



Department of Biology Online Master of Science Program

# MASTERS DISTANCE MONITOR

August 2025

Issue 52

## WELCOME

### **New Online Masters Students for Fall 2025:**

Jennifer Agee, NE; Journee Bigham, MO; Sarah Cervantes, NV; Jeff Collins, CA; Tyler Collins, NE; Chelsea Davis, NC; Leah Dubiel, CT; Lindsey Godfrey, NE; Amber Guza, WI; Brittany Ibarra, NE; Samantha Jaccard, VA; Carylanne Joubert Maier, FL; Rachel Langman, MN; Fernanda Lomeli, TX; Jane Maloney, NY; Lydia Malvig, NE; Mariah Markus, NE; Breanna Northcutt, KS; Casadie Vida, NV; Nichole Werbin, KS; Amy West, KY; Carla Williams, SC

## CONGRATULATIONS

### **August 2025 Graduates:**

Laura Anthony, Holly Boger, Logan Dietrich (THESIS), Jessica Ferguson, Jackson Fischer, Skylar Garcia, Tracy Larsen, Anthony Long (THESIS), Cody McGregor (THESIS), Aneshia Tolliver, Cody Willmore (THESIS)

One graduate, Cody McGregor, was able to attend the commencement ceremony on August 8<sup>th</sup> at 10:00 am in the Health and Sports Center.

Pictured left: Cody McGregor and Dr. Letty Reichart, Professor and Biology Department Co-Chair



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# Grants, Meetings, Publications

## Meetings

Rose, J.P., Kriebel, Sytsma, K.J., and **Drew, B.T.** July 2025. Quantitative biogeography and niche evolution in California *Salvia*. Botanical Society of America Conference. Palm Springs, California. Oral Presentation.

**Huryn, E.A. and J.C. Cooper.** May 2025. Exploring geographic replacement between two populations of White-breasted Nuthatch (*Sitta carolinensis*). Nebraska Ornithologists' Union, South Dakota Ornithologists' Union, and Iowa Ornithologists' Union joint meeting. South Sioux City, Nebraska. Poster Presentation.

## Publications

Barrie, E.M., Krochuk, B.A., Jarrett, C., Ferriera, D.F., Rodrigues, P.F., Mufumu, S.L., Malanza, S.E., Akele, A.E.N., Alene, C.E.E., Brzeski, K.E., **Cooper, J.C.**, Wolfe, J.D., and Powell, L.L. 2025. Specialized insectivores drive differences in avian community composition between primary and secondary forest in Central Africa. *Frontiers in Conservation Science*.  
<https://doi.org/10.3389/fcosc.2025.1504350>

Dvorak, T., Cheku, S., Borer, L., Hernandez-Sandoval, H., **Carlson, K.A.**, and Cao, H. 2025. Structure-Function Analysis of Hydroxy-1,8-Naphthalimide Photoacids for ESPT-Driven H2S Probes. *ACS Omega*. 10(28): 31138–31146. <https://doi.org/10.1021/acsomega.5c05047>

Du, Z., Rizzo, S.A., Sarrafian, T.L., Bagwell, M.S., **Mahlberg, R.C.**, Amontree, A., Schiebel, P., Tauferner, D.M., LeBrasseur, Z.S., Witt, T.A., Nagel, M., Boyd, K.A., De Vitto, H., Hillestad, M.L., Stalboerger, P.G., Houdek, M.T., Sierra, R.J., and Behfar, A. 2025. Engineered BMP2/BMP7 extracellular vesicles induce autocrine BMP release driving SMAD phosphorylation to promote bone formation. *NPJ Regenerative Medicine*. 10(1):26. <https://doi.org/10.1038/s41536-025-00405-2>

Hillestad, M.L., Amontree, M., **Mahlberg, R.C.**, Bagwell, M.S., Rizzo, S.A., Arrell, D.K., Kargaran, P.K., Crespo-Diaz, R.J., Syed, F.F., Lockhart, E.N., Witt, T.A., Stalboerger, P.G., Terzic, A., McLeod, C.J., DeSimone, C.V., Asirvatham, S.J., and Behfar, A. 2025. MYL4 Identifies Intramural Anatomy of Purkinje Fibers in Human Hearts. *JACC: Clinical Electrophysiology*. <https://doi.org/10.1016/j.jacep.2025.03.039>

Liu, X., Mulpuru, S.K., Behfar, A., Hillestad, M., **Mahlberg, R.**, DeSimone, C.V., Friedman, P.A., Cha, Y.M., and Asirvatham, S.J. 2025. Septal Intramyocardial Purkinje Network: A Potential New Mechanism Explaining Left Bundle Branch Area Pacing Physiology. *JACC: Clinical Electrophysiology*.  
<https://doi.org/10.1016/j.jacep.2025.03.030>

