



July 22, 2016

Welcome to the latest bi-weekly Tethys Blast, which will update you with new information available on Tethys, new features of Tethys, and current news articles of international interest on wind and marine 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 wind and marine renewable energy development.

## Recent Webinars

Annex IV hosted a webinar on July 12 about the Role of Biofouling in Marine Renewable Energy Development. A webinar recording will be available soon, if you weren't able to attend the live event. <http://tethys.pnnl.gov/annex-iv-10>

WREN hosted a webinar on July 21 about Assessing Marine and Avian Wildlife Off the New York Coast. A webinar recording will be available soon, if you weren't able to attend the live event. <http://tethys.pnnl.gov/wren-8>

You can find an archive of all past webinars at <http://tethys.pnnl.gov/environmental-webinars>. You will also find details for joining the mailing list to attend these events live.

## New Documents on Tethys

A total of 20 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 wind and marine renewable energy. The listings below are short introductions to several new or popular documents that can be accessed through the accompanying Tethys links:

**[A Review of the Environmental Impacts for Marine and Hydrokinetic Projects to Inform Regulatory Permitting: Summary Findings from the 2015 Workshop on Marine and Hydrokinetic Technologies, Washington, D.C. - Baring-Gould et al. 2016](#)**

To help address the knowledge and experience gap and increase the number of early MHK device deployments, beginning in FY14, the U.S. Department of Energy (DOE) funded efforts to develop and implement technology- and application-focused workshops on MHK systems. The workshops engaged resource managers and other decision makers at key regulatory organizations, providing a review of current research and facilitating discussions with leading national and international experts on environmental topics.

**[Effects of a Wind Energy Development on Greater Sage-Grouse Habitat Selection and Population Demographics in Southeastern Wyoming - LeBeau et al. 2016](#)**

The overall goal of the research was to establish the population-level effects of wind energy development on female sage-grouse seasonal habitat selection and demography. This study represents the only situation in the US where the responses of greater sage-grouse to the infrastructure associated with a wind energy development has been investigated. Our primary objective was to discern the relationship between sage-grouse nest, brood-rearing, and summer habitat selection patterns and survival parameters and the infrastructure of an existing wind energy facility.

**[Assessing Marine Mammal Presence in and Near the FORCE Lease Area During Winter and Early Spring - Addressing Baseline Data Gaps and Sensor Performance - Redden & Porskamp 2015](#)**

Developments to test TISEC devices and harness tidal energy from high flow sites in the Minas Passage require examination of the potential effects of tidal turbines on the environment, including impacts on marine mammals. Studies conducted to date, at and near the Fundy Ocean Research Centre for Energy (FORCE) in-stream tidal turbine test site in Minas Passage, have included passive acoustic monitoring (PAM) of harbour porpoises during late spring, summer and fall months.

**[Bird Migration Monitoring in the Saint Nikola Wind Farm Territory, Kaliakra Region in Autumn 2014, an Analysis of Potential Impact after Five Years of Operation - Zehtindjiev & Whitfield 2014](#)**

This report presents the results of 90 consecutive days of monitoring and mitigation at Saint Nikola Wind Farm (SNWF) in 2014, its 5th operational year. The Continued purpose is to investigate the possible impacts on migrating birds. Spatial and temporal dynamics in the numbers of different species passing through the wind farm territory during autumn migration 2014 (15 August to 31 October) are presented. The data from the autumn monitoring in the years 2008 to 2014 are used to investigate the potential change in species composition, numbers altitudes or the flight direction of birds observed in these seven years at SNWF.

## **[Soundscape and Noise Exposure Monitoring in a Marine Protected Area Using Shipping Data and Time-Lapse Footage - Merchant et al. 2016](#)**

We review recent work that developed new techniques for underwater noise assessment that integrate acoustic monitoring with automatic identification system (AIS) shipping data and time-lapse video, meteorological, and tidal data. Two sites were studied within the Moray Firth Special Area of Conservation (SAC) for bottlenose dolphins, where increased shipping traffic is expected from construction of offshore wind farms outside the SAC. Noise exposure varied markedly between the sites, and natural and anthropogenic contributions were characterized using multiple data sources.

## **Current News**

Current news articles of international interest on wind and marine renewable energy include:

### **[New EU programme to fund open sea testing for ocean energy](#)**

The €11m FORESEA project brings together Europe's leading ocean energy test facilities to help demonstration of tidal, wave and offshore wind energy technologies in real-sea conditions. The project is funded by the Interreg NWE (North-West Europe) programme, part of the ERDF (European Regional Development Fund).

### **[Lawsuit Over Nation's 1st Offshore Wind Farm Is Dismissed](#)**

A federal judge has dismissed a lawsuit brought over the nation's first offshore wind farm. The lawsuit was filed in 2015 by plaintiffs including the Rhode Island Manufacturers Association and others. They argued that utility National Grid's deal to purchase power from the wind farm violated federal law and would result in a significant increase to their electric bills.

### **[Wello plans wave energy demonstrator in Korea](#)**

Finnish company Wello Oy said that this week it signed a pact with Korean partner BSR CO Ltd to execute an ocean wave energy demonstration project in South Korea. Under the terms of the newly-signed letter of intent (LoI), Wello will provide its technology expertise, while its partner will rely on its own energy plant building know how.

### **[Vattenfall to invest £300m in Aberdeen offshore wind farm](#)**

Swedish energy firm Vattenfall has confirmed that it will press ahead with a £300m 11-turbine wind farm off the coast of Aberdeen. Onshore construction for the European Offshore Wind Deployment Centre (EOWDC) is due to start later this year.

## **New Sustainable System to Recycle Wind Turbine Blades for Obtaining Secondary Materials**

The BRIO project, headed by Iberdrola and partners Tecnalia and Gaiker-IK4, have developed a new system to recycle wind turbine blades from wind farms. BRIO is a part of the European LIFE+ program. It is an initiative that focuses on creating a new sustainable system to manage and recycle wind turbine blades that are not used anymore as a result of wind farms shutting down at the end of their service life or because the blades themselves are replaced due to malfunction.