Tplus 3: Assessing processes, methods and variables for the Potential Mediterraneanization of socio-ecosystems in Western Europe

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Several parts of Temperate Europe around the Mediterranean Basin are expected to undergo temperature increases of at least 3°C and precipitation decreases of 30%

In addition to desertification risks, increased urbanization, rural abandonment, emerging vector-borne human and animal diseases, plant and animal invasions, tourism pressures, among others, profound, difficult to reserve changes can be expected around the Mediterranean basin.

However, while strong regime shifts and tipping points are well identified for the Mediterranean region, much less is known about the effects of a "Mediterraneanization" of sub-temperate regions.

Main Questions & methods

Through a series of workshops during 2015 for the elaboration of a perspective article, we wish to answer the following questions for the specifics of the area between Portugal, Spain and France:

What are the main social and ecological processes characterizing the differences between Mediterranean and Temperate zones?

What indicator variables can be identified related to current trends of ***transitions*** between ecosystems and economic activities between the Mediterranean and Temperate Western Europe?

What methodological gaps/opportunities exist for integrating social and ecological data in modeling studies that are applicable to the available resources in Western Europe?

Expected Outcomes

The main expected *outcome is the construction of a heuristic model of social-ecological transitions* between Mediterranean and temperate zones in Western Europe amenable to *identify potential regime shifts* in the area.

Participant Name	Institution	Expertise
Cléo Bertelsmeier	University of Lausanne	Species invasion and Climate change
Elena Granda	Université Paris-Sud	Ecophysiology mediterranean trees
Harold Levrel	AgroParisTech	Economics of biodiversity
Iñaki Garcia de Cortazar	INRA-Agroclim	Phenological responses (Vitis)
Juan Fernandez-M.	CNRS-Université Paris-Sud	Forests management, public policy & climate change
Julio Camarero	Instituto Pirenaico de Ecologia	Ecology of mediterranean trees - dendrochronology
Laetitia Navarro	iDiv (German Centre for Integrative Biodiversity Research)	Farmland abandonment and rewilding
Laurent Simon	Université Paris I - Sorbonne	Geography and forest social systems
Miguel Angel de Zavala	Universidad de Alcala de Henares	Ecology of mediterranean trees-Demography
Philippe Drobinski	Ecoloe Polytechnique	Climatology of the Mediterranean
Roxane Sansilvestri	Université Paris-Sud	adaptive capacity in forest socio-ecosystems
Samuel Roturier	AgroParisTech	co-management in social-ecological systems
Stephane DUPAS	IRD	Genetic/Ecological niche modelling
Vânia Proença	Instituto Superior Técnico, University of Lisbon	Modelling of Biodiversity and ecosystem services

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