

# BREMEN EARTH AND SOCIAL SCIENCE TALKS (BEST)



Professor Eric Wolanski is a coastal oceanographer at James Cook University, Australia. His research interests centre on the interaction between physical and biological processes determining ecosystem health in coastal waters. Eric is a fellow of the Australian Academy of Technological Sciences and Engineering and a member of the College of Experts of the Australian Research Council. He was awarded a Queensland Information Technology and Telecommunications Award for Excellence, an Australian Centenary Medal, a Doctorate Honoris Causa by the catholic University of Louvain, and a Lifetime Achievement Award by the Estuarine & Coastal Sciences Association.



Thursday, 8 September 2016, from 17:00 to 18:30  
ZMT (large seminar room), Fahrenheitstraße 6, 28359 Bremen

## Eric Wolanski

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### Physics-biology links enable self-recruitment of estuarine and coastal fauna and flora

Recent advances in our understanding of the self-recruitment and connectivity of coastal flora and fauna were made possible by the integration of physical oceanographic observations and modelling with results from studies of the behaviour of seeds, eggs, larvae, propagules, juveniles and polyps. These case studies cover a broad range of organisms, including jellyfish, corals, seagrass, mussels, oysters, prawns, and sea turtles. The spatial scales for self-recruitment and connectivity vary with the species from a few meters to 10,000 km, and the temporal scales vary from one to three generations. These studies suggest that, with increasing physical openness, self-recruiting increasingly relies on the behaviour of the species. Estuarine and coastal systems are simultaneously bounded and unbounded depending on the sites and the species considered. Although often ignored, the integration of oceanographic and behavioural understanding is increasingly required.

The Bremen Earth and Social Science Talks (BEST) aim to attract engaging and influential speakers from the world of academia to Bremen to share their thoughts and ideas. The purpose of the series is to provoke discussion and debate about a range of subjects at the intersections between natural and social sciences, with a focus on pressing societal grand challenges such as sustainability, climate change, resource exploitation, and governance. The 45-minute lectures are followed by a discussion of about 40 minutes and are delivered at a level that is accessible to a general scientific audience. The lectures are free and open to the public. No reservations are necessary.

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