



MEDITERRANEAN WOOD-PASTURES FOR PEOPLE AND NATURE:



Montado in Alentejo Natura 2000 sites



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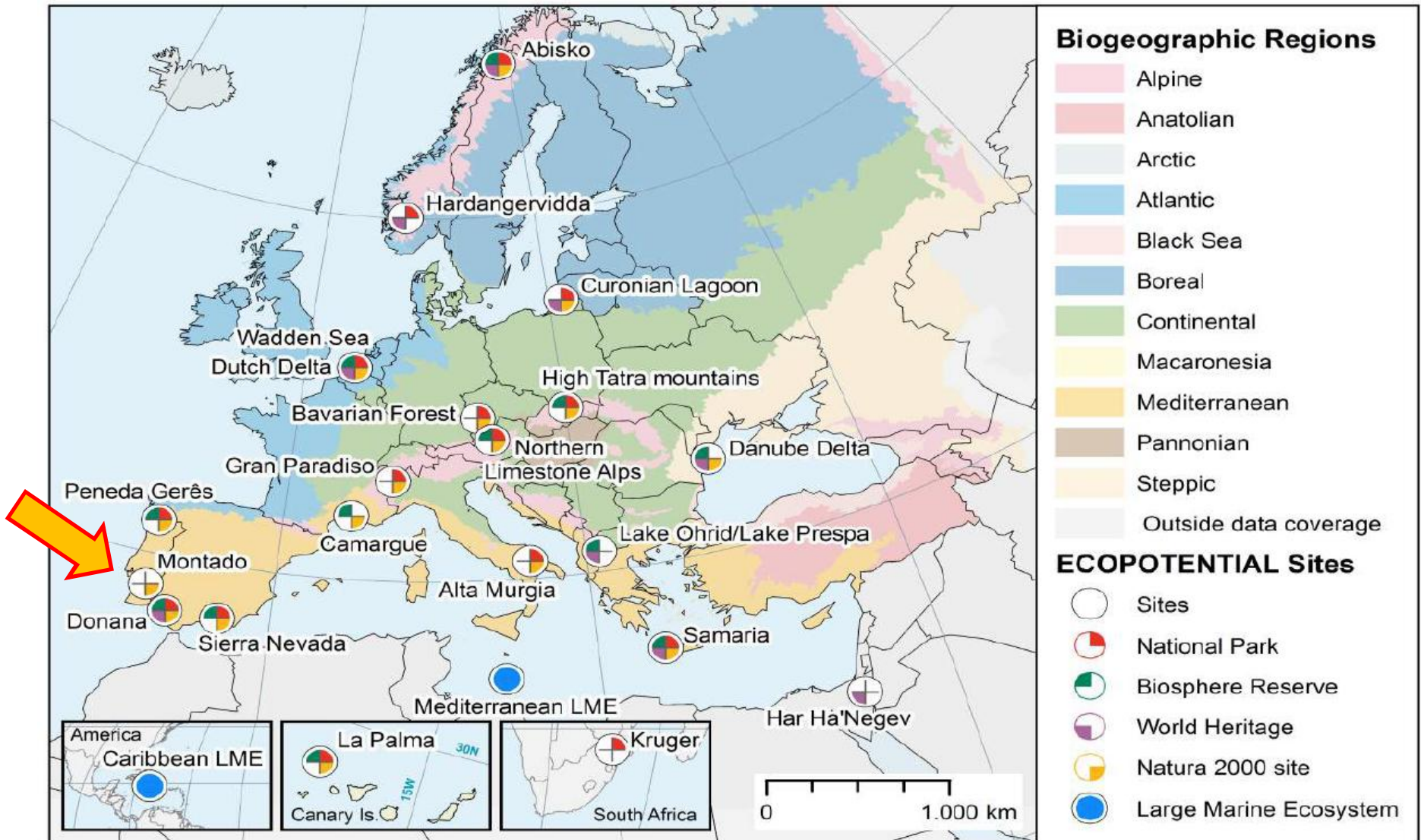
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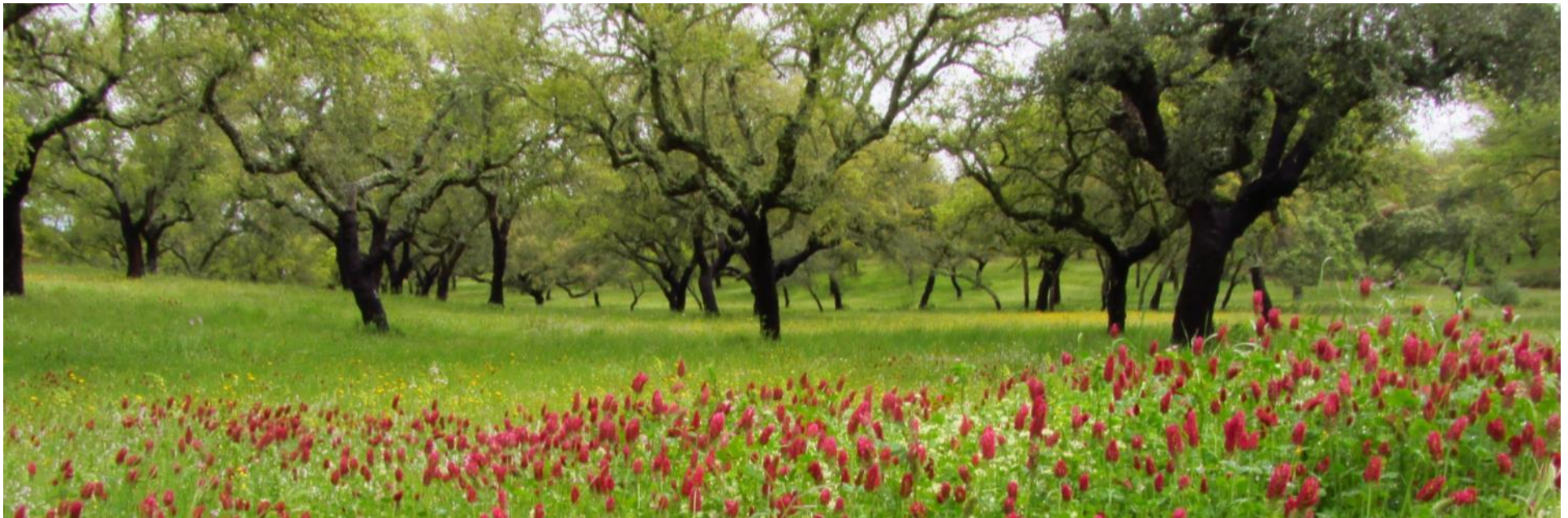


