

# John King

Professor, Oceanography

THE  
UNIVERSITY  
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# John W. King, Professor of Oceanography

Study Topic	URI Investigators	European Investigators	Tribal & Industry Partners	Agency Partners	Funding
<ul style="list-style-type: none"> <li>• EMF from DC power cables</li> <li>• Block Island cable studies</li> </ul>	<ul style="list-style-type: none"> <li>• Zoe Hutchison</li> <li>• Haibo He</li> </ul>	<ul style="list-style-type: none"> <li>• Andrew Gill</li> <li>• Peter Sigray</li> </ul>	<ul style="list-style-type: none"> <li>• National Grid</li> <li>• Inspire</li> <li>• Ørsted</li> </ul>	<ul style="list-style-type: none"> <li>• CRMC</li> </ul>	<ul style="list-style-type: none"> <li>• BOEM</li> <li>• private</li> </ul>
<ul style="list-style-type: none"> <li>• RODEO – reef effects, biofouling, benthic biology</li> <li>• Benthic biology/fisheries</li> </ul>	<ul style="list-style-type: none"> <li>• Monique LaFrance-Bartley</li> <li>• Zoe Hutchison</li> </ul>	<ul style="list-style-type: none"> <li>• Paul English</li> <li>• Andrew Gill</li> <li>• Steven Degraer</li> <li>• Bob Rumes</li> </ul>	<ul style="list-style-type: none"> <li>• HDR</li> <li>• Fugro</li> </ul>	<ul style="list-style-type: none"> <li>• BOEM</li> <li>• NOAA-NMFS</li> <li>• FWS</li> </ul>	<ul style="list-style-type: none"> <li>• HDR/BOEM</li> <li>• NYSERDA (pending)</li> </ul>
<ul style="list-style-type: none"> <li>• Submerged Paleocultural Landscapes Project</li> </ul>	<ul style="list-style-type: none"> <li>• David Robinson</li> <li>• Carol Gibson</li> </ul>	<ul style="list-style-type: none"> <li>• Jørgen Dencker</li> </ul>	<ul style="list-style-type: none"> <li>• Narragansett Indian Tribal Historic Preservation Office</li> </ul>	<ul style="list-style-type: none"> <li>• BOEM</li> <li>• CRMC</li> </ul>	<ul style="list-style-type: none"> <li>• BOEM</li> </ul>



# Major Findings

## EMF

1. DC cables generate higher and more extensive EMF than AC cables in both DC and AC fields. AC cables may be better.
2. Lobster and skate behavior is effected by EMF.
3. Migration across a single DC cable is not impacted.

## RODEO

1. Extensive blue mussel reef type biofouling has developed on support structures and is spreading to bottom under and near support structures.
2. No evidence for extensive benthic impacts so far.
3. No fisheries data yet.

## Paleocultural Landscapes

1. Best practices related to paleolandscapes proposed.
2. State of knowledge related to identification and preservation of submerged, formerly terrestrial paleolandscapes on the OCS improved.
3. Initiation of partnerships with local Tribes, state, and federal agencies.



# Next Step Questions

## EMF

1. Are there impacts associated with multiple cables?
2. Is the best layout cable corridors with multiple cables or more spread out?

## Benthic biology

1. Define best practices for monitoring.
2. Take a food web approach and look at effects/impacts at higher trophic levels.

## Paleocultural Landscapes

1. Implementation of Best Practices by BOEM and others.
2. Improve science approach to identification and evaluation of “sensitivity” of paleocultural landscapes.
3. Improve collaboration between Tribes, agencies, and academic researchers with the objective of improving the consultation process moving forward.

