

WILDLIFE RESEARCH UPDATE

Research, Analysis, and Inventory Section - Wildlife Division



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NGPC assists in collecting American Burying Beetles for Ohio reintroductions

by Shaun Dunn, Zoologist

This summer, the Nebraska Game and Parks Commission (NGPC) and Partner biologists lead and participated in several trapping efforts for the federally threatened American Burying Beetle (ABB, *Nicrophorus americanus*) in the Loess Canyons and Sandhills regions of the state.

The ABB populations in these two areas are among the largest concentrations of ABBs in the world. Efforts to monitor their numbers and distribution have been ongoing for decades.

A relatively recent addition to Nebraska’s ABB monitoring efforts is working with the Ohio Recovery Team on ABB reintroduction efforts. The Ohio Recovery Team is a multi-agency effort including: the Cincinnati Zoo and Botanical Garden, The Wilds, the Ohio Department of Natural Resources, the U.S. Fish and Wildlife Service, and, since 2015, NGPC. In the past, NGPC’s involvement primarily consisted of permitting and other logistical support as needed by the Ohio Recovery Team. However, this year’s trapping efforts were led by NGPC and 30 pairs of ABBs were provided to the Ohio Recovery Team.

ABB Continued...

The ABB's range once covered most the central and eastern United States and was documented in 35 states. But due to declines in numbers and distribution, in 1989 the ABB became the first insect listed under the federal Endangered Species Act. In 1998, the first ABBs were reintroduced into Ohio using individuals captured in Arkansas. Unfortunately, evidence of successful breeding and overwintering of reintroduced ABBs in Ohio remained inconclusive for years. One hypothesis is the ABBs from Arkansas did not have enough cold tolerance to survive Ohio's winters. Therefore, the decision was made to collect individuals from Nebraska for reintroduction.

In 2015, 30 pairs of ABBs were transferred from the Nebraska Sandhills to Ohio for breeding and reintroduction. Nebraska has continued to support Ohio's reintroduction efforts every year (with the exception of 2020) and has transferred 286 ABBs. The Ohio Recovery Team maintains multiple breeding programs to supply its reintroduction efforts and the ABBs from Nebraska increase the genetic diversity of their reintroduction efforts. The successful overwintering of reintroduced ABBs in Ohio was undocumented until 2020 when the first ABBs were found to have successfully overwintered and were captured in two separate locations by The Wilds and the Cincinnati Zoo.

Nebraska will continue to collaborate with the Ohio Recovery Team to support ABB reintroduction efforts, but it seems like they may not need our assistance much longer.



American Burying Beetles (*Nicrophorus americanus*) captured in the Sandhills of Nebraska (June 2021) from a very successful trap.



Figure 1.



Figure 2.



Figure 3.

Figure 1: Mandi Pritchard of the Cincinnati Zoo & Botanical Garden (left) prevents the captured American Burying Beetles (*Nicrophorus americanus*) from escaping while Andrea Malek of The Wilds (right) removes more beetles from the trap in the Sandhills of Nebraska (June 2021).

Figure 2: (L to R): Genelle Uhrig and Andrea Malek of The Wilds and Mandi Pritchard of the Cincinnati Zoo & Botanical Garden process American Burying Beetles (*Nicrophorus americanus*) captured in the Sandhills of Nebraska in June 2021.

Figure 3: Mandi Pritchard of the Cincinnati Zoo & Botanical Garden (grey shirt) prepares a holding container while Andrea Malek of The Wilds (khaki shirt, writing) measures an American Burying Beetle (*Nicrophorus americanus*) captured in the Sandhills of Nebraska in June 2021.

How many surveys does it take to find Nebraska's newest threatened species?

by Joel G. Jorgensen, Nongame bird Program Manager

The Eastern Black Rail (*Laterallus jamaicensis jamaicensis*) became Nebraska's newest "listed" species when it became federally threatened under the Endangered Species Act in November 2020. Although no formal action was taken by the Nebraska Game and Parks Commission, the Black Rail automatically became state listed as threatened under the Nebraska Nongame and Endangered Species Conservation Act because that statute requires all federally listed species to also be state listed. As with any threatened or endangered species, it is imperative to know its distribution and abundance in the state to proactively avoid negative impacts and also to prioritize conservation action.

