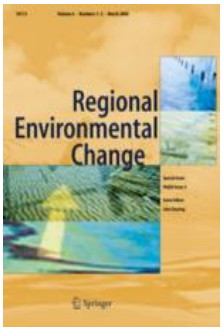
Springer
the language of science



Regional Environmental Change

Special issue: **Climate change impacts in the Mediterranean region**

Aim and scope

The Mediterranean region has been identified as a “hotspot” of climate change while it is also a “hotspot” of both biodiversity and cultural heritage. Apart from the climatic trends towards less precipitation and increased temperature, human actions are also generating anthropogenic changes that need to be considered.

In response to these changes, agro-hydro-ecosystems are affected in their characteristics, dynamics and functioning. The availability of natural resources is modified in terms of quantity, seasonality and temporal variability. As a consequence, animal species inhabiting Mediterranean ecosystems are impacted in their physiology and behavior, whereas organisms in general are shifting their geographic ranges and phenology. Understanding and predicting these phenomena requires the use of modeling chains across the abiotic and biotic components that integrate models from very different disciplines: climate science, physics, biogeochemistry, hydrology, ecology, social sciences ... When these models are chained together, uncertainties relative to each element can propagate over the entire modeling framework.

In this context, the MISTRALS international program provides an integrative vision of the Mediterranean system. Recently, a MISTRALS workshop was held in Montpellier (16-18 October 2017) on the climate change impacts in the Mediterranean region. The goal of this special issue is to present recent research on climate change impacts in various domains of the Mediterranean environment, spanning from the study of hydrological cycles and extreme events to biology and the management of natural resources, with a strong emphasis on multidisciplinary work taking into account the Interactions between human and natural systems and between abiotic and biotic components.

Potential topics of this special issue include, but are not limited to:

- Climate change impacts on natural resources, ecosystems and their functioning, and human economic activities
- Projected changes in extreme events and impacts on populations and infrastructures
- Linking climatic and socio-economic scenarios
- Propagation of uncertainties across modelling chains linking climate and impact models
- Application of downscaling methods for reconstruction/projections in a climate change context

Guest editors

Erika Coppola (ICTP, Italy)

Maria Carmen Llasat (University of Barcelona, Spain)

François Guilhaumon (MARBEC, France)

Christophe Randin (UNIL, Switzerland)

Yves Tramblay (HSM, France)

Manuscript submission information

Manuscripts should be submitted online at: **https://www.editorialmanager.com/reec/**

All papers will be peer reviewed, the submitted manuscript should not have been published previously nor be under consideration for publication elsewhere

Authors are requested to read carefully the instructions for authors online

During the submission process, under "additional information" you will encounter a dialogue box where you can select the Special Issue: “MISTRALS (Tramblay)”

The deadline for submission is September 30, 2018

Contact : yves.tramblay@ird.fr