Conseil Consultatif pour les Eaux Occidentales Septentrionales | North Western Waters Advisory Council | Consejo Consultivo para las Aguas Noroccidentales

The Impact of Climate Change on Fisheries in the North Western Waters: Examining policy, research, and potential mitigation and adaptation strategies

A 1-Day virtual Workshop organised by the NWWAC FG Climate & Environment

THE SPEAKERS

The international policy dimension in relation to climate change and fisheries
Ernesto Peñas Lado, IUCN Fisheries Expert Group

Ernesto Peñas Lado is a marine biologist by training and worked on marine research for 10 years. He was an official of the European Commission where he worked 30 years on the development of the EU's Common Fisheries Policy. Ernesto retired from the EU as a Director in December 2018. Currently he works as an advisor to FAO and other institutions related to the conservation and management of ocean resources. He is a member of the IUCN Fisheries Expert Group.

Climate change effects on European fisheries: from physics to fish prices
Dr. Myron Peck, Head of Coastal Systems Department, Royal Netherlands Institute for Sea Research

Dr. Myron Peck is Head of the Coastal Systems Department (COS) at the Royal Netherlands Institute for Sea Research (NIOZ). From 2012 to 2020, he was Professor of Experimental Biological Oceanography at the University of Hamburg. His group's research integrates laboratory experiments on ecophysiology, field surveys and time series and spatially-explicit biophysical modeling to help gain a cause-and-effect understanding of the effects of climate change and other environmental drivers. A main goal is to provide robust, science-based advice for policy and management of living marine resources. He is the scientific coordinator of the H2020 project 'FutureMARES' (2020-2024 – futuremares.eu) using nature-based solutions to sustain marine biodiversity and ecosystem services in a future climate and coordinated the EU Blue Growth project 'CERES' (2016-2020 – ceresproject.eu) examining the risks and opportunities of climate change to European fisheries and aquaculture. He co-chairs the ICES-PICES WGSPF and co-chaired the ICES-PICES SICCME. He is the Coordinating Editor-in-Chief of Marine Ecology Progress Series. He has published >175 reports and peer-reviewed articles and contributed to 7 books on fish, fisheries and climate effects.

Climate impacts on productivity of NWW fish stocks and how fisheries management can adapt
Dr Tara Marshall, Fisheries Scientist, University of Aberdeen

C. Tara Marshall is a fisheries scientist at University of Aberdeen with more than 20 years of experience in sustainable management of commercial fish stocks in the North Atlantic, Barents Sea and Southern Ocean. Her climate-related research includes quantifying GHG emissions of pelagic fishing vessels and changes in spawning time, growth rates and recruitment resulting from warming temperature. Her applied research interests include adaptation and mitigation strategies for climate-resilient fishing and the co-design and development of a bycatch avoidance mapping tool currently being trialled by Scottish fishing vessels on the west coast. She co-chairs an ICES/PICES working group investigating climate change impacts on growth rates and fisheries yields.

Everything you wanted to know about Climate Change, but were afraid to ask
David Reid, Glenn Nolan and Caroline Cusack, Marine Institute

Dave Reid is team leader of the Ecosystem Based Fisheries Management Team at the Marine Institute. He has been involved in a wide range of national and international projects in this area and has also been strongly involved with ICES in the same field. He previously worked for 20 years at Marine Scotland Science, and is also a professor at UCC.

Glenn Nolan is head of oceanographic and climate services at the Marine Institute in Galway. Previously Director of the European component of the Global Ocean Observing System in Brussels. Broad experience in European funded programmes and in developing Ireland's ocean observing and forecasting capability and funding for marine research and development over 2 decades.

Caroline Cusack is a team leader in Oceanographic and Climate Services at the Marine Institute, Ireland. She is involved in a number of activities related to ocean observing activities (e.g. EuroSea, ICES, GO-SHIP), and enjoys developing downstream services. More recently, she has carried out some research related to developing marine ecosystem climate services in the JPI Climate ERA4CS funded project, CoCliME.

Using projections and perceptions to explore climate change impacts in south-west UK fisheries
Dr Katherine Maltby, Postdoc, Gulf of Maine Research Institute

Dr Katherine Maltby is a postdoc at the Gulf of Maine Research Institute, where she is currently examining barriers and facilitators to climate change adaptation in Northeast US fishing communities. Her broader work uses ecological and social research methods to examine climate impacts and adaptation within fisheries systems. Her previous work at Cefas and the University of Exeter has included projecting future changes in fish species in UK Seas, examining fishers' perceptions of climate change and their adaptation, exploring fishers' attitudes to insurance as a

climate adaptation tool in Grenada, and undertaking a marine climate change risk assessment for the ROPME sea region (Middle East).

