

The RestHAlp project: ecological restoration of habitats in the Alps

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Introduction

Alpine **habitats** are particularly susceptible to **degradation** as a result of different factors.

Human activities and the diffusion of **Invasive Alien Species** (IAS) in vulnerable areas contribute to the loss of plant biodiversity, endangering many of the goods and services provided by mountain ecosystems.

Aims

The Interreg ALCOTRA project RestHAlp-Ecological restoration of habitats in the Alps, aims at:

- **restoring** degraded habitats in Sites of Community Importance (SCIs);
- limiting the spread of **IAS** in alpine valleys;
- involving the **population** in the conservation of habitats.

Actions



Degraded habitat by invasion of Japanese knotweed

- Use of an evaluation method to define **restoration objectives**;
- Use of **native seed mixtures** to restore degraded habitats and dissemination of the results;
- Production of a **prototype machine** for the large-scale harvesting of native seed mixtures for preservation;
- Characterization by **DNA analysis** of local populations of plant species;
- Equipment of wetlands to quantify their hydrological and socio-economic functions and assess their **ecosystem services**;
- Monitoring of IAS through a **participatory science** approach and analysis of their diffusion dynamics.

Outcomes



Native seeds harvesting



Preservation mixture

The main outcomes of the project will be:

- **10 demonstration sites** of **ecological restoration** of habitats in French and Italian SCIs and a **guide** of good practices;
- **maps of source areas** for the collection of preservation mixtures in both countries;
- a **prototype machine** for the large-scale harvesting of native seeds;
- **distribution maps** of the most harmful IAS in the territories concerned and a **dynamic IAS surveillance system**, including a smartphone application and a database;
- **7 demonstration sites** and a methodological **guide** for assessing and promoting **ecosystem services**.



Before ecological restoration



After ecological restoration

