

Ocean_Certain: Ocean Food-web Patrol – Climate Effects: Reducing Targeted Uncertainties with an Interactive Network.

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<https://www.facebook.com/oceancertain>

Abstract: The marine food web is at the centre of both the climate-related CO₂ cycle and food production in the marine environment. It plays a key role in regulating the climate system and is highly sensitive to climate change and other stressors. OCEAN-CERTAIN will investigate the impact of climatic and non climatic stressors on the food web and the connected biological pump, and the important feedback mechanisms. OCEAN-CERTAIN will identify and quantify multi-stressor impacts and feedbacks and how these alter the functionality and structure of the food web and efficiency of the biological pump in different bio-geographical regions. This will be done by utilizing existing ecosystem models employing existing data, in addition to mesocosm, lab-scale experiments and field study. The resulting knowledge will then be used to assess socio-economic vulnerabilities and adaptive capacity by using indicators of food-web functions as responses to particular changes by way of stressor combinations. OCEAN-CERTAIN will then address socio-economic policy and management issues by using highly interactive participatory stakeholder workshops to create models of user group resilience and adaptability. These will show how potential climate-driven physical, chemical and biological changes may affect relevant economic activities and human welfare and help to identify adaptation pathways. This information and knowledge will reduce of epistemic uncertainty and help policy makers chose among management options, which in turn will be treated as additional feedbacks to the food web. The stressors, key feedback mechanisms and ndicators, form the basis for the design of an integrated Decision Support System (DSS).

#	Partner Institutions	Country
1	Norges Teknisk-Naturvitenskapelige Universitet Ntnu	Norway
2	Universitetet i Bergen	Norway
3	Helmholtz Zentrum Fur Ozeanforschung Kiel	Germany
4	Vlaamse Instelling Voor Technologisch Onderzoek N.V.	Belgium
5	Dokuz Eylul Universitesi	Turkey
6	Goeteborgs Universitet	Sweden
7	Griffith University	Australia
8	Universidad Austral de Chile	Chile
9	Consiglio Nazionale Delle Ricerche	Italy
10	The Secretary of State For Environment, Food And Rural Affairs	United Kingdom
11	Universidad de Talca	Chile