

Course title: What is global change?

Modality: CFT- Transversal Training Course

Orientation:

- Ocean Observation and Global Change
- Sustainable use of Marine Resources
- Integral Management of the Sea
- Technological progress. Engineering and Business Management

Dates: 19-20 March 2024

Timetable:

19th March 2024

10:00-12:45 and 15:00-17:45

20th March 2024

10:00-12:45 and 15:00-17:45

Duration: 10 h

Location: Campus Lagoas Marcosende. Universidade Vigo

Language: English

Academic coordinators:

Name	Institution	e-mail
Cristina Sobrino	University of Vigo	sobrinoc@uvigo.es

Lecturers:

Name	Institution	e-mail
Cristina Sobrino	University of Vigo	sobrinoc@uvigo.es
Laura G. Peteiro	CETMAR	lauragpeteiro@gmail.com
Elena Ojea	University of Vigo	elenaojea@uvigo.es
Laura Movilla	University of Vigo	lauramovilla@uvigo.es

General description:

This course aims to analyze different aspects of Global Change, from the main impacts on marine organisms to the socio-ecological vulnerability and adaptation strategies performed on fisheries. It will also explore the legal framework, including information about the international governance of the Climate Change.

Contents

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- Effects of Global Change on marine organisms
- Impact of Global Change on small scale fisheries
- Socioeconomic impacts, vulnerability and adaptation
- Global governance of Climate Change: Current global negotiations on conservation and sustainable use of marine biological biodiversity in areas beyond national jurisdiction

Teaching methodologies: Lectures

Evaluation system: Based on attendance and short answer test (optional)

Brief CV of the lecturers:

Cristina Sobrino is associate professor at the University of Vigo (Spain). Her main line of research is related to the ecophysiology of phytoplankton, focused on the effect of ocean acidification and ultraviolet radiation on marine organisms. She obtained her PhD degree in Marine Sciences at the University of Cádiz and made postdoctoral research stays for up to 5 years in Portugal (Universidade do Algarve) and the United States of America (Smithsonian Environmental Research Center, Maryland). The results of her research have been published in high impact factor journals within the Ecology, Oceanography and Photobiology areas.

Laura G. Peteiro is a marine biologist with 14 years of experience working in different research activities focused on rocky-shore and estuarine commercially exploited species. She obtained her PhD at the Institute of Marine Research-Spanish Council for Scientific Research (IIM-CSIC, Vigo Spain) in 2009 and developed several postdoctoral stays (2010-2012-Oregon Institute of Marine Biology- USA; 2013-2015 University of Aveiro- Portugal; 2015-2018 University of Vigo- Spain). Nowadays she is working at the Marine Technological Centre - CETMAR in Vigo, Spain. Her research is mostly focused on bivalves (20 ISI-indexed publications) and lately her interests have been shifting to the consequences of Global Change on shellfisheries in Galicia.

Elena Ojea is a senior researcher at the University of Vigo (Spain) currently leading the project CLOCK: Climate Adaptation to shifting stocks, funded by the European Research Council with an ERC Starting Grant. Elena holds an undergrad in Environmental Sciences and a PhD in Economics, and has experience as a post-doc and research fellow at the Basque Centre for Climate Change (BC3). She was

a visiting researcher at the Bren School for Environmental Science and Policy (UCSB, USA) during 2013, continuing visiting over the following years and continuing the collaboration nowadays. Elena joined the University of Vigo in the summer of 2016 and launched the Future Oceans Lab, a Vigo-based research group on marine systems and climate change. She is a leading author in the IPCC Assessment Report (6AR) for WGII Oceans chapter.

Laura Movilla Pateiro is a lecturer in Public International Law at the University of Vigo and her research focuses on International Environmental Law. She obtained her PhD degree at the University of Vigo and her doctoral thesis on international water law was awarded the "Adolfo Miaja de la Muela" Prize by the Spanish Association of International Law and International Relations Scholars (AEPDIRI). She was a postdoctoral researcher at the Strathclyde Centre for Environmental Law and Governance (SCELG) of the University of Strathclyde (Glasgow). She is the author of numerous publications dealing with different aspects of international environmental governance, including water resources, marine biological diversity and climate change.

Relevant references:

Hoegh-Guldberg, O., & Bruno, J. F. (2010). The impact of climate change on the world's marine ecosystems. *Science*, 328(5985), 1523-1528.

Annalisa Savaresi (2016) The Paris Agreement: a new beginning?, *Journal of Energy & Natural Resources Law*, 34:1, 16-26.

Tullio Scovazzi (2016) The negotiations for a binding instrument on the conservation and sustainable use of marine biological diversity beyond national jurisdiction. *Marine Policy*, Vol. 70, 2016, pp. 188-191

Sumaila, U. R., Cheung, W. W., Lam, V. W., Pauly, D., & Herrick, S. (2011). Climate change impacts on the biophysics and economics of world fisheries. *Nature climate change*, 1(9), 449. (In Spanish) Xunta de Galicia (2009) *Evidencias e Impactos do Cambio Climático en Galicia*. Sanlago de Compostela(España). ISBN 978-84-453-4782-9

