

WildPaths was created to collect information about how, when and where wildlife cross roads, either successfully (live crossings) or unsuccessfully (roadkill). The project is modeled after the Maine Audubon Road Watch program and work done by the Salisbury Vermont Conservation Commission.

By collecting wildlife crossing information, you will be contributing to an assessment of the impacts of roads on wildlife, and more importantly, to the first steps of developing a plan to reduce these impacts. Some of the



questions we are asking: Where are wildlife crossing "hotspots" and what kind of habitat is along those roads? Forest? Wetland? Farmland? Which species are crossing at these locations? Are there effective wildlife crossing structures we can install under the roadway to help wildlife cross the road successfully? Would signs be effective at reducing roadkill? The answers to these questions start with gathering information about when and where wildlife cross the road, a critical step that requires your help.

Two Ways to Participate

- 1. **Random Observations:** You may submit an observation at any time! You'll need to use a data sheet and snap a photo if possible. Consider keeping some data sheets in your car during peak times for wildlife movement which are the spring and fall; key project months are April September. The towns we're focused on are those in the CHC service area; Richford, Montgomery, Enosburgh, Bakersfield, Waterville, Belvidere, and Fletcher.
- 2. Adopting a Roadway: We have a number of sections of roadway in our region that have been identified by Vermont Fish & Wildlife as potential wildlife crossing sites. We need volunteers to specifically survey these roadways. You may select a roadway on your own or Cold Hollow to Canada can assign you a roadway. The commitment for adopting a roadway is conducting a survey once a month April September. You may do more if you like!

IT'S NEVER TOO LATE TO ADOPT A ROADWAY! Don't panic if you're coming into this partway through the season, we still need your help.

Both **Random Observations** and **Adopt a Roadway Surveys** can be done by foot, by bike or by car. Surveys in a vehicle should be done with a partner so that the driver can focus on the road while the observer watches for wildlife crossings. Walking or biking with a partner is also recommended both for safety and to maintain consistent observer effort.

SAFETY IS FIRST AND FOREMOST! Volunteer safety is critical! You should not stop on interstates or on busy roads and highways where stopping and/or exiting the car is dangerous. Cars should pull completely out of the travel lanes so that other cars can get by in the travel lane. Cars should not be parked where they will have difficulty pulling back onto the road (like around sharp turns or blind corners). This survey should not cause an accident!

Walkers and bikers should be choosing routes where they can safely navigate the shoulder. We encourage volunteers to stop and observe roadkill up close, but only when it is safe to do so. Volunteers should wear a safety/reflective vest if they are walking/biking or if they plan to get out of a vehicle, and helmets are an absolute must for bikers. Volunteers should be working in pairs whenever possible, especially in vehicles, so that data recording can be done by the passenger and the driver can focus on navigation.



For Adopt-A-Roadway Volunteers

Step 1. Sign Up. To sign up for a roadway of your choice or to have a roadway assigned to you, you'll need to e-mail wildpaths@coldhollowtocanada.org with your name and email address.

Step 2. Choosing Your Own Road Section. "Adopt-A-Roadway" sections should be at least a mile long for routes that will be walked or biked, and at least 10 miles for routes that are driven. You may select any continuous stretch of road that is convenient for you, or inquire about sections of roadway that CHC has on their target list. It does not have to be the same type of road throughout the route, and can make turns as needed to reach 10 miles or more. You might want to consider a commuting route or a route that you travel regularly each month. Volunteer safety is critically important to this project and should take precedence in route selection. Observations from four-lane highways are accepted into the WildPaths system as random observations, but these roads are not appropriate for adopting.

However you choose your route, be sure to check it out ahead of time, before you commit to long-term monitoring. Assess the speed limits, the traffic volumes, and safety concerns. Can the road be driven at a pace that allows thorough observation without slowing other traffic? Does the road have places to pull over, either wide shoulders or occasional driveways?

Step 4. Survey Your "Adopt-A-Roadway" Section. After all the work to set up the route, this is where the fun begins! You should plan to drive/walk/bike your entire route and record all the wildlife crossings you see, live animals that make it across the road, and for those that don't, evidence left behind in the form of roadkill.

Equipment: Although you can do a survey with only a datasheet and writing utensil, we recommend the following equipment:

- Reflective/Safety Vest (especially if walking the route or exiting your vehicle); in the absence of a safety vest, wear bright, visible clothing
- Digital Camera (to document roadkill/crossing evidence) this is strongly encouraged
- GPS Unit or Smartphone/iPhone (to capture latitude and longitude of observations)
- Compass to determine direction animal is/was heading
- Cell phone (in case of emergency)
- Copy of "Adopt A Roadway" route map (for marking locations of observations)
- Flashlight/headlamp if surveying at night

Frogs and turtles often move across roads in the springtime. For critters clearly moving across roads, volunteers can help by picking them up and moving them in the direction of travel. Wear gloves and be aware of traffic movement.

