

## BIODIVERSITY CASE STUDY

Company: Zementwerke Leube GmbH

Country: Austria (Salzburg)

**Title** Biodiversity project for the protection and enlargement of populations of red listed plant species, endangered amphibians, reptiles, dragonflies and bee species.

**Context** In the surroundings of the quarry of the Zementwerk Leube GmbH a landscape-management plan is realized to reach the following targets:  
Protection and enlargement of the populations of 23 red list plant-species (*Juncus acutiflorus*, *Scorzonera humilis*, *Genista tinctoria*, *Cirsium rivulare*, *Betonica officinalis*, *Epipactis palustris*, *Typha latifolia*, *Selinum carvifolia*, *Crepis mollis*, *Menyanthes trifoliata*, *Euphorbia verrucosa*, *Asarum europaeum ssp. caucasicum*, *Astrantia major*, *Dactylorhiza incarnata ssp. incarnata*, *Polygala amarella*, *Primula farinosa*, *Trollius europaeus*, *Viola palustris*, *Eriophorum angustifolium*, *Eriophorum latifolium*, *Gymnadenia conopsea*, *Pinguicula vulgaris*), of 9 endangered amphibians and reptils (*Bufo bufo*, *Rana temporaria*, *Mesotriton alpestris*, *Lissotriton vulgaris*, *Hyla arborea*, *Bombina variegata*, *Salamandra salamandra*, *Natrix natrix*, *Lacerta agilis*), from 9 dragonfly species of which 2 are red listed (*Ischnura pumilio*, *Erythromma viridulum*, *Libellula depressa*, *Libellula quadrimaculata*, *Aeshna cyanea*, *Coenagrion puella*, *Pyrhosoma nymphula*, *Sympetrum striolatum*, *Enallagma cyathigerum*), of 14 grasshopper-species of which 3 are endangered (*Conocephalus discolor*, *Corthippus dorsatus*, *Corthippus montanus*), of 34 bee-species from which 4 are endangered (*Lasioglossum laevigatum*, *Andrena clarkella*, *Andrena praecox*, *Bombus wurfleini*) and 1 species which is near extinction (*Chalicodoma parietina*) and the resettlement of 2 red list plant-species (*Centaureum erythraea*, *Cyperus fuscus*).

**Solution** The management-plan includes the realization of different types of standing waterbodies, the mowing of Molinia-meadows and semi-natural dry grasslands and the building of special habitats for the endangered insects (for example sandheaps). In course of the resettlement-projects seeds of the endangered species are collected in wild and seeded out in adequate habitats.

**Result** In the last 13 years the targets could be reached to great extent, all populations increased, the resettlement was very effective. The population of the bee-species *Chalicodoma parietina* is in the meantime the only known in the province of Salzburg.

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