

Expression of Interest

Contact Person/Scientist in Charge

Name and surname: JORDI

• **CORTINA-SEGARRA**

Email: jordi@ua.es

• **Universidad de Alicante**

Department / Institute / Centre

Name of institution: Multidisciplinary Institute for Environmental Studies (IMEM Ramon Margalef)

• **Address:** Carretera Alicante - San Vicente

• **Province:** Alicante

Research Area

Social Sciences and Humanities (SOC)

Economic Sciences (ECO)

• Environmental Sciences and Geology (ENV)

Brief description of the institution:

The University of Alicante (UA) was created in 1979. Today it educates and trains more than 36.000 students -2.500 of them are international students - and offers more than 80 undergraduate and 96 postgraduate programmes: consequently, it is proportionally one of the fastest-growing universities in Spain. The UA houses 227 research groups in Social and Legal Sciences, Experimental Sciences, Technological Sciences, Human Sciences, Education and Health Sciences and 15 Research Institutes (Water & Environment, Materials, Electrochemistry, Biodiversity, Chemical Processes and Organic Synthesis, and Modern Languages, among others). Thus, the UA employs over 2.400 researchers/ professors and has a complex management /administration structure of 1.300 people, which involves an annual budget of 175 million Euros.

UA is a young and dynamic university with vast experience in implementing EU funded projects in different programmes and areas, with presence in more than 60 countries worldwide. In the last 10 years, UA has successfully acted as coordinator of many Tempus, Alfa, Edulink projects involving Third Countries and Lifelong Learning and Framework Programme (FP, DG Research) Projects. Moreover, the participation in FP has been increasing in the last years, taking part in 25 5th FP, 26 6th FP, 45 7th FP projects (13 of them coordinated by UA), and 6 in H2020. It is worth underlining the big effort performed by UA in order to meet the commitment with the principles set out in the European Charter for Researchers and in the Code of Conduct for the Recruitment of Researcher.

Brief description of the Centre/Research Group:

Environmental degradation in drylands puts biodiversity, the provision of services and human wellbeing at risk. Changes in land use, including pressure on peri-urban and coastal areas and abandonment of rural areas represent major challenges for science and management. This situation is aggravated by climate change. The complexity of the challenge demands holistic and transdisciplinary knowledge production, and the development of tools to facilitate bidirectional communication between scientists and society.

The Multidisciplinary Institute for Environment Studies "Ramon Margalef (MIES) was created to respond to this challenge. It is organized in three Units: (1) Structural and molecular analysis of organisms, (2) Community composition, and ecosystem function and management, (3) Land management and planning. It has +40 members with expertise in environmental disciplines at all scales.

Further info: <https://imem.ua.es/en/presentation/presentation.html>

The research group has a long history of theoretical and applied research in dryland ecology and restoration. Further info: <https://imem.ua.es/en/about-us/jordi-cortina-i-segarra.html>

Project description:

Ecological restoration provides a strong tool to mitigate the negative effects of land-use changes and climate warming, protecting biodiversity and reestablishing the provision of ecosystem services. The project COSTERA (COST-effectiveness of Ecological Restoration Actions) will develop cost-effectiveness analyses of ecological restoration actions in a semi-arid landscape across a wide range of ecosystems and ecological and socio-economic contexts. COSTERA aims to: 1) evaluate changes in biodiversity and ecosystem services, considering society needs and aspirations, and the interrelationship between biodiversity and ecosystem services, 2) define mechanisms behind changes in biodiversity and ecosystem service supply, and evaluate their response to different climate scenarios and restoration strategies, 3) estimate restoration costs and explore the drivers of cost-effectiveness, 4) estimate, communicate and reduce uncertainty in the supply of ecosystem services and estimations of cost-effectiveness, 5) identify priority areas for ecological restoration using cost-effectiveness analysis, 6) conduct a shared diagnosis to detect structural barriers, social restraints and opportunities for ecological restoration, and 7) develop management strategies and restoration guidelines adapted to the studied systems together with stakeholders. We will use a large dataset (project Terecova), and on-ground and drone surveys to analyze cost-effectiveness at the planning scale (ca. 200,000 Ha) and the project scale (ca. 500 Ha). Cost-effectiveness of different restoration strategies will be evaluated by engaging stakeholders in defining targets for restoration, and restoration strategies and costs under different climate scenarios. Furthermore, stakeholders will help identify the importance of costs and lack of effectiveness as constraints to the implementation of ecological restoration. COSTERA will generate a uniquely large and comprehensive database for degraded, un-degraded and restored ecosystems, including social preferences and restoration costs. This project is grounded on the solid expertise of the team in the ecology and management of the target ecosystems, ecological restoration actions and evaluation, assessment of biodiversity and the provision of ecosystem services, multi-criteria analysis, and the integration of stakeholders views via participatory processes. Furthermore, our team has long-standing experience in transferring the outcomes of transdisciplinary research to policy and decision-makers at national and international governance levels.

Applications

Send CV, letter of motivation, 2 letters of recommendation before **August 31, 2019**