

News from the Caylor School of Nursing

The Caylor School of Nursing was recently awarded a Nurse Education, Practice, Quality and Retention (NEPQR) Grant from the Health Resources and Services Administration (HRSA). LMU will partner with two healthcare facilities to bring mental health services to rural and/or underserved populations. The grant was co-authored by Dr. Logan McCarthy and Dr. Mary Anne Modrcin, with Dr. McCarthy serving as project director. The grant will span three years and was funded at \$945,908. HRSA awarded only 17 of these grants and LMU's grant is the only one awarded in Tennessee.

The Caylor School of Nursing also received The Nurse Anesthetist Traineeships (NAT) Grant. LMU has been receiving HRSA funding for the Nurse Anesthesia concentration since 2009.

The Caylor School of Nursing also received notification that their current Advanced Nursing Education Workforce (ANEW) Grant will continue to be funded in 2020-2021.

Congratulations!!

News from the College of Veterinary Medicine

Assistant Professor at the College of Veterinary Medicine, Gary Vroegindewey and Research Specialist for Health Sciences, Kimberly Kertis, have an article scheduled to be published in August.

The citation for the article is: Vroegindewey, G. & Kertis, K.K. Veterinary Services Health, Safety and Wellness in Disaster Preparedness and Response. *Scientific and Technical Review of the Office International des Epizooties*. 39 (2), August 2020. doi:10.20506/rst.39.2.3111



Dr. LaRoy Brandt recently announced the publication of a collaborative research article in the journal, *Biological Conservation*. This article incorporates data collected as part of his research trips to Costa Rica during his tenure at LMU as part of a larger evaluation of the conservation management policies concerning an endangered species of tapir, the Baird's tapir, *Tapirus bairdii*. Most notably, this article also incorporates data collected by one of LMU's recent graduates in the Conservation Biology Program, Maggie Singleton, who is co-author on this manuscript. Maggie's data was collected as part of her Jr/Sr Seminar research project which was funded in part by an LMU mini-grant.

Abstract

Although many large mammals currently face significant threats that could lead to their extinction, resources for conservation are often scarce, resulting in the need to develop efficient plans to prioritize conservation actions. We combined several methods in spatial ecology to identify the distribution of the endangered Baird's tapir across its range from southern Mexico to northern Colombia. Twenty-eight habitat patches covering 23% of the study area were identified, harboring potentially 62% or more of the total population for this flagship species. Roughly half of the total area is under some form of protection, while most of the remaining habitat (~70%) occurs in indigenous/local communities. The network with maximum connectivity created from these patches contains at least one complete break (in Mexico between Selva El Ocote and Selva Lacandona) even when considering the most generous dispersal scenario. The connectivity analysis also highlighted a probable break at the Panama Canal and high habitat fragmentation in Honduras. In light of these findings, we recommend the following actions to facilitate the conservation of Baird's tapir: 1) protect existing habitat by strengthening enforcement in areas already under protection, 2) work with indigenous territories to preserve and enforce their land rights, and help local communities maintain traditional practices; 3) re-establish connections between habitat patches that will allow for connectivity across the species' distribution; 4) conduct additional noninvasive surveys in patches with little or no species data; and 5) collect more telemetry and genetic data on the species to estimate home range size, dispersal capabilities, and meta-population structure.

For some time now, Dr. Brandt has been working on creating a publication through the CMRC called the Cumberland Mountain Naturalist. This work has finally come to fruition as they published the first issue in April. The first issue was authored by LMU Professor Emeritus, Dr. John Copeland on his work related to Freshwater Sponges in Tennessee. The journal is published through the LMU Digital Commons at https://digitalcommons.lmunet.edu/cumberland_mountain_naturalist/.

News from the School of Mathematics and Sciences

Fifteen LMU undergraduates and two LMU faculty members attended the 52nd Annual Conference of the Tennessee Chapter of the Wildlife Society in Murfreesboro, TN February 26-28, 2020. Dr. Aggy Vanderpool and Dr. Whitney Kistler mentored students as they presented research and interacted with colleagues from across the state of Tennessee. Seven students presented oral presentations (details below) in the Student Presentation Session.

For the first time in LMU school history, an LMU senior, Emily Burke was awarded Best Student Presentation. Emily has been researching tick phenology under the guidance of Dr. Barbara Shock since August 2019. "Emily's hard work and genuine interest in vector-borne disease has been evident since she started this project. I really hope she continues to pursue research opportunities after graduation." Dr. Shock notes that Emily is an excellent tick photographer and attributes this to Emily's innate artistic abilities.

"I was pretty surprised because there were a lot of people who put hard work into their research and it showed. But I was very happy to represent LMU!" – Emily Burke

Congratulations to Emily and to the LMU Student Chapter of the Wildlife Society.

LMU Presentations:

Hana Hess (CBIOW.BS) – Identification of the presence of eastern hellbenders (*Cryptobranchus alleganiensis*) in the Powell River, Tennessee utilizing environmental DNA detection methods (mentor: Dr. Whitney Kistler).

Emily Burke (CBIO.BS) – Seasonality of questing ticks in Claiborne County, Tennessee (mentor: Dr. Barbara Shock).

