

Dear Landowner/ Conservation Organization,

The University of Nebraska at Omaha needs your help to 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. This small skunk was once a common sight on Nebraska farms, but 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, conservation organizations, and other groups that are interested in independently setting up and monitoring game cameras in an effort to help us successfully capture images of spotted skunks in Nebraska. **Participants must register to volunteer, have their own cameras available, and follow the camera trapping methods listed in the guidelines below in order to contribute to this project.** Images captured by game cameras should be submitted via shared drive or shared with the University of Nebraska graduate student, April Sperfslage, 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.

**If this project is something that you are interested in helping with, register at this link: <https://bit.ly/3tyqxZ0>.** If you have any questions, please contact April Sperfslage or James A. Wilson. We look forward to working with you!

Thank you,

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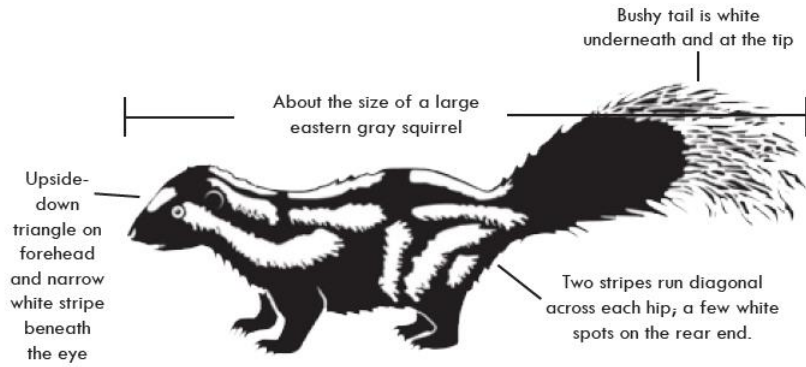
*April Sperfslage*  
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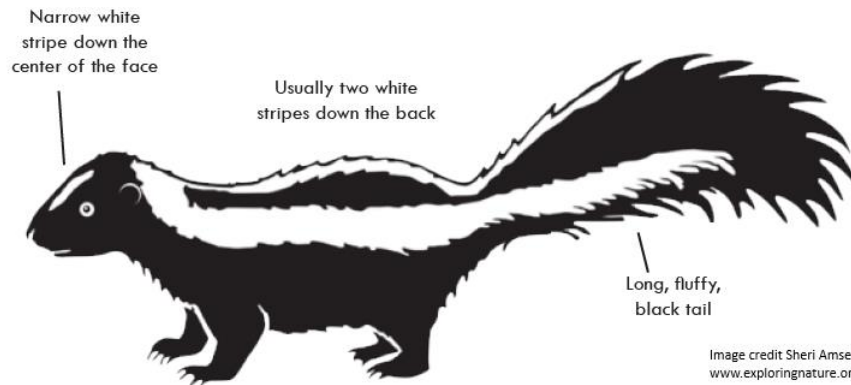
@NESpottedSkunks

## What do spotted skunks look like?

### EASTERN SPOTTED SKUNK



### STRIPED SKUNK



**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. Leave cameras at sites for 1-3 months. If resources allow, we encourage using trail cameras year-round to survey for spotted skunks.
- 2. Location (general):** place cameras in or near woodlands, farmlands, prairies, cliffs/canyons, rocky outcrops, and/or riparian areas. Spotted skunks typically occur in prairies, brushy, rocky, wooded areas, and on farmland with shelterbelt plantings, and where old structures and stacked hay is present. **Shelterbelt plantings on farms seem to be very important for this species.** 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. 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, so try to place cameras in areas with adequate overhead cover. **Try to spread cameras sites out by at least 400 meters (~1300 feet) up to 0.7mi apart.**
- 4. Bait and Lures:** Ideally, baits/ lures will be replaced at camera stations every 10-14 days. 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). 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 7-10 days. Canned sardines may be effective up to 14 days.
  - Recommended Baits:
    - i. WCS Rosebud Skunk Paste Bait:  
<https://www.wildlifecontrolsupplies.com/animal/NWS005.html>
    - ii. Canned cat food
      - In particular, Friskies shredded canned cat food has been used successfully in other states

