A close-up of a timeline

Description automatically generated MAY 2024 TIMELINE

# WINTER 2025 WEEKLY TIMELINE + SPRING-SUMMER ROUGH TIMELINE

**WINTER 2025 (main goal: get through all planned TOMST analysis ideas)**

* ~~Week 1~~
  + ~~Mount tree cores~~
* ~~Week 2~~
  + ~~Learning new concepts and methods for research application from new classes (Git + statistical analyses)~~
  + ~~Coordinating new lab group meetings~~
  + ~~Continue digging into Git vignettes for R analyses~~
* ~~Week 3~~
  + ~~LTER GRA proposal~~
* ~~Week 4~~
  + ~~Prepare for committee meeting~~ 
    - Amend timeline, research questions
      * Share with committee
  + Attend and apply concepts from library concept on literature review
    - Reorganize file inclusion and annotation of literature (read and unread) in Zotero for better, more consistent, and more useful inclusion
* Week 5
  + Continue working in Git
    - Reorganization of files & file folders, making code more consistent and accessible, transferring work to Git repository with better organization
      * Consistent code practices and conventions across all files
        + E.g., axes labels, titles, functions for analysis / data transformation, etc
  + Work in newly organized directory
    - Analysis idea: water stress index VPD divided by upper 10cm SWC
      * Builds upon previous ideas of root weighted soil moisture profile
  + Read through recently emailed papers
  + Update draft of dendro paper to reflect what I have done since last edits (October) and send to Chris
  + ~~Connect with Peter Beedlow to continue conversations from his EPA transect presentation in lab meeting~~
    - No longer needed for current timeline
      * HJA has some allometry info which I can include at the end of a discussion section which will make my paper more attractive
  + Send repository to committee
  + Update Amanda on current plan
    - Cross dating and missing rings stuff could be a big deal or maybe not
* Week 6
  + Update tomst analyses with more appropriate met stations (e.g, cenmet not primet)
    - Requires cleaning and adjustments of those met stations’ data
  + Read through recently emailed papers
  + Experiment visualizations with various timelines
    - Apr 1 – oct 1
    - Apr 15 – oct 15
  + Experiment visualizations in general
    - Overlay of dendros and temperature
    - E.g., SDH; SVpdH; calendar year -> water year; etc.
  + Dig deeper into DendroAnalyst package, plan process for implementation
    - Set up plan with mark to revisit ecomatik conversion steps for analysis in R
* Week 7
  + Focus on TOMST tables for timestamps of expansion/shrinkage
    - Note which dates represent what
    - Find patterns e.g., which dates are popular or at least months for each dendro
    - Prepare visualizations as appropriate
    - Pair with Ford et al paper on modeling initiation of growth
      * Coordinate meeting with connie Harrington to discuss her work on this relationship between growth and modeled initiation start
      * Perhaps focus on first date of negative growth increment to indicate stress issues
  + Submit abstracts for upcoming symposia
    - OSU biology grad student symposium (spring)
    - OSU/PNW WFGRS-RAFWE symposium (spring)
    - NW Science Conference (?) (winter)
* Week 8
  + Critical analysis of potential errors in TOMST analyses
    - Consider localized definition of heat wave using the method of calculating long-term mean and relative standard deviations
    - check output with temperature/precip data to try and judge whether bumps are accurate or not to determine whether or not to keep
      * dig deeper into TNP package for best practices to manually control smoothing
      * consider filtering top 10% of values for dendro646 for example to adjust for inaccurate interpretation of really crazy data
  + check in with Amanda on tree core processing if haven’t done already
    - discuss options for potential future coring
* Week 9
  + Critical analysis and selection of TOMST figures for paper inclusion
    - Based on previous outputs of brainstorming
      * E.g., accumulated data vs data “as-is”
      * E.g., figures with DOY x axis or DOWY x axis or raw timestamp x axis
  + Apply statistical analyses of linear regression learned in class and interpret results
    - Put into paper draft
      * TOMST analyses show potential usage for TNP while providing high resolution data exemplifying post-2021 growth changes
        + Goal is to identify presence or lack thereof of “trickle-down” Heat Dome effects
  + Make TOMST codes and files neatly accessible and legible as we think about focusing on ecomatik and/or cores
* Week 10
  + Have dendro paper draft intro + methods complete or mostly complete and sent to committee for feedback going into spring term
  + Have microclimate data “ready to roll”
  + Write methods as I go
  + Make sure I annotate code as I go

**SPRING 2025 (main goal: connect TOMST analyses to Heat Dome via new analyses)**

* Complete any unfinished TOMST tasks
* Ecomatik analyses based on revisit of code conversion with Mark
* Connect findings in ecomatik and tomst
* Prepare findings to be “paper ready”
  + Explore statistical significance, extract novel work eg new functions/code, select figures for inclusion, supplemental figures
  + Brainstorm and select best pathways for data comparisons in paper
    - Old-growth vs secondary trees?
    - TOMST vs ecomatik in terms of R cleaning & analyzing?
      * Generalized point vs band dendros?
    - High elevation vs low elevation?
      * E.g., van is high elevation and may have a one-month delay in growth initiation as such
    - Doug-fir vs hemlock?
    - Sites inside vs. outside the critical scorch zone?
* Make plan for preparing for end-of-degree steps
  + Thesis defense
  + Exams / quals’
* Tree core analysis
  + Lab work: measuring rings, making observations, etc
  + Computer work: analyze measurements taken in lab
  + Writing work: begin tree ring paper

**SUMMER 2025 (main goal: submit dendro paper and get ready for thesis defense)**

* Writing and editing dendro paper draft
  + Double check relevant and/or new papers are cited and included
* Submit dendro paper
* Continue working toward tree core analyses / writing / sending for review
* Prepare for, practice, and schedule end-of-degree steps
  + Thesis defense
  + Exams / Quals

# FALL TIMELINE: NO SWITCH TO PHD

**FALL 2025 (main goal: prepare tree ring paper; graduate)**

* Collect more tree cores for tree ring paper (?)
* Defend thesis
* Complete qual exams
* Submit tree ring paper
* Graduate

# FALL 2025+ TIMELINE: YES SWITCH TO PHD

**FALL 2025 (main goal: field work for WH foliar scorch paper idea)**

* Collect more tree cores for tree ring paper AND western hemlock scorch paper
  + Plan for Amanda’s inclusion and compensation should be done beforehand
* Submit tree ring paper
* Collect other field data as necessary
  + E.g., biomass estimates, quantifying crown scorch, information for comparative irrigation study
* Organize process for WH scorch paper – what can be used from already discussed literature in other papers VS what I need to do / find for this paper specifically
  + E.g., will have already mentioned methodology for collecting tree cores for tree ring paper, but will need to add new literature for consequences of foliar scorch
* Prepare manuscript writing from literature already in “possession” so to speak (see above for examples on what I mean)
* Perhaps analyze more WH dendrometry e.g., manual bands

**WINTER 2026 (main goal: submit WH foliar scorch paper)**

* Writing and editing WH foliar scorch paper draft
  + Double check relevant and/or new papers are cited and included
* Submit WH foliar scorch paper