

WILDLIFE RESEARCH UPDATE

Research, Analysis, and Inventory Section - Wildlife Division



TABLE OF CONTENTS

SALT CREEK TIGER BEETLE

SWIFT FOX RESOURCES

FAREWELL...BUT NOT GOODBYE!

Recent publication highlights 30 years of Salt Creek tiger beetle surveys

by Shaun Dunn, Zoologist

In 1991 Steve Spomer, then an entomologist at the University of Nebraska – Lincoln, began the first rigorous population counts for the remaining metapopulations of the Salt Creek tiger beetle (*Ellipsoptera [Cicindela] nevadica lincolniana*) in and around Lancaster County, Nebraska. Over the next 30 years Spomer led the annual counts to determine if the species was increasing in number. These data were recently analyzed and submitted to *The Coleopterists Bulletin* for peer-review and publication, which came out late last year (2021, 75(3): 512–515).

The article, *A 30-year history of the Salt Creek tiger beetle, Ellipsoptera nevadica lincolniana* (Casey, 1916; *Coleoptera: Cicindelidae*), visual population estimates summarizes the number of adult beetles counted in each remaining metapopulation around Lincoln, where the species still persists.

SCTB Continued...

As seen in the chart above, the population experienced a precipitous drop in 2005 and numbers haven't recovered to previous highs; however, with the introduction of lab-reared beetles and new management techniques, we are hoping to see an increase in the coming years.

One new development is the introduction of Salt Creek tiger beetles (SCTB) to a restored saline wetland on the north end of Lincoln. Marsh Wren Saline Wetland is a 150-acre parcel that was acquired by the Lower Platte South Natural Resources District on the confluence of Little Salt Creek and Salt Creek. The restoration of Marsh Wren was led by the NRD's Resources Coordinator Dan Schulz and the consultant company The Flatwater Group. Using a salt water irrigation system they were able to reproduce a environment similar to what is found in other saline wetlands. In 2020 it was determined the site was salty enough for SCTB to reproduce if introduced to the wetland so both larvae and adults were released at Marsh Wren in 2020 and 2021. While only a few adults were seen in 2021 (prior to the second release) we are hoping Marsh Wren becomes a model for future saline wetland restoration efforts.

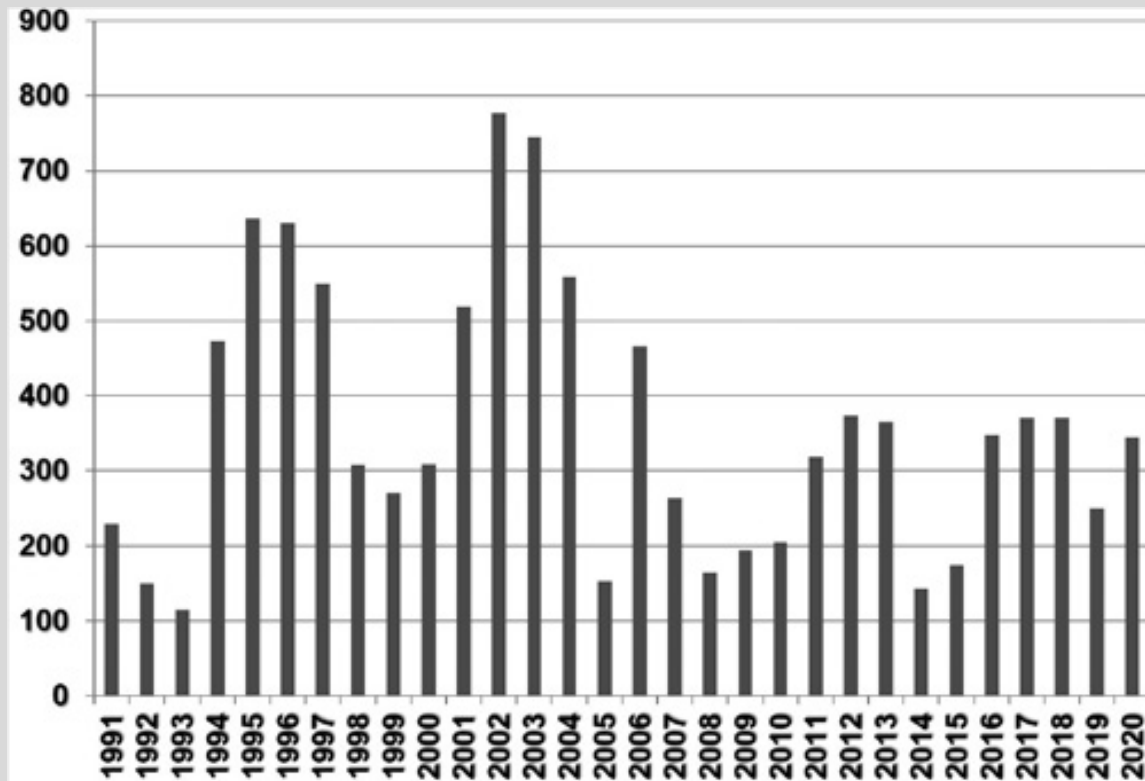


Figure 1. Visual population estimates of all sites combined of adult SCTB, 1991–2020.

