Center for Grassland Studies

203 Keim Hall
P.O. Box 830953
University of Nebraska-Lincoln
Lincoln, NE 68583
402-472-4101
Email: grassland@unl.edu
Website: grassland.unl.com

Photo Credit: Walt Schacht

Grazing Livestock Systems I PGA Golf Management I Integrated Beef Systems I Grassland Ecology and Management

Spring 2020
Vol 26 Issue 1

GPS Tracking to Understand Cattle Grazing

By Mitch Stephenson, Range Management Specialist, Panhandle Research and Extension Center

Precision Ag has long been utilized on croplands to improve our understanding and management of individual fields. Technology has been adapted to measure important variables in spatially explicit data sets. Because of the intensive nature of farming and the harvest of crops each year, producers can readily measure productivity across a landscape in real time.

Rangelands are also receiving attention with Precision Ag technologies to better understand and manage these more extensive landscapes. However, because machinery is not being driven across most of the area information can be more difficult to collect.

Rangelands are critical to the beef cattle industry in Nebraska. Rangelands also provide other ecosystem services (e.g., wildlife habitat and carbon sequestration) that are of value to the larger community. Using technology to better understand how management influences the productivity of rangelands is crucial to their success, sustainability, and improvement.

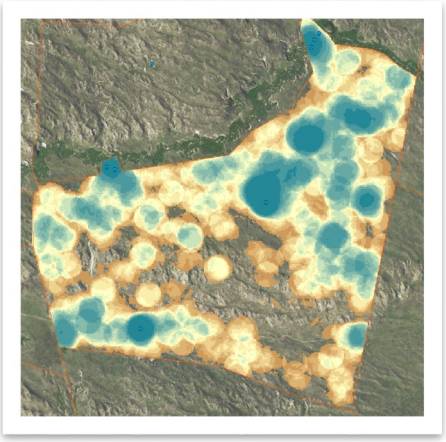

Figure 1. Map showing use patterns from GPS-tracked cattle in a 1000 acre pasture. Blue areas are areas with the heaviest densities of cattle locations. Brown or open areas are the least utilized areas. Small blue dots represent watering locations.

One Precision Ag technology that is being employed on rangelands is GPS tracking of cattle. GPS tracking has made large strides in helping researchers better understand cattle grazing behaviors over diverse landscapes and management strategies. In the past, GPS tracking of individual animals was prohibitively expensive to use at a production scale (e.g., $2,000 per collar). However, newer technologies have been employed with success at a more reasonable expense (e.g., $100 to $200). With this technology, producers can more easily deploy a number of tracking collars to identify grazing use patterns and develop grazing strategies to either increase or decrease grazing pressure at strategic locations for specific management goals (See Figure 1).

While GPS tracking of livestock is currently more important to answering specific research questions than production agriculture, tracking technologies will continue to provide options to better understand how environmental and (Continued on Page 3)

Center for Grassland Studies Policy Advisory Committee

The Center for Grassland Studies is a unit within the University of Nebraska-Lincoln Institute of Agriculture and Natural Resources. It receives guidance from a Policy Advisory Committee and a Citizens Advisory Council.

Note: Opinions expressed in this newsletter are those of the authors and do not necessarily represent the policy of the Center for Grassland Studies, the Institute of Agriculture and Natural Resources, or the University of Nebraska – Lincoln.

To simplify technical terminology, trade names of products or equipment sometimes are used. No endorsement of products is intended nor is criticism implied of products not mentioned.

@unlgrazinglivestocksystems
@unlpgagolfmanagement

@unlgrazing
@unlpgm
@unl_grassland

Director's Column

by Walt Schacht, Interim Director, Center for Grassland Studies

Since its inception in 1994, the Center for Grassland Studies has played a principal role in the University of Nebraska-Lincoln's (UNL) significant commitment to grasslands. The Center has been a leader in making connections among individuals and facilitating interdisciplinary education, research, and outreach programs related to Nebraska's grassland resource.

The Center has built a strong foundation through past and current programming. Three interdisciplinary degree programs, Grazing Livestock Systems and PGA Golf Management, both original to the Center, and Grassland Ecology and Management, recently added to the Center, are part of the solid base.

