Amphibian Crossing Manual

Photo credit to Sean Graesser
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How to Participate

It is important to take the necessary steps to properly collect this vital data.

1. **Contact Us**
   a. Reach out to us at the Conservancy if you have any questions or need information to be involved with the Amphibian Crossing Program
   b. Let us know the area you will be working so we can put you on the map!

2. **Sign the Safety Waiver**

3. **Take a short quiz** to see how well you know your amphibious neighbors.
   a. Though you don’t need to worry about running into them at the supermarket, it’s good to know who they are since the information being collected is important to monitoring specific species populations.

4. **Keep an eye out for postings and key weather information.**
   a. We will be posting when we think may be the best nights to go out and collect data, so follow our social media pages to stay up to date.

5. **Dress appropriately and start collecting data**
   a. It will be cold and dark out so make sure you are dressed appropriately and are equipped with safety gear to make yourself visible to drivers.

6. **Send us back the data collected by using the attached Google Form or notify us to come collect it if you are unable to.**

7. **Stayed tuned for another night**
   a. They will probably not be back to back but follow our social media pages and check your email to find the latest information.
Adding your site to our list

Let us know where you will be collecting data. Knowing this helps us put the data to good use. We are currently working with the local government to hopefully have wildlife crossings installed at critical points and your data helps inform these decisions.

We can also find out if anyone plans on collecting data at the same or a nearby location to help concentrate our efforts. As always with work like this it's best to have a buddy help out since it will be dark.

Data Collection

First and foremost, the most important part of data collection is your safety. Never put yourself in a situation where you can hurt yourself or others.

You will record your findings on a sheet you can download or pick up from our office. Once you have collected your data for the evening you will email us back the filled out sheet for us to compile and archive the data all of our volunteers have collected. If for any reason you cannot send us your data, let us know and we will make arrangements to collect the data forms from you.

If you cannot identify, please take a picture and send it to us! We love playing salamander sleuths and working on mysteries.

Safety

While in the field, participants are required to wear a high visibility vest or equivalent (reflectors required) and use a flashlight, headlamp, or other light source (NOT glow sticks, though they may be used in addition to another light source). Vests can be found cheapest online at any local hardware store.
Participants cannot slow, direct, or stop traffic under any circumstance, also participants cannot enter active traffic to move an animal, living or dead.

If you are driving your vehicle to the site, make sure that you park your vehicle in an easily visible spot (i.e. not in a dip or around a bend) and keep some form of lights on (daytime running lights or head-lights are preferable, with a blinker or caution lights; make sure high beams are OFF). If you can, park as far off the road as possible. If you have them, use small traffic cones or electric road flares to signal oncoming traffic that you are parked in an upcoming spot, such as around a bend or over a hill.

**Amphibian Handling**

Moving amphibians is an integral part to collecting solid data—and saving lives! The following is information about handling amphibians in ways that are efficient, safe, and as least stressful to the animals as possible.

**Before You Handle Amphibians**

Amphibians have very thin skin that soaks up just about anything they touch. Many household products are harmful to amphibians (including deodorant, cleaning products, many foods, oils, etc.), so hands should be washed thoroughly with warm water before entering the field. Ideally, hands should also be gloved with powder-free nitrile gloves.

**Moving Frogs**

Frogs can be challenging to catch and hold as they can be fast and very active. When the frog is still, simply cup your hands over the frog without squishing it, and then using either one or both of your hands, carry the frog to the other side of the road in a cupped hand or held as demonstrated in the images below. Frogs should never be dangled by a leg. It’s also worth noting that many frogs will have the energy to cross roads themselves; it’s best to allow them to do this instead of handling, and can be accomplished by following closely behind the frog, if time permits.
Note: Some frogs (American Toad) produce toxins that are irritating if they come in contact with the mouth or eyes. Hands should be washed regularly to avoid accidental discomfort, which may include burning sensations, foaming at the mouth, stomach aches, etc.

Moving Salamanders

Salamanders are usually easier to catch, but can be hard to hold! Similarly to frogs, cup your hands gently around the salamander, but do not squeeze it; simply hold it above the road. If the salamander tries to walk out of your hands, move your free hand in front of the salamander as it walks, which should free your other hand to continue this pattern, making a treadmill-like action for the salamander. Never pick up or squeeze a salamander’s tail—some species will drop their tails as a defense mechanism, which can be very stressful and energetically taxing!

Note: Similar to frogs, some salamanders produce irritating chemicals. Wash your hands intermittently to avoid accidentally touching your eyes or mouth.

After You’re Done

Wash your hands well with soap and warm water. This is especially important if you plan to go to another site; amphibians are being struck hard by disease, so there is a chance you may accidentally spread it to other populations.
Amphibian Identification

Green Frogs

- 2-3 inches in length, color is typically a shade of green.
- Underside is cream to white.
- Green frogs can be distinguished by the fold that starts from the back of the eyes and extends down.
- Sometimes confused with American Toads
- Facultative species

American Toad

- 2-3.5 inches in length
- Typically but not always brown, warts are also variable color.
- Two warts will be large and immediately behind the eyes
- Males are smaller than females and have a dark gray or black throat, opposed to the white throats of females who are also lighter overall in color.
- Light stripe extends down the back.
- Facultative species.
**Spring Peeper**

- 1-1.5 inches
- The back has a large X-shaped mark that extends from the back of the head to the groin
- The top of the head has a dark bar that extends from one eye to the other eye.
- Facultative species.

**Wood Frog**

- 1.5-3 inches
- The background color varies from grey brown to dark brown to reddish brown.
- The head has a dark brown light that forms a mask that extends from the snout through the eyes.
- The hind legs have dark crossbars.
- The underside is white to cream-colored
- Facultative

**Eastern red-backed salamander**

- 2.5 inches in length
- Eastern red-backed salamanders can occur in two color phases, lead-back and red-back.
- Lungless salamanders: breathe through their skin
and the mucous membrane in the mouth and throat.

- No aquatic larval stage

Yellow Spotted Salamander

- An adult spotted salamander is dark brown or black with yellow or orange spots on its back and side, and its belly is grey.
- The amphibian has a broad head and smooth skin with vertical grooves on both sides of its torso.
- Only vernal pool obligate species.

Check List

- [Volunteer Amphibian Crossing Guard form](#) - this will help me assign you to crossing locations
- Waiver
- Safety and ID Quiz
- Data Sheet
- Data Upload Form
- Safety gear - headlamp, reflective vest, flashlight
- Rain gear
- No one is allowed to go out alone
- Always be aware of your surroundings
- NO headphones/airpods
- Always alert others to cars
- Never run out in front of a car to try to save an amphibian
That’s All Folks!