

# Maine Turtle Roadkill Survey

Photo: Jonathan Mays

## Volunteering for the Turtle Roadkill Survey

Maine Audubon and Maine Department of Inland Fisheries and Wildlife's Turtle Roadkill Survey recruits volunteers to search for evidence of turtle road crossings. By collecting information about where, when, and what kind of turtles attempt to cross our roads, we will be able to work toward solutions to reduce turtle road mortality.

### What do I do?

Turtle Roadkill volunteers walk a section of road and record any evidence of wildlife crossings, with particular emphasis on turtles. You might witness an animal crossing the road, but more likely you'll find roadkill. Volunteers will take a photo of every observation, try to identify the species, and record additional information including time and location of the observation. We strongly encourage recording all information using the iNaturalist mobile application, which automatically collects information on the date, time, and location. Routes are less than a mile long, and we ask volunteers to walk along both sides of the road to complete the survey.

### Where do I go?

Volunteers are assigned to designated road survey routes, which are located across Maine in proximity of high quality turtle habitat. Volunteers may survey more than one route, if they wish to do so.

### What if I have questions?

If you have any questions before, during, or after the survey period please contact Sarah Haggerty at (207) 781-2330 x225 or email at [shaggerty@maineaudubon.org](mailto:shaggerty@maineaudubon.org).

### How do I sign up?

If you have not already signed up, please contact Sarah Haggerty at (207) 781-2330 x225 or email at [shaggerty@maineaudubon.org](mailto:shaggerty@maineaudubon.org). We are asking that all volunteers attend one of the mandatory training sessions before conducting surveys to assure the highest safety for our volunteers and the highest quality data collection. We will be hosting 2 trainings per year in various locations. Please see [maineaudubon.org](http://maineaudubon.org) for times and locations of trainings.



# Volunteer Guidelines

## Safety

Volunteer safety is critical. When you get your assigned road route, the first thing you should do is confirm that it is a safe road to walk and survey. The sections of roads for these surveys were selected from maps and aerial photos with an eye toward surrounding habitat, not the road itself. A safe route should have a good parking space and you should be able to walk along the shoulder safely during the survey. If this is not the case, and you feel the road section you've been assigned isn't safe for pedestrians, please let us know and we will try to find you a new route.

**Surveyors should wear brightly colored clothing in addition to the provided reflective safety vest.**

## Mandatory Equipment

- **Reflective Safety Vest**  
(provided by the project)
- **Digital Camera/Smartphone**  
(to document roadkill/crossing evidence)
- **Small ruler for placement within photos**  
(provided by project)
- **Ziploc baggies**  
(provided by the project;  
to collect evidence, if necessary)
- **Copy of route survey map and datasheet/  
smartphone with iNaturalist mobile app**

## Optional

- **Partner**  
(for safety)

## Frequency

You should survey your route for wildlife crossings at least three times between May and September, roughly once per month. Additional surveys during this time period are also valuable if you have the time and interest. Late May to early July is the peak activity window for most Maine turtles, and it would be optimal to complete most of the surveys during this window.

*IMPORTANT: Please note that even surveys where you see no evidence of wildlife crossings are important and should be submitted as completed surveys!*

## Timing

There is no required time of day for surveys, but daytime is safer and easier to see roadkilled animals. Avoid rainy conditions, fog, or other weather than might make it difficult for a driver to see you. However, getting out soon after a rain event, especially in spring, could prove very productive for observing amphibians and some reptiles.

## Methods

All survey routes should be walked the entire distance, walking against traffic up one side of the road and returning (against traffic) on the other side of the road. Surveyors should focus on the side of the road where they are walking, and should watch closely for evidence of old, dried, or completely flattened roadkill. Ideally surveyors should complete the entire route per survey. If cutting a survey short is necessary (time constraints, deteriorating weather conditions, etc.) then be sure to document how much of the route you completed. After the photo is taken, volunteers should move the carcass off the roadway using proper equipment (gloves, shovel, stick, or other tool) if it is safe to do so. Removal reduces double-counting and may minimize additional roadkill as a result of animals trying to feed on the carcass, so please move the carcass as far off the road as possible, and hidden from view.

# Data Collection

Maine Audubon strongly encourages the use of the iNaturalist mobile application for data collection (go to [iNaturalist.org](http://iNaturalist.org) and check out the Maine Turtle Roadkill Survey project), but if that is not possible we will provide paper datasheets and maps. Some routes may be located where cell phone coverage is inconsistent, making use of the application difficult to impossible. Other areas may require some adjustment to the automated location finder or entering the data into iNaturalist later. Some volunteers may not have smart phones or may not feel comfortable using the iNaturalist mobile application. For those situations we will provide paper dataforms and maps.

