# THE COMMUNICATOR

#### NEWS FROM THE NEBRASKA COOPERATIVE FISH & WILDLIFE RESEARCH UNIT

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## Research Highlight

Assessing the Effects of Habitat Incentives and Public Access Programs on Pheasant Populations

Since its inception, the Conservation Reserve Program (CRP) has played a vital role in bolstering populations of ring-necked pheasant (Phasianus colchicus).

Unfortunately, changes in CRP enrollment are predicted to negatively impact pheasants. Given the importance of pheasants as a game species and the impact of hunting on local economies, understanding how to improve pheasant populations is vital to ensuring the traditions of Nebraska and the economic stability of rural communities.

Recent efforts by the Nebraska Game and Parks Commission (Focus on Pheasants) and Pheasants Forever (Reload Nebraska) are aimed at developing new



management strategies to improve pheasant populations and

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enhance pheasant hunting opportunities. Moving beyond a sole dependency on CRP, this new pheasant management model focuses on working with landowners to develop agricultural practices that are profitable while simultaneously improving pheasant habitat.

**GOALS:** The purpose of this project is to improve our understanding of how pheasants use farmland habitats and how habitat enhancement programs and wildlife management actions influence the distribution and abundance of pheasants within the Southwest Focus on Pheasants (FOP) area. Using a study design that considers the entire pheasant life cycle, we hope to identify what may limit pheasant productivity in the Southwest FOP area and ultimately throughout Nebraska. More specifically, the project will:

- Evaluate the ability of landowner incentive programs to provide pheasant habitat and recreational opportunities for sportsmen.
- Identify limiting habitats and "optimal" conditions for pheasant survival and reproduction.
- Assess the direct (mortality) and indirect (roost site selection, breeding productivity) effects of hunting on pheasant populations.

**CURRENT STATUS:** This spring, graduate students in cooperation with the Nebraska Game and Parks Commission, Pheasants

Forever, and local landowners began the process of capturing pheasants to assess a myriad of breeding behaviors. To date, 27 hens, and 3 roosters have been captured and marked with traditional radio telemetry devises. In addition, one hen was equipped with a solar powered GPS based transmitter.



Students will continue monitoring the behaviors of radiomarked birds throughout the breeding season, recording

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information on their habitat needs. Starting in August, an additional 100 birds will be radio-marked and monitored throughout the fall and winter.

In addition to field work, collaboration with researchers from the University of Nebraska-Lincoln's Department of Computer Science and Engineering is showing great promise for developing new methods for monitoring pheasant behaviors using advanced GPS technology.

**GRADUATE RESEARCH ASSISTANT:** Jessica Laskowski and Lindsey Messinger

**PROJECT COORDINATOR:** Joseph (TJ) Fontaine

FUNDING: Nebraska Game and Parks Commission �

#### **Honors and Awards**

Congratulations to Jason DeBoer who was awarded the Sander Award, which is a travel award from the Walleye Technical Committee for attending the 2011 Midwest Fish and Wildlife Conference in Des Moines, IA.





Kent Fricke was elected chair-elect of the Student Professional Development Working Group of The Wildlife Society in November. Kent also was the recipient of a \$1,000 Nature Conservancy J. E. Weaver Award to assist with understanding landowners perceptions of eastern red cedars in the Lower Niobrara River Valley, Nebraska.

In early February, Shana Sundstrom was the recipient of the USGS Powell Center grant for her project, Understanding and managing for resilience in the face of global change. This grant enables Shana to organize meetings with a diverse and highly talented group of scientists from around



the world to determine the regime shifts in ecological systems. Shana was also the recipient of the Natural Sciences and Engineering Research Council award which is the Canadian equivalent to a National Science Foundation Fellowship.



Karie Decker received the Presidential Award from the Nebraska Weed Control Association. This award goes to an individual who has been instrumental in Nebraska Weed Control Association's new approach to weed control in the state.

Congratulations to Valerie Egger who received the Wildlife Management Institute Excellence Award from the USGS Cooperative Research Units (CRU). The award represents



significant achievement in the CRU program.



Dan Uden was awarded an Othmer Fellowship from UNL which is designed to assist in recruiting exceptional students who are seeking a terminal degree (i.e., Ph.D., Ed.D., etc.), and is renewable for up to three years.

Research technicians, Josiah Dallmann and Victoria Simonsen, received the University of Nebraska-Lincoln's Undergraduate Creative Activities Research Experience (UCARE) award. ❖

## **NSF** Assistantship

Two Nebraska Coop Unit graduate students will receive assistantships from the National Science Foundation (NSF) IGERT project at UNL. Michelle Hellman and Bethany Teeters were both awarded IGERT assistantships that will begin in August. IGERT is the prestigious Integrated Graduate Education and Research Training Program supported by NSF. The UNL IGERT is a five-year project that supports Ph.D. traineeships focusing on resilience in stressed watersheds. �

Editor, Caryl A. Cashmere

Welcome to the Nebraska Coop Unit newsletter! The newsletter will be distributed two or three times a year. Questions or newsletter ideas can be directed to ccashmere2@unl.edu, or 422 Hardin Hall, 3310 Holdrege, Lincoln NE 68583-0984.

