



Department of Biology Masters Distance Learning Program

MASTERS DISTANCE MONITOR

May 2023

Issue 45

WELCOME

New Online Masters Students for Summer 2023:

Eric Aboagye, TX; Scot Ahlers, NE; Tyhesa Cole, AL; Mikaya Franklin, GA; James Gronewold, IA; David Hansen, NE; Chase Hartwig, NE; Brittany Hegseth, TX; Andrew Hyun, CA; Sara Ingledew-Lunsford, CO; Kay Kelly, MN; Terianne Knott, NE; Jacob Lanagan, IA; Tracy Larsen, NE; Amanda McClelland, VA; Samuel Ogle, OH; Amanda Peterson, PA; Jennifer Price, OH; Ashley Roberts, CO; Noah Vasa, NE; Tonya Welch, OH; Christine West, HI

NEWSFEED

Dr. Paul Twigg, Professor of Biology, was appointed Dean of the College of Arts and Sciences. He has been serving as Interim Dean for the past year and will begin the permanent position on July 1st. Below is an excerpt from an article written in University of Nebraska News; for full article click on the following link: <https://unknews.unk.edu/2023/05/15/unk-removes-interim-tag-selects-paul-twigg-to-lead-college-of-arts-and-sciences/>. Congratulations Dr. Twigg!

UNK removes interim tag, selects Paul Twigg to lead College of Arts and Sciences

May 15, 2023
Tyler Ellyson



KEARNEY – The University of Nebraska at Kearney has selected Paul Twigg as the next dean of the College of Arts and Sciences.

A longtime biology professor, Twigg has served as the college’s interim dean since September 2022. His appointment to the permanent position is effective July 1, pending University of Nebraska Board of Regents approval.

“I look forward to becoming the full-time leader of the College of Arts and Sciences. I have always felt that my work is the most valuable when it impacts students and I consider becoming dean as another opportunity to do this,” Twigg said. “I am excited to work with our talented and passionate faculty to move our programs forward and to benefit the students and people of Nebraska. We have strengths in so many wonderful programs that make a difference in the lives of Nebraskans and I am ready to extend our impact.”

Twigg joined UNK in 1992 as part of the first faculty cohort hired following the school’s transition to the University of Nebraska System. Since then, he’s taught a variety of courses and mentored countless undergraduate and graduate students. As a researcher, he’s secured more than \$32 million in grant funding and presented at both national and international conferences. He has 35 peer-reviewed publications.

In addition to his teaching and research, Twigg served as the graduate chair in the [UNK Department of Biology](#) from 2016-20, overseeing an online master’s program with more than 400 students and several grant-funded graduate assistant positions. He also helped launch a new master’s degree program in health science.

As an assistant/associate dean, Twigg played a key role in the creation of the [College of Arts and Sciences](#), formed in August 2018 by merging the colleges of Natural and Social Sciences and Fine Arts and Humanities. Arts and Sciences is UNK's largest academic college, with 2,400 students and 220 full- and part-time faculty. It includes the departments of art and design, biology, chemistry, communication, criminal justice, English, geography, health sciences, history, mathematics and statistics, modern languages, music, theatre and dance, physics, astronomy and engineering, philosophy, political science, psychology, social work and sociology, along with the international studies, STEM education and women's, gender and ethnic studies programs.

Twigg was an associate dean in the College of Arts and Sciences for two years prior to his appointment as interim dean. He partnered with [UNK Health Sciences](#) to launch the Health Science Explorers Academy, a pipeline program designed to grow the state's health care workforce, gained approval for new graduate programs, led the development of new student success programs and enhanced faculty mentoring and leadership efforts.

CONGRATULATIONS

May 2023 Graduates:

Kate Boyle, Tim Bozeman, Justin Chang, Haley Classe, Calla Diane, Sean Farrier (THESIS), Jade Garcia, Brianna Geeskie, Kylee McCord, Mary Miller, Seamus Moody, Jessica Nye, Nicole Palombo, Mikael Ranta, Blasé Rokusek (THESIS), Nicole Rother, Abigail Rupp, William Schriener (THESIS), Beau Schwenka, Taryn Sigl, Keith Sluyter, Adam Sullivan, Nikole Weisendanger

Three graduates were able to attend the commencement ceremony on May 19th at 10:00 am in the Health and Sports Center. UNK Online hosted a meet and greet for graduates immediately following ceremony. Online graduates, along with their guests, and biology faculty were able to stop by for some refreshments and meet each other in person.