In addition to the degree programs, the Center facilitates the research efforts of faculty in developing, launching, and managing interdisciplinary programming, like the recent Forage-Based Beef Systems Workshops, the Beef Systems Initiative, and the multi-state NC 1181 project, Enhancing Resiliency of Beef Production under Shifting Forage Resources. Programming is strengthened through the Center's outreach, which includes the Fall Seminar Series, and the highly successful Nebraska Grazing Conference, which has drawn nearly 200 attendees annually since it began in 2001. Finally, the Center manages UNL's prairie properties, which include Nine-Mile Prairie and Dalbey Prairie.

The Center's September 2019 comprehensive review has provided direction on how the Center can expand and grow into the future. The response has been immediate and includes:

- Developing a proposal and initiating discussions between PGA Golf Management and Golf Saudi regarding undergraduate programing in golf management and turfgrass for Saudi Arabia.
- Collaborating with the Animal Science Department to create a joint ranch management internship.
- Expanding the Center for Grassland Studies' website by growing its social media capabilities, creating and adding more news content, creating an electronic newsletter, and developing podcasts related to outreach programs.
- Exploring the development of research seed grants and providing assistance in developing grant proposals.
- Developing collaborations among the Center for Grassland Studies, the Center for Resilience in Agricultural Working Landscapes, and the Nebraska Integrated Beef Systems Initiative, which are critical to the achievement of program objectives.

Input from grassland stakeholders is necessary to keep the Center as relevant and productive as it was when created. The Center is uniquely qualified to address grassland issues because of its mission and its objectives to take an integrative approach to teaching, research, and outreach. The Center looks forward to continuing to work with partners passionate about grasslands.

University of Nebraska Lincoln

IANR

If you would prefer to receive an electronic copy of this newsletter instead of a print copy, please let us know by emailing mmckendree14@unl.edu. Thank you.

GPS Tracking (Continued from Page 1)

management variables influence grazing pressure across a given management area (See Figure 2).

There are also other Precision Ag technologies that can provide producers new ways to evaluate animal health on rangelands with ear tags. Just like a FitBit® or an iWatch® can monitor the number of steps and other health measures, these ear tags can take estimates of the amount of time an animal spends grazing or resting and develop algorithms to assess the health of an individual animal. With this technology producers can identify individual sickness, heat detection, and parturition. For example, cattle that are beginning to calve will often express atypical grazing behaviors. When these behaviors present themselves, information can be sent directly to a producer's phone with specific information on the individual cow that is having a calf.

Figure 2. Cattle fitted with GPS collars in a study evaluating how cattle utilize the invasive annual grass cheatgrass (*Bromus tectorum*) in western Nebraska. With GPS-tracking, we can measure the amount of time cattle select to graze in cheatgrass compared to native perennial grass patches early in the growing season.

GPS tracking is one of a suite of different Precision Ag technologies that are becoming more available for use on rangelands. Others include remote sensing data from drones and satellites and supplementation stations that provide continuous cattle weights and prescribed supplementation for individual animal needs.

Raising livestock on rangelands is strongly tied to tradition and the value of a knowledgeable practitioner will never be replaced by Precision Ag technology. However, technology can provide valuable tools to assist rangeland managers with better understanding of plant and animal interaction dynamics, thus enhancing the opportunities for improved ecosystem services across rangeland landscapes.

Listening Sessions Encourage Stakeholder Input

By Margo McKendree, Center for Grassland Studies

The Center for Grassland Studies (CGS) is planning half-day listening sessions across Nebraska in 2020. The sessions seek stakeholder views on grasslands and environmental concerns, knowledge and needs related to the management and use of grasslands, and socio-economic impacts of grasslands to stakeholders. The listening sessions will include representatives from the Natural Resources Conservation Services, Natural Resources Districts, non-governmental organizations, Nebraska Game and Parks, US Fish and Wildlife Service, US Forest Service, Nebraska Extension, golf professionals, and community leaders. "Stakeholder engagement is critical to the success of CGS's programs. We not only want input from stakeholders concerning programming direction and content, we want energized stakeholders participating in our education and research efforts. We hope to integrate our stakeholders into the development and delivery of our programs," according to **Walt Schacht**, interim director of the Center for Grassland Studies.

In addition to the CGS, the Center for Resilience in Agricultural Working Landscapes (CRAWL) and the Nebraska Integrated Beef Systems Initiative (NIBSI) will be participating in the sessions; both are new programs underway within the Institute of Agricultural Sciences and Natural Resources. Both CRAWL and NIBSI, co-located within CGS, have an interest in developing stakeholder networks, while the CGS looks to strengthen the associations it has developed over its 25-year history. Understanding what stakeholders see as the roles of each program in research, education, and extension programming associated with grassland ecology, resilience and management and the use of these resources in beef production is a priority.

