PST38 - Iberian ponds: Measuring responses to climate change using distributed pond mesocosms

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Climate change ranks amongst the greatest threats to biodiversity across the Earth's biomes. Following changes in the climate, communities disassemble and reassemble in seemingly unpredictable ways. Still, the question of whether species respond to environmental changes individualistically or whether there is synchrony at higher levels of organization (e.g., functional groups) remains unresolved. The IberianPonds project is addressing this gap in knowledge by integrating different disciplines (i.e. Macroecology, Biogeography, Community and Molecular Ecology) by combining different sources of information, such as species occurrences, functional traits and phylogenies to improve predictions of changes in food web structure under simulated climate change.

Ongoing work includes large-scale biodiversity assessments and small-scale mesocosm experiments using the IberianPonds experimental facility that consists of 192 artificial ponds distributed across six locations in the Iberian Peninsula and spanning a representative environmental gradient within Iberia (sites in Arid, Mediterranean, Temperate and Alpine environments). This poster will present preliminary patterns in the distribution of phytoplankton, zooplankton and macroinvertebrate communities across the Iberian Peninsula.