Pictured from left to right: Dr. Joe Dolence, Associate Professor; Dr. Kim Carlson, Professor and Co-Chair; Dr. Melissa Wuellner, Associate Professor; Blasé Rokusek, and Dr. Nick Hobbs, Associate Professor

Pictured right: Graduates Blasé Rokusek and Mikael Ranta

Pictured below: Graduate Justin Chang being hooded on stage during commencement ceremony



Pictured right: Blasé Rokusek, Drs. Kim Carlson and Nick Hobbs at UNK Online meet and greet



Pictured left: Brian Peterson, Online Program Coordinator and Justin Chang

Meetings, Publications

Meetings

- Bajelan, J., M. Harner**, T. Gilmore, K. Chapman, G. Folk, **K. Geluso, J. Jonas-Bratten, B. Ostrom**, J. Sikes, J. Stranzl, K. Wetovick, **M. Wuellner**, A. Klein, and C. Wagner. February 2023. An introduction to the Kearney Outdoor Learning Area for place-based learning and research. Nebraska Environmental Education Conference. Ashland, Nebraska. Oral Presentation.
- Dietrich, L., M. Wuellner**, and **K. Koupal**. February 2023. Estimating the spatial distribution of fish use around Georgia cubes. Midwest Fish and Wildlife Conference. Overland Park, Kansas. Oral presentation.
- Dietrich, L., M. Wuellner**, and **K. Koupal**. February 2023. Understanding the dynamics of fish use around Georgia cubes in small impoundments. Nebraska Chapter of the American Fisheries Society Annual Meeting. Ponca, Nebraska. Oral Presentation.
- Gunderson, C.M. and **Drew, B.T.** April 2023. Effect of pollinators and visitors of the mint blue sage (*Salvia azurea*) in Nebraska. The American Society of Plant Biology Conference. Ames, Iowa. Poster Presentation.
- Paysen, J., **L. R. Zebro, M. R. Wuellner**, and **K. D. Koupal**. February 2023. Food habits of August-collected juvenile Walleye in Lake McConaughy, Nebraska. Nebraska Chapter of the American Fisheries Society Annual Meeting. Ponca, Nebraska. Poster Presentation.
- Ranta, M., M. Wuellner**, and **K. Koupal**. February 2023. Distinguishing variables linked to Walleye recruitment in Lake McConaughy, Nebraska. Nebraska Chapter of the American Fisheries Society Annual Meeting. Ponca, Nebraska. Poster Presentation.
- Ranta, M., M. Wuellner**, and **K. Koupal**. February 2023. Identifying variables linked to Walleye recruitment in Lake McConaughy, Nebraska. Midwest Fish and Wildlife Conference. Overland Park, Kansas. Oral presentation.
- Rothschild, C.**, Charran, T., and Werner, M.A. April 2023. Utilization of ZyMöt with backup Extended Sperm Search and Microfreeze (ESSM) in Severe Oligospermia-Reliably and Quickly Finds Adequate, Progressively Motile Sperm. American Society of Andrology Annual Conference. Boston, Massachusetts. Poster Presentation.
- Rothschild, C.**, Najari, B., Bluebond-Lagner, R., Zhao, L., and Werner, M.A. April 2023. Successful Fertility Preservation using Single-Sperm Vitrification after 18 Years of Estrogen Therapy in a Transgender Female. American Society of Andrology Annual Conference. Boston, Massachusetts. Poster Presentation.
- Rothschild, C.**, Charran, T., and Werner, M.A. April 2023. Combining Sperm Mapping and Sperm Vitrification to Minimize Repetitive Testicular Biopsy. American Society of Andrology Annual Conference. Boston, Massachusetts. Poster Presentation.
- tenBensel, M. and **Drew, B.T.** April 2023. Effects of fire on plant species in grazed grasslands. The American Society of Plant Biology Conference. Ames, Iowa. Poster Presentation.
- Zebro, L. R., M. R. Wuellner**, and **K. D. Koupal**. February 2023. Alewife food habits, abundance, and distribution in Lake McConaughy. Nebraska Chapter of the American Fisheries Society Annual Meeting. Ponca, Nebraska. Oral Presentation.
- Zebro, L. R., M. R. Wuellner**, and **K. D. Koupal**. February 2023. Evaluating the contributions of Walleye fry and fingerling stocking to the fall age-0 catch in Lake McConaughy. Midwest Fish and Wildlife Conference. Overland Park, Kansas. Oral presentation.