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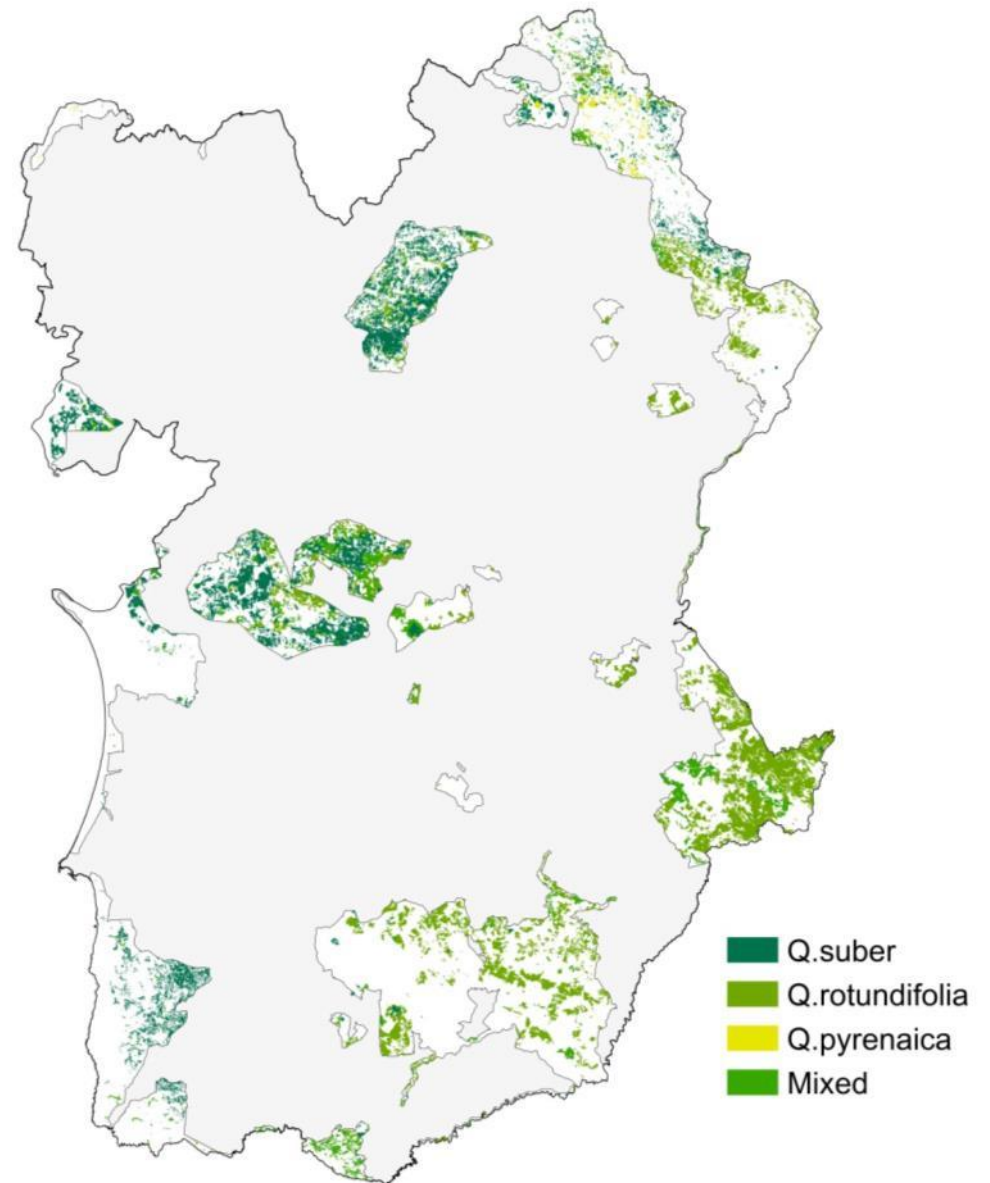
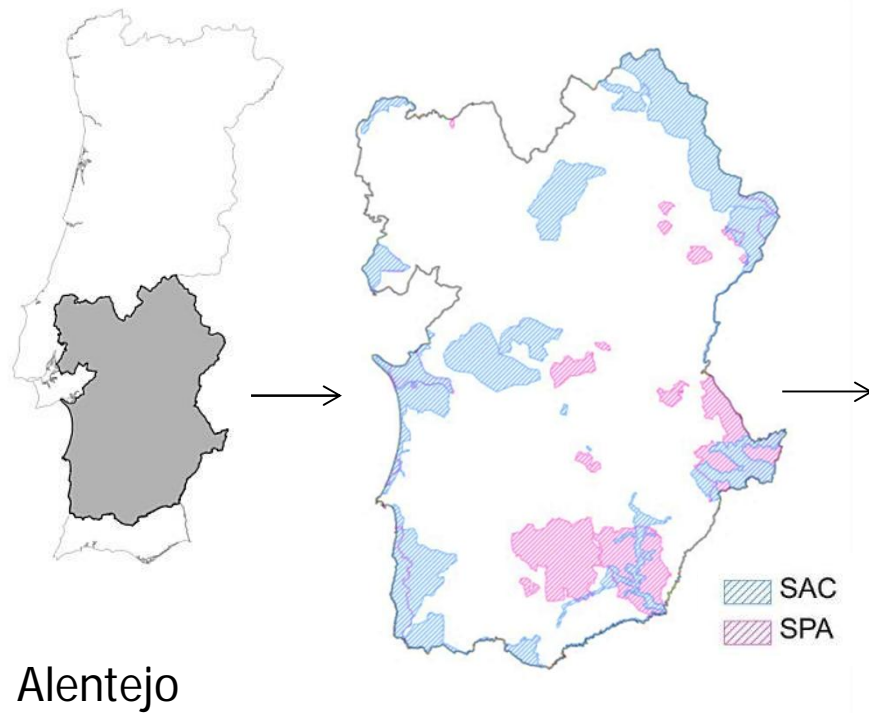
Montado is a HNV Mediterranean wood-pasture system

