



Tethys Blast

September 5, 2014

Welcome to the first September edition of the Tethys Blast! A new Tethys Blast will be sent to you every 2 weeks, unless you choose to unsubscribe; instructions to unsubscribe are at the bottom of this email.

Tethys Blast 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.

Most Recent Blog Article

A new blog post will be available on *Tethys* every 2-4 weeks, so please rate and comment on the blog to engage with your colleagues. If you are interested in submitting a blog article, reply to tethys@pnnl.gov. Check out our most recent article:

[Introducing Imerc, Ireland's Maritime Cluster](#)

Established in 2010, Imerc is an emerging cluster that has the ambition to become a global maritime and energy hub. In this context a cluster is defined as a group of economic actors and institutions that are located near each other and have reached sufficient scale to develop specialised expertise, services, resources, suppliers and skills. The plan is to have an entire campus built in the harbour by 2025 which has the potential to support up to 3,000 jobs.

New Articles on Tethys

A total of 39 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:

[Behavioral Reactions of Harbor Porpoise to Pile-Driving Noise](#) – Tougaard et al

Pile driving of large steel monopiles in offshore waters has increased rapidly in recent years due to the expanding development of offshore wind energy. In particular, *Phocoena phocoena* (harbor porpoise) has been the focus of attention with respect to a possible negative impact.

[The Assessment of Lethal Propeller Strike Injuries in Sea Mammals](#) – Byard et al

Assessment of injuries in marine mammals may be required to help authorities determine whether human activity was involved. Three cases of marine animal deaths involving propeller blade strikes are reported to demonstrate characteristic features of such cases and diagnostic difficulties that may occur.

[Greenhouse Gas Emissions from Electricity Generated by Offshore Wind Farms](#) – Reimers et al

For wind power generation offshore sites offer significantly better wind conditions compared to onshore. At the same time, the demand for raw materials and therefore the related environmental impacts increase due to technically more demanding wind energy converters and additional components (e.g. substructure) for the balance of plant.

[Maine Tidal Power Initiative: Environmental Impact Protocols for Tidal Power](#) – Peterson

As a result of ongoing climate change, the pressure for the development of new sources of renewable energy has increased. It is extremely likely that climate change is caused by anthropogenic activities. Thus even if dramatic gains are made in energy efficiency; the addition of novel renewable energy sources is critical to reducing fossil fuel emissions.

[Urban Structures as Marine Habitats: An Experimental Comparison of the Composition and Abundance of Subtidal Epibiota Among Pilings, Pontoons and Rocky Reefs](#) – Connell

There remains little understanding of the relationship between the ecologies of urban habitats (pilings and pontoons) and natural habitats (rocky reef) for sessile plants and animals (epibiota) living on urbanised coasts. This study describes the structure of subtidal assemblages of epibiota among pilings, pontoons and adjacent rocky reef in Sydney Harbour, Australia.

Current News

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

[US Funds Marine Energy Research](#)

The US Energy Department has awarded \$7.25m to six projects to advance the nation's emerging marine and hydrokinetic energy industry. The funding will aid in the development of advanced instrumentation for environmental monitoring and data collection and support a partnership between three universities to accelerate the development of cost-effective technologies.

[Wales's Largest Offshore Wind Farm Reaches Midway Point with Half of Turbines Operational](#)

Wales' largest offshore wind farm has passed a significant milestone with more than half its 160 turbines now operational. The 81st turbine at RWE Innogy UK's £2bn Gwynt y Môr development, off the North Wales coast near St Asaph, was connected to the National Grid last week.

[Tidal Energy Summit 2014](#)

The eighth International Tidal Energy Summit is set to take place in London, UK, on 25 and 26 November 2014. The event will see key stakeholders, including ABB, Alstom, Atlantis, Crown Estate, EMEC, RES, ScottishPower Renewables and Siemens, come together to address cost and risk reduction strategies, latest technologies and financing models for commercial tidal power development.

[UMaine Marks Offshore Wind Turbine's First Year](#)

The University of Maine says a scaled-down offshore wind turbine successfully withstood more than a dozen severe storms in its first year. An event held in Castine on Friday with UMaine officials and members of Maine's congressional delegation marked one year since the deployment of VoltturnUS, a prototype that's one-eighth the scale of a full-size turbine.