

**Company:** LafargeHolcim

**Location:** Las Cuevas Limestone Quarry, Sitges, Barcelona, Spain

**Objective** Make compatible the extraction with the management of the biodiversity.

**Context** The site is in the Natura 2000 Area of Garraf.

**Actions** LafargeHolcim has developed together with IUCN a tool ("Biodiversity Indicator and Reporting System\_BIRS") aimed for quarry management technicians so that, without specialised knowledge in biodiversity, they can monitor it within the framework of exploitation and report its evolution.

BIRS is a simple tool based on the completion of an Excel sheet by field observations, which automatically classifies each quarry on a scale of 1 to 10 based on the area and assessment of each habitat identified, the improvements and threats detected and the uniqueness ecological importance of each one in the regional context. First, it is necessary to identify and map the different habitats existing in the perimeter of property and extractive area under quarry management: (1) Operational area; (2) Rehabilitated area; (3) Inactive slopes; (4) Forests / tree plantations; (5) Scrub; (6) Pasture; (7) Bare rock outcrop; (8) Ruderal; (9) Crops; (10) Wetlands; (11) Rivers and streams; (12) Lakes and ponds; (13) Coastal zone, cliffs; (14) Salinas.

**Result** In Las Cuevas Quarry the natural area of the Garraf massif has a special habitat of limestone rocky outcrop, which is what marks the ecological interest of the environment. The tool assesses in a singular way the existence of possible aspects of interest for biodiversity. For example, in Las Cuevas there are nests of a vulnerable bird species in Catalonia, the Black Wheatear (*Oenanthe leucura*). Also the identification of threats to biodiversity such as erosion, invasive plants, fire, pollution, disturbances (livestock, mining ...), whose presence diminishes the overall assessment of each habitat.

**Partners** SOMETEC

