

The allometry of reproductive effort in B. treatae: insights into the evolution of heterogony

Heterogony describes a complex life cycle that involves the alternation of sexual and asexual generations. Heterogony and its variations (loss of the sexual or asexual generation) characterizes the life cycles of the >1000 species of cynipid gall-forming wasps. Little is known about the forces that maintain life cycle variation in heterogonous species. *B. treatae* exhibits heterogony on its host plant, *Q. fusiformis* where the asexual and sexual generations are spatiotemporally segregated. Along with former student, G. R. Hood (University of Notre Dame) we are examining the relationship between body size and fecundity in the sexual (leaf galling) and asexual (root galling) generations as part of a comprehensive effort to understand the factors maintaining heterogony in this species. We are testing the hypothesis that 1) fecundity scales equivalently between generations and 2) that the “cost of sex” (i.e., the 2x advantage of asexual reproduction) will be countered by increased fecundity of the sexual generation.

BS * fecundity of sexual and asexual *B. treatae*

