

Aims

- An interdisciplinary understanding of coastal systems to support the sustained exploitation of marine resources and the income and livelihood of local communities.
- A web-based integration of any information on coastal ENSO effects: www.censor.name.



- Develop predictive tools for short-term forecasts of ENSO-induced environmental changes and resource availability.
- Establish recommendations and advice to decision makers, fishermen and aquafarmers for an effective, lasting use of fluctuating coastal marine resources during ENSO.



ENSO-induced destruction of Pan-American highway in Peru

Contact us!

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COPAS



Climate variability and El Niño Southern Oscillation: Implications for natural coastal resources and management



We are mobilizing partners in Latin America and Europe

About CENSOR

- CENSOR deals with the effects of El Niño Southern Oscillation (ENSO) on the coastal Humboldt Current ecosystem along Pacific South America.
- Fourteen institutions from South America and Europe participate in this interdisciplinary EU-funded project.

- Both the warm (El Niño) and the cold (La Niña) phase of ENSO cause major environmental changes and have either positive or negative ecological, infrastructural, and socioeconomic implications.
- To understand and alleviate the multiple consequences of El Niño is essential to maintain the livelihood of coastal human communities.



Starvation in marine mammals during El Niño

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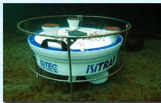
In situ filtration experiment

COASTAL BENTHIC COMMUNITIES OF THE HUMBOLDT CURRENT SYSTEM

CENSOR aims to understand how El Niño induced changes affect the structure and dynamics of benthic communities along Pacific South America, incl. the resources they offer. Ecological studies of fishery targeted species like molluscs and crabs allow to predict the capability of how marine organisms are able to respond to climate oscillation (ENSO).

COASTAL PELAGIC-BENTHIC PROCESSES AND TERRESTRIAL IMPACT

CENSOR is assessing seasonal and interannual changes of biotic and abiotic parameters of the Humboldt Current system in order to reveal changes in the food web, community structure, and energy fluxes. In this way, processes, which influence the abundance and production of key species, can be understood.



Pelagic-benthic study using a sediment trap



ECOPHYSIOLOGICAL CONSTRAINTS AND AQUACULTURAL DEMANDS

Insights into an organisms temperature physiology will allow to understand the pattern underlying processes that define changes in biogeography and abundance of marine species facing ENSO impact. We are studying temperature tolerance windows in marine key species that allow to review and predict the organisms capability to respond to varying intensities of El Niño and La Niña.



Sample analysis in the laboratory



Compilation of data from the literature and the web

DATA INTEGRATION, DISSEMINATION AND RESOURCE MANAGEMENT

CENSOR communicates with coastal resource users, decision makers, and other stakeholders of the coastal zone, in order to carry existing knowledge across disciplinary frontiers. Historical and current data are compiled from published and unpublished sources, and integrated into our free-for-use database available at: www.censor.name.