

sDiv working group meeting summary

“sTURN - Does time drive space? Building a mechanistic linkage between spatial and temporal turnover in metacommunities”

Summary of the second meeting

Local communities usually undergo changes in their composition over time. It has been suggested that this temporal turnover is a key process underlying elementary macroecological phenomena like beta diversity and species–area relationships, but empirical evidence is missing. Moreover, there is a disagreement about the importance of different processes that may drive temporal turnover. The aim of the sTURN working group is to establish a firm link between spatial and temporal turnover in metacommunities, with a synthesis on theory, tools and empirical data.

After the first meeting held at iDiv in November 2017, we organised a small mid-term workshop at WasserCluster Lunz in Austria (April 2018).

The aim of the second iDiv-based meeting in November 2018 was to discuss progress since April especially on:

- analytical toolset
- available data for our empirical analyses
- first results from empirical analyses
- manuscripts in preparation (theory, tools, empirical data, functional approach)

Presentations were given by the lead authors (Patrick Thompson, Melissa Guzman, Zsófia Horváth, Alienor Jeliaskov) of the four planned manuscripts, to recap the progress and update all present participants. There has been a lot of work done especially with the development of analytical tools and their trial on empirical data, and we already have a well-developed draft for the conceptual framework. After a round table discussion, we split to smaller groups and worked on specific tasks related to these four topics. These breakout groups were mixing partly over the week, and came together for regular daily updates. We revisited the specific aims of the project, addressed necessary changes in methods and refined our approach in three out of our four main topics.

On Tuesday, we enjoyed an inspiring talk delivered by Luc De Meester to the sTURN group and all interested iDiv members, with the title “Rapid evolution, evolving metacommunities and the distribution of species, traits and genes in landscapes”.

The balance between work on outputs, general brainstorming / information exchange and participants presentations was approximately 40-50-10 %.

We left the meeting with a refined structure for all four manuscripts, and specific to-do lists for each. Furthermore, we made plans for another possible satellite paper, based on new ideas formed during this meeting.

The team agreed we had an overall very productive meeting, with even more focused and straightforward discussions than during the first workshop. The diversity of expertise among the participants and their enthusiasm both during and between the meetings contributed to a very productive and friendly working atmosphere, and we are very much looking forward to continuing the work.

The sDiv team was very helpful with smooth organization and excellent on-site practical arrangements throughout the entire week.