Throughout its range, the Black Rail's status and distribution is poorly known, especially in the Interior of North America where it occurs sparingly and locally. More importantly, the Black Rail is only sparrow-sized and it is very secretive. It occupies wetlands and usually stays hidden in dense vegetation. Many purported sightings are brief glimpses of a flushed bird or involve instances where a bird is heard calling. Many reports are erroneous due to misidentification with other species. Other observations have no or limited supporting information which makes discerning their credibility challenging. At the same time, the species is undoubtedly overlooked and undetected where it does occur because of its secretive nature.

In Nebraska, the Black Rails status has also been murky. There was only a single widely accepted record of Black Rail prior to 2016, but there are also about twenty additional reports of varying credibility. Several of those reports were questionable or obvious errors, but others were suggestive of positive identification. However, without any evidence such as a photograph or recording, it is impossible to evaluate the undocumented reports. Furthermore, quibbling over the veracity these earlier reports does not provide the needed information about the species current occurrence and distribution in the state, especially regarding any potential actions that management agencies might consider.

In anticipation of the federal listing of the Black Rail, the Nongame Bird Program developed and implemented an extensive survey and monitoring program to find this elusive species in Nebraska. Since 2013, Commission staff or contracted partners conducted 1,362 call broadcast surveys across the state. Call-broadcast surveys involve playing the Black Rail's vocalizations in order to elicit a response by a real, living bird. Sites and habitats where Black Rails were reported in the past were included in the effort. Out of all the surveys, only one Black Rail was detected, a bird recorded calling at Harvard Waterfowl Production Area in Clay County. Thus, the answer to the question posed in the title is 1,362.

Black Rail Continued...

Our efforts show the Black Rail is an extremely rare bird in Nebraska and all available evidence suggests it only occurs here as a vagrant. The closest breeding populations are in central Kansas and southeastern Colorado, but it appears our state is north and west of the species' regular breeding range. With it being such a rarity, it is difficult to imagine situations where actions in Nebraska would either harm or benefit this quirky bird. However, without conducting a concerted search for the Black Rail, we would not be in a position to make these conclusions about its status in Nebraska with confidence.



Black Rail. Photo credit: ebird.org

Each species is a masterpiece, a creation assembled with extreme care and genius.

-E. O. Wilson

A Dive into the Process of Listing Species: The Species Status Assessment

by Caroline Jezierski, Natural Heritage Program Manager

In Nebraska and across the country, biologists and natural resource managers may understand the impact of a species listed as threatened or endangered under the federal Endangered Species Act (ESA) or a state act, such as the Nebraska Nongame and Endangered Species Act (NESCA), but not the process under which the species was listed. If you are a biologist or manager that falls into this category, you are in the majority. To list a species as threatened or endangered requires a complicated and time-consuming process, so we will focus on one aspect, the federal Species Status Assessment (SSA).

The U.S. Fish and Wildlife Service (USFWS) developed the SSA framework to provide consistency and transparency in the risk assessments for species being considered for listing under the ESA. An SSA report is based on science and does not consider policy. The SSA framework consists of three sections: the species' needs, current species' condition, and future species' condition. The best available information on the species is used to develop the SSA.

Is NGPC involved in the federal SSA process?

Yes! To gather the best available information, the USFWS reaches out to state wildlife management agencies, non-profits, academics, etc. and invites species experts to provide input. At a minimum, the Natural Heritage Program provides element occurrence records. If there is species expertise within the NGPC or outside of the agency, we will recruit the expert(s) to be a part of the SSA process. As part of the process, information will be provided to the USFWS via email, meetings, or workshops. Once a draft of the SSA is available, species experts review the draft and provide comments.

Is there an SSA under development for any species in Nebraska?

Yes! Currently, there are members of the Natural Heritage Program, Wildlife Diversity Program, Nongame Bird Program, the Missouri River Program, and Planning and Programming participating in SSAs at varying stages of development. For example, the early data collection phase for the Blanding's Turtle, Plains Spotted Skunk, Sicklefing Chub, and Sturgeon Chub SSA's is currently underway. The draft SSAs for the Western Bumble Bee and Regal Fritillary are scheduled to be ready for review in the coming months.

Do we have an equivalent process in Nebraska for NESCA?

Not exactly. An inter-division team is working on developing and documenting a standardized process for the listing and/or delisting of species under NESCA. The SSA framework was introduced by the USFWS five years ago and will be used as a guide for Nebraska's process.



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