, an extrafloral nectary bearing c
conflicts between its pollinators and bodyguards. Flower visitatio
and pollinating bees differed among plants tended by four different ant s
ant species most rarely found in flowers showed the strongest aversion to
flower petals in laboratory assays, suggesting that those structures may
ant-deterrent. Species-specific estimates of mean ant abundance within f
aggressiveness towards other arthropods were used to distinguish the relati
ant attack in flowers on plants tended by each ant species. Pollinator surv
and 2004 demonstrated that bee visitation rates and the duration of flower

because buds always have EFN within 1 cm, and thus these petals are the only structures between the EFN and the floral nectaries, stamen, stigma, etc. Half of an 8-cm petri dish (bottom and lid) was wiped with a petal, handled with forceps. One ant was added to the closed dish, and provided 30 sec for acclimation and exploration. Ant location in the 'petal' versus 'control' hemispheres was then monitored for five minutes. The dishes were shaded throughout the experiment, and were rotated 180 degrees after 2.5 minutes. Trials were repeated with workers of each of the four ant species. Individual workers and dishes were only used once. All trials were performed outdoors, using ants collected from plants that lacked flowers at that time. Two-tailed paired t-tests compared the occupation time in each hemisphere for each ant species, and an ANOVA model tested whether the species differed in the proportion of time spent occupying the floral hemisphere.

of the focal plants were inadvertently observed more than once, and these multiple observations were

A

bees were observed visiting flowers at temperatures $<23^{\circ}$C. Ant occupation of flowers was similar across the full temperature range, but I limited analyses to 139 observations at temperatures $>23^{\circ}$C. The average flowering plant bore 2.3 flowers (SD $=1.3$), and the number of open flowers was similar among plants tended by different ants (ANOVA, $F=1.46$, $df=3$, 132, $p=0.23$).

Bee visitation did not alter ant abundance in flowers, relative to non-visited flowers, for any of the four species

flowers. Second, among-plant differences in the danger associated with visiting flowers, estimated as a function of the abundance of ants within flowers and their aggressiveness towards other arthropods, corresponded with among-plant differences in pollinator visitation rate and foraging duration within flowers. Third, plants with the most aggressive ant bodyguards produced fruits with fewer and smaller seeds, a difference I attribute to ants deterring the pollinators. I discuss these points below.

Plants can exclude ants from flowers by several means, including slippery stalks (Harley 1991), modified flower architecture (Galen 1999), distasteful petals (Guerrant and Fiedler 1981), and volatile ant-repellent compounds (Galen 1983, Willmer and Stone 1997, Ghazoul 2001,

Clark, C. W. and Dukas, R. 1994. Balancing foraging and