Title: Describing Insect Abundance at UD's Environmental Research Area

PRESENTER:
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BACKGROUND: Observing what arthropods consume is important to see what nutrients could be limited in certain environments. This experiment set out to test what insects were deficient in certain macronutrients, such as proteins and carbohydrates. By using small GUD vials filled with these isolated nutrients and pitfall traps, our team was able to gather data on what orders of insects are likely to be found in certain locations.

What We Planned

- Testing for nutrient deficiencies with strawberries, tuna, and sugar water
- Using only GUD (giving up density) vials to collect data
- Original habitats - away from water, near water, native tree, invasive trees
- Too early in season to collect insects with this method

What We Did Instead

- Placed pitfall traps in two locations - near water and away from water
- 3 traps per location
- Analyzed what insects fell into the traps after a few days of collection

Fly, springtail, and **arthropod abundance** is **higher near water** than away from water in the **ERA**.

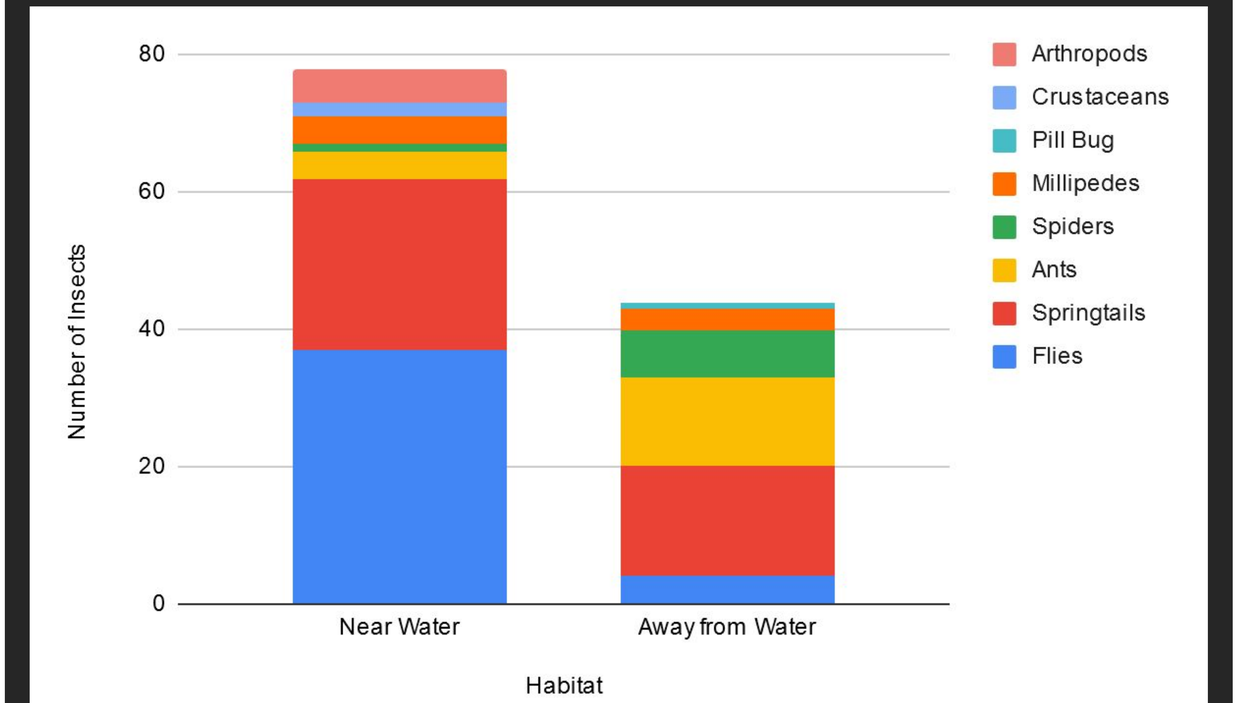

Fig. 1 - Insect abundance data from pitfall traps near and away from water. Overall abundance was higher near water, but some orders prefer being inland.

Discussion

Springtails and **crustaceans** were likely found closer to the water because their habitat is on top of and in bodies of water. But, **springtails** can also live on land which explains why they were abundant in both habitats. **Larval flies** complete their development in water, so their abundance was increased near the water as the adults were coming out of the water. **Spiders** and **ants** however prefer to be on land and were rarely found near the water. **Isopods** weren't found in the water habitat because they live underground and search for dark soil for their habitat. **Millipedes** were almost equally abundant in both habitats because they reside in damp soil but will also live under mulch and dead leaves, which can be found inland.

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