

## **INTERDISCIPLINARY SYMPOSIUM**





5, 6, 7 July 2017 – Università di Corsica, Corti

Fédération Recherche Environnement & Société



**FRES 3041** 



#### **Global Change in Insular Environment Action**



#### **Participants to Global Change track**

35 Participants (Universities, research institutes, IUCN, UNEP-MAP-RAC/SPA, MEDPAN, CBC,...)

18 oral presentations 1 poster





#### **Objectives of Global Change track**

→ To bring together actors with specific competencies (biology, geology, economics, geography) to consider the implementation of a research program on carbon footprint at the level of Mediterranean islands.

First half day: On going programs and initiatives on Blue Carbon Ecosystems (BCE)

Synthesis: Objectives and limits of a new program on BCE

Second half day: Scientific knowledge and lack of data

Synthesis: Scientific objectives and method of investigation

Third half day: Mediterranean relevant sites to consider

Synthesis: Workshop sites and strategy to set up

## TRACK SUMMARY

#### 1 - On going programs and initiatives on Blue Carbon Ecosystems

**Keynote speaker: Dan Laffoley (Marine Vice Chair for the World Commission on Protected Areas – IUCN)** → The International Blue Carbon Initiative

#### Global Distribution of Blue Carbon Ecosystems



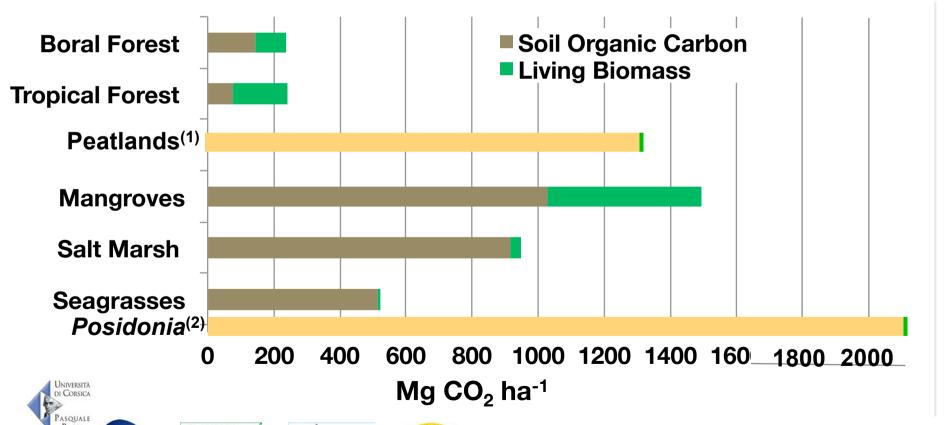
# TRACK SUMMARY 1 - On going programs and initiatives on Blue Carbon Ecosystems

→ LIFE BLUE NATURA: More funds for conservation and restoration of blue carbon coastal habitats



### TRACK SUMMARY

- 1 On going programs and initiatives on Blue Carbon Ecosystems
- → PADDUC-CHANGE: Carbon sinks: an asset for Sustainable Development in Corsica in the face of the challenge of Climate Change











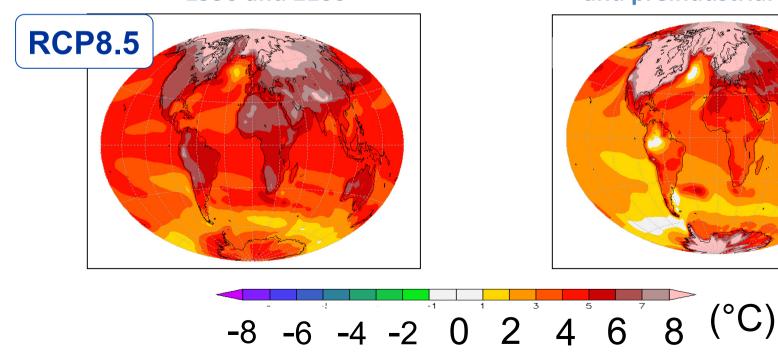
## TRACK SUMMARY

#### 2 - Scientific knowledge and lack of data

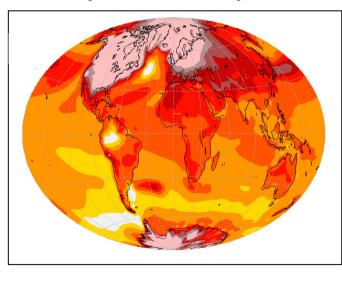
Keynote speaker: Hervé Le Treut (Director of the Pierre-Simon Laplace Institute and member of the Académie des sciences) - Climate Change and the Paris agreement

