

Concept paper outline:

Hysteranthly has been long observed but poorly examined.

Present Hypothesizes. There is suggestive evidence only...Modeling, pollen interception at different succession stages, 1 comparative anatomy study in Cornus. There has been little empirical investigation into these hypothesizes, especially whether there are any effects on fitness.

Some Challenges:

Linguistic: Hysteranthly, proteranthly, protanthly, precocious. Note the hysteranthly and proteranthly are antonyms that describe the same phenomenon and precocious flowering also means early ontogeny flowering

Descriptive: Flowering before leafout... but what exactly does that mean? Physiological hysteranthly, functional hysteranthly. Harvard forest graphs. Emphasize hysteranthly would only be adaptive at the community level. ie selection should be on advancing flowering rather than delaying leafing.

Example of descriptive differences: MTSV models. Show results for physiological hysteranthly vs. functional hysteranthly. Point could be effects change significantly based on criteria

It might not just be descriptions that are ambiguous. Because flowering and leafing are rarely observed together, we have no broadscale sense of the reaction norm for interannual or population level differences, but we think it's probably significant. Look at interannual and between population differences for tree spotters vs. O'Keefe data or Dan Flynn data.

Mechanisms

Are these patterns incidental or inherent?

Will these patterns be stable in an era of global change?