Sage grouse habitat research and a 71.5 million acre lab

Nearly 44 million acres of Nevada rangelands have been invaded by pinyon pines and juniper trees in the past 150 years, reducing valuable habitat for range animals, including the greater sage grouse, which is a candidate for listing as endangered under the Endangered Species Act.

In an effort designed to help the stewards of Nevada’s lands make informed decisions, Tamzen Stringham, the Donna Anderson endowed professor in grazing and rangeland management, travels the open spaces of the state’s 71.5 million acres to catalog and study the rangeland ecosystems. Some of those decisions could be about the habitat for sage grouse, but also pygmy rabbits and other animals that rely on rangelands to survive.

“How we manage these lands to make the birds and other wildlife habitat resistant and resilient to environmental or management impacts is the ultimate goal,” she said. “Land managers make the best decisions they can based on current knowledge, and then we look to see if it worked, or if it is a disaster. We quantify these things.”

Stringham puts about 25,000 miles on her Ford pickup truck in about three months’ time, crisscrossing the state to visit hundreds of ecological sites as she and her team catalog site characteristics and responses to various disturbances and management choices so they can prepare state-and-transition models (STMs).

“You can’t say one thing caused the expansion of pinyon/juniper into rangelands,” she said. “There are multiple drivers: livestock grazing at settlement, fine fuel reduction, fire suppression and climate change. Fire was a natural driver to keep juniper and pinyon in the high rocky places.

“With all the drivers there is absolutely a lot of tree expansion, changing the habitat for sage grouse, plus I’ve been told there have been large reductions in jays and other birds that rely on sagebrush or open woodland systems. The heavy canopy is now a harsh environment for those birds. These birds, and the sage grouse especially, are indicator species for the ecosystems throughout Nevada.”

Her multi-agency team catalogs the soils, elevation, aspect/slope, plant composition, plant productivity and climate at each site. They record disturbances over time, anything from forest or range fires, to grazing impacts and to other man-caused disturbances, including management history. In the last four years they have recorded 586 locations in the state.

“Nevada is far ahead of the rest of the nation in developing state-and-transition models; most other states are using us as a template,” Stringham said. “STMs for northern Nevada will be done by 2017.”

–Mike Wolterbeek ’02
Peavine Hall expands on-campus housing

On-campus living is growing in popularity and numbers. To meet growing demand, the University opened Peavine Hall – predicted to be the University’s first LEED Gold certified building – in August.

The fall 2015 freshman class, one of the most diverse classes in the University’s history, includes a continued strong representation of Nevada students with a notable increase in students from Clark County as well as from out of state, primarily California.

“The University is attracting top student scholars from throughout Nevada and the west,” Vice President of Student Services Shannon Ellis said. “Freshmen know the added value of living on campus, and we are working very hard to accommodate them.”

On-campus housing at the University is at 120 percent of capacity for the 2015-2016 academic year.

“It is highly competitive and the earlier students commit to Nevada the better,” Ellis said.

Along with the opening of Peavine Hall, additional plans are in the works to accommodate the growing needs for on-campus housing at the University. At the end of the 2015 fall semester, White Pine Hall, with capacity for 160 students, will close to make way for a new, larger facility expected to open in 2017. The next new hall is anticipated to house 400 students, primarily freshmen and all STEM majors. The removal of White Pine Hall is anticipated to take place in early 2016.

In keeping with the University’s mission to provide a healthy, safe and supportive environment, Peavine Hall residents are expected to participate in a wellness challenge, a self-directed journey towards each individual’s own idea of wellness. As part of the Peavine Wellness Community, residents will have access to programs and activities to help them achieve their wellness goals.

Construction began in spring 2014, and more than 760 individuals working in the construction trades had a hand in building the hall.

—Kathie Taylor ’11

KUNR wins awards for excellence in broadcast journalism

Catching the audience’s attention is key when it comes to journalism, and holding their attention throughout the story is tough – especially when there is no visual involved.

Reporters at KUNR, Reno Public Radio, did just that and won three awards from the Associated Press Television-Radio Association for excellent storytelling in their audio narratives.

News Director Michelle Bliss won for best use of sound in a feature story on how horse therapy can help adults with depression and anxiety. She also won the award for sports writing for her profile of a snowboarder on his road to recovery from a traumatic brain injury. Will Stone, a former KUNR reporter now working at KJZZ-FM in Phoenix, won the award for best use of sound in a hard news story for his reporting on Lake Tahoe’s declining clarity.

