

# Prey Preference in the Carnivorous Pitcher Plant, *Sarracenia alata*

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## Introduction

Carnivorous plants inhabit nutrient-poor environments and have evolved various mechanisms to capture and digest insects to satisfy their nutritional needs. The carnivorous plant, *Sarracenia alata*, utilizes passive pitfall traps (“pitchers”) to capture insects.

## Objective

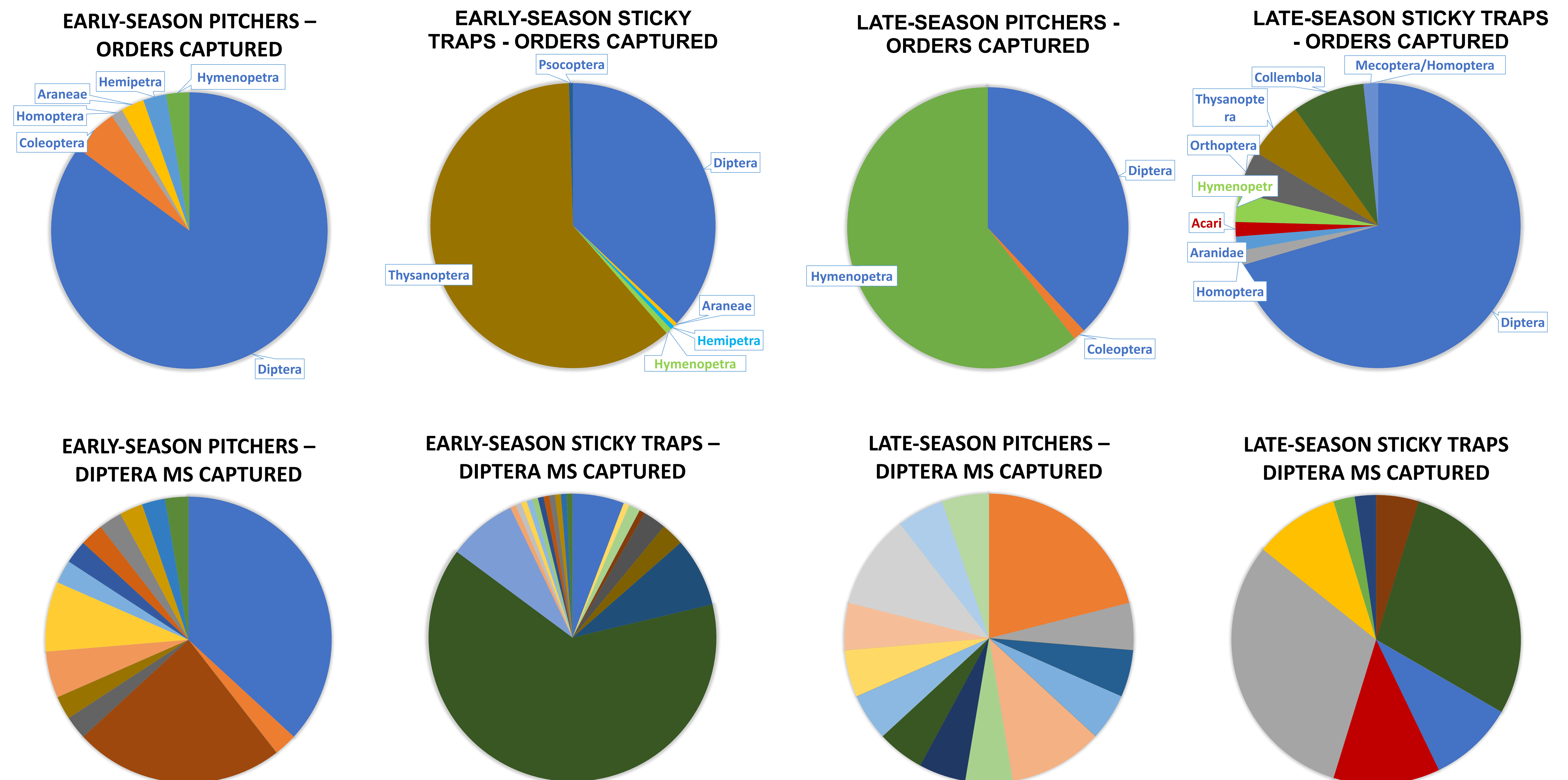
To determine whether *Sarracenia alata* selectively captures particular insects from those available in the environment.

## Methods

- We selected 16 pitchers in May and 16 in July.
- An equal number of artificial sticky traps were placed near selected pitchers to sample local insect diversity.
- Both traps and plants captured insects for 1 week prior to collection and analysis.
- Insects were first identified to the taxonomic level of order and then further to “morphospecies.” Morphospecies were separated based on morphological characteristics such as numbers of tibia, bristles, and coloration. This allowed us to examine prey capture in more detail than in previous studies.

## Results

We identified 200 insects from pitchers and 538 insects from sticky traps. A total of 14 orders of insects and 61 morphospecies of Diptera were identified.



For dipterans captured, each color corresponds to a different morphospecies (“MS”)

## Conclusion

The taxonomical composition of the capture of pitchers differed from that of sticky traps. This was true for both insect orders and dipteran morphospecies. Seasonal variation was also observed. These results suggest that insects were differentially attracted to and/or captured by pitchers and artificial sticky traps. Further studies with multiple methods of sampling insect availability are needed.

