



Tethys Blast

October 16, 2015

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 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.

New Tethys Story: EWTEC 2015

The 11th European Wave and Tidal Energy Conference (EWTEC) was held in Nantes, France, September 6-11, 2015. As the premier academic conference in wave and tidal energy, EWTEC has primarily focused on technology engineering and modeling. Annex IV and Ocean Energy Systems (OES) partnered with the 11th EWTEC to expand upon the environmental focus of the conference, and increase participation by scientists and engineers examining environmental effects of marine renewable energy devices. This strategy resulted in a EWTEC high of 25 papers in 6 dedicated environmental sessions, as well as 3 environmental effects posters presented, over the course of the conference. [Read more about this story here.](#)

New Documents 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 new or popular documents that can be accessed through the accompanying Tethys links:

Evaluating the Potential for Marine and Hydrokinetic Devices to Act as Artificial Reefs or Fish Aggregating Devices, Based on Analysis of Surrogates in Tropical, Subtropical, and Temperate U.S. West Coast and Hawaiian Coastal Waters - Kramer et al. 2015

Wave energy converters (WECs) and tidal energy converters (TECs) are only beginning to be deployed along the U.S. West Coast and in Hawai'i, and a better understanding of their ecological effects on fish, particularly on special-status fish (e.g., threatened and endangered) is needed to facilitate project design and environmental permitting. The structures of WECs and TECs placed on to the seabed, such as anchors and foundations, may function as artificial reefs that attract reef-associated fishes.

Rapid Macrobenthic Recovery after Dredging Activities in an Offshore Wind Farm in the Belgian Part of the North Sea - Coates et al. 2015

The development of offshore wind farms (OWFs) in the North Sea has increased considerably to create alternatives for fossil fuel energy. Activities related to the construction of OWFs, in particular gravity-based foundations (GBFs), are mainly associated to dredging, causing direct effects to the macrofauna in the seabed.

Impacts of Anthropogenic Noise on Marine Life: Publication Patterns, New Discoveries, and Future Directions in Research and Management - Williams et al. 2015

Anthropogenic underwater noise is now recognized as a world-wide problem, and recent studies have shown a broad range of negative effects in a variety of taxa. Underwater noise from shipping is increasingly recognized as a significant and pervasive pollutant with the potential to impact marine ecosystems on a global scale. We reviewed six regional case studies as examples of recent research and management activities relating to ocean noise in a variety of taxonomic groups, locations, and approaches.

Estimation of Acoustic Particle Motion and Source Bearing Using a Drifting Hydrophone Array Near a River Current Turbine to Assess Disturbances to Fish - Murphy 2015

River hydrokinetic turbines may be an economical alternative to traditional energy sources for small communities on Alaskan rivers. However, there is concern that sound from these turbines could affect sockeye salmon (*Oncorhynchus nerka*), an important resource for small, subsistence based communities, commercial fisherman, and recreational anglers.

Curtailing Wind Turbine Operations to Reduce Avian Mortality - Singh et al. 2015

While wind power is a promising source of renewable energy, there have been persistent questions about the safety of migrating birds in the presence of wind farms. In this paper we develop a framework that allows us to consider the costs and benefits of a very simple strategy: curtailing (turning off) the turbines during high-risk periods for endangered species.

Current News

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

[National Academies Select Leading Scientists for BOEM \(US\) Committee on Ocean Energy Management](#)

The Bureau of Ocean Energy Management (BOEM) announced on Tuesday that the National Academies of Sciences, Engineering, and Medicine have selected 14 distinguished experts to serve on the new standing committee on environmental science and assessment for offshore energy and mineral resources. The committee will provide independent information on issues relevant to BOEM's environmental studies and assessment activities and support discussions on relevant issues. The first meeting is scheduled for December 8 and 9 at the Academies in Washington, D.C.

[BlueTEC Tidal Energy Platform Successful](#)

The BlueTEC Texel Tidal partnership has announced that the first months of operating the BlueTEC tidal energy platform have been a success. With every tidal flow, the platform supplies electricity into the Dutch national grid. The next turbine – a Tocardo T2 – will be installed before the winter, doubling the platform's capacity. A few months after that, a second T2 turbine is to be installed. With two turbines working simultaneously this will double the capacity once again to reach the 400-500kW mark.

[Solar Focus in Further Development of Renewable Marine Energy System](#)

Eco Marine Power Co. Ltd. (EMP) is focusing on the solar component of its wind and solar marine propulsion system, as the Japan-based company moves towards commercialisation of its Aquarius MRE renewable energy solution, Greg Atkinson, EMP's Director & Chief Technology Officer, has told Ship & Bunker.

[41 Unexploded WWII Bombs Found At UK Offshore Wind Farm](#)

Dong Energy have announced, that whilst surveying the site for their latest UK offshore wind farm, 41 unexploded world war two bombs were found. The unexploded ordnance was found whilst Dong Energy were conducting a subsea survey, for the routing of cables, for its new Race Bank offshore wind farm.