



ECOPOTENTIAL: improving future ecosystem benefits through earth observations

Peneda-Gerês and the future socio-ecological benefits in mountain PA's

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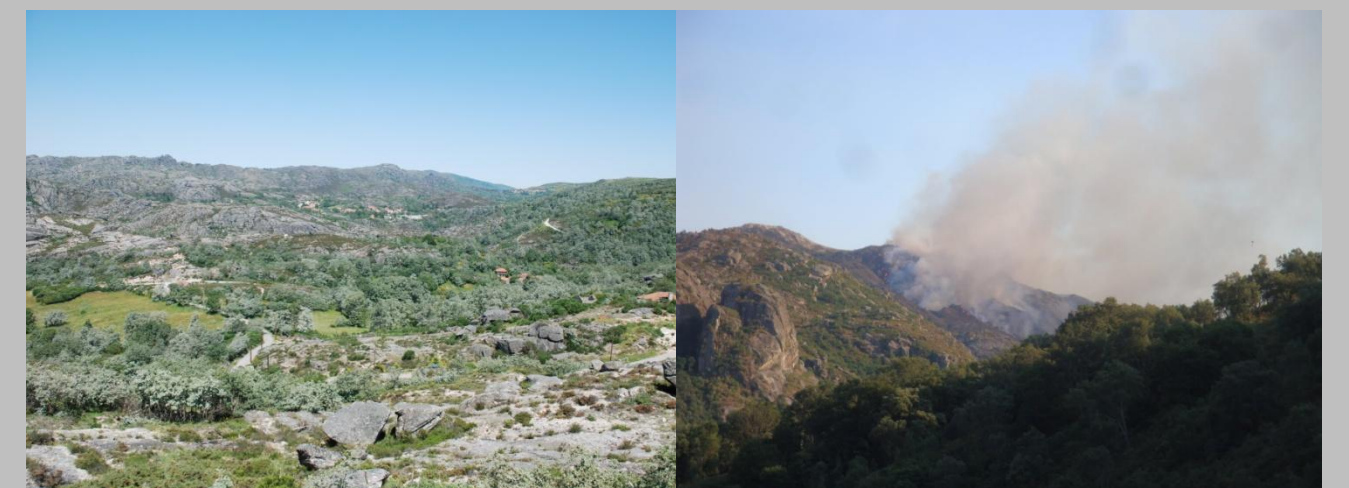
The protected area

Peneda-Gerês National Park (41.8387° N, 8.2416°) covers 70 000 ha and was founded in 1971. It is located at a climatic transition zone (Temperate/Atlantic Sub-Mediterranean), with 1-2 dry months in summer. Annual rainfall is usually above 2000 mm, reaching 3500 mm in summits. Granite is by far the dominant bedrock type. The main ecosystem/land cover types are deciduous oak forests, heathland and scrub, meadows and rock outcrops (in highlands), and forest plantations, scrub, urban and agriculture (in lowlands).



