

METS 2018 Poster Abstract

Environmental Monitoring Datasets Cataloged on *Tethys*

Jonathan Whiting, Andrea Copping, Simon Geerlofs, Mikaela Freeman, Amy Woodbury

Jonathan Whiting, Pacific Northwest National Laboratory, Seattle WA, jonathan.whiting@pnnl.gov

Andrea Copping, Pacific Northwest National Laboratory, Seattle WA, andrea.copping@pnnl.gov

Simon Geerlofs, Pacific Northwest National Laboratory, Seattle WA, simon.geerlofs@pnnl.gov

Mikaela Freeman, Pacific Northwest National Laboratory, Seattle WA, mikaela.freeman@pnnl.gov

Amy Woodbury, Pacific Northwest National Laboratory, Seattle WA, amy.woodbury@pnnl.gov

The *Tethys* (<https://tethys.pnnl.gov>) knowledge management system provides information on the environmental effects of marine renewable and wind energy. A comprehensive collection of nearly 4000 hand-selected documents provides value to the industry by making information accessible and searchable. Starting in 2012, *Tethys* collects metadata questionnaires about project sites and research studies around the world, through the Ocean Energy System's Annex IV collaboration. Representatives from the 12 member nations of Annex IV help identify projects that had deployed devices in open water and conducted environmental data collection, establishing a point of contact to update the information on an annual basis. The collection now consists of 97 project sites and 55 research studies around the world, providing information unique to *Tethys*.

The scarcity of post-installation monitoring data for wave and tidal devices continues to be a challenge for permitting devices, particularly for key environmental effects such as collision risk of animals with turbines, underwater noise effects on marine mammals, and EMF emissions. *Tethys* has added a metadata portal to provide access to post-installation monitoring datasets. Like the project and research metadata forms, the content of the datasets are described, a link provided to available datasets for download, and a point of contact for the dataset established to allow the user to request access to the data. As the industry moves towards more deployment and early commercial arrays, access to these datasets from a well-known point of entry such as *Tethys*, should help to further smooth siting and permitting for the industry.

ACKNOWLEDGEMENTS

We would like to acknowledge Aquatera and the Annex IV analysts for their assistance in collecting this data, and acknowledge the PNNL development team for designing the interface in *Tethys*.