

Northeast Gut Pile Monitoring Project Protocol

2024-2025 Deer Hunting Season



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Survey123 online data form:
<https://arcg.is/WKH5v>

Introduction

Thank you for your interest in participating in the Northeast Gut Pile Monitoring Project! The goal of the project is to better understand the patterns that drive gut pile consumption by eagles and other wildlife. To do this, we aim to set motion-activated trail cameras at gut piles to compare gut pile visitation and scavenging rates across the various habitats where deer hunting occurs in New York State. Some of our key research questions include:

1. How long does it take for eagles and/or other scavengers to detect and scavenge a gut pile after harvest?
2. How many eagles visit each gut pile?
3. Are there differences in the detection of gut piles by eagles based on factors such as habitat characteristics, other scavengers, weather, etc.?

Hunters are key in this effort because we will get the most realistic representation of how gut piles are generated on the landscape and collect more data across a larger area. Although it may add some additional effort onto your hunt, we hope that this project will be fun and exciting! It is always thrilling to see the variety of wildlife that visits gut piles, and to observe the ways animals interact when brought together in the wild.

We established the following protocol to ensure that data collection is standardized across camera stations for future statistical analysis. If you ever have questions or need assistance with the protocol, please contact:

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or

Matthew Palumbo
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Project Guidelines

There are a few important factors to keep in mind to make sure this project runs smoothly. Volunteers should understand and follow the specific rules and regulations for the areas in which they intend to harvest a deer, leave a gut pile, and set up a camera. Gut piles may also attract animals that can become a nuisance, such as bears and coyotes, as well as facilitate the spread of disease, so we must take care to leave gut piles in places to prevent potential negative impacts to people, property, or to animals, both domestic and wild.

Please consider the following guidelines when participating in this project:

1. All animals must be harvested in accordance with New York State hunting regulations.
2. Make sure you have the appropriate permissions in the areas you intend to install any trail cameras. This includes both private and public lands. *NOTE: Some places do not allow trail cameras, or they require a permit. Please reach out if you are unsure of the rules in a particular area.*
3. Gut piles should be placed at least 500 feet from a dwelling, building or structure (e.g., fence) in occupation or use, unless you have owner consent.
4. Avoid placing gut piles in the vicinity of enclosures containing livestock or other domestic animals unless you have owner consent.
5. Enter camera information and location immediately after setup. *NOTE: This will help us to resolve any issues that may be reported to us directly about specific cameras*

Camera Protocol

I. Supplies

- Motion-activated trail camera
 - Must be able to record time and date
- Fully charged batteries (energizer lithium-ion are preferred)
- Camera strap or mount
- SD card (We recommend using the maximum SD memory size compatible with your camera)
- GPS device or reliable offline tracking app on phone
- ~3' ground stake (metal recommended)

Optional items:

- Lock box or rope lock for camera
- Portable SD card reader- there are some lightweight readers for your phone that are useful for checking camera angle and functionality during setup
- Stake(s) to hold down gut pile (see below)
- NYSDEC camera sign (see below)

II. *Where and when to set up your camera*

The purpose of this study is to survey gut piles in locations hunters would normally choose to leave them (field, forest, side of road, etc.). So, the most important aspect of choosing a camera site is to not change your normal behavior!

There are many different approaches to processing deer and disposing of carcass remnants. For example, some people hunting on private lands may have one standard location for gut piles. In those instances, you may choose to place the camera in one location and leave it up for the duration of the season.

For people who field dress deer, surveys would ideally start immediately after field dressing and last until the gut pile is fully scavenged. However, that may not be feasible for every hunter in every situation. Here are some options if you are field dressing deer:

1. Bring camera supplies with you and set up a camera immediately after gutting deer.
2. Leave camera supplies behind and return ASAP to set up a camera if the gut pile is still intact. The sooner you return, the better chances the gut pile will not be scavenged. We recommend coming back within a few hours, and no more than 48 hours. If you return within 1-2 days and the gut pile is gone, that can still provide us with useful information!
3. If you are unable to set up a camera, you could contact us ASAP with detailed location information and we may be able to set up a camera or use the gut pile for related research.

III. *Camera setup*

We devised the following camera setup instructions to help ensure that data are standardized, camera surveys are successful, and the images are of good quality for close identification of individual eagles.

a. *Camera settings*

1. **First, make sure the camera is set to the correct time and date!**
2. **Set the camera to take pictures in response to motion for 24 hours a day.**
If you don't think you can return to the camera site for a long period of time, set the camera to take at least 3 pictures in response to motion with no more than a 30 second delay. This interval provides an adequate number of pictures to identify individual animals without taking so many that it fills up memory cards quickly and/or drains batteries. We ask that you record your camera settings on the data sheet so that we can account for any differences between surveys.
3. **If possible, also set the camera to automatically take pictures at least once per day that are not triggered by motion.** This setting is sometimes called 'timelapse' or 'field scan' on the camera. This ensures that you will get at least some information about the gut pile if there are no visiting scavengers, or if the motion sensor stops working properly.

NOTE: Please contact us if you would like assistance with cameras or camera settings!

b. Batteries & memory card

Make sure you have fully charged batteries. Batteries drain at different rates depending on the camera, number of photos taken, weather conditions, etc., so it is sometimes hard to predict how long they will last. The highest rated batteries for trail cameras in cold weather are Energizer Lithium-ion batteries.