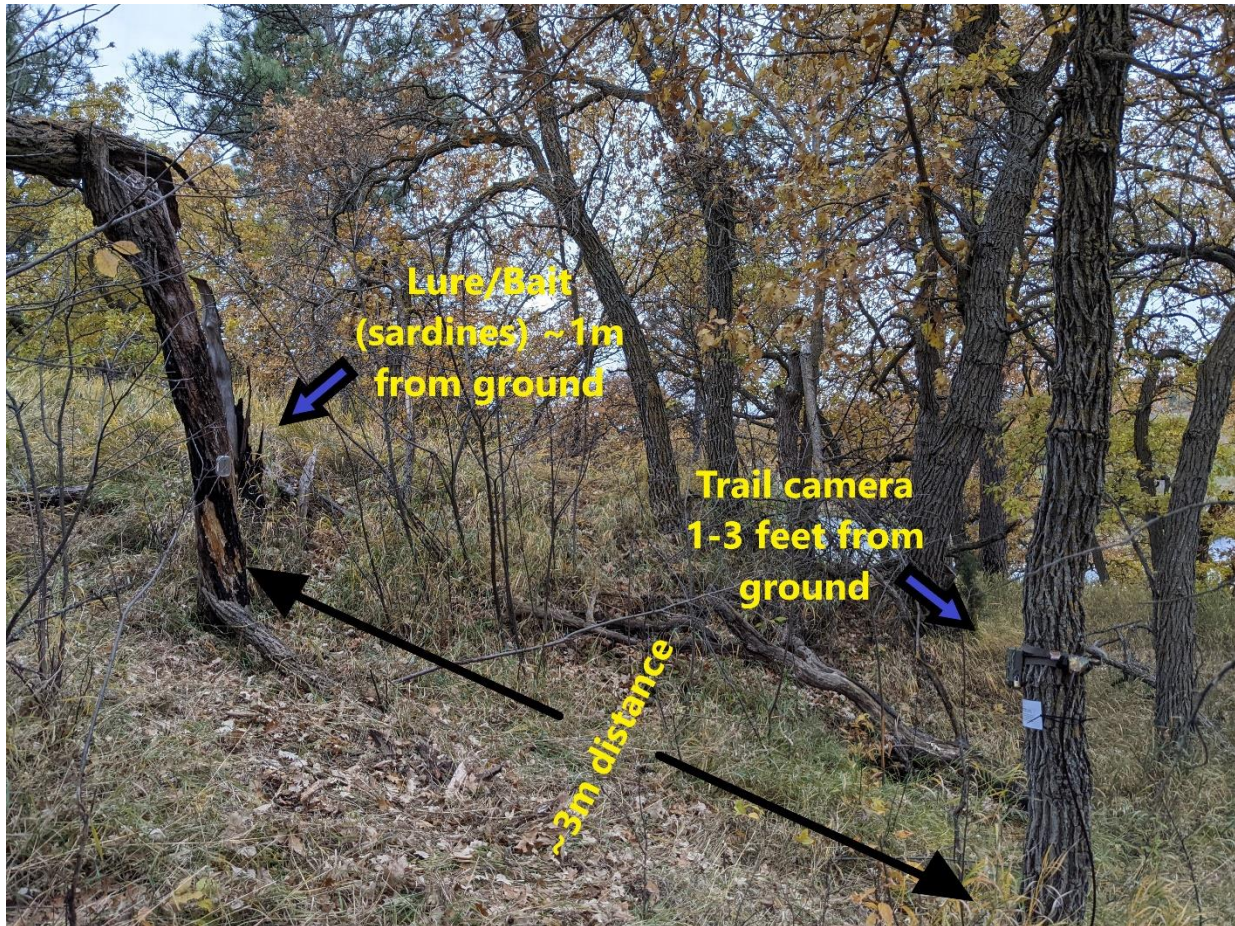
- Recommended Lure:
    - i. Canned sardines in oil
      - Used widely by researchers in other states to detect spotted skunks
5. **Camera Settings:** Program cameras to record images in bursts of three at a 30 second interval each time the motion sensor activates. Use the highest resolution settings available on the cameras. 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 via shared drive. If you are unable to upload images to the shared drive, photos can be shared with the University of Nebraska graduate student, April Sperflage ([asperflage@unomaha.edu](mailto:asperflage@unomaha.edu)), in another manner that can be discussed. Once you have completed the online participant registration form, a link with the shared drive information will be emailed to you.
  9. **Datasheet:** Use the *Spotted Skunk Camera Trap Datasheet* to record site data, camera settings and when camera stations are checked. Also, use this datasheet to record when trail camera photos are uploaded to shared drive.
  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 or roads like other species do.



**Left:** Example of equipment used at camera trap sites:

- Trail camera
- Cable lock
- Canned sardines (lure)
- Skunk bait paste (bait)
- Hammer and nail
- SD card Viewer
- Keys for locks
- Weed eater/ machete
- Loppers

## 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 canned sardines

**Bottom Right:** Trail camera at roughly 1m from ground

## Examples of Habitat Types for Camera Placement Location 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 the shared drive. Record exact site coordinates using a GPS or Google Maps. If you have multiple SD cards, it helps to label them with a unique ID. If possible, match the recommended camera settings from the Participant Guidelines, and record settings used below. **Recommended settings are: camera mode, capture number of 3, 30 second interval, normal to high sensor level, highest image resolution.**

**Site Name:** \_\_\_\_\_ **Site Coordinates:** \_\_\_\_\_

**Site Description:** \_\_\_\_\_

**Camera Settings:** \_\_\_\_\_

#	Date	Time	Previous SD Card #	New SD Card #	Total # of Photos on SD Card	Camera dead when checked? (Yes/ No)	Bait/ Lure Used (i.e. canned sardines, skunk bait)	Field Notes (Was site disturbed? Bait/lure still present? Battery level?)	Images uploaded to shared drive? (Yes/No)	Date Uploaded
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