#### **Evolution of earth temperature**

Difference between 1990 and 2100

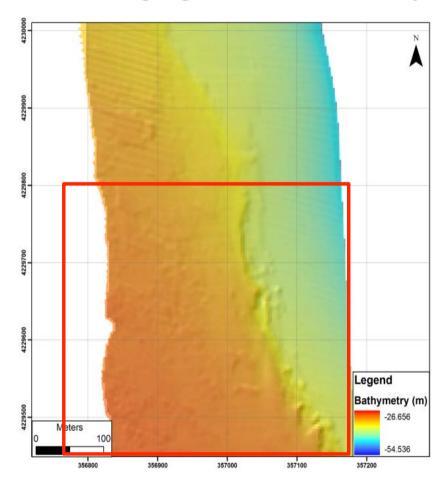


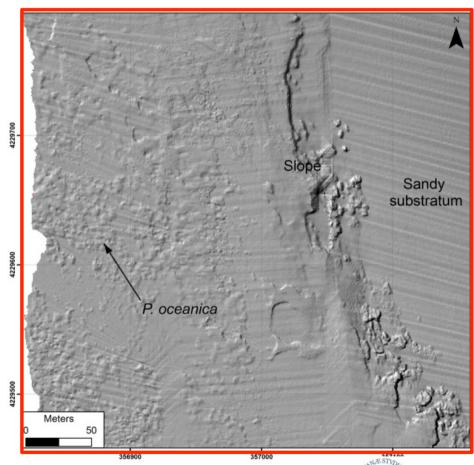
Difference between Ice period and preindustrial period



# TRACK SUMMARY 2 - Scientific knowledge and lack of data

→ Combining high resolution sonar systems (SSS and MBS)





DI PALERMO

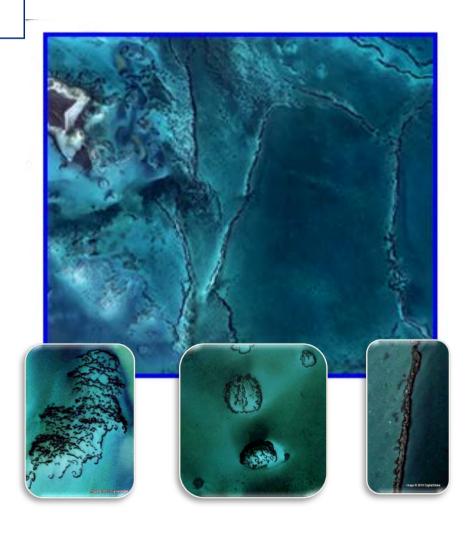
# TRACK SUMMARY 3 – Mediterranean site to consider and strategy

**→** Anthropised site in Sicily

Dead mat
Living mat
Bare sediment

**→** Pristine site in Tunisia



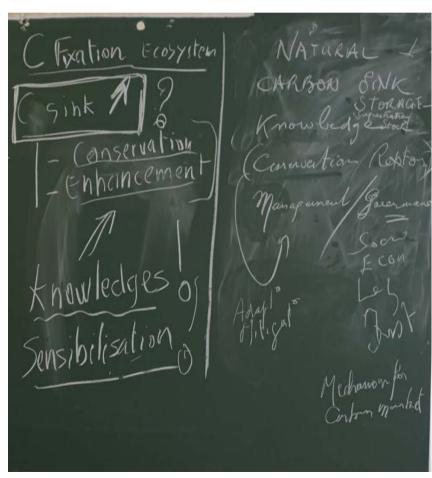


# TRACK SUMMARY Implementation of a research program on carbon footprint

Round table: Alain Jeudy de Grissac (International consultant in Marine environment)

**→** Brain storming on the possible components for a project

Natural Carbon Sink Knowledge, Conservation, Management and Governance





#### **Context**





**COP21** Paris agreement 2015

- → 'Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels'
  - ① 'Parties noting the importance of ensuring the integrity of all ecosystems, including oceans'
  - (2) 'Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases'

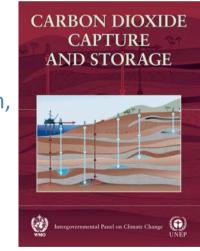
### **Strategies**

#### Reduce GHG emission (Kyoto protocol)

→ Low-carbon society Emission decrease, low carbon and alternative energy, better insulation,...

#### Trap CO<sub>2</sub> emission

- → Industrial fixation (concrete carbonation, microorganisms,...)
- → Natural fixation (Vegetation)





Study, conserve and enhance natural carbon sinks

# TRACK SUMMARY 3 – Mediterranean site to consider and strategy

**Geographical scope:** The choice of the scale: Mediterranean, sub regional, islands,...

<u>Biological scope: Marine and coastal (watershed).</u> For marine: seagrasses, carbonated formations. For coastal: wetlands, rivers, peatlands, lakes and vegetation cover

<u>Scientific data available and gaps</u>: Methodologies, standards, indicators . A review of the progress to date and of the needs for the future. Human threats

<u>Carbon evaluation</u>: Annual fixation, sink, increase and loss), standards (data), monitoring, ...

**Governance:** International, regional and national or sub-regional (legal and institutional elements)

<u>Social and economic consequences</u> of the carbon release in the atmosphere.

Management measures. The carbon pricing and the carbon market (official and voluntary).

Restoration projects: recover or maintain the carbon sinks

**Capacity enhancement and exchange of experiences** 

**Communication** and awareness activities (multiple targets)





**Evidence of climat change** 

**Speed rate of climat change** 





Thank you for your attention



**Great thank to Johann Albertini & Julie Malleroni for organising the symposium**