New Swift Fox Resources Available

by Sarah Nevison, Natural Legacy Biologist

Two new resources are in the works for swift fox conservation and education.

She Goes Outdoors Podcast

In December 2020, I recorded an episode of the She Goes Outdoors Podcast where I discuss my favorite species, the charismatic and endangered swift fox (see link below). I highlight the research I conducted on swift foxes as a graduate student in South Dakota and tie in information on the species in Nebraska. And yes, I answer the infamous question, “what does the fox say?”

If you're a podcast-listener, please consider adding this podcast into your rotation. There are nearly 100 episodes covering hunting, fishing, cooking, and management topics like prescribed burning and Chronic Wasting Disease. The three female hosts are from Nebraska, Kansas, and Iowa so there is a focus on women in the Midwest.

<https://soundcloud.com/shegoesoutdoors/the-swift-fox-what-does-it-say>



Species Conservation Assessment

We have published multiple Species Conservation Assessments through the Nebraska Natural Legacy Project. These documents are compilations of biological and ecological information intended to assist conservation practitioners in making decisions regarding conservation of the species of interest. We are putting the finishing touches on the swift fox document, and it will be posted here when its complete: <http://outdoornebraska.gov/naturallegacyproject/>.

Swift foxes are a Tier 1 at-risk species and are listed as endangered in Nebraska. They live in short-grass prairie in the panhandle, with infrequent occurrences in the southwest corner of the state. They live in dens year-round, inhabit prairie dog towns when available, and demonstrate a preference for living near roads. From 2014–2016, University of Nebraska–Lincoln student Lucía Corral Hurtado conducted a detailed study on space-use, land cover, genetics, and modeling, with a focus on interactions with red fox and coyote. Through genetic analysis, she found two main populations in Sioux and Kimball counties and evidence that they move between those populations and across state boundaries into other populations.

Swift Foxes Continued...

In the species conservation assessment, I describe in detail risk factors to species persistence, which include habitat loss, reduction of black-tailed prairie dog towns, small and disjunct populations, and disease, among others. I also list in detail different conservation strategies with tangible management actions to maintain/restore short-grass prairie, manage prairie dogs and ecologically-functional levels, facilitate partnerships and data sharing, and educate the public. I provide extensive research ideas and information needs, and the document ends with a succinct table of management strategies and considerations.

Finally, if you see a swift fox, let us know! Locations and data for the species are tracked in the Natural Heritage database; extant or historic, alive or dead. Swift foxes weigh only 5 pounds (the size of small housecat) with a black-tipped tail – its most conspicuous feature (red foxes have white-tipped tails). Please contact the Nebraska Natural Heritage Program with any sightings.



Swift fox pups and an adult in Box Butte County, Nebraska.
Photo: Nebraskaland



Collecting data at a swift fox den in western Nebraska, with ideal habitat of short-grass prairie and flat topography.
Photo: Nebraskaland.

“To those devoid of imagination a blank place on the map is a useless waste; to others, the most valuable part.”

-Aldo Leopold

APRIL 2022

See ya down the road

As I sit here and reflect on my last (nearly) six years with NGPC, I can honestly say that I have made enough memories and friendships to last a lifetime; from goose banding in the Sandhills, to capturing bighorn sheep in the Pine Ridge, to passionate debates about conservation, management, and moving the agency forward. For those of you who haven't heard yet, I will be leaving the agency at the end of April. And while I will be leaving NGPC, it won't be goodbye but see you down the road.

I will be starting my new position May 2nd, 2022 for the Lower Platte South NRD as their new Resources Coordinator. Many of you know Dan Schulz, who had an incredible conservation career, retired recently and I was hired to take over where he left off.

