

Dear Landowner/ Conservation Organization,

The University of Nebraska at Omaha needs your help to find and record sightings of the eastern spotted skunk, also known as the civet or polecat. The eastern spotted skunk has been in decline across much of their range since the 1940s. Once a common sight on Nebraska farms, this small skunk has not been recorded in Nebraska since 2017, when one was found as roadkill in Cherry County, Nebraska. We are hoping that landowners across the state and particularly those in northern Nebraska are willing to help locate these elusive animals.



Image of a spotted skunk captured on a game camera. Spotted skunks are smaller than striped skunks. Their white markings may resemble broken stripes or spots.

We are searching for landowners and conservation organizations interested in setting up and monitoring game cameras in an effort to help us successfully capture images of spotted skunks in Nebraska. Images captured by game cameras should be submitted to the University of Nebraska at Omaha via OneDrive or shared with the University of Nebraska graduate student, April Sperflage, in another manner. Images may then be uploaded to Zooniverse to be reviewed by the public or reviewed by the graduate student on the spotted skunk project.

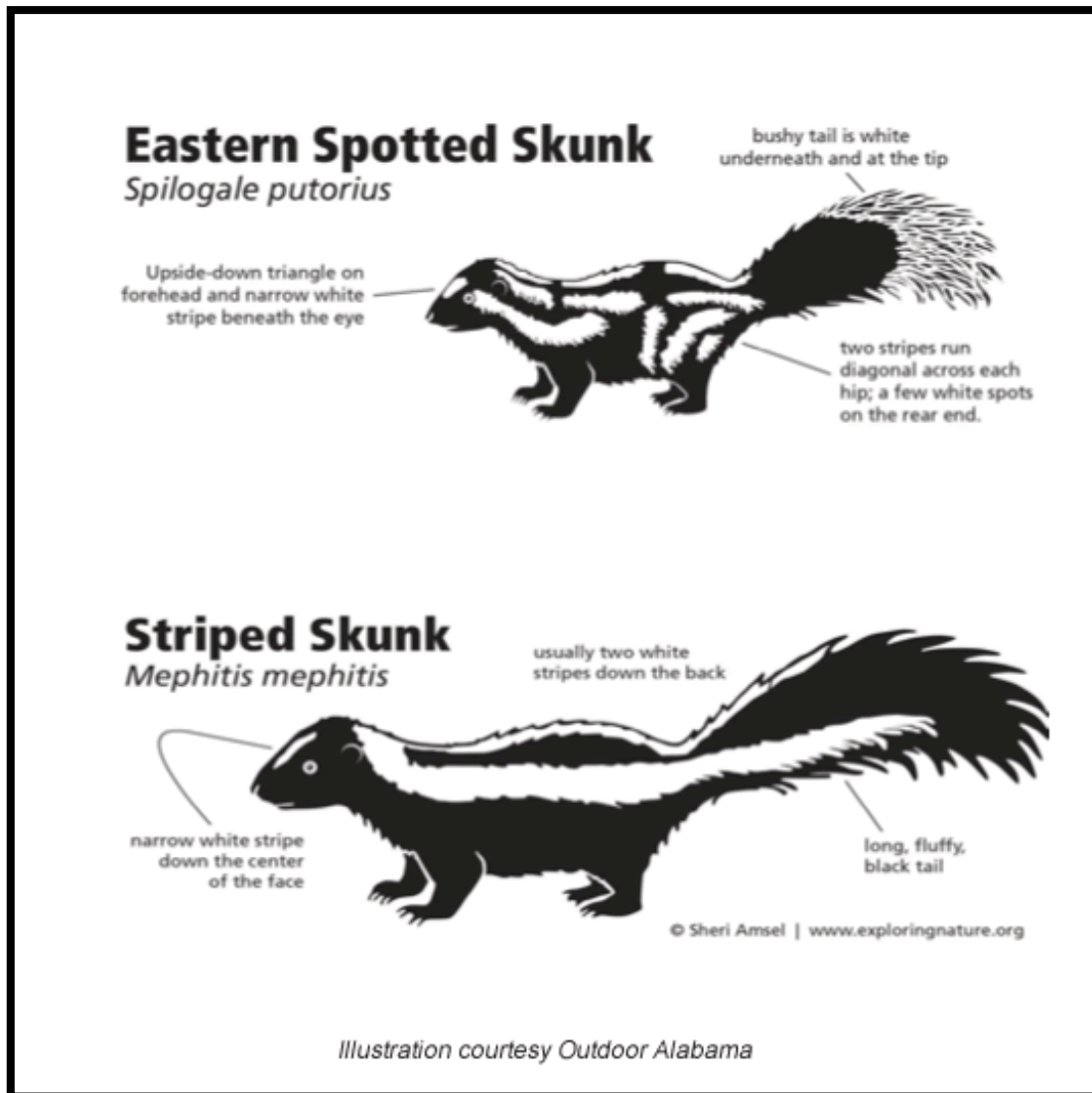
We are looking for volunteers that have their own cameras available and are able to monitor these cameras independently. Methods would need to follow the protocol below. **If this project is something that you are interested in helping with, or you have any questions, please contact James A. Wilson or April Sperflage.**

Thank you,

James A. Wilson
Zoologist/ Principal Investigator
University of Nebraska at Omaha
jameswilson@unomaha.edu
402-554-2585

April Sperflage
Graduate Research Assistant
University of Nebraska at Omaha
asperflage@unomaha.edu

What do spotted skunks look like?



