

Terrestrial Salamander Monitoring Procedures



Before you pick up the tree cookie or stone tile:

1. Record the transect number, the number of the cover object, and the type of cover object ('C' for tree cookie and 'S' for stone tile). The transect and number are printed on the silver tag on top of the wood cookie and are spray painted on the stone tile. The number and type are also written on the blue or yellow flag next to the cover object.
2. If the tree cookie or stone are missing or broken, record this in the notes section. If it is missing, make sure you search the immediate area thoroughly – they often get hidden under leaves.
 - For **Notes**, record a number (starting at 1 for the first note on the sheet) on the front, and write your note on the back, labeled with the appropriate number.

Now you are ready to pick up the wood cookie or stone tile:

3. Be ready to catch any salamanders underneath.

If you have salamanders:

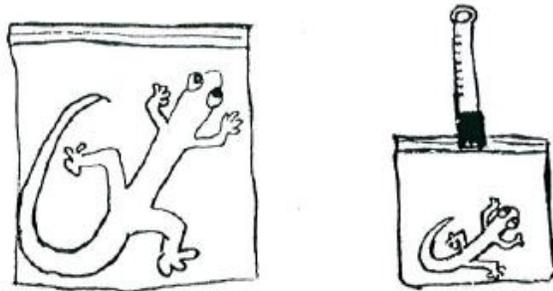
4. Catch salamanders in Ziplocs. – **See the reverse side of this sheet for diagrams.**
5. Identify the salamander to species by using the dichotomous key. Record your identification confidence level. Record notes on characteristics you used to identify the salamander on the back of the datasheet.
6. Double check your identification with Tremont staff. If no Tremont staff are present and you are unsure of your identification, take photos to share with us (be sure to get shots of the upper and underside of the salamander).
7. Turn this sheet over to see how to process a salamander.
8. Measure and record the snout-vent length and total length in mm.
9. Weigh the salamander and Ziploc and record.
10. Once the salamander is processed, let it go near the cookie you found it under.
11. Weigh the empty Ziploc bag using the spring scale. Subtract the Ziploc mass from the salamander + bag mass to get the salamander's actual mass.

Always do these things (even if you don't have a salamander):

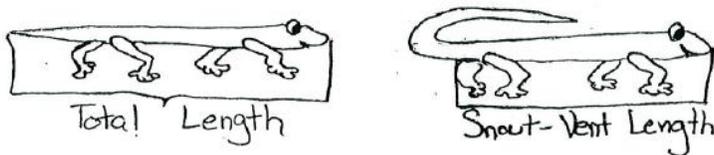
12. Record the surface temperature under the cover object by holding the thermometer about 6 inches above the ground and hitting the gray button once. Make sure it is recorded in degrees Celsius.
13. Record soil moisture. Pick up a small clump of soil and rub it between your fingers. 1 = dry (sandy/dusty), 2 = semi-moist (holds together in a ball), 3 = moist (muddy).
14. Record any other creatures you found under the cover object in the **Species** section. See the note at the bottom of the datasheet for examples.
15. Place the cookie or stone back where you found it and move on to the next one in your row. All cover objects in your transect should have the same first number and the same color flag. There are 8 cover objects in each row.

How to Process Salamanders:

Step 1: Catch the salamander in a Ziploc bag and zip the bag shut. Attach the spring scale to the bag and hold the scale by the loop at the top. Read the mass of the bag with the salamander inside.



Step 2: Gently try to straighten the salamander inside the bag to get an accurate measurement of its length. Using the ruler, measure how long the salamander is, both from the tip of its nose to the tip of its tail and from the tip of its nose to its vent (or just behind the rear legs, close to the tail). Be sure to record these measurements in millimeters (mm).



Step 3: Use the dichotomous key to identify the salamander while it is still in the bag.

Step 4: Release the salamander carefully. Remember to set it beside the cover object, not underneath it.



Step 5: Using the spring scale once again, weigh the empty bag. Subtract this number from the weight of the bag and salamander combined (from Step 1) to get the mass of the salamander.

