TITLE: Neighborhood effects

INTRODUCTION

We addressed the following questions:

1. How does the probability and intensity of seed predation by *P. alcon* depend on the phenology of its host plant, the abundance of its host ant, and on the host plant neighborhood? Specifically, we predicted that both the probability of finding eggs and the number of eggs would be higher in early flowering plants with high abundance of host ants, surrounded by few and late-flowering host plant neighbors.

2. Does the effect of plant phenology on predation depend on host ant abundance and on phenology of the neighbors? Specifically, we predicted that the preference for early-flowering plants would be stronger when they have a high abundance of host ants and are surrounded by late-flowering neighbors.

3. Does the effect of neighbor density depend on neighbor phenology? Specifically, we predicted that the preference for plants with a low neighbor density would be stronger when neighbors are flowering late.

4. How are host plant phenology and density, as well as host ant abundance related to micro-environmental variables (i.e. temperature and moisture)? Specifically, we predicted that plants would flower earlier in warmer and moister microsites, and that host ants will be more abundant in warmer/cooler moister/drier microsites.

5. Do the effects on seed predation translate into effects on fitness, and are there any direct effects of phenology, micro-environmental variables and host plant neighborhood on fitness? Specifically, we hypothesized that seed predation would cause a strong decline in fitness, but we also expect fitness to increase in plants that flower early, are located in warmer and moister microsites, and with more dense and early-flowering neighborhoods.

METHODS

RESULTS

DISCUSSION

REFERENCES