Foraging results

Juliana Balluffi-Fry

27/02/2025

The most parsimonious model for explaining foraging efforts of control hares was that which included soluble biomass and temperature as fixed effects (Table 2, model D2). We found that hares foraged 26.4 ± 5.4 minutes more per day for every 10 kg increase in available soluble willow biomass per hectare (t = 4.7; Figure 4A). For every 10 degree C increase in temperature, hares foraged 46.8 ± 3.6 minutes more per day (t = 12.37; Figure 4B). The second most parsimonious model also included mortality rate in addition to soluble biomass and temperature (Table 2, model T1), but mortality rate did not have an effect on foraging (t = 0.94).

After incorporating food treatment into the top performing model (D2), unlike the control model, we found no effect of available biomass on foraging effort for either controls or food supplemented females (t = -0.63; Figure 4C). Similar to the control model, we found that foraging effort increased 49.2 ± 5.4 minutes per day for every 10 kg increase in available biomass (t = 9.41; Figure 4D). Overall, food supplemented individuals foraged 15 ± 34.8 minutes less than controls, but this effect was not significant (t = -0.43). When applying the same top model to travel rates (hopping and sprinting; min/day), we found that hare travel rates increased slightly as available biomass increased and decreased slightly as temperature increased. Hares spent 1.39 ± (0.41) minutes more traveling for every 10 kg increase in biomass (t = 3.38) and reduced their travel 1 ± 0.27 minutes for every 10 C increase in temperature (t = -3.75).