20240516

* Emily helped me incorporate worm damage as a covariate in my models and it turned out to be highly significant in growth data (full model, p = 0.0005575). The three-way interaction in my full model was highly non-significant so we removed it. The interaction of temperature and worm damage was also highly non-significant, so we removed that and kept only the interaction of my main effects (temp and wound) and the interaction of wound and worm damage. I the reduced model worm damage is still highly significant (p = 0.0001522) and the interactions are moderately non-significant (p> 0.5) so this is the final model. The interaction of wound and temp is almost significant, p = 0.0567. Our immediate thoughts were to use only the corals that had low worm damage, so we filtered the data by lowering the threshold for worm damage until it was not significant in the full model. This threshold is <= 10% worm damage.

Full model:

model<- lmer(growthrate ~ wound\*temp\*percent\_affected + (1|genotype), data = growthrate.worm)

Reduced model:

mod2<- lmer(growthrate ~ wound\*temp+wound\*percent\_affected + (1|genotype), data = growthrate.worm)