Ben Wiley (CBIO.BS) – Investigative analysis of native and invasive crayfish species composition in the Powell River – Claiborne County, Tennessee (mentor: Dr. Whitney Kistler).

Kendall Trent (CBIOW.BS) – Using a low head oxygenator to reduce nitrogen saturation levels in raceways at Buffalo Springs Trout Hatchery, Rutledge, Tennessee (mentor: Dr. Aggy Vanderpool).

Hunter Wyatt (CBIOW.BS & LMU TWS Chapter President) – Estimating species richness using echolocation monitoring (mentor: Dr. LaRoy Brandt).

Tyler Ogan (CBIOW.BS) – Herpetological diversity survey of the Well Being Retreat Center in Tazewell, Tennessee (mentor: Dr. Aggy Vanderpool).

Justin Anderson-Woodard (CBIOW.BS) – Monitoring the movement and burrowing behavior of endangered *Epioblasma brevidens*, the Cumberlandian combshell mussel, in relation to rearing conditions and substrate type.

News from the Abraham Lincoln Library and Museum

The Abraham Lincoln Library and Museum has received two grants as part of the Coronavirus Aid, Relief and Economic Security (CARES) Act. Natalie Sweet submitted proposals as part of the first and second rounds of grants and both her proposals were awarded through Humanities Tennessee and the National Endowment for the Humanities.

Natalie was also published in last month's *Museological Review* from the University of Leicester, "What Is a Museum to You Today?" Below is an excerpt from her submission,

A museum is a space of inclusive learning and dialogue that challenges the public and itself to thoroughly consider the content held and presented within its exhibits, collections, archives, programming, and digital offerings. It looks to the past, present, and future to draw connections, create context, and be a space for the dissemination and debate of information related to humanity, its planetary home, and the worlds beyond.

News from the Carter and Moyers School of Education

Assistant Professor of Education, Dr. Jessica Taylor serves as a reviewer for *Emerging Dialogues*, which is a publication for the Association for the Assessment of Learning in Higher Education. She recently participated in The Institute for Research on Innovation and Science (IRIS) hosted by the University of Michigan for this summer's focus on "Joining the Data Revolution: Big Data in Education and Social Science Research."

Assistant Professor of Education, Dr. Cherie Gaines is co-editing a book, *Promoting Positive Learning Experiences in Middle School Education*, to be published by IGI Global and will also be authoring a chapter.

Assistant Professor of Education, Dr. Joshua Tipton is a member of the National Council For the Social Studies Archives Committee and served as a national conference proposal reviewer during the spring semester for the National Council for the Social Studies and the Kappa Delta Pi International Honor Society in Education. This past spring, Dr. Tipton also served as a scholarship proposal reviewer for KDP, which grants scholarship money to both prospective teacher candidates as well as current teachers seeking a graduate degree. He is also co-authoring a book chapter, "Classrooms Built for Belonging: Three Keys to Building Reciprocal Relationships in Middle School Classrooms," for the upcoming book, *Promoting Positive Learning Experiences in Middle School Education*. Dr. Tipton also contributed a blog post to the Lincoln Institute, "Money Talks: Of Education and Money and Our Future," that can be accessed via <https://li-reflections.com/2020/03/10/745/>.

Recent Submissions and Awards

Recent Grant Submissions:

Bridget Welch submitted a proposal to the Knoxville Academy of Medicine Alliance Philanthropic Fund.

Jason Johnson submitted a proposal to the Appalachian Regional Commission.

Natalie Sweet submitted a proposal to the National Endowment for the Humanities and she submitted two proposals to Humanities Tennessee.

James McCallister submitted a proposal to the National Endowment for the Humanities.

John McCook submitted a proposal to the Department of Education for the Special Education Endorsement Competitive Grant.

LaRoy Brandt submitted a proposal to Wildlife Acoustics.

Recent Grant Awards:

Council on International Veterinary Medical Education (CIVME)

Knoxville Academy of Medicine Alliance (KAMA)

Two grant awards from Humanities Tennessee

East Tennessee Foundation—Butterfly Fund

Health Resources and Services Administration (HRSA) Nurse Education, Practice, Quality and Retention (NEPQR)

Health Resources Services Administration (HRSA) Nurse Anesthetist Traineeships (NAT)

Enterprise Holdings

Two grant awards from PetSmart Charities

Appalachian College Association (7 Ledford Awards)

Department of Education Special Education Endorsement Competitive Grant

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Reminder from the LMU Institutional Review Board (IRB)

Please remember that all research proposals and projects involving human subjects, must have IRB approval *prior* to the presentation of any information gathered during the course of the research.

Under federal policy, the IRB cannot grant retroactive IRB approval.

All applications for external funding must first begin by contacting the ORGSP.

If your grant award, application, presentation, or publication has not been mentioned in this edition, please forward your information to us using the contact information listed above. Thank you!

Institutional Animal and Care Use Committee (IACUC)

All research proposals and projects involving animals must have IACUC approval. Please have protocols submitted at least one week before the next scheduled meeting for committee review. Below is a schedule of upcoming IACUC meetings:

July 14, 2020
August 11, 2020
September 8, 2020
October 13, 2020
November 10, 2020
December 8, 2020