

BIODIVERSITY CASE STUDY

Company: SECIL, Companhia Geral de Cal e Cimento, S.A.

Country: Portugal (SECIL-Outão Plant)

Title	Study and Valorisation of Biodiversity – Evaluation of the fauna during different stages of quarry recovery and comparison with natural habitats.
Context	Quarry rehabilitation started in 1982 to recreate the natural habitats using native species and create natural conditions for fauna occupation. 27 years of restoration resulted in habitats with different plant communities, with different ages and cover. SECIL promoted a complete study to characterize and evaluate the occupation level of fauna during the different stages of ecological succession and natural habitats.
Solution	<p>A team of biologists investigated the selected groups of fauna in the various habitats during 16 months, using different methodologies. To compare fauna occupation level, three landscape units in two types of soil (limestone and marl) were defined: habitat recovery with different ages of revegetation, natural habitats and burned habitats (natural areas affected by the 2004 fire).</p> <p>The study groups of fauna were: insects (butterflies and ground beetles); amphibians (urodelians and anurans); reptiles (saurians and snakes); birds (passeriformes and birds of prey); mammals (small mammals, bats, lagomorphs and carnivores). Bio-indicators of habitat quality, important species in the first stages of ecological succession and also threatened species that can occur in the area were the criteria used for selecting the groups of fauna.</p>
Result	<p>The main results aimed for with this study were: (i) number of species; (ii) define the priority species for conservation; (iii) compare the number of species in the different habitats; (iv) identify the limiting factors that influence the abundance and diversity of species; (vi) establish measures to encourage the colonisation of fauna.</p> <p>Based in these results SECIL established an Action Plan to measure the evolution of the fauna population and evaluate the effectiveness of the implemented measures.</p>
Partners	Biology Department, Evora University

