
Workshop summary

focal areas of discussion + main results/conclusions + open questions

Our focus for sPLAT was to understand the drivers of pollen limitation at a global scale. We achieve this by conducting an ISI search for pollen supplementation experiments conducted on natural plant populations, and by conducting searches in regional journals for well-studied biodiversity hotspots of Brazil, South Africa and China. Our previous synthesis of this literature was conducted by the PIs as part of an NCEAS working group. At that time, we considered studies published between 1981-2003 and found ~1000 experiments on ~250 plant species. Our sPLAT dataset considers 1981-2015 and has >3000 experiments on ~1200 plant species. The long time period of this sPLAT data and the more global distribution of the data allow us to ask new questions about the causes of pollen limitation. Further, our current analyses will benefit from global datasets now available on land use and climate change, and a more complete angiosperm phylogeny.

Content of presentations

We focused on first presentations on the progress we made on the dataset during our pre-meeting work, and outlining our first paper, which we hope will provide a high-profile synthesis of our results. This paper will address the degree to which global change and pollinator declines can lead to pollen limitation. We know from small-scale studies that environmental change leads to pollen limitation. But, ours will be the first study to examine whether or not these patterns are also present at regional and global scales. Further, we will assess which plants will be most sensitive to pollen limitation (e.g., outcrossers, short-lived species).

At the end of this presentation, we discussed our priorities for filling in blank cells in our dataset, based on the analyses we want to conduct for our first paper. We broke into subgroups, and worked on our tasks. Future presentations gave the larger group updates on the progress within subgroups and gave subgroups the opportunity to discuss issues with the larger group.

Which outputs were discussed and which steps were undertaken (e.g. journal article in Journal XYZ, presentation on conference XXZ, follow-up workshop ...)

We discussed 11 journal articles and assigned a lead author to all of these. We have two follow-up meetings planned to make progress on these manuscript.

First: writing retreat for 5 members of sPLAT with the goal of providing a first draft of three manuscripts. This is scheduled for 29 May-4 June.

Second: meeting of all sPLAT members in Hamburg. This is scheduled for 4-8 July.

Balance between work on outputs, general brainstorming/ information exchange and participants presentations in %

We did a lot of work in subgroups to fill in the database at this meeting. While the process of 'cleaning' the data set was a bit painful and slow, we all felt like this was a good use of our time together. Our previous meeting included more of a focus on general brainstorming and information exchange.

Inspiration for own work and/or further cooperation

We initiated group discussions about the questions that are still difficult to answer despite 3000 studies around the world. We are considering the idea of replicated experiments in the future that take advantage of the very international composition of our group.

General working atmosphere and feedback on sDiv support

We love sDiv! The working space was perfect, and everything was very well organized. We received help from several members of the iDiv community for phylogeny-making and GIS.