The listening sessions will be conducted within the multi-county Nebraska Extension Engagement Zones. **Jay Jenkins**, Engagement Zones 2 and 3, **Rob Eirich**, Engagement Zone 1, and **Hilary Maricle**, Engagement Zone 6, will assist with the coordination of the first three sessions. More sessions will be organized in other zones throughout the year.

Sustaining Nebraska's Grasslands

by Dillon Fogarty, Arthur W. Sampson Fellow, Doctoral Candidate, Department of Agronomy and Horticulture, University of Nebraska-Lincoln

Dillon Fogarty

Nebraska's world-renowned grasslands provide critical goods and services that support our *good life* here in Nebraska. A key challenge to sustaining grassland ecosystems is preventing transitions to woody plant dominance. Scientists, producers, and conservationists now recognize woody plant encroachment by species like eastern redcedar as the largest threat to Nebraska's grasslands.

Decades of science warns us that failure to sustain grasslands in the face of woody plant encroachment will result in negative impacts to livestock production, rural economies, food and water security, wildfire disaster avoidance, biodiversity, and even funding for public education. This is why land managers across the state are targeting the removal of woody plants that compromise grassland resources.

Until recently, we have not had the tools to understand how management efforts have performed in confronting woody plant encroachment. This is like competing against a rival without knowing the score. It makes adapting new strategies and game plans extremely difficult. Fortunately, advances in rangeland monitoring now allow scientists to track the score in real time.

Dillon Fogarty, **Dr. Dirac Twidwell,** and a team of researchers from the University of Nebraska-Lincoln, used new rangeland monitoring data to track the performance of management efforts aimed at confronting woody plant encroachment. They found that despite management investments, woody plants steadily increased in Nebraska's grasslands since 2000, resulting in a loss of more than 600,000 acres of grassland area.

While land management investments slowed the rate of encroachment, the results show that new game plans are needed if we are to sustain grasslands for future generations. Large investments that prioritize woody plant removal are not keeping pace with the rate of encroachment. When this happens, more intact grasslands are compromised compared to what is restored. Simply ramping up offensive grassland restoration efforts is expensive, and in Nebraska we have more grasslands to lose than gain. For example, in the Sandhills, woody plant cover is around one percent (~150,000 acres), and can cost up to $150,000 to treat just 1,000 acres. This reality has led many land managers to prioritize defending intact grassland resources first and then growing and connecting these areas over time.

The Loess Canyons landscape, south of North Platte, Nebraska, provides the only example of management that halted trends of increasing woody plants over a large area. In the Loess Canyons, prescribed burn associations use prescribed fires to defend and grow existing grasslands. Over time, this strategy has reconnected grassland networks across many properties and halted a regionally advancing front of woody plants.

The Loess Canyons example shows promise for private and public managers across the state that are incorporating a stronger defensive component into their land management game plan. A strong defense network in our largest and most intact grasslands, like the Sandhills, will be a critical component of sustaining Nebraska's grasslands for future generations.

The Arthur W. Sampson Fellowship Fund (Center for Grassland Studies) provided partial support for this research.

Cedar Management Meeting: April 3

The Sandhills Task Force will address cedar management during an Apr. 3 meeting between 10:00 a.m.—3:00 p.m. at Calamus Outfitters, Burwell, NE. The event is free for landowners, tenants, and students; $10 for all others. Lunch provided.

Topics include the current state and trends of woody invasion in the Sandhills. Local landowners will discuss methods used for control, researchers from Oklahoma State University and Texas A&M will share lessons learned, and UNL's **Dr. Dirac Twidwell** will share research highlighting the cedar invasion in the Sandhills.

Contact **Shelly Kelly**, Sandhills Task Force, at (308) 214-0065 for more details and to register.

Alumni Update: Ethan Freese, Master of Applied Science Candidate

By Margo McKendree, Center for Grassland Studies

Ethan Freese is a Lincoln, Nebraska native who graduated from Lincoln Southeast High School in 2014, and the University of Nebraska-Lincoln in 2018 with dual degrees in Grassland Ecology and Management (GECM) and Fisheries and Wildlife (FWL) - Habitat Management Option.