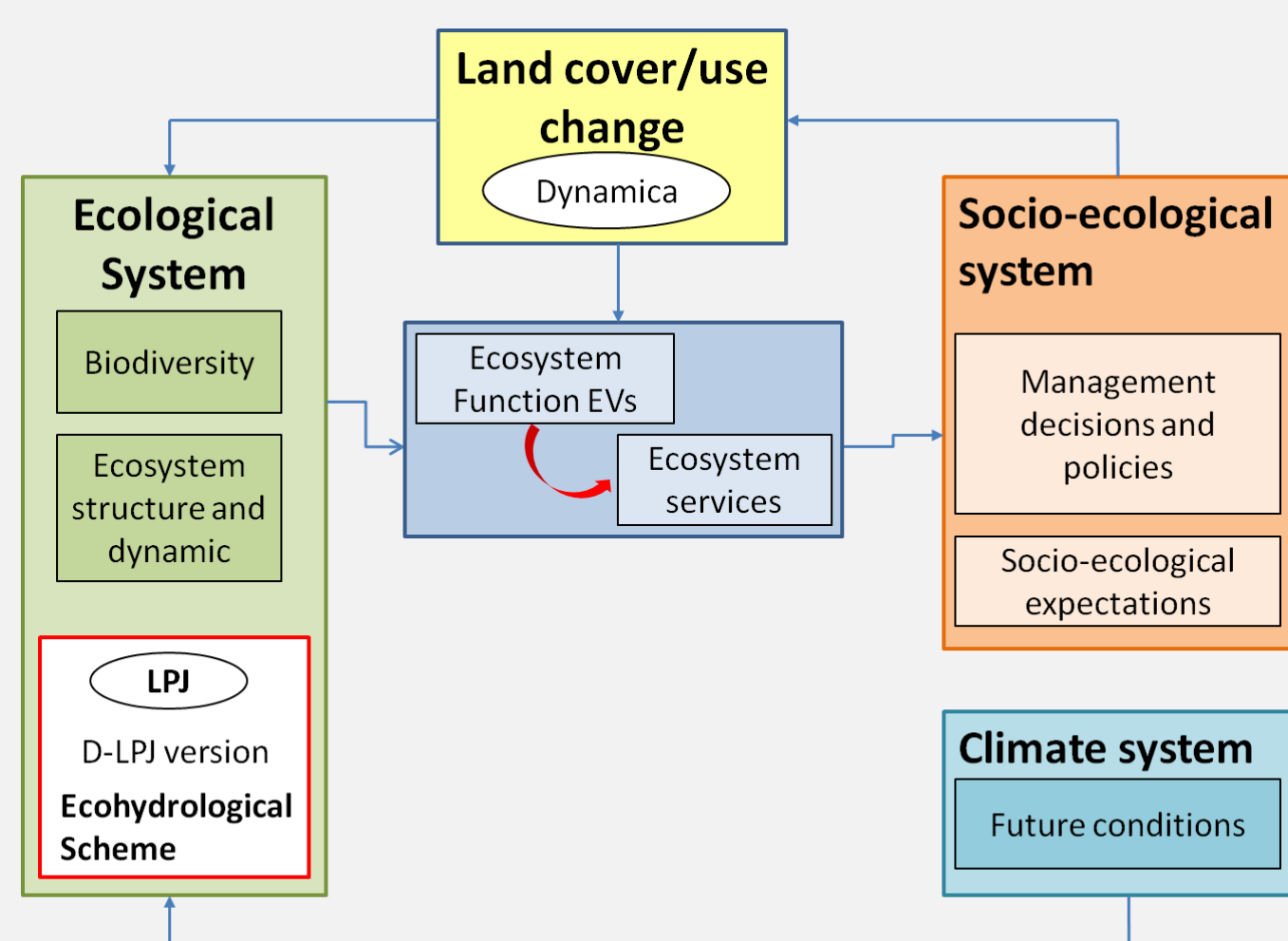
Drivers and Pressures

- Climate change
- Farmland and pastoral abandonment
- Changes in wildfire regimes
- Expansion of non-native species
- Urban development, tourism and infrastructures

