



**Dr. Heike Lotze**

Associate Professor at the Biology  
Department, Dalhousie University,  
Canada



Painting: The Fish Market, Frans Snyders [1618]

Friday, 29th November 2013, 3:00 p.m.

**GEOMAR Lecture Hall West (R.B54)** | Düsternbrooker Weg 20, 24105 Kiel

---

## Lessons from the past: How historical changes in the sea affect marine ecosystems today

---

Human activities – such as exploitation, habitat alteration and pollution – have influenced marine species and ecosystems for centuries in coastal waters and decades in the open ocean, and will continue to do so. The question is how has this changed marine biodiversity and what are the consequences for marine ecosystems today and in the future?

Dr. Heike Lotze gives an overview on the long-term, human-induced changes in marine species in the past, including both historical trajectories of decline as well as more recent trends of recovery. She evaluates how these changes have altered the biological structure and functioning of marine ecosystems in terms of their species composition, food-web interactions, community stability and resilience. She will also address how this has affected the goods and services provided to human well-being, such as seafood production, carbon storage and water quality. Finally, she highlights how lessons from the past can enhance our understanding of current changes in the sea and improve the management of marine resources and ocean ecosystems.

**Organizer: Women's Executive Board (WEB)**

GEOMAR Helmholtz-Zentrum für Ozeanforschung Kiel  
Düsternbrooker Weg 20, 24105 Kiel  
womensexecutiveboard@geomar.de  
www.geomar.de/go/web