biking, swimming, and can usually be found near a hockey rink!

I look forward to working with the NAS executive committee, NAS members, and affiliates to promote science and science education across our great state.

RESEARCH OPPORTUNITY

Are you a science coordinator?
Do you want to be involved in research?

Help build an understanding of how you came to be in your role and what those first years were like. Please participate in a 10-minute survey and be entered to win one of the three \$15 Amazon gift cards. Complete the Formative Leadership Experience (FLEX) survey here: [FLEX SURVEY](#).

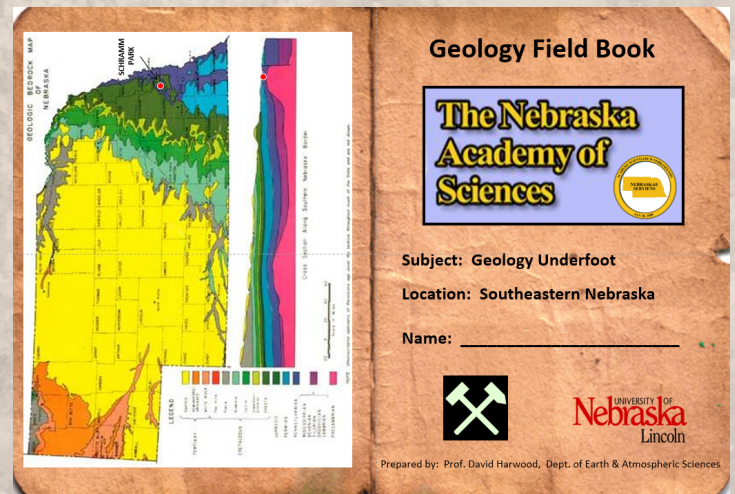
If you have questions or concerns, contact Dr. Brooke Whitworth, Principal Investigator, at bwhitwo@clmson.edu



“Nebraska Rocks Underfoot” Field exposure to Nebraska’s geological history



The inaugural NAS-sponsored Geology field trip was held 13-14 May with 12 participants, mostly science teachers, who learned about the geology of southeastern Nebraska, traveling to 4 states, 10 NE counties, and spanning 300+ million years of geological time. Numerous localities where rocks are exposed at the surface were visited. Geological history and economic aspects of Nebraska’s natural resources were topics of discussion, as well as the history of Nebraska. The group visited a stone schoolhouse built in 1873 and camped at Indian Cave State Park. Participants paid a nominal fee, and many became NAS members. One participant prepared a short video of the adventure and is available [here](#). The trip was supported in part by the UNL Dept. of Earth & Atmospheric Sciences. Planning is underway for the 2024 field trip to be held either the first or last weekend of May 2024.



2023 NAS Scholarship Recipients

The Nebraska Academy of Sciences administers a number of scholarships for both high school and undergraduate college students each year. We are exploring expanding our scholarship program to include Graduate level students for 2024. For additional information regarding the Scholarship Program, please visit neacadsci.org/Scholarships.

The 2023 Scholarship Recipients:



C. Bertrand and Marian Othmer Schultz Collegiate Scholarship

Cali Gunderson

Biology Student at University of Nebraska at Kearney



Robert S. Kubicek Memorial Scholarship

Zachary Nelson

Attending Creighton University starting Fall of 2023



Loren Eiseley Memorial Scholarship

Alex Kosse

Attending the University of Arkansas starting Fall of 2023

Nebraska at AJAS

The American Junior Academy of Sciences (AJAS) serves as the exclusive honor society within the United States that recognizes and commends exceptional scientific research achievements among high school students. It stands as the distinguished platform through which America's most accomplished young scholars in the field are acknowledged. The 2023 AJAS Annual Conference was held in Washington DC, March 1st to 5th, 2023. Nebraska was honored to be represented by three AJAS Delegates at this year's conference.



Thank You to the Retiring Executive Committee Members



Dr. Allison Baliey served as Treasurer from 2020–2023



Dr. Sally Harms served as President–elect, President, and Past–President from 2019–2023

General Announcements

Special thanks to Martin R. Hulce and Dan Sitzman, both have retired from the Long Term Planning Committee.

Know of a science event in Nebraska? Please share! NAS wants to promote all of Nebraska's amazing science events and organizations.

Website updates are to continue through the summer! If you have suggestions or comments, please contact us at nebacad@unl.edu.



Special Thanks to the 2023 Annual Meeting Partners