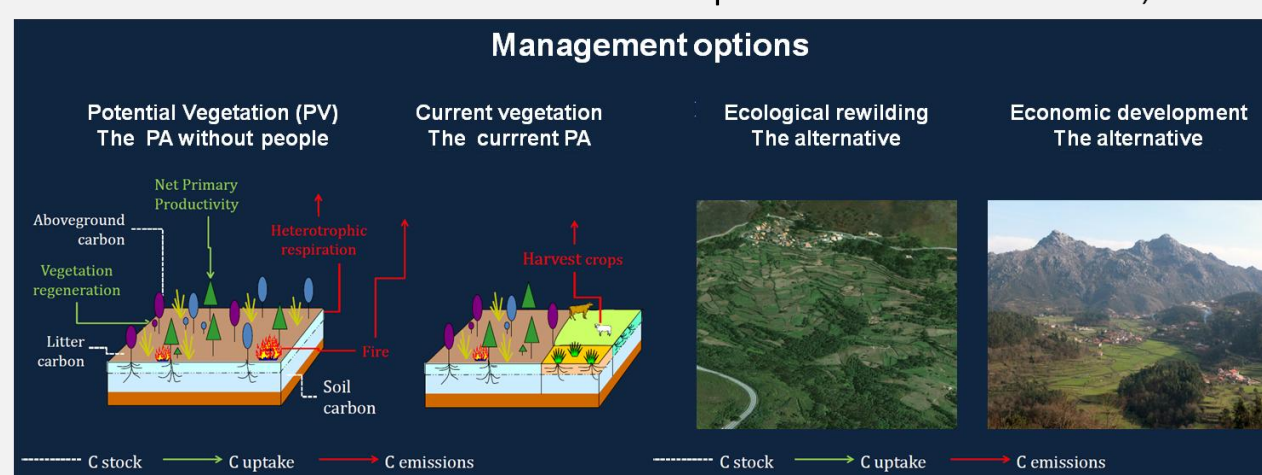


ECOPOTENTIAL in the PA

1 Ecosystem functions and services under future management options and climate

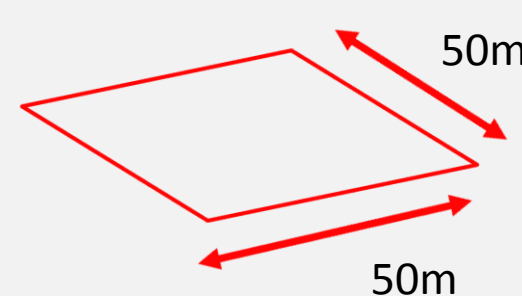
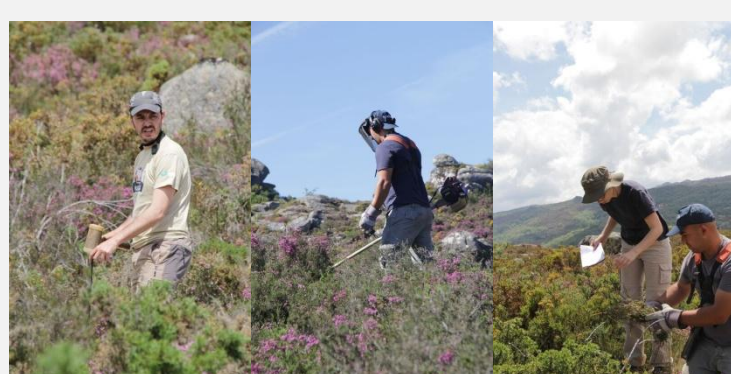


