

Projects funded 2010-2011 Call

Soil Crust InterNational (SCIN) – Understanding and valuing biological soil protection of disturbed and open land surfaces

Bare ground is not just bare ground; in fact, the soil surface in areas free of normal vegetation is often covered with a skin made up of a complex community of microorganisms, like cyanobacteria (bluegreen algae), lichens and bryophytes – the biological soil crust (BSC). BSCs can be the only living cover in arid and semi-arid regions such as hot and cold deserts or xerothermic steppe vegetation. They are also the first colonizers of disturbed soils and have major impacts on the soil properties through stabilization, erosion limitation, and facilitation of colonization by higher plants. Despite these immensely important properties that provide protection to large, particularly marginal areas, soil crusts are neither well understood nor well appreciated by conservation and regularity authorities who are missing opportunities for improved policies and actions in the area of land protection.

The aim of SCIN is to achieve both better appreciation of the functioning and importance of BSCs in Europe and to add value by contributing to the development of better and simpler soil protection practices and policies. SCIN will provide a much improved understanding of BSC functionality from the severest deserts to the alpine ecosystems.

Functional studies will be backed by detailed biodiversity assessments that aim to reveal the key organisms in BSC functioning over a wide latitudinal, altitudinal and climatic range. Information transfer to stakeholders will be achieved through a series of consultations and reports including highly visual material supporting their work.



Partners:

University of Kaiserslautern, GERMANY, coordinator Complutense University Madrid, SPAIN CSIC, SPAIN Swedish Museum of Natural History, Stockholm, SWEDEN University of Graz, AUSTRIA University of Kiel, GERMANY University of Salzburg, AUSTRIA

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