

ISSUE 1 - SEPTEMBER 2020

CEDAR POINT TIMES

The Newsletter of Cedar Point Biological Station
School of Biological Sciences
University of Nebraska - Lincoln

Cedar Point During COVID19

For the first time in 45 years, students did not crowd Goodall Lodge at dinner, play volleyball into the evenings, or spend weekends at Lake Mac. In 2020, COVID19 prompted the University of Nebraska to cancel all in-person summer instruction, causing us to cancel our summer courses. The one exception was 'Virtual field parasitology' (see page 3). The station still opened for research, habitat management, and hospitality crews. While not fully a ghost town, the station was quiet most days. People went about their business, socially distancing and wearing masks, and we got through the summer without incident (COVID or otherwise).

Given the historic year, it seemed timely to start up a Cedar Point newsletter. As we look to the future to keep CPBS alive and better than ever, we want to share what is happening now with our many users, old and new. So welcome to the inaugural issue of Cedar Point Times. Twice a year, we will share what is happening at the station, let you know of upcoming events, and dig up something from the vault. Whether you are reminiscing about your time here, getting motivated to come take a class, or just staying informed, I hope you enjoy our first issue.



After many years, Goodall Lodge and Gainesforth Resource Center (and other buildings) got new metal roofs in 2020. Photo by John DeLong

In this issue:

Cedar Point and COVID19
PAGE 1

Box Turtle Behavior
PAGE 2

Cedar Point Works
PAGE 2

Pseudoscorpions
PAGE 3

Virtual Field Parasitology
PAGE 3

Announcements, Events,
and Updates
PAGE 4



In the prairie up top. Photo by George Wheeler.

Research Focus: Reed studies the behavioral ecology of ornate box turtles

Ornate box turtles are in trouble. Like many North American turtles, box turtles are declining because of habitat loss, poaching, and disease. However, we don't know much about how turtles use habitat or respond to threats. Enter Dr. Ben Reed, who as a biology graduate student at UNL spent five years studying box turtles at CPBS. As a student, Dr. Reed also TA'd and taught courses at the station. After earning his PhD in 2018, Dr. Reed moved to Washburn University (Topeka, KS), started a new lab (learn more about his research [here](#)), and returned to CPBS to keep up his long-term research on turtles.

This year, Dr. Reed brought a team of six undergraduate students from UNL and Washburn to CPBS. The team tracked turtles using radio telemetry and conducted behavioral assays to understand how individual variation in exploratory behavior influenced turtle movement and habitat use. Students gained skills in turtle handling, telemetry, and behavioral assays. Says Reed, "For me, the really exciting part of my research program is being able to foster an environment where students can collaborate with one another ... while working towards a common goal." Now that the summer is over, they are working together remotely to analyze the data with Dr. Reed. Long term, the team will explore how climate change alters habitat use and compare CPBS turtle populations to other turtle populations in Kansas.

Cedar Point Works

Cedar Point Works is our umbrella program for experiential learning. In 2020, we had eight CPW students. Three students and staff worked to make Goodall Lodge safe for food delivery to station users, with to-go meals, expanded sanitation, and distanced dining. One student worked on sustainability features of the station. Four students were supported by an NET grant for red cedar management, prairie restoration, and demonstration work with harvested cedar wood, such as a cedar retaining wall along our new erosion-resistant trail system. One student, Jenny Gilbert, also obtained a grant from NET-Nebraska Forest Service for trees to plant as part of our riparian forest restoration efforts.

Ornate box turtle. Photo by Ben Reed.



Sam Wagner searching for box turtles. Photo by Ben Reed.



Jenny Gilbert planting a chokecherry. Photo by Jon Garbisch.

Cedar Point Works is supported by grants and donations. If you would like to support experiential learning at CPBS, please consider donating to one of our student-oriented funds.



Swallowtail butterfly on wallflowers. Photo by George Wheeler.

Teaching Focus: Gardner runs first 'virtual' field course

The spirit of adventurous teaching lived on at CPBS this summer, despite cancellation of most of our classes. Dr. Scott Gardner, along with graduate students Auggie Dursahinhan and Sebastiano Botero-Canola and emeritus professor Dr. John Janovy, put on our first 'virtual' field course in parasitology. The instructors encamped at CBPS and used video to bring students on virtual collecting trips, to observe dissection techniques, to show them how to find parasites in specimens, and to present live lectures. By shipping inexpensive microscopes and supplies to the students and providing access to digital keys and guides at home, students collected their own material and followed along. Students saw many of the parasites they would have seen in person at CPBS, including those from damselflies, snails, backswimmers, and other invertebrates. Students conducted their own investigations from their own specimens, presented their work to the class through video conferencing, and wrote their work up as papers as usual. Kudos to the parasitology team for keeping the 45-year tradition of field parasitology at CPBS alive!

Sebastiano Botero (left) and Auggie Dursahinhan on a collecting trip. Photo by Scott Gardner



Above, Laura Segura-Hernandez in the field at CPBS. Photo by Rowan McGinley. Below right, a pseudoscorpion. Photo by Laura Segura-Hernandez.



Student Focus: Segura-Hernandez studies pseudoscorpions and climate

How will climate change affect populations of soil invertebrates? That's the question Laura Segura-Hernandez is asking in a new study about pseudoscorpions at CPBS. A PhD student in the lab of Dr. Eileen Hebets, Laura is trying to understand how a warmer and more variable climate will alter the survival, growth, and reproduction of pseudoscorpions and how vegetation might buffer those changes. Laura's first field season was a success, documenting pseudoscorpion populations, habitat use, reproductive behavior, and physiological responses to warming. This season, Laura was amazed by the seasonal climate variability in western Nebraska. Such variability means that pseudoscorpions already have to deal with large temperature swings. Now, Laura says "I have so many new questions." Hopefully, Laura will be back over the next few years to answer them.



CPBS in the evening. Photo by George Wheeler.

About the Station

Cedar Point Biological Station is a site for research and experiential learning located along the banks of Lake Ogallala in western Nebraska. CPBS is surrounded by a wide range of habitat types, ponds and lakes, and landscape features such as box canyons, making it an ideal place to learn about and interact with nature. CPBS is operated by the School of Biological Sciences at the University of Nebraska - Lincoln. The station provides unparalleled experiential learning in the high plains through a wide range of courses and partnerships with the School of Natural Resources, the School of Art, Art History, and Design, the College of Architecture, and the Department of Hospitality, Tourism, and Restaurant Management at UNL.

From the Vault



Ann Adams (right) and Dr. John Janovy reviewing Ann's master's thesis at Goodall Lodge circa 1981. Ann's work at the station was the start of years of work on parasites of the plains killifish (*Fundulus zebrinus*) at CPBS by Dr. Janovy and many others. Ann began as an undergraduate at CPBS and then went on to doctoral work at the University of Washington and a career at the US Food and Drug Administration. Photo by Karen Janovy.

Looking ahead to 2021

May 13 to May 16 (tentative)
Grad Student Writing Retreat
Session 1 - May 16 to June 4
Avian Biology
Fundamentals of Biology II
Session 2 - June 6 to June 25
Predator Ecology
Field Herpetology
Working with Watercolor
Session 3 - June 27 to July 16
Field Epidemiology
Fundamentals of Biology II
Ecology and Evolution
Session 4 full - July 18 to August 6
Field Parasitology
Session 4a - July 25 to August 6
Literature and the Environment
Session 4b - July 18 to July 30
Field Plant Systematics
Session 4c - August 1 to August 13
Field Limnology
September
Rocky Mtn Parasitology Conference

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