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CSU receives $12.5 million for STEM education

By Coloradoan staff

CSU's Natural Resource Ecology Laboratory received a $12.5 million National Science Foundation grant to create a teacher development program targeted at middle school and high school teachers in the STEM disciplines or science, technology, engineering and mathematics.

Colorado State University will partner with the Poudre School District among other state and nationwide school districts and higher education institutions.

The collaborative, CSU-led program spearheaded by John Moore, director of CSU's Natural Resource Ecology Laboratory, will connect the environmental sciences research and education of partner universities and sites within the NSF-funded Long-Term Ecological Research, or LTER, network with kindergarten through 12 science and math teachers in partner schools and districts.

The focus will be on human ecosystem interactions to develop culturally relevant ecology from scientific and educational perspectives.

"Our plan is to develop, implement and disseminate our teaching models through the LTER Network Office which each year interacts with upwards of 1,000 teachers and impacts nearly 500,000 students of diverse ethnicities across the United States," said Moore in a press release.

Collaborators on the project aim to develop models of professional development that integrate the research efforts of scientists with professional development needs of teachers. Collaborators also plan to include a teacher-in-residence program, research internships for teachers, placement of graduate students into K-12 classrooms, professional development workshops leading to graduate credit and/or graduate degrees and professional learning communities.

Additionally, grant collaborators will examine existing K-12 curriculum and then refine and extend current frameworks and assessments for learning progressions leading to environmental science literacy and associated mathematics that focus on carbon cycling, water systems and biodiversity in socio-ecological systems.

Core partners on the NSF-funded grant are Greeley-Evans School District No. 6; Poudre School District; Michigan State University; Plainwell Community Schools; University of California, Santa Barbara; Santa Barbara School District; Cary Institute of Ecosystem Studies; Towson University; Baltimore City and County Public Schools; University of Northern Colorado; University of Wyoming; and the LTER Network Office at the University of New Mexico.