

sDiv writing retreat summary

"sChange" 27-31 March 2017

Because multiple writing retreat members were located in the UK, we chose to host our writing retreat at the University of St. Andrews, instead of at sDiv. The general atmosphere of the writing retreat was cooperative and productive, and we remain inspired and dedicated to move forward in the area of biodiversity change research.

In previous meetings, the goal of our working group has been to quantify biodiversity change through time, a critical challenge given methodological and ecological differences in data across the globe. Our group has been motivated to evaluate methods to measure and compare multiple aspects of biodiversity change, to advance analytical models, and to seek consensus in our understanding of biodiversity change. The goal of this writing retreat was to focus on an analysis of a global dataset of biodiversity time series, BioTIME (Dornelas *et al. in press*) to focus on biogeographic patterns of biodiversity change, across taxa and marine and terrestrial realms.

During the sDiv writing retreat, we presented and discussed results from the ongoing BioTIME dataset analysis that demonstrate the biogeographic patterns of multiple aspects of biodiversity change across the globe for different taxonomic groups. Attendees spent the majority of the time together to focus the key messages and to outline a proposed manuscript for a high-tier journal, with drafted paragraphs and figures. As a result of the discussions, we decided to examine additional components of species composition change, and to implement a different analytical model for the biogeographic analysis, to ensure the results were robust. Before leaving, the group designed a plan to complete the new code and analyses, delegated tasks to core group members for continuing to work on the text, and scheduled an update to send to all sChange working group members that would invite comments and further participation.

In addition, we used part of the time to discuss two related manuscript drafts from the sChange project, on the human drivers of biodiversity change (led by Diana Bowler; remote participant) and on the effects of spatial scale on interpreting observed biodiversity change (led by Mary O'Connor; remote participant).

Division of work time at the writing retreat

Task	Estimated percent work time
General brainstorming and information exchange	25%
Work on outputs	65%
Discuss related sChange manuscripts	10%

sChange writing retreat participants: Sarah Supp (University of Wisconsin-Madison), Shane Blowes (iDiv), Maria Dornelas (University of St. Andrews), Anne Magurran (University of St. Andrews), Laura Antao (University of St. Andrews), Isla Myers-Smith (University of Edinburgh).

We also included several remote participants for key discussions: Brian McGill (University of Maine), Jon Chase (iDiv), Helge Bruelheide (MLU Halle/iDiv), Marten Winter (iDiv), Amanda Bates (University of Southampton), Diana Bowler (Senckenberg Biodiversity and Climate Research Centre), Mary O'Connor (University of British Columbia), Patrick Thompson (University of British Columbia).