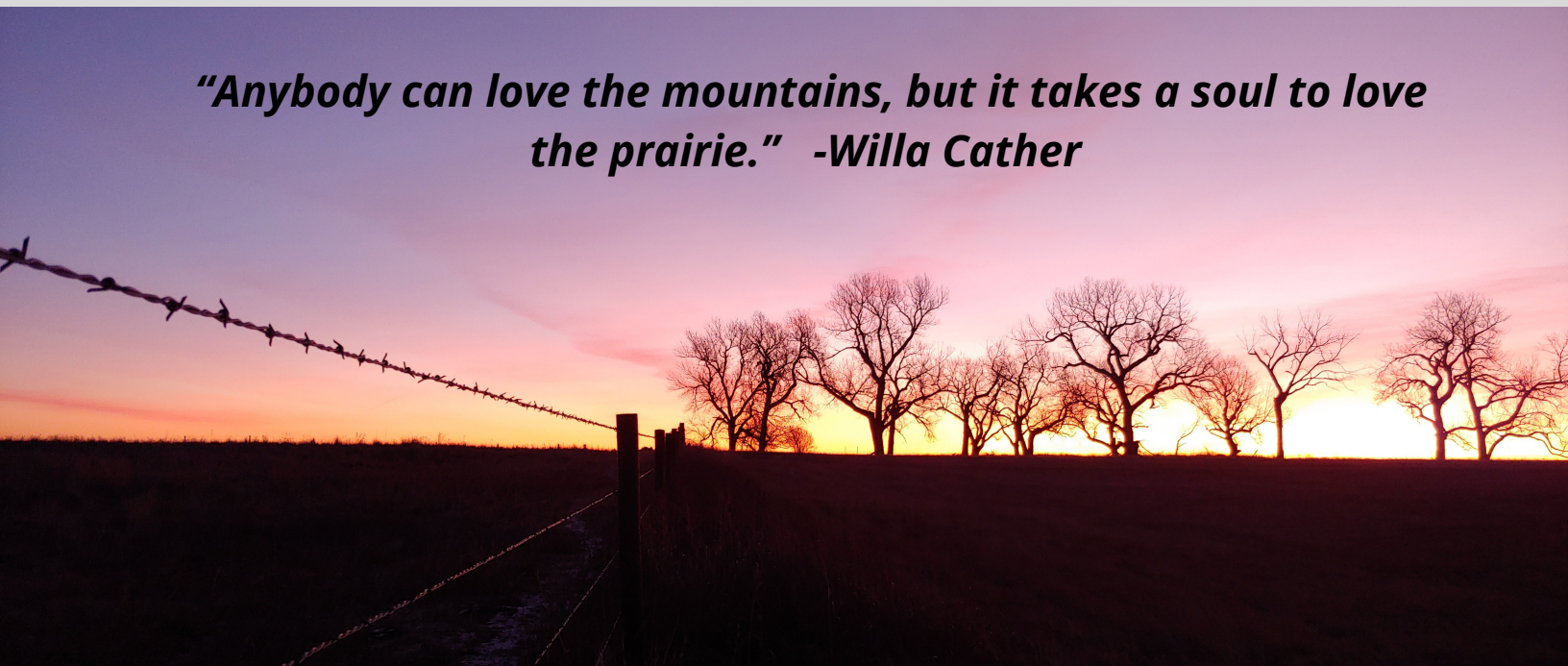
While it was a very tough decision to leave my NGPC family, it was a necessary move to further my career, get outdoors more, and have an opportunity to direct my skillset more locally. Our agency, and especially the Wildlife Division, is a family and I look forward to continuing to work with my "family," just from the other side of the table.

You all are a tremendous asset to this state and this agency. Your dedication and love for the outdoors does not go unnoticed. You will all continue to do great things in the world of conservation, and I look forward to continuing the adventure with you all. Please don't hesitate to keep in touch and keep fighting the good fight.

Thanks again to all who have contributed to my many unforgettable memories.

-Will

“Anybody can love the mountains, but it takes a soul to love the prairie.” -Willa Cather



Contact Us

Will Inselman

Assistant Wildlife Division Administrator - Research
will.inselman@nebraska.gov

Caroline Jezierski

Heritage Program Manager
caroline.jezierski@nebraska.gov

Jeff Lusk

Data & Biometry Program Manager
jeff.lusk@nebraska.gov

Joel Jorgensen

Nongame Bird Program Manager
joel.jorgensen@nebraska.gov

John Laux

Upland Game and Access Program Manager
john.laux@nebraska.gov

Matthew Garrick

Waterfowl Program Manager
matthew.garrick@nebraska.gov

Sam Wilson

Furbearer Program Manager
sam.wilson@nebraska.gov

Todd Nordeen

Big Game Disease and Research Program Manager
todd.nordeen@nebraska.gov