> The University of Nebraska-Lincoln is an equal opportunity educator and employer with a comprehensive plan for diversity.



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## Moving On

Congratulations to **Ryan Stutzman** who accepted a position as a private lands biologist with the Washington Department of Fish and Wildlife.

Congratulations also go **to Chris Jorgensen** who accepted a position as the joint UNL/Rainwater Basin Joint Venture Science Coordinator effective May 15.

**Kody Unstad** successfully defended his thesis in April and will graduate in August. ❖

## **Teaching**

This spring semester, Joseph (TJ) Fontaine and Kevin Pope are both teaching classes. TJ is teaching Scientific Writing. The purpose of this course is to help students learn the intricacies of scientific writing from developing proposals and writing manuscripts, to participating in the peer review process. The

course will include some lectures but will primarily involve discussion of techniques, writing assignments, and peer review of fellow students as well as published and unpublished works of others. Because the course requires weekly writing assignments, it is geared toward students looking to produce a document (e.g., proposal, thesis/dissertation, journal article) during the semester.

TJ also conducted a writing workshop: Writing for Publication. This workshop assisted participants in overcoming the challenges of scientific writing by exposing them to the structure of scientific publication and how key steps in the presentation of their science can improve their ability to reach a diverse audience. The session covered the development of a scientific manuscript—from conception to submission and ultimately to publication.

Kevin is teaching Quantitative Fish Techniques. This course provides information necessary to address scientific and management questions. It is designed to increase students' understanding of current fishery assessment practices. Emphasis is placed on quantitative assessments of populations (e.g., recruitment, growth, and mortality), communities (predator-prey interactions) and ecosystems (biostressors). At the completion of this course, students should be able to apply current quantitative methods used in fishery data analysis, effectively communicate statistical ideas, and critique scientific studies—in particular, be able to identify strengths and weaknesses of statistical assessments. ��

### **Outreach Activities**

Karie Decker and Carla Bobier each had educational booths at the Nebraska Boat Sport and Travel show at the Lancaster event center, Lincoln, NE in January. The booths focused on invasive species and anglers' ability to correctly identify fish.

On March 3, Chris Jorgensen was a volunteer judge for the Nebraska junior academy of science southeast regional science fair held at the University of Nebraska–Lincoln, East Campus.

Caroline Jezierski had educational booths at the School of Natural Resources Weatherfest, March 31, and on April 22 at the Earth Day festivities in Lincoln, NE. The booths focused on wind energy and wildlife in Nebraska.

On April 28, Karie Decker had an educational booth at the "Spring into summer" re-opening event at Zorinsky



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Lake in Omaha, NE. The re-opening of Zorinsky Lake is great news after the devastating report of a zebra mussel infestation of the lake. This infestation led to the draining the lake in 2011 to control the infestation. Sampling of the lake revealed no zebra mussels in the lake! •

## **Training**

A Creel Survey Workshop was held March 21-23 in Lincoln, NE for the 2012 creel clerks. Beginning in April, the creel clerks will spend seven to eight months interviewing anglers at Nebraska reservoirs to help understand how participation patterns of anglers influence fish populations.

At the workshop, trainees completed required safety courses, became familiar with university processes, and were trained in the process of collecting and transferring data. The twenty-four participants and presenters included the creel clerks, university staff, USGS staff, and biologists from the Nebraska Game and Parks Commission.

With the much anticipated grand opening of Lake Wanahoo held on April 28, the creel clerks for that lake will be kept busy! Lake Wanahoo is a new 662-acre lake near Wahoo, NE which is owned by the Lower Platte North Natural Resources District and managed by Nebraska Game and Parks Commission. The lake was designed to control flooding in the 87-acre square-mile Sand Creek Watershed. The lake is stocked with largemouth bass, crappie, bluegill, blue catfish, walleye, and northern pike.

The 2012 state-wide Creel Clerks are: Don Bohnenkamp, Kay Brown, Jason Clark, Ron Grandi, Dennis Liess, Cathryn Niehoff, Tim Onwiler, Minnie Petsch, Bruce Porter, Brett Roberg, Gerald Ryschon, Janice Spicha, Phil Stollberg, and Jon Yates. �

## **Invasive Species Update**

Growing concern over invasive species in Nebraska spurred various agencies and organizations to seek new legislation. On April 6, 2012, Governor Heineman signed a bill (introduced by Senator Ken Schilz), which will help manage and prevent the spread of invasive species across Nebraska.

