MARIE-THARP LECTURE SERIES FOR OCEAN RESEARCH | NO.9





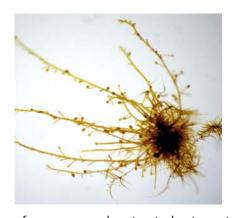
Prof. Dr. Catherine Boyen

Directrice de Recherche CNRS, Laboratoire de Biologie Intégrative des Modèles marins, Station Biologique de Roscoff, France



Thursday, 23rd April 2015, 2:15 p.m. (14:15 h) **GEOMAR Lecture Hall West (R.B54)** | Düsternbrooker Weg 20, 24105 Kiel

Host-microbe interactions as a driver of brown algal acclimation to environmental changes



Brown algae are multicellular, mainly marine organisms that live along the coastlines of all continents, where they form the dominant vegetation in the intertidal zone and constitute important primary producers. Many brown algae are strongly impacted by human activities and climate change, underlining the importance of understanding how these organisms function and interact with their environment.

An important step towards understanding how brown algae acclimate to environmental changes has been the development of Ectocarpus as a genomic and genetic model for this lineage which led to a range

of new approaches to study stress tolerance in this organism. Ectocarpus is an also cosmopolitan genus of small filamentous brown algae with a high capacity to acclimate to different environments and a long history of research. So far, studies of acclimation to environmental changes in algae have dealt primarily with the algae themselves, but very little is known about the reaction of the associated microbiome in response to these changes. In this talk I will focus on the impact of abiotic (here salinity) changes on the bacterial phycosphere and its potential role during the algal acclimation. I will highlight how the concept of holobiont has modified our vision of the biology of brown algae.