Frequency: You should survey your "Adopt A Roadway" route for wildlife crossings at least six times, once a month starting in April and continuing through September. More frequent surveys within each month, or earlier/later in the season are greatly appreciated.

IMPORTANT: Please note that even surveys where you see no evidence of wildlife crossings are important and should be submitted on the project website.



Timing: There is no required time of day for surveys. Daytime is safer and easier to see road killed animals. Night time is best for observations of many live animals, especially amphibians, because that is when they are most active. However, it is also harder to see them and may require more attention to other cars as well.

Speed: Please drive your route slowly (within the legal speed limits) and safely while doing the survey. Pull over to let other drivers pass if you notice a back-up behind you. When safe to do so, a maximum speed of 25 mph will allow you to spot most road killed animals.

Wildlife Identification: Ideally, you will be able to identify the species of wildlife you see, but in many cases you may only be able to provide more general identification (e.g., bird, raptor, snake, turtle, rodent, frog, large mammal, small mammal, etc.) Be as specific as you can be, and if needed, take notes for further research at home with field guides or on-line resources. For each identification, please indicate your level of confidence (Confident, Somewhat Confident, or Best Guess).



Photos: We strongly recommend taking a photo. It is helpful to have a photo of the roadkill in context (surrounding landscape, fences, barriers, etc.) as well as a close-up to help confirm species identification. Putting a coin or ruler in the photo for scale can be helpful. Photos can be uploaded to the website during data entry. When using a smartphone for pictures, it's helpful to turn on the GPS tagging option in order to allow the camera to capture latitude and longitude. This can be shut off once again after completing your route. Once the picture is taken, volunteers may move the carcass off the roadway or shoulder if they have the proper equipment (including disposable gloves and disinfectant for shovels or other tools). It is fine to leave roadkill as it is. (Photo right by www.adventuresinscience.org)

Datasheet and Map: All data should be recorded onto a datasheet, with locations of each observation marked on a map (photocopies from an atlas or on-line map will work). The datasheet closely follows the web-based forms for entering data on-line. Data should be filled in for each observation along your route. Remember, recording surveys with no observations is extremely important, and a record of that survey (see "Entering No Wildlife Observation" below) should be created and entered online. At the end of the survey, be sure to review the datasheet for completeness, especially the time the survey ended.



On-line Data Entry:

There are three steps to entering your data on-line.

- 1. Establishing Your "Adopt A Road" Route: Once you have contacted CHC staff about your intent to "Adopt a Roadway", they will help you setup your designated route and then assign you a Route Number. This number should be used whenever entering your data online.
- 2. Entering No Wildlife Observation: "Adopt A Roadway" Surveys need to be completed from start to finish, with a constant effort over the entire route to search for wildlife crossings/roadkill. Even if there are no wildlife crossings noted on a given survey, the survey must still be entered into the system. Not finding evidence of wildlife crossings is extremely valuable information. In the Basic Information section, click on No Wildlife Observed. Make sure to enter the date in the Basic Information section, the time in the Sighting Details section and any field notes.
- 3. Entering Wildlife Crossing/Roadkill Observations: Assuming you've made observations along your survey, click either Live Wildlife Observation or Dead Wildlife Observation and then complete the rest of the form. Enter each observation individually. However, if you find multiple animals of the same species in the same location you may record them as one observation and enter the number of animals observed under the "Field Notes" section. Note: If you happen to observe roadkill or wildlife crossings on part of your route (but you are not in the process of surveying the route from start to finish) or a different road, you can report that data as a random observation in the system in the same manner. However, do not check the box for your route under the "Adopt a Road Survey Route" section.

The WildPaths Datasheet follows the on-line data form fairly closely. Enter each observation along a survey route independently. A route with four observations, for example, will require you to enter four separate observations entering the same "route survey date" each time.

Questions should be directed to wildpaths@coldhollowtocanada.org, thank you for your participation!

Using iNaturalist & Smartphone:

WildPaths is using the iNaturalist platform to capture data as well. You can download the iNaturalist app for iPhone or Android and link directly to the project. Photos may be directly uploaded from your phone to the project page. We are aware that cell service is very spotty in the Northern Greens so this might not be an option in real time in the field. However, by saving the photos on your phone and turning on your phone's settings to allow geotagging, your photograph will automatically send the coordinates for your sighting to the iNaturalist WildPaths project map. Please feel free to contact us at wildpaths@coldhollowtocanada.org for more information on how to use iNaturalist.