Adapted from Collins et al. 2010, TEEB 2010

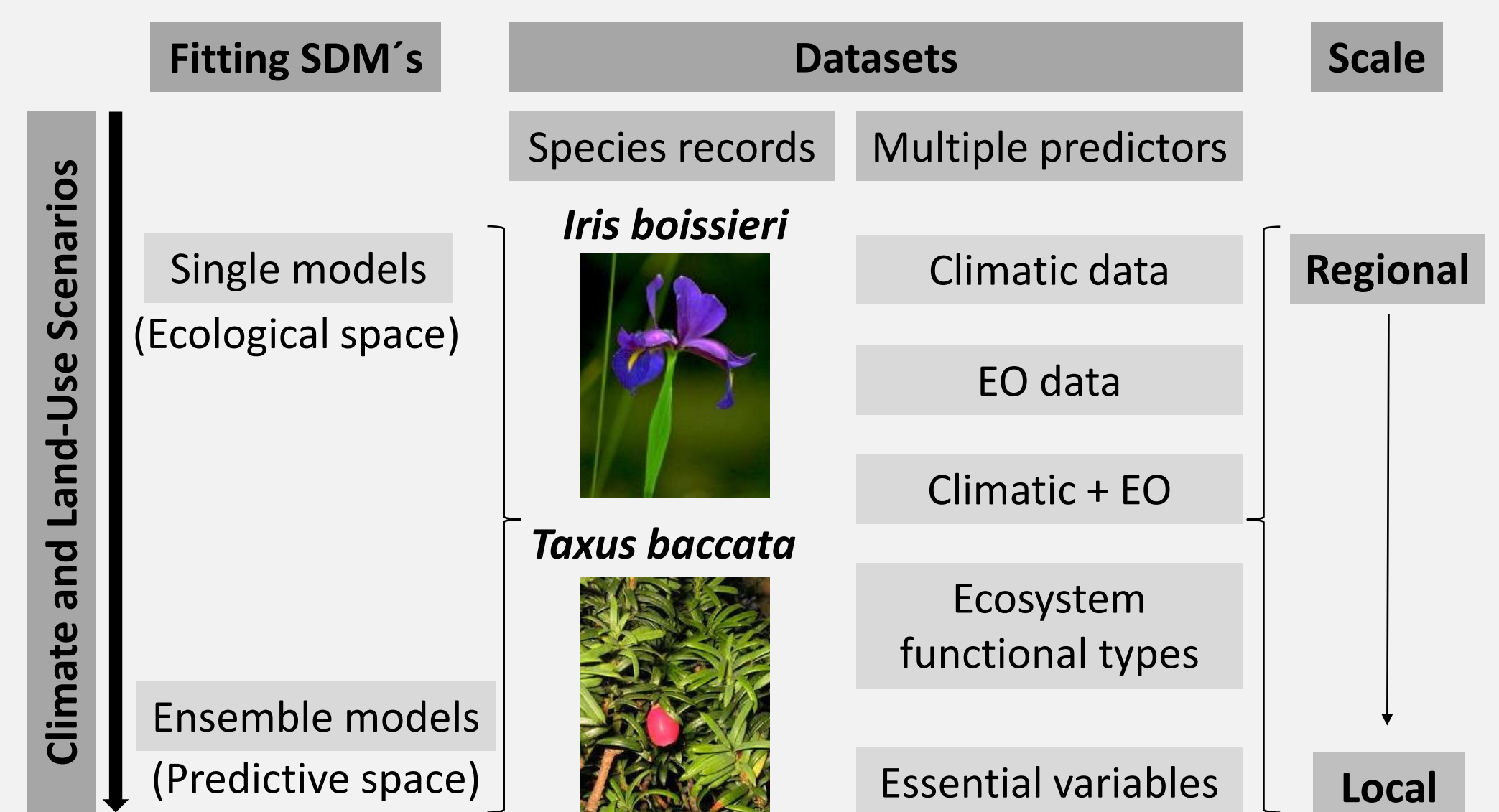


Sentinel-1 in-field campaign

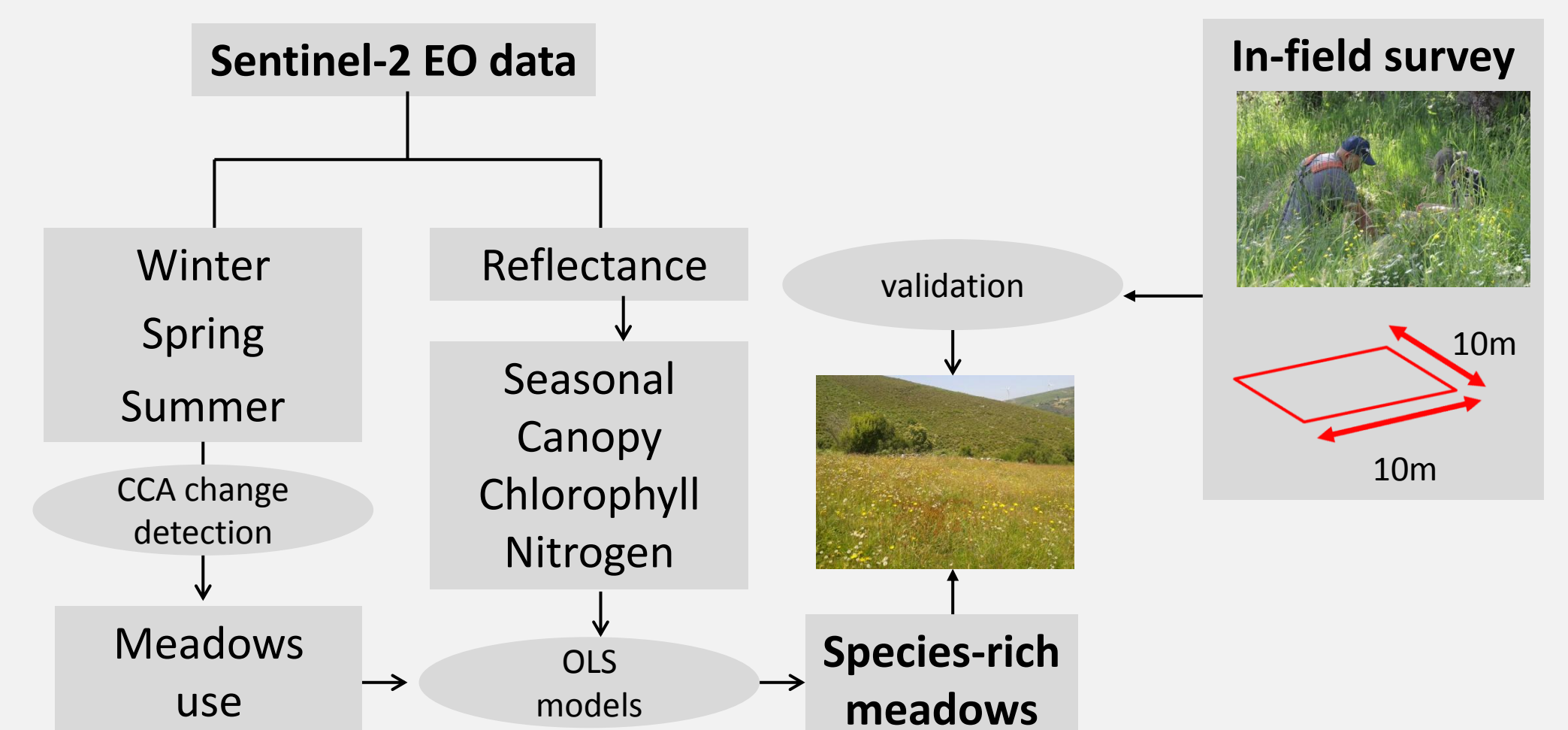
Vegetation water content (VWC)
Soil moisture (SM)
Biomass (B)



2 Societal expectations- Conservation of natural heritage



3 EO-based prediction of species-rich meadows in a context of land abandonment and vegetation succession



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