Make sure your memory card is empty and formatted correctly for your camera.

c. Mounting the camera

1. Attach the camera to a tree or a ~3-5' stake about 10 feet from the gut pile. We have had good luck attaching the camera to a wooden stake and putting it in the middle of a heavy rock or two for stabilization.
2. If you use a strap, you want to have the camera lens about 18-24" from the ground (or above the snow). If you have a mount that will allow you to angle the camera down towards the gut pile location, you have more options of where the camera can be mounted. Mounting cameras higher up (above eye level) is recommended in higher use or public areas because they're less likely to be seen by other people.
3. Orient the camera to the NORTH, if possible, to ensure that the sun is to the side or behind the camera; south-facing cameras often produce washed out pictures.
4. Make sure the camera is set at the right angle and height so that it captures the gut pile, and any surrounding activity without anything blocking the cameras' view of any visitors. You may need to clear some vegetation that might create movement in front of the camera- even one blade of grass can fill up memory cards with unwanted photos.
5. Make sure that however the camera is attached it's sturdy enough that if a large animal bumps into or lands on the camera, it will not fall over or change the field of view. You can give it a good tap to test this!

This is an example of a great picture angle and height for identification of scavengers:



d. *Optional steps*

1. Affix gut pile to the ground:

Gut piles are often dragged around by scavengers and can be moved out of view of the camera. If you want, you can try to affix the gut piles to the ground. This has been done by others using a u-shaped rebar stakes, or by wiring around the gut pile and attaching to a buried rebar stake or two.

2. Add a camera sign:

If you are setting your camera in an area where it may be found by other people, you may decide you want a sign to signify why the camera is in place. In some spots, putting a sign on the camera will make it less likely that it will get stolen, in other places a sign may make it more likely to get stolen. We recognize that this is a real threat no matter what, and we will leave it up to the judgment of each person to decide whether or not and how to sign their site. See below for a printable sign that you can 'laminated' at home with clear tape and affix to the camera.

e. *Final step of camera setup: recording data*

After you set up your camera, we ask that you document some information about the camera installation and location. This is outlined on the online data form here:

<https://survey123.arcgis.com/share/3e1895902e314873b24bc236c846f36c>

You may enter data directly into the form while in the field on a phone or tablet or recorded elsewhere and entered after. *NOTE: You do not need to login to ArcGIS to access the form. If you are asked for your login, just make sure to sign out of any ArcGIS accounts or try using a different browser.*

We ask that you record:

1. Date and time of camera installation
2. Date and time of deer harvest
3. Coordinates of the gut pile location
4. Camera settings
5. Details about deer harvest- did you field dress your deer, etc.
6. The type of carcass remnants included in the gut pile (gut entrails, hide, bone, etc.).
7. The amount of human activity around the gut pile
8. Site photos- if possible, take pictures of the habitat surrounding the gut pile. You may need to take photos at multiple angles if the location is on the edge of multiple habitats.

NOTE: You can upload these photos with the other camera images later, if needed.

9. Any additional photos and notes

After you submit your online data form, we will send you a link to upload the photos from your camera.

IV. Checking on & retrieving cameras

1. **We would like all participants to leave the camera up until the gut pile is gone.** If you need to retrieve the camera and the gut pile is still there, please try to leave it out for at least 2 weeks. If you need to leave the camera up longer, we do recommend also periodically checking the memory card and batteries and changing them out when needed.
2. **Each time you check on the camera or gut pile, please make sure there is an obvious indication of the visit logged on the camera.** You can do this by either stepping in front of the camera during the visit, or by changing out the memory card and batteries. You do not need to indicate driving or traveling past a gut pile location for routine (or any other) purposes.
3. **When you retrieve your camera, make sure to record any additional or missing data about the camera survey and location.**

NOTE: If you cannot retrieve your camera for any reason, please let us know and we can try and facilitate someone to retrieve it for you.

V. Uploading photos

PLEASE DO NOT DELETE ANY IMAGES TAKEN DURING THE SURVEY!
Retaining all pictures is very important.

Do not delete any images, whether or not they have eagles! If there are some photos of you while setting up or retrieving the camera, you may leave them out. Otherwise you will upload all other photos to an online Dropbox folder through a link that will be sent to you after submitting your survey data form (see above). We will confirm via email whether we received the images, and you will be free to clear your SD card at that time.

Frequently Asked Questions

FAQs about camera protocol

1. Should I put the gut pile in the best location for eagles or other scavengers to find it?

No! You should leave the gut pile where you would leave it during your normal hunting activities.

2. Can I put the gut pile anywhere I want to do a camera survey?

Again, please no! See above answer.

3. Will you share the findings with us along the way?

Yes! We want this to be fun for all participants, and part of that seeing what everyone is finding on their cameras!

FAQs about data entry

1. What if I don't have all of the information I need to fill out certain fields in the form?

Don't worry- just leave it blank! The most important information we need is when and where you placed the camera and the photos themselves. You can also add as many comments as you need at the end of the survey to clarify any missing information. If you are missing information but want to add it later, see below:

2. What if I submit a form but need to go back to make changes later?

If you need to make changes to a form that you already submitted, submit a form under 'Changes to existing entry'

3. What if I install multiple cameras?

If you have multiple cameras, submit a separate form for each camera.

4. What if I returned to install a camera but the gut pile was scavenged?

If you did not install a camera but you know that a gut pile was scavenged within 48 hours, fill out a 'Gut pile scavenging observation' form

Camera sign:

This camera is in place for a wildlife study in partnership with New York State Department of Environmental Conservation. Please do not move. If displaced, or for more information, please contact Caitlin Davis at cmd356@cornell.edu