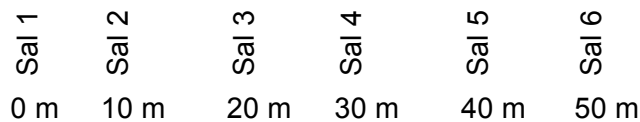


Claymander Experiment

October 6, 2017

IBIO445 Recitation Week 7

Each recitation section will have three transects to set up during class on Friday (Oct 13). Recall that the two morphs are based on our species of interest, the Red-Backed Salamander, *Plethodon cinereus* (see Figure 1). **The goal of the study is to test whether the two morphs experience differential 'survival' during predation events.** Each transect will be 50 meters long and have 3 red-backed (striped) and 3 lead-backed morphs (plain gray), so clay salamanders will be placed every 10 meters. Transects should ideally be parallel and not cross, maintaining at least 10 meter spacing between them.



The transects will be identified at the 0 meter point with a flag and labeled with a capital letter:

- Section 1: **A, B, C** Section 3: **G, H, I**
- Section 2: **D, E, F** Section 4: **J, K, L**

When you place a clay salamander on the transect you must write the transect letter (A-L) and the salamander number (1-6) on the ground-facing side of the salamander using a sharpie. You should also place flagging tape with the same label (salamander letter and number) somewhere hanging above the salamander so it is easier to find. We randomized the order in which each morph is placed on the transect. Please place your salamanders in the order shown below (S= striped, L = lead-backed):

| | 1 | 2 | 3 | 4 | 5 | 6 |
|------------------|---|---|---|---|---|---|
| <u>Section 1</u> | | | | | | |
| A: | S | L | S | L | S | S |
| B: | L | L | S | L | S | S |
| C: | S | L | L | L | S | S |
| <u>Section 2</u> | | | | | | |
| D: | S | L | L | S | L | S |
| E: | S | S | L | L | L | S |
| F: | L | L | L | S | S | S |
| <u>Section 3</u> | | | | | | |
| G: | S | L | S | L | L | S |
| H: | L | S | L | S | L | S |
| I: | L | S | S | L | L | S |
| <u>Section 4</u> | | | | | | |
| J: | L | S | S | L | L | S |
| K: | S | S | L | L | L | S |
| L: | S | S | S | L | L | L |

For the next six days we need to monitor the clay models (made from non-hardening clay) to collect data on predation events. You can read about the study our class predation experiment is modeled off of on the course site on D2L (Kuchta 2005).

We need to monitor and record predation observations for all of our salamander models once every day. To complete the monitoring, **fill out the Google Sheet (LINK) signing up for a single day to record observations**. Monitoring begins Saturday, Oct 14, and goes through Wednesday, Oct 25. Depending on how large your section is you may need to monitor more than one transect during your day. Put your full name and what time you plan to visit, in case it works for the other person monitoring to meet up. You can also earn extra credit by monitoring a second day.

Please use email to coordinate with the other people signed up on the same day as you, if needed, but especially if you were not in class during the transect setup. On each day, all three transects of salamander models (claymanders) need to be monitored.

For each transect from your section you should **visually inspect each claymander and determine whether it has any damage** (presumably from predation).

If it is damaged, write down the transect letter and salamander number (which meter it's on along the transect, which should also be written on the bottom). Then assess the proportion of damage on the upper surface of the body (estimate) and where on the body the damage occurred (head, torso, legs, and/or tail). If you have any other notes about the condition of the site or the claymander you can include those as well.

For small predation events that you can easily 'fix up' the salamander (smooth out the damaged areas), you can re-use it. **If the claymander is missing** completely or is too far damaged to do a quick fix to smooth it out again, you should replace it with the appropriate morph using the extras in the boxes in the field. **Make sure to record missing salamanders** in the data sheet.

Enter your data online in the appropriate section tab indicating which salamander were affected along with the **date, time, and group member(s)**. We will analyze the data next Friday, October 27th, but you should enter your data within 24 hours of your visit to the field so we can make sure the visit did occur. **Data will be entered in a Google Form (LINK)**.

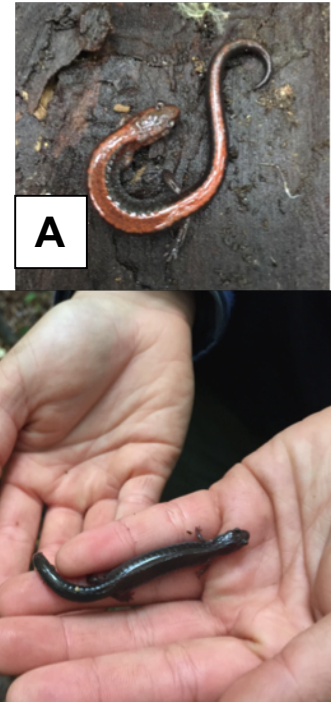


Figure 1. Photos of the two morphs, striped (A) and lead-back (B).