Ethan Freese FWL / GECM graduate. Photo by Dakota Altman

Ethan spent a lot of time outdoors growing up. Being in nature allowed him to imagine a future that would somehow relate to the study of natural resources management. These inklings of understanding solidified during an internship at Pioneers Park Nature Center, which piqued his interest in the ecology and management of prairies. Thus, began Ethan's journey as a Grassland Ecology and Management student.

While at the university, Ethan became an active member of the Range Management Club. The club offered him opportunities to attend the International Meeting of the Society for Range Management, participate in the Undergraduate Range Management Exam and the Plant Identification Competition. Ethan said, "I have fond memories of countless hours spent studying plants with my fellow Range Club members in the East Campus Herbarium."

Range Management Club was not the only activity of interest to Ethan. He took advantage of opportunities to assist with research in the Sandhills and the Wildcat Hills of western Nebraska. He also worked as a student manager at Nine-Mile Prairie. These experiences, along with his coursework, provided him with the skills and knowledge he needed to succeed in his career path.

Currently, Ethan is working on his Master of Applied Science degree at the university focusing on The Platte Basin Timelapse project. The project will produce multimedia related to the Prairie Corridor on Haines Branch, a proposed habitat and trail corridor that will eventually link existing tallgrass prairies at Spring Creek Prairie Audubon Center and Pioneers Park Nature Center. This work will educate the public about the ecology and management of tallgrass prairies. For Ethan, understanding grassland ecosystems and their management has proven invaluable both while collecting multimedia in the field and in editing educational materials.

In addition to his fieldwork, Ethan has gained valuable public speaking experience as he gives presentations about The Platte Basin Timelapse project to various groups. The Wachiska Audubon Society, Upper Mississippi/Great Lakes Joint Venture, and Friends of Pioneers Park Nature Center are a few of the organizations he has addressed. According to Ethan, "These opportunities have really helped me become more comfortable talking in front of large groups, and they have been great networking opportunities."

To learn more about The Platte Basin Timelapse project, visit http://plattebasintimelapse.com/

Nebraska Grazing Conference: August 10-12, 2020

by Daren Redfearn, Chair, Nebraska Grazing Conference

Plans are underway for this year's Nebraska Grazing Conference Aug. 10-12 in Kearney, Nebraska. Themes for the conference include weather ready ranches, eastern redcedar management, and new technology. The pre-conference tour will highlight producers and their strategies for the management of eastern redcedar on their ranches. During the conference, speakers and producer panels will focus on the science and application of eastern redcedar and other woody species control.

Students Test Prairie Restoration Methods for Joint Prairie Corridor Project

by Shawna Richter-Ryerson, Communications Associate, School of Natural Resources

Stand at the top of the last hill at Pioneers Park in Lincoln, look south, and see bison and elk roaming the fenced-in tallgrass prairie there. But look even further into the horizon and find the Prairie Corridor on Haines Branch, a tallgrass prairie passageway that eventually will connect south Lincoln to the Spring Creek Audubon Center at Denton.

The Prairie Corridor Project, a partnership between the City of Lincoln, Dave Wedin at the School of Natural Resources, and other partners, will connect Pioneer's Park Nature Center with the Spring Creek Audubon site. Photo by Shawna Richter-Ryerson.

The vision for the project is to restore 7,800 acres of prairie along the Haines Branch of Salt Creek and build in trails and exploration hot spots such as the Conestoga Lake, Denton Prairie, and Bobcat Prairie.

It is at Bobcat where six University of Nebraska-Lincoln students spent their summer gaining a greater understanding of the best ways to implement prairie restorations for long-term ecological diversity. The prairie sits 16 miles south of Lincoln, a 297-acre plot of cascading pasture and trees in various stages of restoration, 25 of which are dedicated to research projects by the School of Natural Resources. **Dave Wedin**, ecosystem and prairie ecologist at the school, and **Katharine Hogan**, applied ecology doctorate student with the National Research Traineeship program at SNR, led those studies on 24 plots, divided into randomly assigned experimental and control spaces.

The goal was to compare the two established methods of prairie restoration plantings and management: grassland conservation program, used by the Conservation Reserve Program, and high-diversity local ecotype restorations, used elsewhere along the corridor. (Continued on Page 7)

Nebraska Range Short Course: Register by May 15

The Nebraska Range Short Course is designed to provide people who have backgrounds in range management, natural resources or agriculture an opportunity to increase their knowledge and capacity in the field of range management. Consisting of a series of classroom and field sessions, it focuses on principles of range management for efficient, sustainable use of rangeland for multiple purposes.