Listed under the EU Habitats Directive: Dehesas with evergreen Quercus spp

*A characteristic landscape of the **south-western quadrant of the Iberian peninsula** in which **crops, pasture** land or Meso-Mediterranean arborescent **matorral**, in juxtaposition or rotation, are **shaded by a fairly closed to very open canopy of native evergreen oaks** (*Quercus suber*, *Quercus ilex*, *Quercus rotundifolia*, *Quercus coccifera*). It is an important habitat of raptors, including the threatened Iberian endemic eagle *Aquila adalberti*, of the crane *Grus grus*, of large insects and their predators and of the endangered felid *Lynx pardinus*. (Habitat 6310)*



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Montado is a traditional socio-ecological system



- Cork and livestock (pastures) are key provisioning services
- Water and soil processes (water and nutrient cycling, control of soil erosion) are important for the delivery of ecosystem services
- Valued as cultural heritage
- The multifunctional use promotes habitat diversity and species diversity at local and landscape scales
- Large distribution area and spatial continuity, also important for biodiversity
- Human intervention (grazers, shrub control) necessary to maintain structural features but can become a threat if poorly managed

Montado is declining and depends on sustainable management of soil, grazing and ecosystem structure

- Destructive soil management practices
- Excessive grazing (CAP subsidies)
- Changes in rainfall patterns



- Higher incidence of pests and diseases
- Abandonment followed by shrub encroachment
- Higher risk of fire



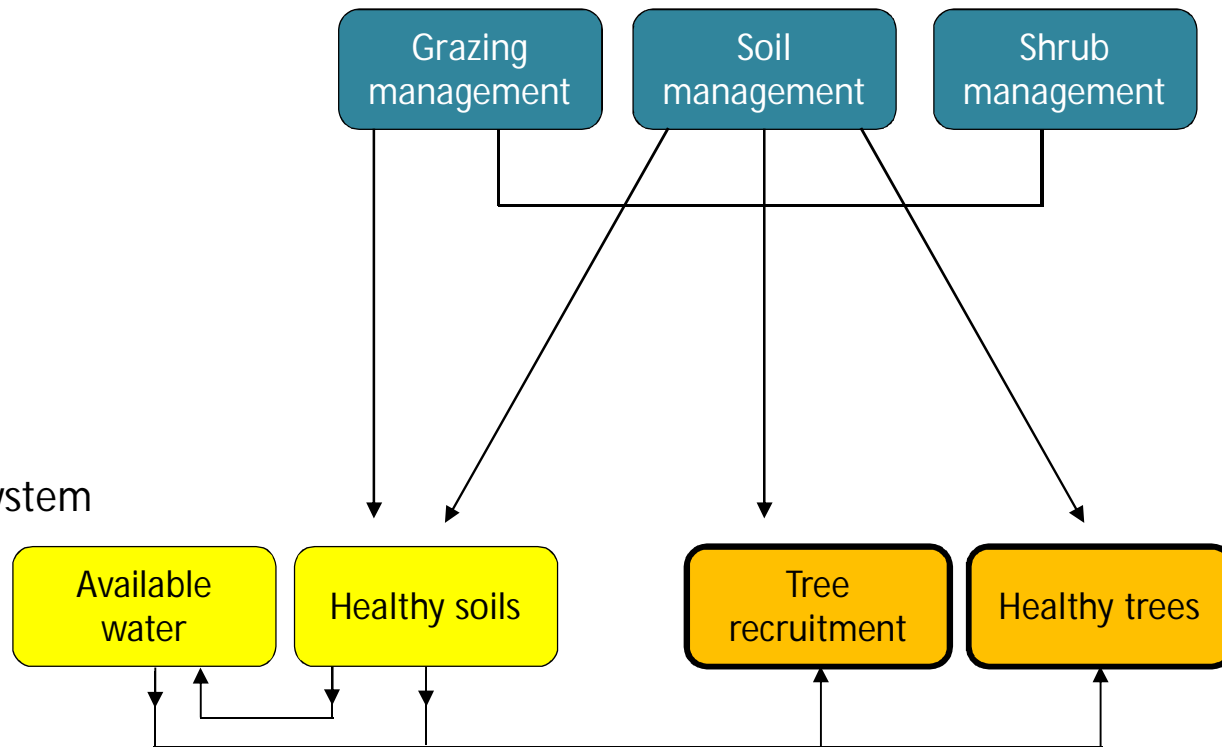
- Increased tree mortality
- Low tree recruitment
- Transition to shrubland



