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Aspiring scientists from across the nation participate in SIUE/U of I competitive summer research experience for undergraduates

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EDWARDSVILLE - While some have a passion for archaeology and others are more focused on ecology, 10 undergraduates from across the nation are gaining hands-on experience in both fields by participating in an interdisciplinary field study hosted at

Southern Illinois University Edwardsville in collaboration with the Illinois Natural History Survey, University of Illinois Urbana-Champaign.

This is the second summer of a three-year program funded by a $287,690 National Science Foundation (NSF) Research Experiences for Undergraduates (REU) grant awarded to the two institutions.

The project is entitled Exploring Evidence of the Anthropocene: Archaeological and Ecological Interdisciplinary Research Experiences for First Generation Students in the Upper Mississippi River System. The Anthropocene is a proposed geological epoch in which scholars suggest that humans are now more influence on climate and environmental conditions than natural processes.

“We have a fantastic group of students who are engaged in science and eager to conduct research,” said Carol Colaninno-Meeks, PhD, principal investigator (PI) of the program and research assistant professor in the SIUE STEM Center. “The students are engaging in field archaeology and long-term fish monitoring programs in the Mississippi and Illinois Rivers, and learning methodologies and theoretical perspectives that bridge archaeological and ecological concepts.”

The NSF REU program caters to first generation and non-traditional college students. This summer’s participants are pursuing degrees at SIUE, the University of Georgia, City University of New York, the University of Minnesota, Hofstra University in Long Island, the University of Illinois Urbana-Champaign, Belmont University and more.

According to co-PI John Chick, PhD, director of the Great Rivers Field Station in Alton, “Working on a project like this gives students a much greater feel for actual research. A typical field class is great for learning sampling techniques, but it doesn’t allow students to experience the day-to-day consistency in sampling methodology or the setup and breakdown at the start and end of each day. The students involved in this program will leave with an excellent understanding of what a standardized monitoring or research program is and how it operates.”

“Any field and research experience you can get as an undergraduate is wonderful for your educational development and future applications,” said SIUE junior Emily Lange, of Edwardsville. “It has been amazing. I had never been in the field before, so I wasn’t sure what to expect. Doing the things that we’ve read about in textbooks and heard through lectures has been beneficial for my understanding of the subject.”

Lange is pursuing a bachelor’s in anthropology with an emphasis in archaeology. The natural environment and lab materials available at SIUE are what make this an exciting opportunity, she says.

“At the back of our campus is this amazing archeological site,” she said. “It’s an incredible resource. Obviously archeological sites are not an infinite resource, but we’ll be able to dig here for decades since there’s a wealth of area.”

“Our program is studying the overall health of the Upper Mississippi River,” said SIUE alumnus Eric Ratcliff, Great Rivers Field Station fisheries specialist. “It’s wonderful to get young people in here and involved with this important project. This is unique work, and we’re contributing to an enormous database.”

“This is my first field experience that is focused on fish,” said Courtney Camp, a junior at the University of Georgia, who’s majoring in wildlife science with a minor in anthropology. “This opportunity is the perfect mesh of my two academic emphases and will definitely boost my resume.”

“We have had a lot of interesting conversations about our projects, and how to collect data and conduct research, since we’re all from different universities,” added Sarah Klush, a sophomore studying archaeology at Hofstra University in Long Island, N.Y. “Also, getting to work with all of these professionals is wonderful.”

“Getting to work one-on-one with a scientist helps to humanize the process of science and allows these students realize that they can do this, too,” Colaninno-Meeks explained. “Rather than sitting in class and reading about it, they get the experience of going through the entire research process.”

The program also offers student and career development sessions, including a panel on job search strategies, an “ask a professor anything” event and more.

“I love the interdisciplinary aspect of this research experience, because I am interested in environmental science,” said Olivia Mullenax, a sophomore double-majoring in anthropology and art history at the University of Minnesota. “I appreciated that it was targeted toward first generation students like me and am grateful for the opportunity to network and build connections. This experience will open pathways for future internships.”

Senior personnel involved in the collaborative project include Corey Ragsdale, PhD, assistant professor and Julie Zimmermann, PhD, professor, both in the SIUE Department of Anthropology; Andrew Casper, PhD, of the Shed Aquarium; Sergiusz Czesney, PhD, director of the Lake Michigan Biological Station; and James Lamer, PhD, site manager of Western Illinois University’s Kibbe Field Station.

During the eight-week program, all ten participants will complete an original research contribution. Their work will be featured during the REU Symposium being held from 1-3 p.m. Thursday, July 26 in the Morris University Center's Mississippi Room.

About the STEM Center

The Southern Illinois University Edwardsville Center for STEM Research, Education and Outreach comprises an independent group of researchers and educators, innovating ways to engage students and the public in science, technology, engineering and math (STEM). Within the SIUE Graduate School, the Center brings together research faculty, graduate students and practitioners to conduct education research. The Center contributes educational expertise to SIUE undergraduate classes and provides professional development for K-12 teachers. The Center boasts a significant library of equipment and resources, which are available for loan at no cost to campus and regional instructors. For more information, visit https://www.siue.edu/stem/about.shtml or contact STEM Center Director Sharon Locke at (618) 650-3065 or stemcenter@siue.edu.

About the University of Illinois, Illinois Natural History Survey
The mission of the Illinois Natural History Survey (INHS), part of the University of Illinois' Prairie Research Institute, is to investigate and document the biological resources of Illinois and other areas, and to acquire and provide natural history information that can be used to promote the common understanding, conservation and management of these resources. For more information, visit inhs.illinois.edu.