Livia, C., Inglis, S., Crespo-Diaz, R., Rizzo, S., **Mahlberg, R.**, Bagwell, M., Hillestad, M., Yamada, S., Meenakshi Siddharthan, D.V., Singh, R.D., Li, X., Arrell, D.K., Stalboerger, P., Witt, T., El Sabbagh, A., Rihal, M., Rihal, C., Terzic, A., Bartunek, J., and Behfar, A. 2024. Infliximab Limits Injury in Myocardial Infarction. *Journal of the American Heart Association*.  
<https://doi.org/10.1161/JAHA.123.032172>

Natarajan, S.K., Zheng, H., **Chandra, S.**, Schultz, H.D., and Chen, W.C.W. 2025. Editorial: Frontiers in the midlands society of physiological sciences (2023-2024). *Frontiers in Physiology*.  
<https://doi.org/10.3389/fphys.2025.1654264>

- Peterson, B.C.** 2025. Deer Rubs: The Science of Deer Rubs or Signposts. *Nebraskaland Magazine*. 103(7):68.
- Ranta, M., M. Wuellner, and K. D. Koupal.** 2025. Simulated Walleye responses to various harvest regulations in a Nebraska reservoir. *Transactions of the Nebraska Academy of Sciences and Affiliated Societies*. 45:73–83.
- Rizzo, S.A., Bagwell, M.S., Schiebel, P., Rolland, T.J., **Mahlberg, R.C.**, Witt, T.A., Nagel, M.E., Stalboerger, P.G., and Behfar, A. 2024. Pulmonary Biodistribution of Platelet-Derived Regenerative Exosomes in a Porcine Model. *International Journal of Molecular Sciences*. 25(5):2642.  
<https://doi.org/10.3390/ijms25052642>
- Xuan, W., Wang, S., Alarcon-Calderon, A., Bagwell, M.S., Para, R., Wang, F., Zhang, C., Tian, X., Stalboerger, P., Peterson, T., Sabbah, M.S., Du, Z., Sarrafian, T., **Mahlberg, R.**, Hillestad, M.L., Rizzo, S.A., Paradise, C.R., Behfar, A., and Vassallo, R. 2024. Nebulized platelet-derived extracellular vesicles attenuate chronic cigarette smoke-induced murine emphysema. *Translational Research*. 269:76-93.  
<https://doi.org/10.1016/j.trsl.2024.02.001>
- Yan, R.-R., Wang, M.-H., Meng, H., **Drew, B.T.**, Celep, F., Xiang, C.-L., and Hu, G.-X. 2025. Similar in appearance but distinct in nature: Recent divergence of *Salvia honania* and *S. meiliensis*. *Taxon*.  
<https://doi.org/10.1002/tax.70024>

Continue to send us updates on any meetings, publications, grants, or awards that you have been involved with. Please email details to [msbiology@unk.edu](mailto:msbiology@unk.edu).

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## Director's Desk from Dr. Austin Nuxoll

Greetings!

I hope you've all had a great summer and are getting ready for the fall semester! As classes begin, I want to share a few important updates and reminders for our program.

### Fall 2025 Catalog Changes

As a reminder, beginning this fall our program requirements have been reduced from 36 to 30 credits, with core courses reduced to 9 credits (Organic Evolution, Scientific Literacy & Communication, and one statistics course). These changes are designed to increase flexibility and reduce time for completing a degree. Students admitted Fall 2025 and after are automatically under the new catalog; you do not need to take any action. Students admitted prior to Fall 2025 will need to act for this catalog change to occur. To request a catalog change, please email the following message to [gradstudies@unk.edu](mailto:gradstudies@unk.edu), [brewerc@unk.edu](mailto:brewerc@unk.edu), and [msbiology@unk.edu](mailto:msbiology@unk.edu): I, (name, NUID #), would like to switch from my current catalog to the Fall 2025 Master of Science in Biology catalog. If you'd like help deciding whether switching catalogs is best for your plan of study, feel free to reach out to us at [msbiology@unk.edu](mailto:msbiology@unk.edu).

### Current Issues in Biology Course Update

This fall and upcoming spring may be one of the last opportunities to take BIOL 881: Current Issues in Biology. The course is being phased out and will not be offered regularly in the future. If it's part of your plan of study, please be sure to enroll this semester and/or next if you need this course.

If the class you need is full, contact us at [msbiology@unk.edu](mailto:msbiology@unk.edu) to be placed on a waitlist. Spots often open as schedules shift. As always, we're here to help you in any way we can, so please don't hesitate to reach out with questions about your plan of study, catalog changes, or course registration. Looking forward to seeing many of you in classes this fall!

Best,  
Dr. Nuxoll

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## Student News

**Kathleen Abraham (May 2015 graduate)** is starting as a full-time biology instructor at Blue Ridge Community College in western North Carolina.