“Telling stories through sound, having audio scenes to open up our stories and move us through the narrative – that’s what radio should be,” Bliss said.

—Jena Valenzuela

KUNR’s Danna O’Connor records the talents of eight-year-old Trevyn Gray during the station’s Tykes and Mics event, Aug. 5.
Nuclear facility studies coming to world-renowned earthquake engineering facility

The seismic safety of nuclear facilities and systems will be examined in a new multi-year, multi-million dollar, federally funded project to study the influence of soil on building behavior during earthquakes. The University’s world-renowned structural engineering laboratories are at the center of the project that will first construct one of the world’s largest soil box/shake table systems, and then use it to investigate soil-structure interaction at a scale not previously possible.

“This grant will allow us to build a new, even larger, shake table than the ones we have in our earthquake engineering lab, as well as one of the world’s largest soil boxes,” Manos Maragakis, dean of the College of Engineering, said. “This will be a huge box, holding about 500 tons of soil. It will be unique in the world at this scale. Results from smaller boxes don’t translate into the real world as well as experiments at the scale we will be using.”

The University’s Earthquake Engineering Laboratory, opened in 2014, combined with the Large-Scale Structures Laboratory, comprise the biggest, most versatile large-scale structures, earthquake/seismic engineering facility in the United States, according to National Institute of Standards and Technology. The addition of the fifth shake table will make the University’s earthquake engineering facility the most advanced of its kind in the world, with the largest collection of high performance shake tables than any other laboratory.

“Federal grants such as this allow us to stay at the forefront of technological advancements and provide important information to the engineering industry, government agencies and others to build more seismically resilient structures,” Marc Johnson, University president, said.

—Mike Wolterbeek ’02

Fundraising support strikes up the band

The 180-member Wolf Pack Marching Band last season was the largest in school history, and the Pride of the Sierra is set to grow even more and has reached 201 members this fall.

A three-year fundraising campaign, which ended in June, provided the marching band with a gift of $105,000 from Greater Nevada Credit Union and generated an additional nearly $80,000 in matching funds. Following the success of that campaign, Greater Nevada Credit Union has renewed its commitment and will again support the band by pledging $20,000 per year for the next three years. The credit union will continue a matching gift program, too, and will increase their contribution from $15,000 to $25,000 annually.

“The growth and development of the Wolf Pack Marching Band in the last few years would not have been possible without the support of Greater Nevada Credit Union,” Will Plenk, director of marching, pep and symphonic bands, said.

The partnership with Greater Nevada Credit Union will remain an essential component to fulfilling the marching band’s mission of providing positive, educational and musical experiences for students, while generating high levels of excitement and spirit at every event they attend.

“When the members of the band see that they are valued by their community, it becomes much easier to send that energy back in a performance setting,” Plenk said.

—Natalie Savidge ’04

Gifts and donations through the Greater Nevada Credit Union, the University Foundation and the community have funded new instruments, uniforms and more travel with athletics teams for the University Marching Band.
Forging geothermal resources through research

University researchers are poised to play a key role in a project that holds the potential to unlock massive new resources of power generated from geothermal sources.

The project is dubbed FORGE – short for Frontier Observatory for Research in Geothermal Energy – and seeks to dramatically widen the number of potential locations where power could be produced from geothermal resources.

University professors Jim Faulds and Wendy Calvin, among the world’s leaders in the understanding of geothermal systems, are providing their expertise to the project. They will prepare geologic modeling of two potential FORGE sites – one near Fallon and a second near Coso, Calif. This geologic modeling is critically important to the feasibility study to determine where best to establish the FORGE project, Faulds, director of the Nevada Bureau of Mines and Geology, explained.

The establishment of FORGE will provide the geothermal community with a field laboratory where the science and engineering needed for further commercialization of enhanced geothermal systems (EGS), can be developed and refined.

Traditionally, geothermal power plants have been built at locations where they could tap into a naturally occurring source of steam heated under the earth’s surface. After the hot water is used to generate power, it is re-injected back into the earth and re-heated to be used again and again.

The FORGE project, however, seeks to develop enhanced geothermal technology for use at locations where heat is available but water doesn’t naturally flow through the underground rock. Those locations are widespread through the Great Basin.

“The potential is enormous,” Faulds said. The Department of Energy, which is funding the FORGE program, estimates that enhanced geothermal systems could power 100 million homes in America with clean and renewable energy.