Diverse Course Topics: Plant identification, growth and development, rangeland soils, range inventory and monitoring methods, prescribed burning, rangeland restoration, ecosystem services, wildlife management, grazing management, and range livestock production.
Application and Fees Due: May 15.
Questions: Contact **Mitch Stephenson** at (308) 632-1355 or mstephenson@unl.edu.
On the Web: https://agronomy.unl.edu/nebraskarangeshortcourse.
Sponsors: University of Nebraska-Lincoln, Chadron State College, and the Nebraska Section Society for Range Management.

Prairie Restoration (Continued from Page 6)

"We are studying the success of these two methods for adding native species to existing low-diversity grassland," Wedin said. "Both approaches cost about the same per acre, but one of our goals is to see where efficiencies in time and money can be gained in this type of restoration."

While both approaches contribute to grassland conservation in the Nebraska landscape, he said, the researchers want to know whether differences in land preparation, planting, and diversity of seed mix make a long-term difference for restoration success.

In May, the plots were planted, and under a beating late-June sun, the students counted and documented the diversity of sprouts that had come up, fulling knowing next year and the year after and the year after the counts will need to be repeated. Establishing tallgrass prairies take time, Wedin said, and what it looks like today will shift over time. But the benefits will be countless.

While all students participated in the prairie planting experiment, they each also had a project of their own, funded by Nebraska Environmental Trust; Cabela's Apprenticeship; or UCARE funds. The projects included:

- "Bird communities in the Prairie Corridor," by **Grace Schuster**, a junior fisheries and wildlife student;
- "Prairie Corridor plants," by **Elizabeth Park**, a junior environmental studies student;
- "Assessment of insect communities among different prairie habitats" by **Hunter Brophy**, a sophomore insect science student;
- "Spatial and temporal variation in nutrient chemistry in the Haines Branch," by **Phuong Minh Tu Le**, an environmental restoration science student; and
- "Platte Basin Timelapse: Prairie Corridor," by **Ethan Freese**, an applied science graduate student. View an early time-lapse video of the project at vimeo.com/366110846.

The Prairie Corridor project is a joint effort among more than 30 organizations and individuals, including SNR; Lincoln Parks and Recreation; Lincoln Parks Foundation; Spring Creek Prairie Audubon Center; Great Plains Network; Lancaster County; Lower Platte South Natural Resources District and Nebraska Game and Parks Commission. Learn more about the project's history at journalstar.com/niche/l-magazine/haines-branch-prairie-corridor-project-an-opportunity-to-leave-a/article_f02e7238-bbf9-55a6-

Martin and Ruth Massengale Honored with Tribute Wall

The Massengales standing in front of the Martin and Ruth Massengale Tribute Wall. Photo by Liz Husmann.

University Housing unveiled the Martin and Ruth Massengale Tribute Wall during a February 13 ceremony at the Massengale Residential Center. The wall speaks to Martin's and Ruth's accomplishments at the University of Nebraska-Lincoln, and Martin's tireless service to the entire university system as Nebraska University President.

In 1994, Dr. Massengale was appointed founding director for the Center for Grassland Studies, which was formed within the Institute of Agriculture and Natural Resources at the university.

Congratulations to Ruth and Martin for this outstanding honor.

Kenyan's Tour Rangelands of Western Nebraska

By Walt Schacht, Interim Director, Center for Grassland Studies, University of Nebraska-Lincoln

UNL graduate student, Rob Ziegler (shown bottom right), discusses precision supplemental feeding of cattle with the Kenyan delegation. Photo by Walt Schacht.

A Kenyan delegation of eight government officials and university faculty, led by **Harry Kimtai**, Principal Secretary for Livestock in the Ministry of Agriculture, toured the rangelands of western Nebraska and eastern Colorado from Feb. 21-24. Prior to their tour, the group attended the Society for Range Management's 73rd Annual Meeting in Denver, Colorado Feb. 16-20 in preparation for hosting the Joint XXIV International Grassland Congress and XI International Rangeland Congress Oct. 24-30 in Nairobi, Kenya.

A highlight of their Nebraska tour was visiting the University of Nebraska-Lincoln's (UNL) Gudmundsen Sandhills Laboratory (GSL). They met a number of individuals including **Dr. Walter Schacht**, interim director, Center for Grassland Studies, **Carol Ott Schacht,** IANR leadership consultant, **John Nollette**, assistant GSL manager, **Rob Ziegler** and **Tasha King**, UNL graduate students, and **Shelly Kelly**, program director, Sandhills Task Force.