The bill (LB 391) prohibits the possession, import, export, purchase, sale or transport of aquatic invasive species. It also allows Nebraska Game and Parks Commission to adopt and promulgate rules and regulations governing the inspection, decontamination, and treatment of watercraft capable of

containing or transporting aquatic invasive species. The bill outlines penalties for boaters who refuse to submit to a boat inspection (if requested by an authorized inspector) or refuses to permit decontamination of their watercraft.

LB 391 also gives official legislative recognition to the Nebraska Invasive Species Council to serve as an advisory council for state invasive species policy and to coordinate invasive species management and research across the state for the prevention and detection of invasive plant and animal species.

Information about the bill can be viewed at:
http://nebraskalegislature.gov/bills/view\_bill.php?DocumentI
D=12091 ❖

### **Publications**

Jason DeBoer, Dustin Martin and Kevin Pope, et. al. had a paper accepted in the journal, *Fisheries*. "A LK @ 2DAYS ANGLR: How technology reveals pattern in the internet age" is the title of the accepted paper.

Shana Sundstrom, Craig Allen, et. al. had the paper "Species, functional groups, and thresholds in ecological resilience" published online in March in *Conservation Biology*. •

#### **Announcements**

Congratulations to M.S. graduate student Peter Spirk on the birth of his daughter, Stella Elizabeth. Peter's wife Sammy delivered Stella on April 2. Stella weighed 7 lbs 3 oz and was 22 inches long.



Stella Spirk



Carla, Scott and Milo

Congratulations also go to M. S. graduate student Carla Bobier and her husband Scott on the birth of their son, Milo Leroy. Milo was born on April 26 and weighed 9 lb 15 oz. ❖

## Conferences/Meetings/Workshops

Twenty-two unit staff and students attended the annual Midwest Fish and Wildlife Conference held in Des Moines, IA December 2011. Several made presentations or had a poster.

- Jason DeBoer, Dustin Martin, and Kevin Pope,
   presentation, "A LK @ 2DAYS ANGLR: How technology reveals patterns in the internet age."
- Jason DeBoer and Kevin Pope, poster, "Recruitment of walleye and white bass in irrigation reservoirs."
- Jason DeBoer and Kevin Pope, poster, "Comparison of three techniques to estimate population size of largemouth bass."
- Karie Decker, poster, "Aquatic Invasive Species Awareness in Nebraska."
- Chris Jorgensen and TJ Fontaine, presentation, "From patches to landscapes: How spatial scale constrains avian responses to grassland management."
- Dustin Martin and Kevin Pope, presentation, "Managing anglers to maintain resilience of a regional fishery and enhance anglers' connections with natural resources."
- Ryan Stutzman and TJ Fontaine, presentation, "Changing climates and changing landscapes: A migrant bird's dilemma" and "Avian migration in the face of an altered landscape and a changing climate."
- Kody Unstad, presentation, "The diversity and abundance of ants and ground beetles in a fragmented tallgrass prairie ecosystem."
- Chris Wiley, poster, "Size distribution of available caught and harvested channel catfish in an urban reservoir."

Craig Allen and Kristine Nemec attended the Resilience Alliance Future Search Meeting and Science Meeting January 9-13 in Camargue, France.

"If you build it, will they come? Managing species in tomorrow's landscapes" was the presentation Chris Jorgensen gave at an invited symposium at University of Nebraska—Lincoln, School of Natural Resources. This presentation was also given by Chris and TJ Fontaine at the Nebraska Pheasants and Quail State Habitat meeting in Kearney, NE, April 28.

February 14-15, Dustin Martin, Kevin Pope and Chris Wiley attended the Nebraska Chapter of the American Fisheries Society meeting in Gretna, NE. Dustin and Kevin's presentation was titled "Spatial and temporal variation in catch rates following trout stocking." Chris had a poster titled "Size distribution of available caught and harvested channel catfish in an urban reservoir."

On March 2, Kent Fricke attended the Nebraska Chapter of the Wildlife Society Annual Conference at Ponca State Park and gave a presentation titled, "Adaptive Management study on the Lower Niobrara River Valley" as well as a poster "Implementing adaptive management in Nebraska."

Ashley VanderHam gave a presentation titled "Herpetofauna monitoring and wetland restoration evaluation on the Missouri River" at the Missouri River Natural Resources Conference in Pierre, SD March 13-16.

"Mammals Skins and Skulls" was the presentation Kent Fricke gave to Pack 27 Cub Scout Group at Calvert Elementary School, Lincoln, NE, March 27. •

#### **Our Mission**

Train graduate students for professional careers in natural resources research and management

Conduct research that will create new information useful for management of natural resources

**P**rovide technical assistance to cooperators

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