

sDiv working group meeting summary

"sAPROPOS - Analysis of PROjections of Populations"

Feedback of applicants

During the second sAPROPOS workshop, we continued to work on methods and analyses to incorporate environmental effects in demographic models to carry out projections of populations under various climatic scenarios. The second meeting was effectively the first "large" meeting, as the first meeting, which took place in November 2016, was only attended by 5 members to get the project jump-started, discuss initial approaches and data availability.

The second meeting was geared towards large and small group discussions and work. However, during the first day we discuss via short presentations the progress that was made during the first meeting, and we also introduced the new postdoc on the project (Dr Aldo Compagnoni, starting officially June 2017). The talks included a review of the objectives of sAPROPOS (Rob Salguero-Gomez), a discussion of the review paper on environmentally dependent demographic models in animals (Maria Paniw), caveats in demographic approaches using splines (Britta Teller, skype), past and current work as postdoc on the project (Aldo Compagnoni), inference of bird demographics using phylogenetic approaches (Tamora James). During that day, we also enjoyed the very well timed talk by Jonathan Levine "Understanding Species' Responses to Climate Change: the Need for Population and Community Ecology" at iDiv.

Part of the discussions and break-out group activities were focused on the (i) development of moving-window approaches to model environmental effects on plant populations, (ii) incorporation of vital rates in bird phylogenetic analyses, (iii) automatic searches of vertebrate demographic literature for the literature review, and (iv) usage of FUNDIV data to model environmental effects on European forestry records.

There was a 1:4 ratio of big group to break-out group discussion, and the last half of Friday (last day) was allocated to discussing progress accomplished during the week, and assigning researchers to specific milestones and deadlines. All of these have been carefully transcribed and organized by Rob Salguero-Gomez and are also available upon request.

The project topics that we are working on as a result of the first and second sAPROPOS meeting are:

- Projection of populations using splines
- Projection of populations using moving windows
- Automatization of plant phylogenies

- Inference of bird demographics using allometric theory and phylogenetics
- Projection of forestry dynamics using FUNDIV plots
- Reactivation of Mage R package for data manipulation and derivation outputs of COMPADRE & COMADRE
- Proposal for British Ecological Society symposium
- Review of ways to model climatic effects of species' population responses
- Activation of an iDiv digitalization node into the COMPADRE network

Participant list

First name	Name	Institution	Email
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*Not attending February meeting in person

**Will join us via skype

***iDiv staff, will join us part-time