## iNaturalist

The Maine Turtle Roadkill Survey project in iNaturalist is designed as an invite-only project. This is because we are organizing the surveys based on specific protocols and along pre-selected routes. However, we will accept additional records of turtles on roads from volunteers outside of the survey routes. We will also annually download all turtle observations from iNaturalist regardless of project to help inform future survey effort.

In order to join the Maine Turtle Roadkill Survey project in iNaturalist, you must first create a profile in iNaturalist. This is a simple process requiring a login/username, email address, and password. Once you have a profile you will be invited to join the project. Once you accept the invitation, you will be able to enter data into the project. With the iNaturalist mobile application on your phone, you can collect data directly into iNaturalist as you conduct the survey, and those data can be viewed instantly.

When documenting an observation, iNaturalist automatically collects data on the date, time, and your location. It allows you to take photographs and attach them to your observations. If you can identify the animal to species, please do so. If you can only identify it to major taxonomic group (i.e. bird, mammal, turtle, etc.) that is fine as well. Using iNaturalist allows other users to add their expertise in identifying observations.



The Maine Turtle Roadkill Survey project also includes 5 additional questions:

- 1. Survey Route ID** – please enter the assigned name of the survey route.
- 2. Unique Identifier** – please assign an observation number consisting of your initials/a 3-digit observation number for that date/and the date in DDMMYY format (example, Sarah Haggerty's 3rd roadkill observation on May 16, 2018 would be labeled "SAH/003/16May2018"). Use this identifier on any collected remains and on paper datasheets, if used.
- 3. Location** – we request you supply the township where you are surveying. This helps us reconcile data to query the data by town more easily.
- 4. Habitat Description** – we request that you supply a brief description of the habitat in the immediate vicinity of the observation.
- 5. Additional Notes** – we request any additional information you may have on the observation including sex, age, number, if it is alive, etc.

If entering data into iNaturalist after your survey, you will need to add information on the date, time, and location of the observation by hand. If you do not complete the route, please note this in the "Additional Notes" section.

*REMEMBER: Recording surveys with no observations is extremely important! On the spreadsheet provided please track all surveys, (even ones with no observations), as well as time surveyed.*



## Paper Datasheet

If you are not using iNaturalist, please complete a survey form for each survey conducted, and mark the locations of each observation on the associated map. Please submit a data sheet for every survey completed, even if no observations were made.

## Header Information

Please enter your **name, email address, the assigned Survey Route ID, date, start and end times.**

Check all the appropriate boxes as well:

- ☒ *Entire Route Surveyed* – check if you completed the entire length of the road segment, on both sides of the road.
- ☒ *Partial Route Surveyed* – check if you had to cut your survey short. Indicate what part of the survey was completed on the map attached, including which side(s) of the road. It is preferable to do both sides of a shorter segment than only one side of the road.
- ☒ *No Wildlife Observed* – check if no live or dead animals (roadkill) were observed.

## For Each Observation

- **Unique Identifier** – please assign an observation number consisting of your initials/a 3-digit observation number for that date/and the date in DDMMYY format (example, Sarah Haggerty's 3rd roadkill observation on May 16, 2018 would be labeled "SAH/003/16May2018"). Please use this identifier on any collected remains and on photographs, where needed.
- **Time** – please use military time (24 hour clock), 0-1200 for morning hours, 1200-2400 for afternoon and evening hours.
- **Species** – When possible, identify the animal to species. In some cases you may only be able to provide more general identification (e.g., bird, raptor, snake, rodent, turtle, frog, large/small mammal, etc.). Be as specific as you can, and if needed, take notes for further research at home with field guides or online resources. Check the appropriate box for "alive" or "dead," and if you observe multiple occurrences of the same species, please indicate how many were observed.



- **Location Description** – please note the name of the town and write in any general observations of the specific area, like house numbers or numbers on utility poles, landmarks, etc.
- **Habitat Description** – please provide a brief description of the habitat in the immediate vicinity of the observation.
- **Notes** – please include any additional notes pertinent to the observation. This may include behavior if the animal is alive, etc.

Use additional survey forms if more space is needed. At the end of the survey, be sure to review the datasheet for completeness.

If you need additional survey forms please e-mail Sarah Haggerty at [shaggerty@maineaudubon.org](mailto:shaggerty@maineaudubon.org).

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