Left: Spotted skunks lift their back legs into a headstand when threatened (Image Credit: USFWS)

Above: Tracks of the eastern spotted skunk from a track plate station in Texas (Photo credit: Charles E. Pekins)

Standardized Game Camera Protocol for Capturing Spotted Skunks

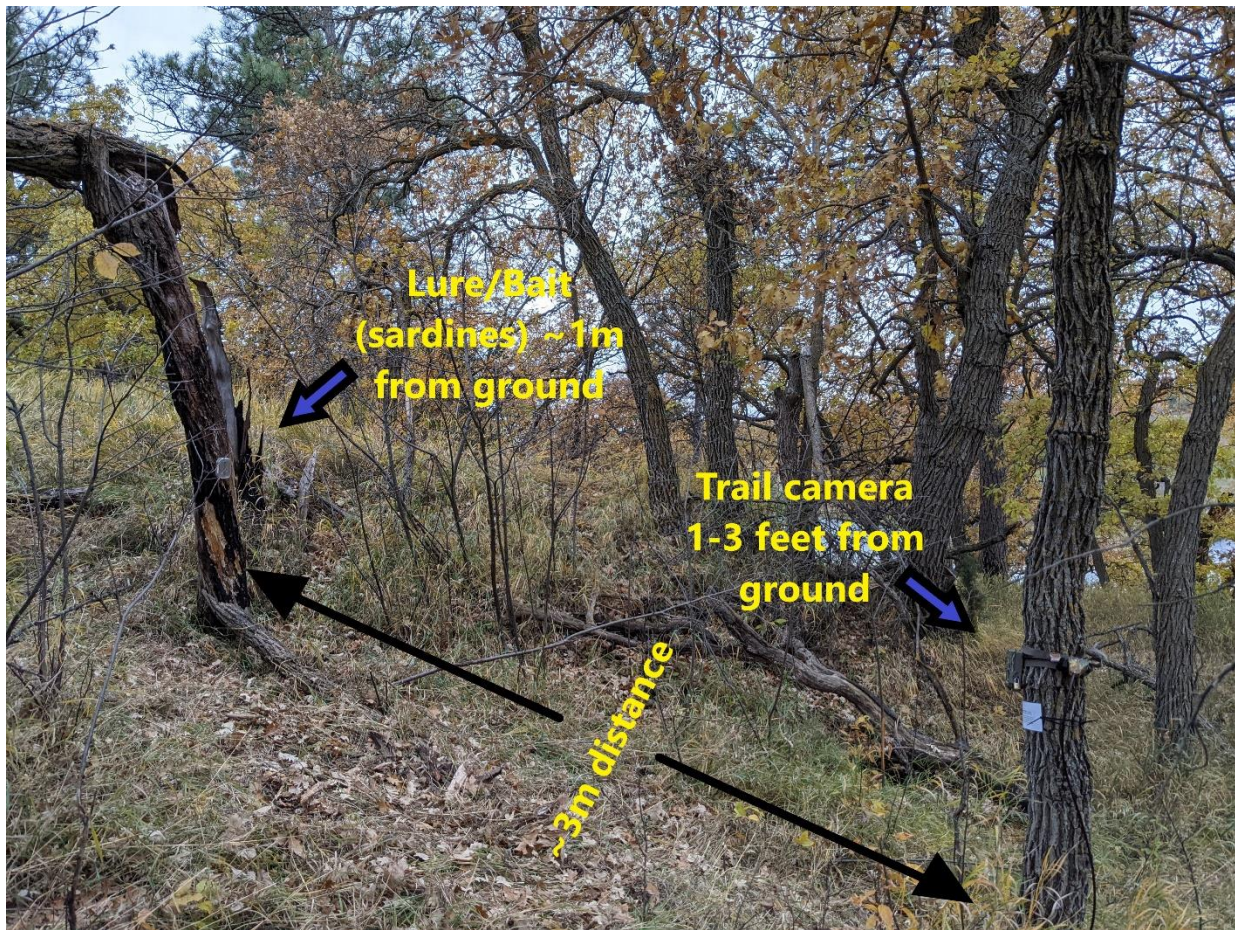
1. **Timing:** ideally, Mid-January through early May. This time period covers mating season, and a short period before and after mating begins and ends. Spotted skunks, especially males, are most active during breeding season.
2. **Location (general):** place cameras in or near woodlands, farmlands, prairies, cliffs/canyons, rocky outcrops, and/or riparian areas. Spotted skunks typically occur in brushy, rocky, wooded areas, and on farmland where old structures and stacked hay is present. Other examples include:
 - Abandoned farmsteads
 - Old vehicles, old farm equipment, or junk piles
 - Fence lines, particularly near shelterbelts/trees
 - Hay bales and decaying round bales
 - Rock piles
 - Downed logs near running water or a wetland
 - Old windmills and water tanks
 - In areas where you have previously seen striped skunks or raccoons
3. **Camera Placement:** place each camera 1-3 feet off the ground, adhered to a tree trunk or sturdy post by a cable lock or other strap. Place the camera facing one of the locations listed above, or other areas that are likely frequented by spotted skunks. This object should ideally be within 8-9 feet (~3m) from camera. In general, it is best to position the cameras to face north in order to reduce glare issues and the number of hazy photos, but that can be difficult when trying to account for other factors. Do ensure that all vegetation is cleared to reduce false triggers, and make certain that the base of the tree or apparatus with attached bait/lure is in the photo frame. In general, cover is very important to spotted skunks due to risk of predation. Try to place cameras in areas with adequate overhead cover.
4. **Bait and Lures:** Baits/ lures should be placed 3 feet (~1m) from ground. For the purposes of our study, we suggest using canned sardines in oil, coupled with Rosebud skunk bait. Using a nail, poke two holes into the bottom of a can of sardines in oil and fasten to an object (usually a tree) with a nail (1m height). Sardines can be replenished up to 14 days later. 1-2 tablespoons of WCS Rosebud Skunk Paste Bait can be used by placing the bait on the tree (above canned sardines), rock pile, or another object in front of camera. If used alone, Rosebud Skunk Bait may need to be replenished as often as every 7 days.
 - Recommended Baits:
 - i. WCS Rosebud Skunk Paste Bait:
<https://www.wildlifecontrolsupplies.com/animal/NWS005.html>
 - ii. Canned cat food
 - In particular, Friskies shredded cat food has been used successfully in other states
 - Recommended Lures:
 - i. Canned sardines in oil
 - Used widely by researchers in other states to detect spotted skunks