Dr. Schacht provided a tour of the GSL ranch emphasizing current research projects on grazing management, prescribed fire and haying on subirrigated meadows, dormant-season grazing, and new technologies in precision management/monitoring of rangelands and beef cattle. Besides the research and application of these new technologies, the Kenyans were particularly interested in extension and outreach programs, and the infrastructure and resources needed for university field laboratories and research ranches.

A number of programs were reviewed including the GSL Nebraska Ranch Practicum, Open House, and Youth Field Day, the Center for Grassland Studies' annual Nebraska Grazing Conference, and the Youth Range Camp, a collaborative effort among the Natural Resources Conservation Service, Sandhills Task Force, and UNL. The group was impressed by the GSL ranch and lab facilities, and intrigued by the involvement and funding support of the ranching community and other stakeholders. Establishing communications and collaborations in outreach and education programs on rangelands was extremely appealing to the visitors. Following the GSL visit, the group continued their tour with **Drs. Jim O'Rourke** and **Ron Bolze** of Chadron State College and the Nebraska Grazing Coalition.

GRLS Club Continues Growth

by Kate Krebs, Sophomore, Grazing Livestock Systems, University of Nebraska-Lincoln

Fall 2019 began the third year of the fledgling Grazing Livestock Systems Club. Its team of sophomore student leaders have grown the club, while offering exciting activities for members.

During the fall semester, the club conducted four meetings, invited former club advisor, **Katie Cumming**, to speak to students about the university's undergraduate research (UCARE) program, and attended the Range Club's annual Christmas party. The spring semester saw the club touring Great Plains Beef/Lone Creek Cattle Company to get a behind-the-scenes look at this expanding organization. The tour provided a great opportunity to connect with the livestock industry. Other spring semester events include the University of Nebraska-Lincoln's Big Event, a campus-wide service day, which allows the club to give back to a community that supports them, and an end-of-year banquet co-sponsored with the Range Club.

The club appreciates the financial support of past sponsors. Their generous contributions have allowed the club to increase programming and activities for club members. Organizations interested in being a club sponsor are encouraged to contact the student leaders at grazinglivestocksystems.unl@gmail.com.

Range Club Earns Awards

By Walt Schacht, Interim Director, Center for Grassland Studies, University of Nebraska-Lincoln

The University of Nebraska-Lincoln (UNL) Range Management Club attended the International Meeting of the Society for Range Management Feb. 16-20 in Denver, Colorado; an event the club attends every spring semester. The annual meeting provides students with an opportunity to network with professionals, attend seminars on rangeland issues and research, and improve their knowledge of rangeland ecology and management through participation in various competitions. Club members attending this year included **Asha Scheideler**, **Nick Sanders**, **Kaitlyn Dozler**, **Nicole Strand**, **Patrick Murphy**, and **Grant Carstens.**

Range Club members competed in the Plant Identification Contest, Undergraduate Range Management Exam (URME), Rangeland Cup, and Extemporaneous Speaking Contest. The Nebraska contingency placed third out of 13 teams in the Rangeland Cup (poster competition), Kaitlyn Dozler placed fifth out of over 30 individuals in the Extemporaneous Speaking Contest, and Nicole Strand placed sixth out of over 200 individuals in URME.

In addition to attending presentations and competing in events, the Club toured the Rocking Mountain National Park to learn about the different landscapes and array of plants that grow in the area.

Club co-advisors, **Cheryl Dunn**, agronomy and horticulture, and **Jessica Windh**, agricultural economics, supported and coached the students in their activities. Cheryl said, “The students put a lot of time and effort into the Rangeland Cup poster, and they did an excellent job representing UNL.” Jessica added, “I am so proud of the club’s achievements this year, and I look forward to seeing what they will accomplish next year.”

Range Club members accepting 3rd place in the Rangeland Cup competition. (L-R) Kaitlyn Dozler, Asha Scheideler, Nick Sanders, Nicole Strand, and Clayton Marlow, SRM President. Photo by Jess Milby.

Rangeland Cup Team and coaches with the Rangeland Cup poster. (Top L-R) Walt Schacht, Nick Sanders, Kaitlyn Dozler, Asha Scheideler, Nicole Strand. (Bottom L-R) Cheryl Dunn and Jessica Windh. Photo by Jess Milby.

