



# Tethys Blast

May 15, 2015

Welcome to the second May edition of the bi-weekly Tethys Blast!

Tethys Blasts will keep you updated with new information available on Tethys, new features on Tethys, and current news articles of international interest on offshore renewable energy. We hope that this becomes a valuable tool to help you stay connected to your colleagues and to introduce you to new research, new contacts, and ongoing milestones in renewable ocean energy development.

We need your help to ensure that Tethys functions at peak performance! Please notify us of any errors or broken links you come across within Tethys. The Tethys team is continuously on the lookout for these, but a short message with the name of the page or URL is extremely helpful! You can provide comments in the comment box on the bottom of each page. Thanks in advance!

## New Articles on Tethys

New documents have been added to Tethys in the last two weeks. These documents have been hand-selected for their relevance to the environmental effects of offshore renewable energy. The listings below are short introductions to several popular documents that can be accessed through the accompanying Tethys links:

[Applying Ecological Risk Assessment Methodology for Outlining Ecosystem Effects of Ocean Energy Technologies](#) – Hammar and Gullstrom 2011

With the increasing utilization of marine space and resources, ecosystem-based approaches to environmental assessments are requested. In this study the Ecological Risk Assessment (EcoRA)

framework was used to outline risks from three ocean energy technologies; wave power, tidal current power, and ocean thermal energy conversion (OTEC).

**[Key learnings from ten years of monitoring and management interventions at the Bluff Point and Studland Bay Wind Farms: results of a review](#)** – Sims et al. 2012

The Bluff Point and Studland Bay Wind Farms (formerly, the Woolnorth Wind Farm) was approved by Commonwealth and State regulators in 2001 and commenced operations in 2002 and 2007, respectively. A suite of monitoring and management actions, some required under approval permit conditions and others beyond these requirements, have been in place at these wind farms since operations commenced. The purpose of the review was to examine the effectiveness and utility of each program and management action. The review was a collaborative, structured risk assessment. It found some monitoring programs were completed and cessation was recommended.

**[Marine Renewable Energy in China: Current Status and Perspectives](#)** – Zhang et al. 2014

Based on a general review of marine renewable energy in China, an assessment of the development status and amount of various marine renewable energy resources, including tidal energy, tidal current energy, wave energy, ocean thermal energy, and salinity gradient energy in China's coastal seas, such as the Bohai Sea, the Yellow Sea, the East China Sea, and the South China Sea, is presented.

**[Behavior and Turbine Avoidance Rates of Eagles at Two Wind Farms in Tasmania, Australia](#)** – Hull and Muir 2013

Understanding the interaction between eagles and wind farms is essential for the development of strategies to minimize collision risk, and to quantify avoidance rates for collision risk modeling. The purpose of our study was to measure the avoidance rates of Tasmanian wedge-tailed eagles (*Aquila audax fleayi*) and white-bellied sea-eagles (*Haliaeetus leucogaster*) using a new method, and to examine factors affecting these rates.

**[Benthic Habitat Characterization Offshore the Pacific Northwest Volume 2: Evaluation of Continental Shelf Benthic Communities](#)** – Goldfinger et al. 2014

The wave and wind climates along the west coast of North America provide some of the best prospects for offshore renewable energy development, yet initial assessments of the seafloor have been patchy. The Bureau of Ocean Energy Management (BOEM) requires knowledge of the seafloor environment and of seafloor-associated (benthic) organisms that may be affected by renewable energy activities. This program was designed to provide baseline knowledge of seafloor geology and marine invertebrate distributions at a regional scale by undertaking new mapping, synthesizing existing mapping data, conducting biological assessments and developing new predictive models.

## **Bat fatalities at two wind farms in Tasmania, Australia: bat characteristics, and spatial and temporal patterns – Hull and Cawthen 2013**

Bat carcasses from two wind farms in Tasmania (2002 - 2010) were assessed to determine the species, sex, age, reproductive state, morphometrics, presence of food in the gastrointestinal tract, and evidence of spatial and seasonal patterns. There appear to be particular ecological, morphological and behavioural characteristics associated with bat collision risk - tree roosting bats with high wing aspect ratios that forage in the open air at high altitude appear to be susceptible. Seasonal patterns may be associated with specific behaviours.

# Current News

Current news articles of international interest on offshore renewable energy include:

## **Atlantis strikes deal to acquire marine energy tech company from Siemens**

Tidal energy developer Atlantis Resources Ltd. has reached an agreement to acquire the entire issued share capital of Marine Current Turbines Ltd. from Siemens AG in an all-share deal, pending certain conditions being met. The deal would consolidate the companies under the Atlantis name and includes seabed rights, existing projects, staff and intellectual property.

## **Germany opens 295MW offshore wind farm**

The Nordsee Ost wind farm has 48 wind turbines, which will produce enough green power to supply around 320,000 households annually. German energy company RWE invested more than €1 billion in the project which is located in the north of Hamburg.

## **Southwest rides wave of marine energy projects**

The southwestern region of the U.K. has boosted its reputation as a centre for marine energy with the announcement on Wednesday of a €24.5m wave power research project supported by the European Commission.

## **Vattenfall starts UK offshore wind farm extension**

Vattenfall has started construction on a major offshore wind farm off the Kent coast in the U.K. The Swedish company expects the Kentish Flats Extension project to cost more than £150 million. The 15-turbine project will have a total capacity of 49.5MW and is expected to produce its first power later this year.