Publications

- Alston, J.M., D.A. Keinath, C.K.R. Willis, C.L. Lausen, J.M. O’Keefe, J.D. Tyburec, H.G. Broders, P.R. Moosman, T.C. Carter, C.L. Chambers, E.H. Gillam, **K. Geluso**, T.J. Weller, D.W. Burles, and J.R. Goheen. 2023. Environmental drivers of body size in North American bats. *Functional Ecology*. DOI: 10.1111/1365-2435.14287
- Antar, G.M., Hays, M., Harley, R.M. and **Drew, B.T.** 2022. Phylogenetic placement and taxonomic revision of the genus *Monochilus* (Lamiaceae), a rare Brazilian endemic. *Systematic Botany*. 47: 1112–1121.
- Bajelan, J.L., **K. Geluso**, C. Kruse, and **M.J. Harner**. 2022. *Chrysemys picta* (Painted Turtle) and *Chelydraserpentina* (Snapping Turtle): Interspecific basking. *Herpetological Review*. 53:666.
- Krabbenhoft, C., S. Ludsin, E. Marschall, R. Budnik, L. Almeida, H. Embke, Z. Feiner, P. Schmalz, M. Thorstensen, M. Weber, **M. Wuellner**, and G. Hansen. 2023. Synthesizing professional opinion and published science to build a conceptual model of Walleye recruitment. *Fisheries*. 48(4):141 – 156. DOI: 10.1002/fsh.10884
- Kriebel R., **Drew, B.T.**, Claßen-Bockhoff R., and Sytsma, K.J. 2023. Evolution of anther connective teeth in sages (*Salvia*, Lamiaceae) under bee and hummingbird pollination. *Flora*. 298: doi.org/10.1016/j.flora.2022.152199
- Kriebel, R., Rose, J.P., **Drew, B.T.**, González-Gallegos, J.G., Celep, F., Mahdjoub, M.M., Heeg, L. and Sytsma K.J. 2023. Model selection, hummingbird natural history, and biological hypotheses: a response to Sazatornil et al. *Evolution*. 77: 646–653.
- Metcalf, D.S., J.D. Bain, S.C. Thomas, **B.R. Andersen**, and **K. Geluso**. 2023. Winter observations of Allen’s Big-eared Bat (*Idionycteris phyllotis*) in New Mexico. *Western Wildlife*. 10:1-5.
- Ruoss, J., **B. Mason**, **M. Wuellner**, and **K. Koupal**. 2023. Resetting the clock: how a reconnection event re-shaped cove fish assemblages in a Nebraska reservoir. *North American Journal of Fisheries Management* 43(2):327 – 338. DOI: 10.1002/nafm.10797
- Schriener, W.**, **K. Koupal**, **M. Wuellner**, and D. H. Ranglack. 2023. Assessing habitat availability in a hydrodynamic reservoir system. *North American Journal of Fisheries Management*. 34:304 – 312. DOI: 10.1002/nafm.10851

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.

Director’s Desk from Dr. Austin Nuxoll

Greetings,

This summer marks the 20th year since our program started. We started by mailing lectures (VHS tapes and shortly after switched to DVDs) to students and only offered two or three courses each semester. Today, we directly stream courses and have seen our program grow from 50 students in the beginning, to over 300 students in recent years. We would like to thank all of you for the continued success of the program over the years. Many of our students reach us through student referrals.

As we look forward to our summer and fall semesters, we have many courses filling quickly, so please email msbiology@unk.edu to be placed on the waitlist if you see a class is full. This past spring, we tested out 8-week courses during the academic year and due to their popularity, we will again be offering two 8-week courses in the fall (Microbial Diversity and Forensic Biology).

There will be changes to Financial Aid regarding part-time aid beginning in the Fall Semester. Graduate students will be required to enroll in 5 hours to receive aid (previously 4 credit hours). If you have any questions on this new policy, please reach out to the Financial Aid office at finaid1@unk.edu.

Finally, we would like to extend a congratulations to Dr. Paul Twigg. Dr. Paul Twigg has been serving as the interim Dean of Arts & Sciences at UNK and beginning July 1, 2023, he will have the interim title removed and will be the Dean for the College of Arts & Sciences. Dr. Twigg has taught several courses for the program throughout the years, beginning with Plant Pathology in 2004. More recently, some of you may have also taken Plant Physiology, Deadly Plants, or Forensic Biology with Dr. Twigg.

I hope everyone enjoys their summer and please reach out if I can assist with anything (nuxollas@unk.edu).