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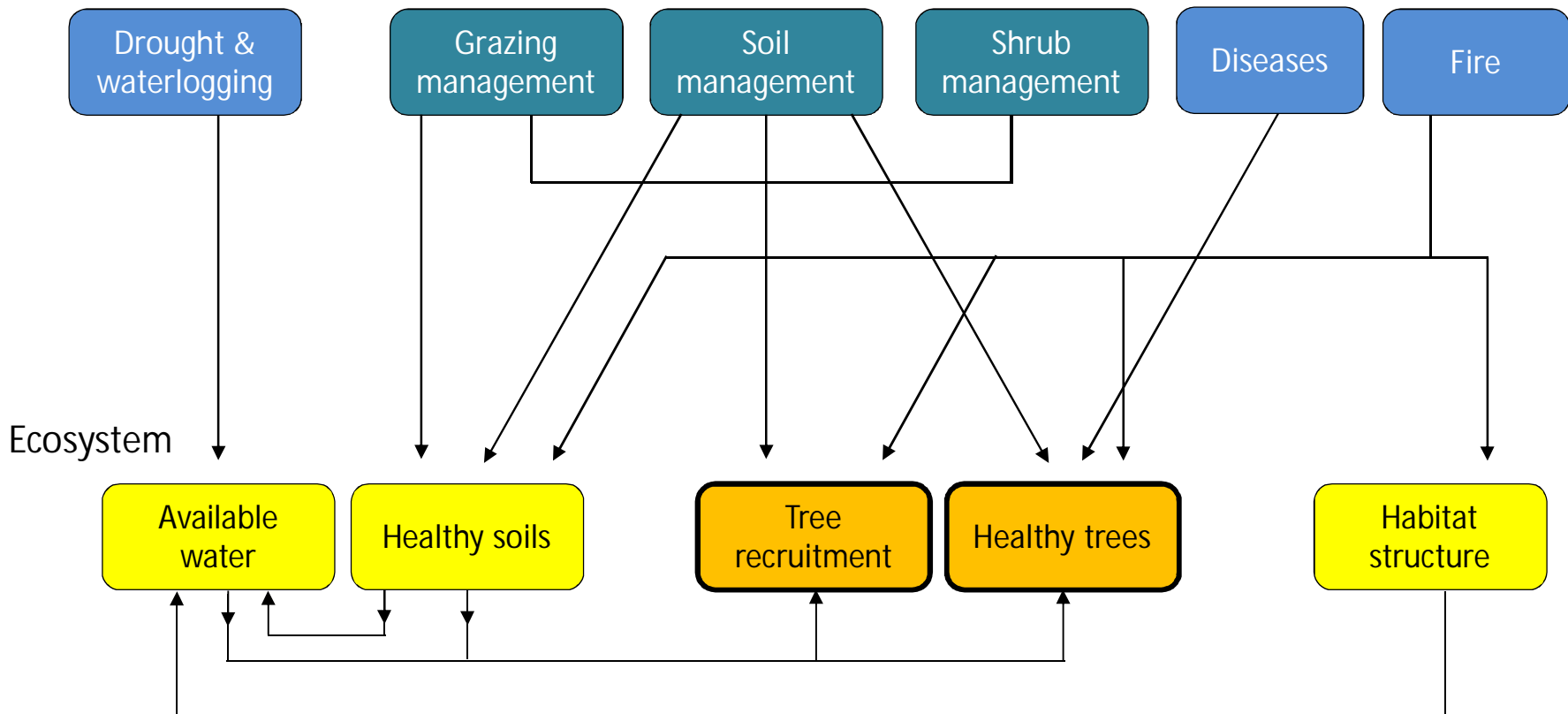
Pressures