- ii. Grub lure for skunks:

<https://www.wildlifecontrolsupplies.com/animal/WCSRE22.html>

5. **Camera Settings:** Program cameras to record images in bursts of three at a 30 second interval each time the motion sensor activates. Sensitivity should be set to 'high,' due to the small size of these critters. "Medium" or "normal" sensitivity may work as well, but test your cameras to see if they can pick up small mammals. Recent research suggests that spotted skunks only spend an average of 9 seconds in front of a camera.
6. **Limiting False Triggers:** Again, plants and other objects blowing in the wind can cause false triggers. To eliminate false triggers, cut or bend back tall grass and obvious problem branches to limit false triggers. Another option is to weed eat a small area in front of the camera; however, do not remove so much vegetative cover that the skunks will not feel secure enough to visit the site.
7. **Checking Cameras:** Check camera trap as needed based on battery life, memory availability, etc. In general, the cameras should be checked every 2 weeks to 1 month.
8. **Identifications:** Images captured by game cameras should be submitted to the University of Nebraska at Omaha via OneDrive or shared with the University of Nebraska graduate student, April Sperflage (asperflage@unomaha.edu), in another manner that can be discussed, if unable to upload images to OneDrive. Contact the researchers to get access to the OneDrive link.
9. **Datasheet:** Use the Spotted Skunk Camera Trap datasheet to record when camera stations are checked. Also, use this datasheet to record when trail camera photos are uploaded to OneDrive.
10. **Other notes:**
 - On average, spotted skunks spend only 9 seconds in front of the camera, so utilizing proper camera settings is key in detecting this species.
 - Spotted skunks may utilize open prairies more so than striped skunks.
 - Skunks may not heavily utilize game trails like other species do.
 - Recent research suggests that baits are more productive than lures. Use of animal carcasses have been most successful in detecting spotted skunks.

Camera and Lure/Bait Placement



Top: Proper camera station set-up

Bottom Left: Canned sardines in oil used as lure at ~1m from ground, Rosebud Skunk Paste may be smeared above can

Bottom Right: Trail camera at roughly 1m from ground

Examples of Habitat for Camera Placement Ideas



Top Row: Cliffs or canyons along rivers; riparian areas are important for skunks

Middle Row: Prairie habitat; active windmills with water holding tanks (may be used by skunks as water source); abandoned round bales

Bottom Row: Old homestead with deteriorating barn and rubble (rubble not shown); brush piles or junk piles (junk piles not shown) near old homesteads or barns

***Though not evident in these photos, overhead cover (thickets, for example) may be particularly important for spotted skunks.**

Spotted Skunk Camera Trap Datasheet

Use this datasheet to record when cameras are checked and when you upload photos to OneDrive.

Site Name:

Site Coordinates:

Site Description:[illegible]