

## **PST23 - Zooplankton community build-up after restoration and re-establishment after nine years in temporary ponds**

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Restored ponds provide unique opportunities to study the complex processes of colonization and establishment of new species. In the case of zooplankton, new taxa can arrive through passive dispersal from other habitats. On the other hand, in restored ponds, a remnant egg bank could still be viable and hatch in the new conditions of the restored habitat. The successful establishment of these species will depend on abiotic factors and biotic interactions. The same processes operate in the case of temporary ponds (re-establishment of taxa when flooding after a dry period), with the difference that the sediment egg bank could play a major role.

We studied zooplankton communities in a set of restored temporary ponds when they first filled (autumn 2007), comparing the communities found with the ones present in other ponds from the region (old ponds which included permanent and temporary). In autumn 2016, after a 5 year-drought, the temporary ponds were refilled and zooplankton assemblages in the same set of ponds were studied after filling. Our objectives were (i) to compare community build-up at two times: colonization (after restoration) and re-establishment (after drought); and (ii) to investigate the relative importance of spatial and environmental factors at the two times.