



Russell L. Rustici Endowed Specialist in Cooperative Extension in Rangeland Watershed Science

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ENDOWMENT PURPOSE

The Rustici Endowed Specialist in Cooperative Extension in Rangeland Watershed Sciences was established in 2008 by the late Russell L. Rustici to give special recognition to the holder and provide financial support for his or her teaching, research and outreach efforts. Mr. Rustici was particularly concerned with research that investigates the connections between range management, water quality, hydrology and related ecosystem processes towards the protection and enhancement of California's Central Valley rangeland landscape. The Specialist in Cooperative Extension is one of two endowed positions created through Mr. Rustici's giving.

RESEARCH

I am currently using Rustici funds to support a new large scale field research project to estimate natural, human, and cattle contributions of microbial pollutants in three key rangeland watersheds. There is persistent concern among water quality agencies that fecal microbial pollution from cattle degrades water quality and threatens human health. Yet, the relative contributions between natural, human, and livestock sources is not well documented on our rangelands. We must answer this question to complete our understanding of the scientific framework of microbial pollution in rangeland watersheds, and thus fully inform effective policy decision-making and on-the-ground management. We are in our first year of two years of sampling at over 100 sample sites within the Susan River, East Walker River, and Upper Stanislaus River Watersheds. We will begin to share preliminary results with many interested stakeholders in September 2016.

TEACHING

I began teaching "Rangeland Ecology and Management" Winter Quarter 2016. This is an upper division undergraduate course designed to give students a first exposure to rangelands, their ecology, and their management. The course filled very quickly to a maximum enrollment of 60, and was very well received by

students - many telling me this was one of their first courses that integrated the many agricultural and environmental disciplines they had studied in lower division courses. Students also like the first-hand experience and knowledge of on-the-ground policy and management issues that I bring to the classroom as a CE Specialist. It is very rewarding for me to have the opportunity to interact with students about my discipline, and learn that such strong interest exists in rangelands among students on campus. I plan to continue to grow the class, adding an optional field laboratory to allow hands-on learning of range management. I plan to use Rustici funds to help cover startup costs in developing this field laboratory (e.g., sample equipment for student use).

STUDENTS

During this period, we have funded 6 undergraduate students to conduct research internships within our group - all working on Rustici funded projects. We funded 3 UCD College of Agriculture and Environmental Sciences undergraduates to assist in a study of microbial water quality conditions relative to grazing, recreation, and rural residential areas within the Susan River, East Walker River, and Upper Stanislaus River Watersheds. We funded 3 CSU Chico State College of Agriculture undergraduate to assist in a study of grazing management strategies following wildfire in Lassen and Modoc Counties. These internships have been excellent experiences for all involved, and we plan to increase our undergraduate internship opportunities within the group.



OUTREACH

The Rustici Endowed Specialist funding has allowed me to establish the Rustici Rangeland Science Symposium. The first, second, and third symposiums were held 2012, 2013, and 2015 on the Davis campus. The 2-day events feature innovative partnerships among researchers, ranchers and rangeland managers, agencies and conservation organizations. In total, we have had over 1,000 attendees. In June 2016 we conducted the first annual Rustici Rangeland Tour in northeastern California with soldout attendance. We plan to hold this tour annually, moving it each year around the state, as a compliment to the Rustici Range Science Symposium. The first tour included on-site demonstrations and discussions of post-wildfire grazing management, meadow and riparian health, grazing lands water quality, and aspen and juniper ecology management on California's public rangelands. Such conversations are the first step towards a positive, shared vision for environmental and socio-economic sustainability for our rangelands.

Please see the link below:

<http://rangelands.ucdavis.edu/outreach/1st-rustici-rangeland-tour/>

DEPARTMENTAL UPDATES



This year, Dr. Leslie Roche joined the Plant Sciences faculty as Assistant Cooperative Extension Specialist in Rangeland Management. Dr. Roche has spearheaded the development of "UC Rangelands" as a modern and one-stop-shopping online information source for all aspects of rangeland research, extension, and teaching at UC (<http://rangelands.ucdavis.edu/>). Finally, the Department is recruiting for an Assistant Professor in Rangeland Science and Management - a position that will enhance our undergraduate and graduate education program in range management, as well as greatly increase the extent of our rangeland research activities.

THANKS

I am deeply indebted to Russ for his commitment to range management and science, and his mentoring early in my career. I am focusing our efforts and the use of these funds on projects and activities which I think Russ would have valued and approved. Every project has direct involvement and input from California's ranching community. I am leveraging other funds and support almost dollar for dollar in the process, which I know Russ would have liked. I remain really excited about where we are headed with range science in CA, and it is in large part due to Russ's investment.