

Minnesota Turtle Crossing Tally and Count



PROJECT PARTNERS

HerpMapper

Minnesota Herpetological Society

Minnesota Dept. Of Transportation

Minnesota Nongame Wildlife Program

Three Rivers Park District

Roads have been an issue for turtles for as long as cars have been driving around. The density of roads and cars has increased to a point where this hazard can impact the long-term survival of some turtle populations. Fortunately, there are relatively simple road improvements and habitat modifications that can be made to reduce the number of turtles crossing roads. These range from things like dedicated wildlife underpasses, modified culverts, wildlife-friendly curbs, and fences to things like enhanced nesting habitat. These mitigation efforts can be expensive and are not always embraced by highway departments.

The best way to show highway departments the need for protection or at least future planning is tangible evidence showing which road stretches have a significant number of turtle crossings. State and County biologists cannot collect enough information across the State to identify all the important crossings, but public volunteers can help to provide that information. The use of online mapping and mobile phone apps allow adult volunteers to submit locations of turtle crossings.

***Do not put yourself in harms way to protect or document turtles
or other wildlife observed on a roadway.***

DATA COLLECTION

Individuals are encouraged to submit records of both live and dead turtles at crossings (other amphibian and reptile data also welcome). The focus is on the seven-county Twin Cities area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington), but observations from other parts of the state are welcome and encouraged. All observations will be submitted through the **Herpmapper.org** website, or by using HerpMapper's Mobile Mapper app on your smartphone or tablet (preferred). **(Appendix 1 and 2)**

Creating a HerpMapper account

- 1) Go to: <http://www.herpmapper.org/register>
- 2) Create your account by completing the requested information: **E-mail/Username/Password**. Done!
- 3) Login and click on "Mobile App" in the menu at the top.
- 4) Write down the your **E-mail/Username** and **API Key**. Done

Setting up the app on your smartphone or tablet. (You **DO** need to be in WIFI or data service for these steps.)

- 1) Download “Mobile Mapper” app from Google Play Store or Apple App Store.
- 2) Open the Mobile Mapper app and allow it to use your location if prompted.
- 3) Click “Add New Service.”
- 4) Enter the e-mail address you used to signup on HerpMapper.
- 5) Enter your “API Key” that you wrote down.
- 6) Enter the Configuration URL: <http://www.herpMapper.org/mobile/mn>
- 7) Check “Use as Default Service.”
- 8) Click “Save Settings.”

How to enter data on your smartphone or tablet. (You **DO NOT** need to be in WIFI or data service for this part.)

- 1) Take photo of the turtle (optional see step # 6).
- 2) Open the Mobile Mapper app.
- 3) Select “New Record” or “New Record” for “MN HerpMapper” (if not the default).
- 4) On the location page, be sure to “refresh” until your location accuracy is 25m or less (Ideally 5-10m). **NOTE:** If using a phone or tablet without data service, it may take a minute or two to lock onto your GPS for the first record (it will get quicker). Also note that the map will **NOT** generate without data service. **This is OK.** Hit continue.
- 5) Select “Browse Taxa” to see a list of amphibian and reptile species for MN (or select “Unknown” if you are not sure). Report even small parts of road-killed turtles.
- 6) Next, take a photo of the turtle (or choose image from your gallery if you have already taken the photo). Hit continue.
- 7) Click “Deceased” if the turtle is dead on the road. Feel free to add notes such as current weather conditions if alive on the road.
- 8) Review record and hit “**Save Record**” at the bottom of the screen.
- 9) **Upon arriving home, be sure to open the app and select “Pending Records.” Then select “Sync Records.” (You must be in WIFI or have device data.)**

Note: *If your mobile device is allowed to enter an idle state it may disrupt the communication and result in only a partial upload of your records or an error message. To avoid this, observe the app and do not allow your phone to idle.*

If you run into issues, contact: info@herpMapper.org (even if data seems to disappear from the pending records page, it can usually be recovered – do not worry).

RESULTS

Data collected will be used to generate maps of known turtle crossing areas that can be shared with and used by conservation agencies and highway departments to prioritize and develop safer crossing areas. In addition, data can be collected in areas after mitigation strategies are put into place to better determine their efficacy.

Appendix 1 – Mobile App instructions

Download Mobile Mapper

Mobile Mapper is available for Android and iOS (Apple), and Microsoft devices. To download Mobile Mapper, use the following links:

[Google Play](#)

[iTunes Store](#)

[Windows Store](#)

For more information about using the app, visit: <http://www.herpMapper.org/mobile/mapper>

Appendix 2 - Creating Records Using A Computer

You can create records from past observations using images or sound files stored on your computer:

1. After logging in to HerpMapper, right-click on your name in the upper right-hand corner and select "Upload Files".
2. From the Upload page, click "+ Add files..." and navigate to one or more image files saved on your computer. HerpMapper accepts ".jpg" and ".mp3" file types for vouchers.
3. After one or more voucher files are selected, click on the blue "Start Upload" box to upload multiple images, or individually select the "Start" box to the right of each voucher.
4. After the upload is complete, click again on your name in the upper right-hand corner and select "My Files".
5. On the Voucher Files page, each selected voucher file has a check box in the upper left corner. Check each box (or select the 'Toggle All' box on the right) and then click on the "Create New Record" button.
6. Fill in the fields on the Add Record page:
 - o 'Species' is a search-and-pick field - for example, if you type 'Chrysemys', a pick list with all taxa containing that word will appear, and you can select from the list. You can also type in a common name (such as 'Racer') and get a pick list. **If you are unsure of the species, you may leave this field blank.**
 - o **Note:** Some cameras include metadata in the image files (such as date, time, geo-location, etc.), HerpMapper will auto-fill this information into the record. **Be sure to double-check information for accuracy.**
 - o If you do not have any data for the longitude and latitude fields, you can use the interactive map to scroll to the correct location. You can switch between Map View and Satellite View. Use the + - slider or a mouse wheel to zoom in; right-click and hold to move around the map. When you find the correct location, click and then release to set the location pointer. The pointer can be moved and set again with another click. Try to be as detailed as possible. Once the location is set, the Latitude, Longitude, Altitude, Accuracy, Datum, and Coordinate Source fields are filled.
 - o Select the appropriate life stage for the Age field.
 - o Additional Notes field: This field is visible to the public, so take care with what information you enter here - be sure to exclude locality descriptions in this field (do not add park names, etc.). Things to include if known:
 - Total number observed in this area. Natural history observations (mating, eating, courtship, etc.).
 - Method used if actively searching for amphibians / reptiles (e.g., found under log, alive on the road, etc.).
 - Specimen gender, approximate size, or other macro- or micro-habitat variables.
 - o Private Notes field: This field is only visible to yourself and HerpMapper partners. Extra locality descriptions and other important information that you do not wish the public to see may be entered in this field.
 - o Click "Save Record."
 - o Double check that all information is correct (including the mapped location).
7. Return to "My Files" and repeat with additional vouchers.

YouTube Instructions: https://www.youtube.com/watch?v=W_Llx2_iJrU

Viewing Your Records

To view records you have entered, click on your name in the upper right-hand corner and select "My Records." To sort / filter your records, expand the "Search Options" section at the top of the My Records page.

For more information about HerpMapper, visit: <http://www.herpMapper.org/help>
Also see the HerpMapper FAQs: <http://www.herpMapper.org/faq>