

sDiv working group meeting summary

“sCoRRE - Assessing functional consequences of community changes with global change using trait-based and phylogenetic approaches”

The aim of the sCoRRE working group is to understand trait and phylogenetic shifts in response to Global Change Drivers (GCD), and link these changes to altered ecosystem functioning. Our main hypotheses are that GCD effects on ecosystem function can be largely explained by (1) changes in abundances of dominant species and their associated traits; (2) scaled effects of changes in species abundances and species turnover on trait expression at the community-level; and (3) changes in the phylogenetic relatedness within a community associated with species turnover.

Our first working group meeting centered around three activities. On Monday morning, we started with an introduction to the existing CoRRE database (managed by Meghan Avolio and Kim Komatsu; <https://corredata.weebly.com/>) for the participants. This activity consisted of presentations by Meghan and Kim that described the history of the CoRRE database, its components, and how the data could be accessed by working group participants.

Then we moved to discussion of our goals and hypotheses, and developed a list of eight papers that we envision tackling throughout this sDiv working group. All working group participants were active in this discussion, which was enhanced by the diverse expertise and research background represented in the room. This discussion spread over a few days, and was continuously returned to throughout the working group. In the end, each of the eight paper ideas were assigned a lead author and supporting authors.

Finally, we split into groups to begin brainstorming potential ways to analytically address our paper topics and protocols for assembling data to address existing trait data gaps. This took the majority of Thursday, again with all participants active in the discussion. By the end of the day, we had a list of tasks to be accomplished before the second meeting in September 2020.

On Friday, we spent the morning starting our assigned homework tasks to allow for questions to arise that needed group input. Overall, we made great progress for the week in developing our ideas as a group, identifying products that will emerge from the working group, and assigning tasks for next steps. Going forward, between meetings we are gap filling our trait database, expanding the CoRRE database, and conducting preliminary analyses in preparation for an analysis-heavy second meeting in September.

The working environment at sDiv was very conducive to our work. We were supported before, during, and after the meeting by the wonderful sDiv staff in ensuring the meeting was a success. And the facilities allowed for a productive group discussion, including remote participants at various points. We can't wait to come back soon!