

Report of the consensus recommendations of the OysterFutures Stakeholder Workgroup

Website: <https://www.bco-dmo.org/dataset/704313>

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Project

» [Coastal SEES Collaborative Research: Oyster fisheries in the Chesapeake Bay: Integrating stakeholder objectives with natural system models to promote sustainable policy](#) (Chesapeake Bay Oyster Fisheries)

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Abstract

This report contains the consensus recommendations of the OysterFutures Stakeholder Workgroup as well as a description of the collaboratively-built simulation model and Consensus Solutions process.

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Coverage

Temporal Extent: 2016-02-26 - 2018-05-14

Dataset Description

This report contains the consensus recommendations of the OysterFutures Stakeholder Workgroup as well as

a description of the collaboratively-built simulation model and Consensus Solutions process.

BCO-DMO Processing Description

Version History:

v1 (date: 2017-06-07) - initial set of reports published on BCO-DMO.

v2 (date: 2018-02-20) - added 2017 summary reports.

v3 (date: 2019-02-13) - added 2018 summary reports.

v4 (date: 2024-03-11) - removed summary reports; published the Stakeholder Recommendations Report as a PDF.

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Data Files

File
Stakeholder Recommendations Report filename: OysterFutures_Stakeholder_Recommendations_Report_14May2018.pdf (Portable Document Format (.pdf), 15.25 MB) MD5:1600764201a7b547f254c54d7f26d81e Date: 2018-05-14 File size: 15.25 MB

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Parameters

Parameters for this dataset have not yet been identified

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Project Information

Coastal SEES Collaborative Research: Oyster fisheries in the Chesapeake Bay: Integrating stakeholder objectives with natural system models to promote sustainable policy (Chesapeake Bay Oyster Fisheries)

Website: <https://oysterfutures.wordpress.com/>

Coverage: Chesapeake Bay

NSF Award Abstract:

Researchers will use the oyster fisheries in the Chesapeake Bay as a test case for collaborative policy development that is grounded in sound science. Environmental policies often create controversy and can be difficult to enforce, particularly when people do not understand the reason for the rules or do not consider the rules to be fair. Natural resources can be better sustained by policies developed cooperatively among all affected stakeholders, scientists, and government representatives. In a systematic approach, the project team will hold a series of workshops in which a full set of stakeholders will work with scientists to guide development of a model, select policy objectives, and apply the model to make policy recommendations. A collaborative modeling approach will ensure that stakeholders have an opportunity to incorporate their values, objectives, and knowledge into the model of the estuarine ecosystem which will include many benefits from the natural system such as commercial and recreational fishing, safe swimmable water, and other ecosystem services. Researchers will study the sociology and economics that influence stakeholder involvement and policy formation in order to better understand the human dimensions, improve the process, and enhance the implementation success of recommended policies. The lessons learned regarding the oyster ecosystem and fishery will advance the tools and practices of sustainable management of shellfisheries. The policy

recommendations from the stakeholder workshops will be evaluated by state and federal agencies, and if implemented, would be an outcome that would directly enhance coastal sustainability. One Ph.D. student, two masters students, and one postdoctoral researcher will be trained in the science of coupled natural-human systems. This project is supported as part of the National Science Foundation's Coastal Science, Engineering, and Education for Sustainability program - Coastal SEES.

This research aims to improve the utility of predictive models for shaping natural resource policy and management. The research team will build an innovative natural systems model that integrates three-dimensional hydrodynamic, water quality and larval transport models with oyster demographics, human uses, and economics at a scale that is applicable to restoration and management. The modeling system developed will substantially advance methods for investigating, and understanding, natural systems with complex feedbacks between physical conditions, vital rates of organisms, and humans. Researchers will include stakeholder values, objectives, and knowledge in the model design process. Through a series of workshops, stakeholders will select the policy objectives and the integrated model will project how well policies are expected to meet these objectives. This iterative process will ensure that the natural system model will incorporate the complex human uses of the ecosystem. A targeted effort will be made to study the socioeconomic drivers of stakeholder involvement, information flow, use and influence, and the policy formation in order to improve the process and enhance the implementation success of recommended policies. By doing so, this research will advance understanding of the human dimensions needed to create sustainable policy as well as provide important new strategies for integrating natural and social sciences, and scientists, in sustainable resource management. This generalizable research component provides an important complement to the research on oysters, both of which will advance the tools and practices of sustainable management of shellfisheries.

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Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-1427019

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