April 26, 2021 Joint Methods & CI Working Group Call

Attendees: Chris Jones, Carl Boettiger, Jake Zwart, David LeBauer, Abby Lewis, Jody Peters, Kelly Heilman

Agenda/Notes:

- 1. Uncertainty Quantification & Propagation, Modeling & Stats Task View
 - a. Use the Task View 1 on Reproducible Workflows as a guide
 - b. Abby cleaned up the text. Read through it before the call. What sections still need updating?
 - Think it is in a good place. Abby went through today and made changes for wording and clarity. Think it is ready for others to look through and make any changes before it goes on the website.
 - ii. There are no remaining comments that need to be addressed other than the figure
 - c. Hassan's figure See the Slack thread with suggestions
 - i. Simplification of Mike's figure. Does a nice job of making it more approachable and tailored to the Task View. It can also be added to the other Task View. Ties in to the Visualization and Workflows.
 - ii. Change some arrow directions. Initial conditions to model.
 - iii. Not all forecasts will need initial conditions.
 - 1. Might be confusing to make a narrow definition of a forecast with the "initial condition"
 - 2. Could we make the forecast cycle simpler by making model and forecast
 - 3. Assimilation, model and forecast maps on nicely
 - 4. Would it be useful to have little section numbers in the figure to point people to?
 - 5. Could the figure go into the other Task Views?
 - a. For Task View 1 with workflow automation could be represented by the whole figure. So may not fit in nicely with the figure.
 - b. But this figure would fit nicely with the Visualization, Decision Support, and User Interface
 - 6. Make "assimilation" into "data assimilation" or switch the text so that it is consistent
 - iv. Move Evaluate closer to Forecast Cycle
 - d. DA Table doesn't have text in all the cells. This would be good to get input.

e.

- 2. NEON Ecological Forecast Challenge CI Update
 - a. Still making tweaks to the package
- 3. Visualization/Decision Support Tools, User Interface Task View

- a. Upcoming EFI Panel, May 17 @ 2pm EDT Best Practices for Visually Communicating Ecological Forecast Uncertainty. Details and registration HERE.
- b. Resources Denis shared after the March 29 meeting:
 - i. Website with the material that we developed for the SESYNC workshop "Interactive Web-Based Visualizations and Decision Support Tools in Shiny/R for Quantitative Scientists": https://lsw5077.github.io/shiny_workshop/
 - ii. Here are some of the articles we have written that either include decision support tools or that talk about them:
 - iii. Millar, J.; Toh, K.; Valle, D. 2020. To screen or not to screen: an interactive framework for minimizing costs of mass malaria treatment interventions. BMC Medicine, 149.
 - iv. **Valle, D.**; Toh, K.; Millar, J. 2019. Rapid prototyping of decision support tools for conservation. Conservation Biology, 33:6, 1448-1450
 - v. Valle, D.; Millar, J.; Amratia, P. 2016. Spatial heterogeneity can undermine the effectiveness of country-wide test and treat policy for malaria: a case study from Burkina Faso. Malaria Journal, 15:513.
- c. The Social Science working group is compiling a Bibliography of references about visualizing ecological forecasts and general data visualization best practices. This may be a good resource to reference in this Task View.
- 4. Data Ingest, Cleaning, Management
 - a. Placeholder until we are further along with the other Task Views or have an identified leader for this
- 5. Forecasting Workflow Updates
 - a. Look through the final steps of the Workflow to identify what is covered in the Forecast Challenge and what will be good to keep in mind as a need for the future