Faculty News



Dr. Keith Geluso, Professor in the Department of Biology, was featured in the University of Nebraska news this past April for his appointment as a National Strategic Research Institute (NSRI) fellow. NSRI's new focus area is food, agriculture and environmental security. "Dr. Geluso will provide valuable knowledge with novel pandemics associated with vertebrates. He is one of few experts with field experience for mammal trapping, handling, sampling and identification." For the full article, including a link to the NSRI webpage, click on the following link:

<https://unknews.unk.edu/2023/04/19/biology-professor-keith-geluso-appointed-as-nsri-fellow/>

Student News

Jennifer Cain (May 2017 graduate) will be starting this August as a Visiting Assistant Professor of Biology at Centre College in Danville, Kentucky.

Jay Cecrle (July 2005 thesis graduate) has completed his 3rd year as director of the Central Nebraska Science and Engineering Fair (CNSEF) held at the University of Nebraska Kearney. The biology department hosts this fair and many of the judges are biology department faculty. Each year this fair gives out over \$2,000 in awards and nominates three projects from Western Nebraska to compete in the International Science and Engineering Fair (ISEF). ISEF is the largest pre-collegiate science fair in the world with over 1700 students from 80 countries competing for over 5 million dollars in prizes. Jay is a science teacher at Adams Central Junior/Senior High School in Hastings and has had the honor of taking 4 student projects to ISEF since 2016. He credits his Biology 420 project and his Master's Thesis project for his success in teaching students how to conduct independent research projects. If any Nebraska teachers are interested in getting their students involved or if you are able to judge, please visit the CNSEF website at <https://www.cnsef.net/>.

Chelle Gillan (May 2019 graduate) was nominated for a Presidential Award for Excellence in Mathematics and Science Teaching. This is the highest honor bestowed by the United States government for K-12 science, technology, engineering, and mathematics teaching. Only three science teachers from the state of Nebraska were nominated. Her application is now being reviewed at the national level. This process can take up to 2 years.

Amanda Hampton (May 2014 graduate) has accepted a new position as the Medical Director of VCA Beacon Hill Cat Hospital. This is a veterinary hospital in Alexandria, Virginia that specializes in feline medicine and surgery. She will not only see patients but is also responsible for the medical team and ensuring gold standards of practice are being used.

Ally Richardson (current distance student) wrote an article entitled "Homeless by Choice: Happy Wanderer" in The Springs Echo, A Street Paper May 2023 edition based out of Colorado Springs, Colorado https://www.thespringsecho.com/files/ugd/bc2742_26adb363cefd48d481a6021adf610d3b.pdf.

Blasé Rokusek (May 2023 thesis graduate) will be attending Medical School at University of Nebraska Medical Center in the fall. He was awarded Outstanding Graduate Student of the Year and won first place poster presentation at the UNK Graduate Research Day held on April 13th.

Becca Sprouse (August 2022 graduate) was promoted from visiting to a permanent Assistant Professor of Practice at Doane University in Crete, Nebraska.

Adam Sullivan (May 2023 graduate) recently moved to Buffalo, New York and has accepted a position with the SUNY Research Foundation as a research assistant. Some projects he will be a part of include a multidisciplinary Predicting Pandemics study, and an Environmental Health Study aimed to evaluate the impact of low-level industrial pollutants on the health of the surrounding communities. He and his family recently participated in assisting a collaborating partner with a local park clean-up. (pictured right)



Please let us know what is going on in your lives; email us your news at msbiology@unk.edu.

Office Space

Still looking to register for a class this summer? The following courses are being offered during the 2nd summer session and have a few spots left:

June 5 – July 28 session:

BIOL 830P – Community Health Promotion (3 hrs)

BIOL 830P – Vaccines: Concepts and Controversies (3 hrs)

Students can register for open classes through MyBlue up until the first day of the class.

Students planning to graduate this August 2023 must apply for graduation on MyBlue. Even if you do not plan to attend ceremony you must apply in order to receive your degree. The deadline to apply for summer graduation is June 15th. 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 August 11th 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.

Reminder: If you haven't registered yet for Fall 2023 classes, we encourage you to do so ASAP. Classes fill-up quickly so if there is a course you really want/need to take, you should register now. Fall 2023 classes begin August 21st.

Remember, if a class you are interested in taking is full, contact Brian or Robyn at msbiology@unk.edu to be put on a waitlist. Should a spot become available you would then be contacted via your loper email account.

2 Field Study Opportunities

In Fall 2023, students will have the opportunity to visit the Yucatan Peninsula in Mexico. Consider joining in on a fun and educational trip! We have done this trip before and it received awesome reviews. Below is some additional information, and some pictures and itinerary from the last trip in October 2022.

