Meeting notes 8/5/24

Evan will

Re-analyse phenology for 2023 using every other observation to match 2022

Done – updated all codes and files to use the subsampled 2023 data

Determine if rounding off LT50 to -11C is necessary – NO

I ran the analysis with the model output data with values lower than -11 and rounded off at -11 and ran again. The results are qualitatively similar so no real need to round off I think

Re-analyze and give outputs of new LT50 model by phenology score, year and species for all stages and then just stages 2 and 3.

Calculate safety margins based on Lenz 2013 and Zohner 2020 Global Ecology and Biogeography

Zohner – leaf out date – date of last frost (+ values are safe, - are unsafe); hard for us to use since every individual of a species would end up with the same value in a given year

Lenz 2016 – this approach uses minimum temperatures for each phenology stage and compares directly to LT50

A decent approach might be to calculate Tmin-LT50 safety margin for +/- 7 days for each time period and see how that margin changes across year, species and when compared to long-term mean

Joe will

Redownload NOAA data

Recalculate various freezing indices to 0C instead of -2C

Rework intro to focus on freezing tolerance instead of phenology, should also build in some text about how TN experiences fairly mild-winters but can still be damaged as highlighted by 2007 event

Try to find long-term phenology data for our site and see how 2022 and 2023 line up

Meet again August 27th

Reviewed updated results including new phenology analysis, GDD figures, and linking LT50 and phenology. Evan will finalize thermal safety margin analysis and figures. Joe will redo all climate figures and analyses to use a 0C cutoff instead of -2C. He will also begin working on revamping the introduction. Later he will update the new figures throughout the main document.

Meat again September 10th