Ecosystem



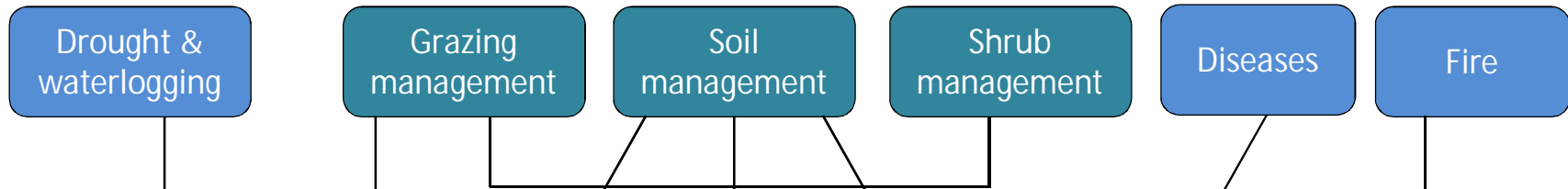
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Pressures

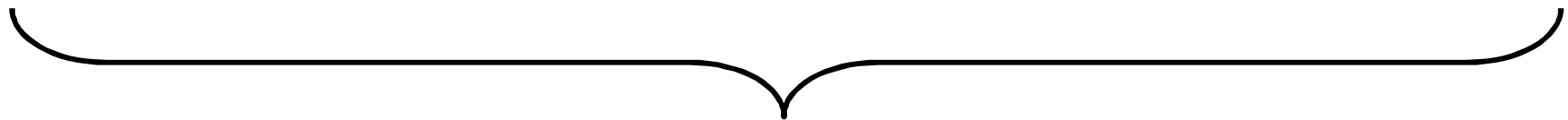


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Pressures



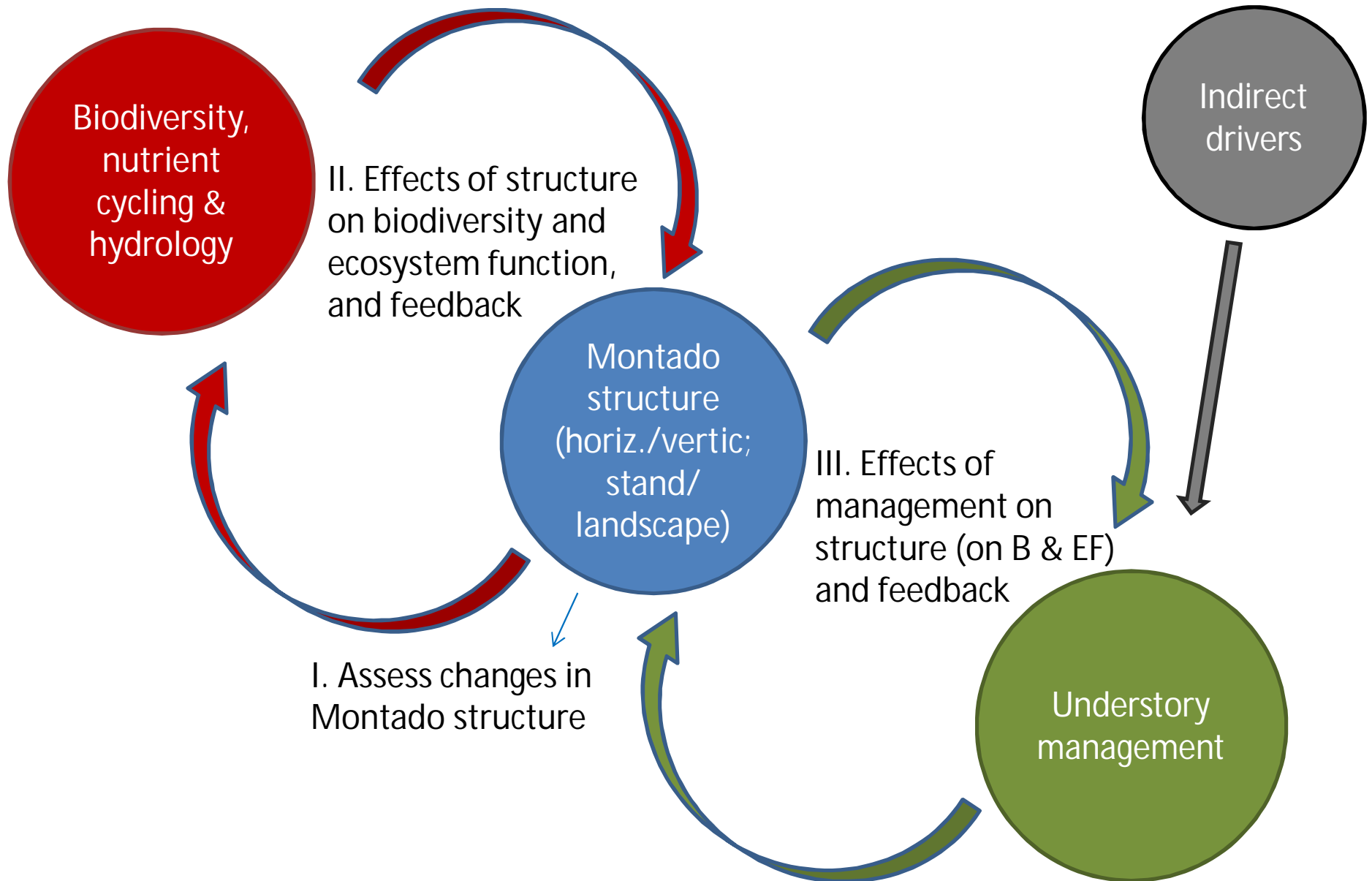
Ecosystem



Biodiversity and Ecosystem Services

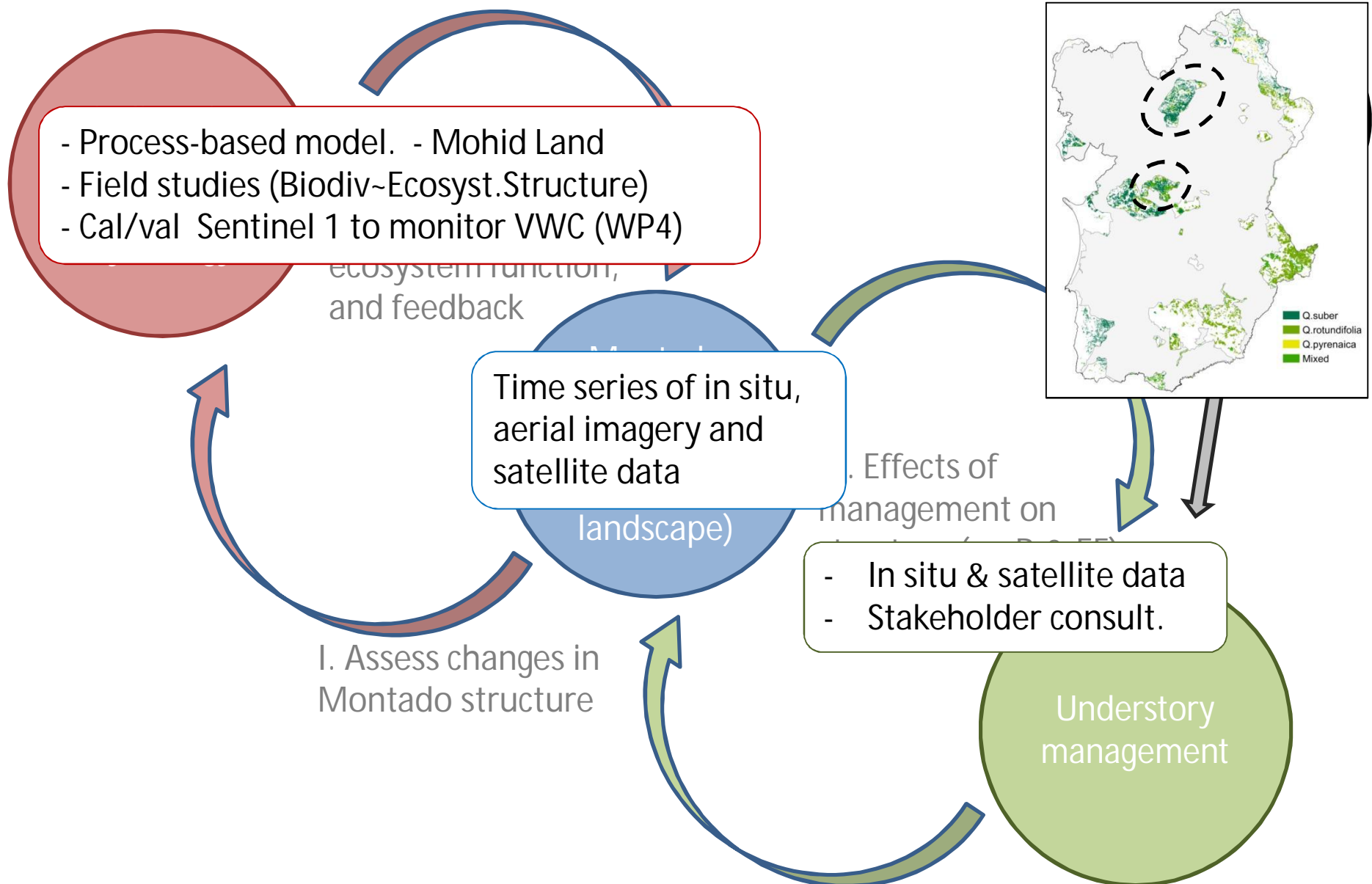
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Research questions



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Approaches to Research questions





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Thank you for your attention!

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Link Indicator variables to Essential Biodiversity/Climate Variables

Indicator variable	Nearest EV	Potential sources
Stand age structure, Density of adult trees	Population structure	NFI - National Forest Inventory
Tree declining symptoms	Physiological traits	Satellite RS; NFI
Tree mortality	Demographic traits	Satellite RS(Landsat); NFI
Biomass	Primary productivity	NFI; In situ datasets
Cork production	Primary productivity	NFI
Habitat structure	Habitat structure	Satellite RS; Corine; NFI
Landscape diversity index	Land cover	Satellite RS
Soil moisture	Soil moisture	Satellite RS (Sentinel 1); LUCAS db
Soil organic matter	Soil carbon	In-situ datasets; LUCAS db
Precipitation regime	Precipitation	Meteorological datasets
Fire regime	Fire regime	National Fires Dataset