Quarries alive
2018

BOOK OF ABSTRACTS

ENHANCING BIODIVERSITY AND ECOSYSTEMS SERVICES IN QUARRIES

CHALLENGES, STRATEGIES AND PRACTICE

2-4 MAY 2018, UNIVERSITY OF ÉVORA, PORTUGAL

Organization Committee

UNIVERSIDADE DE ÉVORA

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Poster contributions

P01. Restoring agro-silvo-pastoral systems using the Cocoon ecotechnology: a green infrastructure model for quarry restoration

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Returning quarries damaged lands to agro-silvo-pastoral systems could be a suitable and sustainable option. This is a triple and complementary use of the land, adapted to areas of low soil potentialities and to the Mediterranean climate: open evergreen forests maintained by grazing, combined with rain fed crops. Due to their mixed characteristics and to the extensive form of exploitation, these systems constitute varied landscapes of high biological diversity. Moreover, these systems can help meet the needs of a growing population and protect the environment: they can be exploited with both crop and animal-production systems and may enhance the supply of regulating ecosystem services, such as nutrient providing, carbon storage, pollination and pest control, as well as cultural services, such as recreation and landscape aesthetics. The Green Link project aims to contribute to this type of restoration that could be applied to quarry areas. More than 4,000 Cocoons, a low-cost and biodegradable device that improves water supply to seedlings, have been installed in a burned area in El Bruc (Catalonia) in order to help the restoration of the old agro-silvo-pastoral landscape that exist in this zone at the beginning of the 20th century. The decision of the species to plant was made with the engagement of the owners, labourers and farmers, through a strong participatory process. The vast majority of the planted species are linked to the production of high added value products. In the medium term, the objective of the project is to create green jobs linked to this agro-silvo-pastoral landscape, increasing biodiversity, soil fertility and reducing forest fire risk. The Cocoon ecotechnology could also be applied in the restoration of Mediterranean quarries. In fact, near 4,000 Cocoons have been installed in a quarry in Ptolemais (Greece), in the context of The Green Link project.
Keywords: Agro-silvo-pastoral systems, ecological restoration, ecosystem services, ecotechnology, Cocoon