**Supporting Information**. Drees, T.H. and K. Shea. “Climate warming increases insect-driven seed removal of two elaiosome-bearing invasive thistle species.” *Ecology*.

**Appendix S2.** Photographs of frequently observed seed-removing insects, and additional figures for both model results and observed seed removal patterns.

A picture containing map

Description automatically generated

**Figure S1.** Ant visiting seed depot 34 during the day and removing a *C. acanthoides* seed with an elaiosome. Photo credit: Trevor H. Drees.



**Figure S2.** Cricket visiting seed depot 21 during the evening and removing a *C. acanthoides* seed without an elaiosome. Photo credit: Trevor H. Drees.



**Figure S3.** Observed rates of seed removal for all four combinations of elaiosome treatment (E+ elaiosome present, E- absent) and warming treatment on the maternal plant (NW unwarmed, W warmed), split by species (CN *Carduus nutans*, CA *Carduus acanthoides*). Error bars represent standard error on the mean.



**Figure S4.** Comparison between species (CN *Carduus nutans*, CA *Carduus acanthoides*) of observed number of seeds remaining, conditioned on elaiosome presence (E+ present, E- absent) and warming treatment applied to the maternal plant. Error bars represent standard error on the mean; -values are obtained from Kolmogorov-Smirnov tests, with low -values indicating significant differences between the two survival curves.

Graphical user interface, chart, line chart

Description automatically generated

**Figure S5.** GLMmarginal effect plots for each species (CN *Carduus nutans*, CA *Carduus acanthoides*) at each of the three model timesteps. The E+ label indicates elaiosome presence, and the E- label elaiosome absence. Note that the warmed (W) and unwarmed (NW) treatments are discrete factors; lines connecting them are only to help facilitate interpretation of interactions.