Graduate Pursuit: Ch-Ch-Ch-Changes: Using Marine Protected Areas to Investigate Potential Socio-Ecological Impacts of Climate Change in Marine Spatial Planning

Time of Event:
Monday, December 3, 2018 - 09:00 to Thursday, December 6, 2018 - 17:00

Ch-Ch-Ch-Changes: Using Marine Protected Areas to Investigate Potential Socio-Ecological Impacts of Climate Change in Marine Spatial Planning

Marine protected areas (MPAs) are an important tool in the context of marine spatial planning where resources are managed according to specific regulations that typically focus on conservation and sustainable harvesting. Marine species are shifting their distribution because of climate change towards colder waters, potentially compromising the benefits and management objectives of currently established MPAs. Therefore, it remains unclear what is the long-term effectiveness of MPAs for conservation, fisheries, and reliant communities under a changing climate. We propose to use MPAs as an example of marine spatial planning to explore the ecological, economic and social implications of climate change in the world’s oceans. More specifically, we aim to (1) quantify the impacts that shifts in species distribution due to climate change will have on the current economic value of MPAs worldwide, and (2) investigate the socio-economic implications of these species shifts to local communities that depend on MPAs for eco-tourism, generated income, and food security. Overall, we will link a species distribution dataset with relevant fisheries economics indices, eco-tourism uses of MPAs, and food security information for indigenous communities, and further couple this database with MPA coverage information. Finally, we will focus on four case studies to identify social impacts and locally relevant policy options based on their ecological, social, and economic context. Although we focus on MPAs and fisheries, the development and testing of this framework can inform different types of spatial planning and inform policy towards the design of effective adaptive management solutions under a changing climate.

To learn more about the Graduate Pursuit, click here [1].

Event type:
Project Meeting

Event Attendance:
Private Working Group

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[1]