

PST27 - Using soil seed bank to design management and recovery strategies in Mediterranean temporary ponds

Ferreira, E.^a, Lumbreras, A.^a, Pinto-Cruz, C.^b, Meireles, C.^a, and Belo, A.^b

^aICAAM - Instituto de Ciências Agrárias e Ambientais Mediterrânicas, Universidade de Évora, Évora, Portugal

^bICAAM - Instituto de Ciências Agrárias e Ambientais Mediterrânicas, Departamento de Biologia, Universidade de Évora, Évora, Portugal

The Portuguese Costa Sudoeste SCI shows a natural abundance of Mediterranean temporary ponds. Mediterranean temporary ponds (3170*) are priority habitats due to the huge biodiversity they shelter and because they are heavily menaced by agriculture and tourism. The uniqueness of this habitat results from the coexistence of different plant communities in the same place at successive periods of time, what is allowed by the existence of abundant and diversified soil seed banks. Soil samples were collected in 3 belts (central, intermediate and outer) of 41 ponds and analyzed separately using the germination technique. The assessment of the specific composition and abundance of soil seed bank within each belt made possible to ascertain the spatial distribution of seeds within ponds and their recovery potential. This assessment showed that there is more specific richness, and also a higher abundance of seeds, in intermediate and outer belts of ponds than in the inner belt. Beyond that, this study also showed how valuable can this information be regarding the design of management and recovery strategies for ponds, particularly for those with intermediate degree of conservation as evaluated by the aboveground vegetation.