Thesis outline

immediate

February 3, 2025

Introduction

1. CC impacts on biological systems and how phenological trends are already shifting with warming temperatures.
   (a) Warmer temperature led to earlier spring events for amphibians, birds, butterflies and wild plants (Walther, 2002)
   (b) Autumn phenological events are delayed, but the trend is not as clear as spring's. We have a good mechanistic understanding of the drivers that lead plants to leaf out early, but we don't for Autumn. *Maybe talk about why the trend isn't clear (e.g. monitoring leaf fall and colouring is hard. Can be highly influenced by a single episode of wind, precipitation or frost (Gunderson, 2012)*
   (c) Counterinteraction of winter warming that delays spring phenology because of non-met chilling requirements *don't want to get lost in the weeds here though*
   (d) Overall, earlier spring and delayed autumn lead to a longer phenological growing season (Korner, 2023 for pheno GS definition).
   (e) Potential impacts of spring frost. Explain how reliance on photoperiod can be a better strategy to avoid spring frosts. Species that are less photoperiod dependant may be more vulnerable to spring frost.
   (f) Increased drought events in the summer and how earlier spring might increase water deficit later on in the GS.
2. Whatever
   (a)