Nebraska Ranch Practicum: Register by May 1

The Nebraska Ranch Practicum is a three-season, hands-on educational program designed to give participants the skills and education needed in today's complex ranching industry, including cutting edge research, idea exchange, understanding natural resources, and insight into Livestock production. Most sessions take place at the Gudmundsen Sandhills Laboratory, a nationally-recognized research and education facility.

Participants will develop the ability to efficiently use decision support tools to critically evaluate numerous management and marketing alternatives dealing with: grazing strategies and systems, methods of managing market risk, calving and weaning dates, winter livestock nutrition, cull cow management, and feed rations and seasonal mineral supplements. To learn more, go to https://nebraskaranchpracticum.unl.edu/.

Opportunities Abound at PGA Merchandise Show

By Brad Goetsch, Assistant Professor of Practice, PGA Golf Management, Center for Grassland Studies

Few events have the power to pull an entire industry under one roof like the annual PGA Merchandise Show. Nearly 40,000 people gathered to visit with over 1,000 vendors spread across more than 11 miles of pathways weaving throughout the Orange County Convention Center in Orlando, Florida from Jan. 21-24 to explore and celebrate all things golf. Among those 40,000 people were 31 University of Nebraska-Lincoln (UNL) PGA Golf Management students.

PGA Golf Management students and faculty at the 2020 PGA Merchandise Show in Orlando, FL. Photo by Brad Goetsch.

Students engaged in interactions with numerous vendors learning about the latest and greatest in the golf industry from club manufacturers, technology companies, clothing/apparel companies, travel companies, and others. Many students interviewed with the countless PGA professionals looking to secure interns or full-time employees for the coming season and several walked away with multiple job offers in-hand.

Throughout the four days in Orlando, students demoed equipment from major manufacturers and had their own long drive competition at the world's largest Outdoor Demo Day, networked with industry experts at the annual PGA Show Kickoff gathering hosted by Billy Casper Golf, and enjoyed three straight days of non-stop golf industry action on the floor of the convention center. At any given time, PGA professionals could find five or more UNL PGA Golf Management students at the booth, many of whom were actively searching for their next experience in the industry.

2019 Jones Cup Recap

By Liz Husmann, Center for Grassland Studies

PGA Golf Management's 2019 Jones Cup Team. Pictured (L to R) Josh Baldus, Cole Meschede, Chris Rasmussen, Bill Rhiley, Scott Holly, and Cordell Weber. Photo by Scott Holly.

Students from University of Nebraska-Lincoln's (UNL) PGA Golf Management Program competed against the 17 other PGM Programs in the 2019 Jones Cup on November 18-20 in Port St. Lucie, Florida. Representing Team Nebraska this year were **Cordell Weber**, **Bill Rhiley**, **Chris Rasmussen**, **Cole Meschede,** and **Josh Baldus**. The Jones Cup is a two-day collegiate style stroke play competition where five golfers per team compete and the low four scores each day count. This year's competition was held on the Wanamaker Course, which was in great condition and the greens rolled true and fast.

UNL's PGM team arrived and started practicing a few days early to acclimate to the Florida weather and the Bermuda grass. They played The Champion course at PGA National on Saturday and Quail Valley on Sunday. The weather for the practice rounds was cooler than normal as temps were in the 50s, but the official practice round was Monday on the Wanamaker course and the weather was warming.

On Tuesday the team started on hole 10 the first day of the competition. Rhiley and Baldus had the low opening 9 hole scores of 39 with everyone else in the mid 40s. The back nine was similar, with only Weber breaking 40 by shooting 39. They ended up shooting a team score of 331 which put them in 16th place. Bill Rhiley shot the low score of the day with an 80.

The second day the team improved on their score but so did the rest of the field, shooting a 317 on day two for a total of 648 and an overall 16th place finish. Cordell Weber had the lowest round of 76 and lowest 36-hole total of 159. Rasmussen was the only other player to break 80, shooting 79.

Alumni Update: Austin Holliday, Manager, UNL Cow/Calf Unit

by Margo McKendree, Center for Grassland Studies

Austin's exposure to agriculture began when his father managed a large farrow-to-finish swine operation near Fairbury, Nebraska. His connection to cattle came from the few cow/calf pairs his family kept on their small acreage. They started with a small herd of Black Angus and later switched to registered Texas Longhorns, birthing the family operation name Hangin-J Longhorns. Building on this background through formal education was the next logical step for Austin.

