

# Salamander Study



By Tim Cox

## Purpose:

To determine the different species, and quantity of salamanders in three different habitats, an upland coniferous forest, an upland deciduous forest, and a stream

## Hypothesis:

If transects are set up in an upland coniferous forest, and in an upland deciduous forest, and a stream, then more salamanders, and more varieties of salamanders will be found by the stream.

## Procedure:

- Set up three transects in different habitats, a deciduous forest, a coniferous forest, and a stream site.
- The transects are a line of five 9x11" wooden planks placed flat on the ground, three feet apart from each other.
- Check transects weekly, recording number of salamanders found and abiotic factors.
- Use data to compare number and variety of salamanders in each transect.



Dusky Salamander



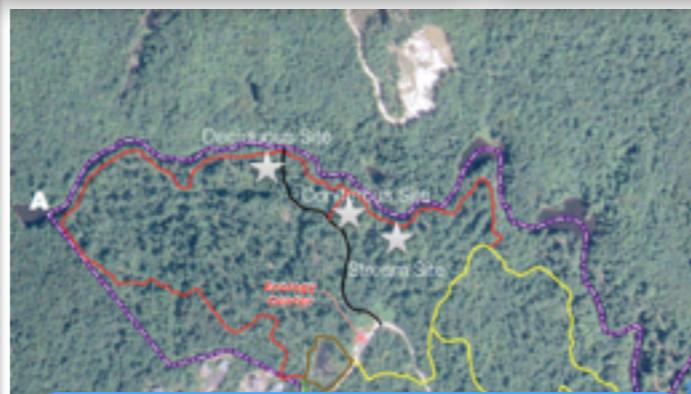
Two-Lined Salamander



Redback Salamander

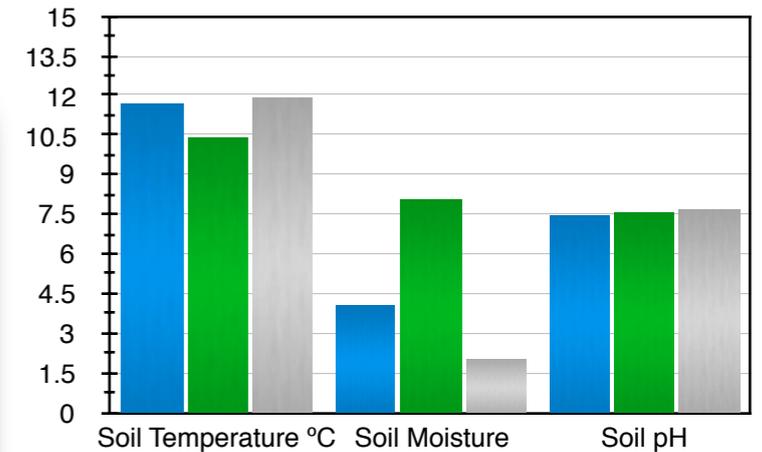


Three Redback Salamanders

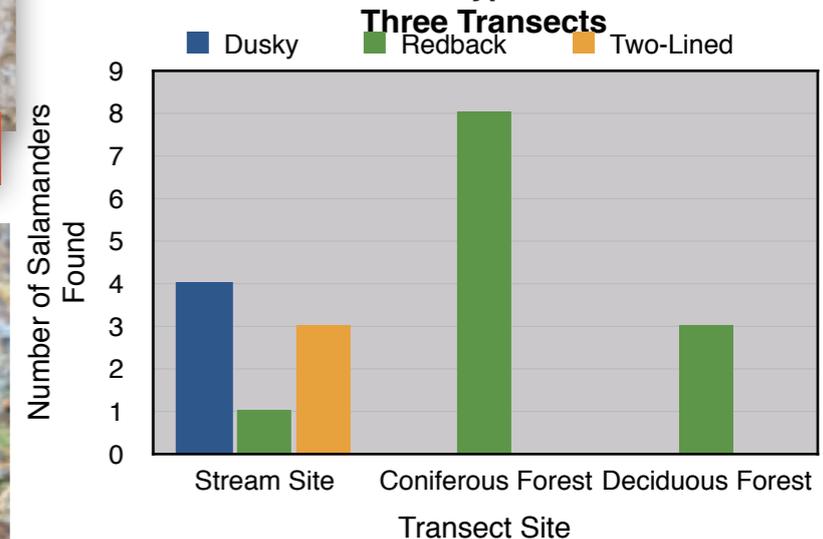


Location of Salamander sites at CREA Marked by Stars

Average Abiotic Factors at Each Site



Total Salamander Types over 6 weeks at Three Transects



## Conclusion:

- The stream transect had a greater variety of salamanders living in it, with three different species.
- There were eight salamanders found at the stream site, four dusky, one redback, and three two-lined.
- There was one species found at the coniferous site, which were eight redback salamanders.
- There was one species found at the deciduous site, which were three redback salamanders.
- This was suspected because the only key difference between the three sites was the soil moisture rating, which is a defining factor for what types of salamanders are found at a site.
- This partially supports the hypothesis, the stream site had the most varied population of salamanders, as predicted, but both the stream and coniferous site had 8 salamanders living in it, when only the stream site was expected to have the most salamanders.

Special thanks to Mr. Evans (MSAD 75), and Matt Dubel (CREA)