BIOL 856P-01 Regional Field Study course, Yucatan Peninsula. If you are looking to register for the course, it is listed as "Off Campus", instead of "Web Based". Enrollment is by permission of instructor only; email Dr. Bryan Drew at drewbt@unk.edu for permission or with questions.

Course Dates: October 9th – 27th, 2023

Trip Dates: Travel from October 13th - 22nd (Fall Break week), 2023

Course Description (2 units): During this course we will travel to the Yucatan peninsula in Mexico. A high-speed train route that circles the peninsula will be operational in December 2023–this will bring many more people to formerly remote regions of the Yucatan, and fundamentally change the experience of visiting the Yucatan. So, this is a "last dance" of sorts. The trip will combine hiking, snorkeling, pyramid-climbing, botanizing, entomology, bat-viewing, birdwatching, and monkey-watching, amongst other things. We will fly into Cancun and venture as far (south)west as Xpujil in Campeche. Students will make their own flight arrangements, and I will pick people up at the Cancun airport in Mexico on Friday, October 13th. Prior to the field trip, in order to familiarize yourself with the Yucatan, a short paper will be due.

Course Objectives:

- Gain an appreciation for the culture and biodiversity of the Yucatan peninsula
- Learn about Yucatan peninsula ecology and ecosystems
- Learn about common plants and animals of the Yucatan peninsula

Travel Itinerary: October 2022, Yucatan Peninsula, Mexico

October 14th: Bryan Drew will arrive to Cancun, pick up a rental vehicle, and stay at a hotel in the area.

October 15th: Bryan Drew will pick up students at the airport in Cancun. We will sleep at a hotel in Puerto Morelos, Quintana Roo.

October 16th: We will go on a guided snorkeling trip in Puerto Morelos National Reef Park in the morning, and go on a short hike to some botanical gardens before returning to sleep at a hotel in Puerto Morelos.

October 17th: We will visit the ruins at Tulum and visit the Reserva de la Biósfera Sian Ka'an. We will sleep at a hotel in Mahahual, Quintana Roo.

October 18th: We will hike and birdwatch in the area around Mahahual. Some students may also go diving/snorkeling. We will sleep at a hotel in Mahahual, Quintana Roo.

October 19th: We will drive to Xpujil in Campeche and visit ruins in the area. We will stay in a hotel near La Selva, Campeche.

October 20th: We will spend the day exploring Calakmul. We will stay in a hotel near La Selva, Campeche.

October 21st: We will travel to Bacalar and visit a large freshwater lagoon. We will sleep at a hotel in Bacalar.

October 22nd: We will drive back to Bacalar, stopping at sites along the way, possibly visiting Cenotes in the Reserva de la Biósfera Sian Ka'an. We will sleep at a hotel in Puerto Morelos.

October 23rd: Return home from Cancun.



Also, this Spring 2024 during J-term, we are offering a Field Study trip to Baja California Sur in Mexico. See course description and dates below. We will send more information during the fall 2023 semester about this trip.

During the J-term (January 2nd -20th, 2024) we will be offering a Regional Field Study (BIOL 856P) course to Baja California Sur, Mexico. Below is some additional information about the course. The travel portion of the course will be from January 10th – 20th (J-term). Email Dr. Bryan Drew at drewbt@unk.edu with questions.

Trip Dates: January 10th-20th (J-term), 2024

Course Description (2 units):

This class is a field course, BIOL 856, to Baja California Sur (BCS) in Mexico. The course is intended to provide Biology undergraduate (and online graduate students) a unique real-world learning experience in a region that they would probably not otherwise be exposed to. Students will learn about ecology, plant taxonomy, entomology, geology, marine biology, and ornithology as part of this class. The hands-on experience gained during the course will compliment and augment the knowledge that students glean from an online/classroom setting. During this trip, we will go on a guided snorkeling trip in Cabo Pulmo National Park, hike in the Sierra de La Laguna UNESCO biosphere reserve, visit some of the oldest Spanish missions on the peninsula, hike to see Native American pictographs, and more. Students will make their own flight arrangements, and I will pick people up at the airport in Mexico on January 10th. Prior to the field trip, in order to familiarize yourself with Baja California, a short paper will be due.

Course Objectives:

1. Gain an appreciation for the biodiversity of Baja California Sur (BCS)
2. Learn about the Spanish cultural history of BCS, and explore Mexican culture
3. Learn about BCS ecology and ecosystems
4. Learn about flora and fauna of BCS
5. Apply classroom knowledge to real world situations
6. Develop field skills through application