**Mohammed Hassan (current student)** is pursuing a PhD at University of Nebraska Medical College (UNMC), while working on his Master's degree at UNK, and received a \$25,000 grant from the Nebraska Microbiome Research Interest Group (a UNMC Program of Excellence). His research focuses on the role of the human microbiome in pancreatic ductal adenocarcinoma (PDAC). (pictured right)



**Wilfredo Lopez (May 2017 graduate)** graduated from OBGYN residency at the end of June from The University of Oklahoma - School of Community in Medicine at Tulsa. He plans to practice in Phoenix, Arizona starting in September. (pictured left)



**Shaun Miller (December 2012 graduate)** and his wife welcomed their first child, Max, in May. Born 6 lb, 10 oz, he is already giving them so much joy as the newest addition to the family. (pictured right) Shaun has been working for the Maryland Dept of Natural Resources (Fishing and Boating Service) for 15 years now. He's worked as a fisheries biologist in several programs over the years, including Atlantic Sturgeon restoration, sportfish restoration and enhancement, fisheries habitat monitoring, blue crab monitoring, and currently, oyster aquaculture management.



**Christopher Pagano (current student)** gave the closing general session lecture in August at the 2025 Kansas Emergency Medical Services Association Conference, entitled "Cognitive Aids in Resuscitation: The When, Why, and How of Checklists in EMS".

**Rebecca Sprouse (August 2022 graduate)** is starting her 4<sup>th</sup> year at Doane University as an Assistant Professor of Practice and recently acquired another position as Director of Pre-Health Programs.

Please let us know what is going on in your lives; email us your news at [msbiology@unk.edu](mailto:msbiology@unk.edu).

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## Office Space

### Fall 2025 Deadlines:

August 25<sup>th</sup>–Fall classes begin

August 29<sup>th</sup>–Last day to add/drop class on MyBlue with no penalty

September 1<sup>st</sup>–Labor Day break, all classes dismissed and UNK offices closed

September 4<sup>th</sup>–E-bill notifications sent to Lopermail account

September 15<sup>th</sup>–Last day to apply for December graduation

September 25<sup>th</sup>–Tuition and fees due in full

October 7<sup>th</sup>–Early Term grading closes

October 20<sup>th</sup>–21<sup>st</sup>–Fall break, all classes dismissed

October 27<sup>th</sup>–Early Registration for Spring 2026 classes begins for all currently enrolled students

November 4<sup>th</sup>–General Registration for Spring 2026 classes begins for all admitted graduate students

November 9<sup>th</sup>–Comprehensive Exams (for graduating students) are due to the Biology Dept

November 14<sup>th</sup>–Last day to drop a full semester course on MyBlue (no refund at this time)

November 26<sup>th</sup>–28<sup>th</sup>–Thanksgiving break, all classes dismissed

December 1<sup>st</sup>–Spring 2026 graduation application opens on MyBlue

December 15<sup>th</sup>–18<sup>th</sup>–Finals Week

December 19<sup>th</sup>–Commencement ceremony at 10:00 am in the Health and Sports Center

December 23<sup>rd</sup>–Deadline for faculty to submit final grades for fall classes

December 24<sup>th</sup>–January 2<sup>nd</sup>–University offices closed for the holidays

January 5<sup>th</sup>–UNK offices open

January 12<sup>th</sup>–Spring 2026 classes begin

**Students planning to graduate this December 2025 must apply for graduation on MyBlue.** Even if you do not plan to attend ceremony you must apply to receive your degree. The deadline to apply for fall graduation is September 15<sup>th</sup>. There is a \$25 application fee which can be paid on-line during the application process. Commencement ceremony will take place at 10:00 am on December 19<sup>th</sup> in the Health and Sports Center. Please consider making the trip to Kearney to walk in graduation and if you do, please let the Biology Department know.

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## **Degree Requirements beginning Fall 2025**

### **9 credit hours of required coursework:**

- BIOL 802 - Organic Evolution (3 hours)
- BIOL 848 - Scientific Literacy and Communication (3 hours)
- 3 credit hours from ONE of the following:
  - BIOL 827 - Concepts of Biological Statistics
  - BIOL 849 - Advanced Biological Statistics

### **21 credit hours of electives:**

- Electives can be chosen from BIOL 800-level courses, CHEM 855 can also count towards this requirement.

### **Total credit hours – 30 credits**

#### **\*\*\*For students enrolled under catalog years prior to Fall 2025:**

You have the option to switch to the new catalog year and follow the updated program requirements above. You need to send an email requesting to switch catalogs to the Graduate Office

([brewerc@unk.edu](mailto:brewerc@unk.edu), [gradstudies@unk.edu](mailto:gradstudies@unk.edu)); please copy [msbiology@unk.edu](mailto:msbiology@unk.edu) as well on the email.

Students who have completed BIOL 820 - Introduction to Graduate Study **and** at least one credit of BIOL 881 - Current Issues will have these courses count in place of BIOL 848 - Scientific Literacy and Communication.