How can fisheries lower their carbon footprint and emissions?
Dr. Michel Kaiser, IUCN Fisheries Expert Group

After obtaining his PhD in 1991, he joined the UK Centre for Environment , Fisheries and Aquculture Science (CEFAS) to lead its research on the effects of human activities (fisheries and aquaculture) on the marine environment. He joined Bangor Universiity in 1998, where he expanded these studies to cover the social and economic consequences of different approaches to fisheries management. In 2003, he obtained his PhD in marine biology. His research interests focus on techniques to achieve sustainable use of marine resources and minimize impacts on the marine environment. Throughout his career he has worked on the scientific interface between fisheries and conservation. He currently holds several public positions: he is a member of the IUCN Fisheries Expert Group, an independent member of the UK Marine Science Coordination Committee and chairs the Fisheries Industry Authority's Scientific Advisory Group and Common Language Group.

Regulatory and technological challenges for fishing vessels energy transition
Jérome Jourdain, Deputy Secretary General, Union des Armateurs à a Pêche de France

Jerome Jourdain is Deputy Secretary General of the Union of French Fishing Vessels Ship-owners since 2015. Coming from a marine biology background, he has been working for 10 years in the management of marine resources and fishing companies.

Climate change impacts on the west of Scotland demersal fisheries: past and future changes
Dr Alan Baudron, Fish Population Modeller, Marine Scotland Science

Dr Alan Baudron is a marine biologist whose research interest focus on understanding how environ meal drivers, acclimate change in particular, are impacting commercial fish species in order to ensure future sustainable exploitation of fish stock resources. He is currently working as a fish population modeller for Marine Scotland Science and am responsible for assessing the North Sea whiting stock. He is also involved in various research projects and am a co-chair for the ICES Working Group WGGRAFY which aims at assessing the impact of warming seas on fish growth and fisheries yield worldwide. Until recently, he was a postdoc at the University of Aberdeen where I worked on several H2020 EU research project, including ClimeFish (https://climefish.eu/) which aimed at ensuring sustainable seafood production under climate change, for which he was a work package leader and a case study leader. His recent work include the investigation of changes in fish distribution and growth in European and Scottish waters, and ecosystem modelling of the west of Scotland.

Introducing the SOMBEE project: scenarios of marine biodiversity and evolution under exploitation and climate change
Bruno Ernande, Yunne Shin and Ghassen Halouani, Ifremer and Institut de Recherche pour le Développement

Yunne-Jai Shin is Research Director at the French National Research Institute for Sustainable Development. It develops integrated models of the functioning of marine ecosystems and fish populations for decision support, quantifies the impacts of fishing and climate change by analyzing indicators of marine biodiversity and by implementing global change scenarios. She is the coordinating author of the IPBES Global Report on Biodiversity and Ecosystem Services. She is a member of the Scientific Council of the French Biodiversity Office.

Bruno Ernande is a senior researcher and head of the Evolution and Genomics of Marine Populations Laboratory at the French Research Institute for the Exploitation of the Sea (Ifremer). He studies the ecological and genetic consequences of different pressures - climate change, pollution, exploitation - on marine fisheries and aquaculture resources by combining data analysis, experimentation and modeling. He was a member of the Scientific Directorate of Ifremer from 2016 to 2020, member of the Sea Group of the National Alliance for Research on the Environment (ALLENVI) from 2012 to 2017 and chaired the WGEVO Working Group (Working Group on Fisheries-induced evolution) from ICES from 2014 to 2019.

Ghassen Halouani is a researcher at the French Institute for Research for the Exploitation of the Sea (Ifremer). He studies the functioning and dynamics of exploited marine ecosystems through modeling approaches. The aim of his research is to contribute to the discussion on the implementation of fisheries management plans and to provide practical and operational advice in an ecosystem context. He is a member of the WGNSSK working group at ICES and is part of the IPBES Scenarios and Models task force.

How restoring fish populations helps mitigate climate change
Rebecca Hubbard, Programme Director, OurFish

Born on the south-east coast of Australia, and raised between the forest and the ocean, Rebecca has an Honors Degree in Environmental Science from the University of Wollongong. She has campaigned on a range of environmental issues from the local to international level, with the pillars of science, creativity, activism and alliances key to her work. After securing a ban on super trawlers in Australia, she started the European campaign Our Fish in 2017, to end overfishing and restore ocean health. She is based in Madrid.

Moderator: Jacopo Pasquero, International Affairs Assistant at the European Bureau for Conservation & Development (EBCD), Chair of the NWWAC Focus Group Climate & Environment