The two FORGE projects in which the University was selected to participate are among five sites under analysis that will share $2 million in Department of Energy funding.

–John Seelmeyer
University hosted Mandela Washington Fellows collaborate with local business leaders

The University, in partnership with the Northern Nevada International Center, welcomed 25 Mandela Washington Fellows in June as part of President Obama’s Young African Leaders Initiative, a six-week academic and leadership institute in business and entrepreneurship.

The fellowship provided insights into American culture, business and legislation through academic coursework, leadership training, mentoring, networking, service work, tours of area businesses and entrepreneurial workshops.

This cohort of Mandela Washington Fellows representing 17 of Africa’s 49 countries was part of a larger group of 500 fellows selected from a pool of 50,000 applicants hosted by 20 universities across the United States. Following engagements with their respective universities, the fellows gathered in Washington, D.C., for a Presidential Summit with President Obama.

Seven fellows from the Reno cohort were each awarded $25,000 grants by the United States African Development Fund to fund business plans developed while in Reno, the largest number of recipients from any host institution.

“The Mandela Washington Fellows used the opportunity to develop their ideas through local contacts and academic curriculum,” Dave Croasdell, the Charles and Ruth Hopkins endowed professor of entrepreneurship and chairman of information systems in the College of Business, said. “These awards are validation of the collaboration, mentorships and partnerships this community shared with these African business leaders.”

–Kathie Taylor ’11

Students in the top half of one percent recognized at Signing Days

For seven years, the University has partnered with Nevada high schools in Nevada Scholars Signing Days. These ceremonies are reminiscent of high school athletes’ “signing days,” but with a twist: the events celebrate the decision of many of Nevada’s best-and-brightest scholars to pursue their college degree in their home state.

Seven events were held across the state last spring for National Merit Scholarship finalists, and Presidential Scholars at the same school, who will attend the University this fall.

Scholarships awarded through National Merit programs are regarded as some of the highest academic honors attainable by U.S. high school students. Each year, about 1.5 million students enter the National Merit competition by taking the PSAT. About 15,000 students become finalists (1 percent) and about half of those become National Merit Scholars. The Presidential Scholarship is awarded to qualified entering freshman with a minimum 3.5 cumulative high school grade-point average and a minimum score of 31 on the ACT or 1360 on the verbal and math portion of the SAT.

The University was notified of its sponsorship status by the National Merit Scholarship Corporation six years ago. This fall, the University’s student body includes about 50 National Merit Scholars and more than 300 Presidential Scholars, the largest number ever enrolled at Nevada.

–Natalie Savidge ’04

LOOK ONLINE
For more information about scholarships at the University, visit unr.edu/financial-aid.
Part of the Artown fabric for 20 years

In the summer of 1996, University Professor of Art Howard Rosenberg and others involved with the City 2000 Reno Arts Commission were “bantering back and forth” when the idea to start an arts festival came forth. “It would show what we have locally in the arts; not just the visual arts, but all the arts including performance,” Rosenberg said.

Planning progressed from that point, and the energy and enthusiasm grew. Area artists, University faculty and many others came forward with ideas and artistic contributions, and the festival’s first schedule of events came together.

“People wanted to see it work,” Rosenberg said. “Everyone involved donated time. It’s the way a city should work, and it did work. It brought people into downtown.”

The Artown tradition has continued each July for the past 20 years and has left a positive and indelible imprint on the city.

Artown 2015 kicked off with a parade led by Wolf Pack mascots and members of the marching band and cheer squad. University-hosted and involved activities on the Artown schedule included three exhibits, “The Politics of Holocaust Memory, ‘I Am My Brother’s Keeper’” from the Yad Vashem Museum (see page 5), and “Reflections on Pyramid Lake” by the University’s Special Collections. The University-hosted Meet Africa! Entrepreneurs and Change Makers event featured 25 young African leaders in the Mandela Washington Fellowship, a six-week academic and leadership institute hosted by the Northern Nevada International Center in collaboration with the University’s College of Business.

“It’s clear that we are past the tipping point and Reno is fast emerging as a cultural capital for the Great Basin region,” University Galleries Director Paul Baker Prindle said of the Artown tradition. “The power of the arts to grow innovation and creativity is one of the greatest energies available to our region as it moves into a new era of economic growth.”

– Jane Tors ’82