Austin Holliday
Manager, UNL Cow/Calf Unit

Attending college is something Austin wanted to pursue after graduating high school, however, he was not sure what he wanted to study; maybe a degree that would get him a job in the national or state park system as a forest ranger. After some deliberation, Austin made the decision to enroll in the diversified agriculture program at Southeast Community College – Beatrice (SCC). During the course of his studies at SCC he realized he wanted more experience in the cattle industry. An internship organized through SCC with Barr Arrow Cattle Company in Phillipsburg, Kansas gave Austin that experience.

The internship was a great opportunity, but making connections with the SCC faculty was equally important. **Mark Goes**, instructor of agriculture business and management technology at SCC, was the first person to speak with Austin about the Grazing Livestock System (GRLS) degree program at the University of Nebraska-Lincoln (UNL). Austin said, "The degree offered a large range of options, which was important to me and made making the decision to enter the GRLS program a simple one."

For Austin, one of the most beneficial parts of the GRLS program was the hands-on experience provided in the livestock management on range and pasture capstone course. This course sparked his interest in grassland management, as well as in working with agencies like the USDA Natural Resources Conservation Service. Additionally, the program's internship requirement allowed Austin to complete another internship at Barr Arrow Cattle Company.

Although the GRLS coursework was essential, the connections Austin developed with faculty proved invaluable again. He really enjoyed working with **Walt Schacht**, agronomy and horticulture, and **Dennis Brink**, animal science; Dennis advised Austin's dad when his dad attended UNL. Other influential staff and faculty included **Karl Moline** at UNL's cow/calf unit, **Clyde Naber**, **Brent Johnson** and **Jeff Bergman** in the animal science complex, and **Andrea Cupp**, reproductive physiology. "Andrea and Jeff have been instrumental in my path to my current position," commented Austin.

After graduating in 2018, Austin took temporary positions in the animal science complex — research technician and research technician III. After a year within those positions, the manager position within the cow/calf unit became available. Austin interviewed and was offered the job, which he began in July 2019. "What I enjoy most about my work is that I am able to manage grasslands as well as work with cattle on a daily basis," said Austin.

Keeping an open mind, taking advantage of opportunities presented, and making connections can pay dividends. For Austin, what started as a somewhat uncertain path developed into a career that was the perfect blend of his interests.

Thank you for the feedback on the Fall Seminar Series!

"I'm writing to thank you so much for having these videos available online. I just watched the first one today (finally slow and quiet enough around here). I work for the Nebraska National Forest in Halsey, we also manage the McKelvie National Forest, so this series is important for me to watch and have available. Thanks so very much!"
***Julie Bain**, District Ranger*
Nebraska National Forest, Halsey, NE

Center for Grassland Studies
203 Keim Hall
P.O. Box 830953
Lincoln, NE 68583-0953

Address Service Requested

Explore Your Future in Grasslands!

by Jessica Windh, Grassland Systems Undergraduate Recruitment Coordinator, Center for Grassland Studies

The Center for Grassland Studies offers a degree in grassland systems, with the option to specialize in grassland ecology and management or in grazing livestock systems. We offer:

Grazing Livestock Systems: This curriculum focuses on the relationships between ruminant livestock production, grazingland ecology and management, and business management. Students graduate ready for careers in forage-based livestock production systems, including ranch management, extension education and financial advising.

Grassland Ecology and Management: This curriculum focuses on effective management strategies and techniques contributing to prairie biodiversity and resilience, wildlife habitat, soil conservation, and livestock production. Students graduate prepared for jobs with state, federal or nonprofit agencies, as environmental consultants, and as private land owners.

Experiential Learning: In addition to classroom studies, our students get out and get their hands dirty—literally. We offer field courses, field trips and internships utilizing nearly 20,000 acres of grassland reserves and ranches owned by the university across the state of Nebraska.

We will be at the following events. Stop by our information booth to learn about your exciting opportunities.

- **April 1—3** FFA State Convention, Pinnacle Bank Arena, Lincoln, NE
- **June 7-12** 4-H Big Red Summer Camp, University of Nebraska-Lincoln, Lincoln, NE
- **July 19-25** National High School Finals Rodeo, Lincoln, NE
- **July 26—31** Environthon, University of Nebraska-Lincoln, Lincoln, NE
- **August 10-12** Nebraska Grazing Conference, Kearney, NE