



2019-2020 RANGELAND PROGRAM UPDATE



DEPARTMENT NEWS

The department is currently in the process of hiring a new **Rangeland Ecology & Management Assistant Professor** with an extension appointment.

A restructuring of undergraduate majors combined the forestry and rangeland majors into one **B.S. Forest and Rangeland Stewardship** degree. The degree continues to offer range concentrations and SRM accreditations.

In summer 2019, FRS offered an experimental field course in **Western Ranch Management** to provide students with hands-on experience in ranch management and ecosystem stewardship in the Colorado Rocky Mountains.

The Collaborative Adaptive Rangeland Management Stakeholder Group received the Outstanding Achievement - Land Stewardship Award at the 2020 SRM Annual Meeting. This collaboration was initially facilitated by CSU alumnae Aleta Rudeen (MS, '09), Emily Kachergis (PhD, '11), Hailey Wilmer (MS '13, PhD '16), and Professor María Fernández-Giménez in 2012. This group of 11 members representing ranchers, conservation/environmental organizations and land management agencies was recognized for examining how management-science partnerships can respond to current and changing rangeland conditions.



30
Undergraduate
Rangeland
Students



7
M.S. and Ph.D.
Rangeland Ecosystem
Science Students



21
Master of Natural
Resource Stewardship
Rangeland Ecology
and Management
Students

"We are preparing students and professionals to tackle natural resource challenges of the day. With a warming climate, higher wildfire risk, and increasing human demands on these lands, this century is already very different from that before."

- Linda Nagel, Department Head



FOREST AND RANGELAND
STEWARDSHIP
COLORADO STATE UNIVERSITY





EXTENSION

Kevin Jablonski, PhD Rangeland Ecosystem Science '19, joined CSU as a Range Ecologist and Extension Research Coordinator. CSU Extension serves as the university's major outreach and engagement branch, providing usable science to stakeholders. Jablonski works to build bridges across disciplines, departments, and institutions to improve research and extension in Colorado's rangelands.

As a Range Ecologist, Kevin studies the ecology of grazing livestock - how domestic herbivores interact with their environment, how humans influence this, and the

good and bad things that arise from these relationships. His current projects include ecological assessment in Dinosaur National Monument, Colorado food system modeling, and lion-livestock conflict in Kenya.



RESEARCH

Assistant Professors Miranda Redmond and Troy Ocheltree received \$500,000 in USDA NIFA-AFRI funding to investigate the response of understory vegetation to the mortality of pinyon pine trees dying in response to drought conditions.

Ocheltree led a recent publication in the January 2020 issue of *Oecologia* connecting plant phenology with drought tolerance and rooting growth. His team's results suggest shallow roots can help drought tolerant plants tolerate moderate and severe droughts, but plants with deep roots that are not drought tolerant will experience negative consequences of severe droughts.

Ph.D. student Jasmine Bruno led a new publication in the January 2020 issue of *Rangeland Ecology and Management* that is the first comprehensive overview of research on human dimensions of rangeland management in North America.

Professor María Fernández-Giménez was a Fulbright Global Scholar during the 2018-2019 academic year. She followed transhumant pastoralists across Spain and the High Atlas Mountains of Morocco. She found that rather than being an out-dated, old fashioned management practice, 21st century transhumance

offers economic, ecological and animal health benefits compared to semi-intensive livestock production where animals are fed inside barns during the winter.

