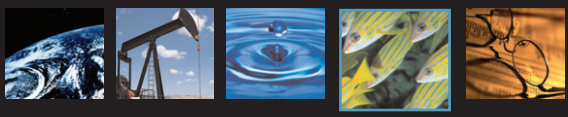
Nicholas Institute for Environmental Policy Solutions

breaking down barriers to environmental progress



Oceans and Coastal Development

The health of our oceans and coastal estuaries is critical to human survival, providing us with food and income, coastline protection, and even help for agriculture - from animal feed to fertilizers. Yet human activity, including overfishing, wetlands development, and inland pollution, is eroding the ocean and estuaries' abilities to thrive and to protect us for generations to come.

The United States faces important decisions in adjusting oceans management to reflect that reality. Two major commissions have made formal recommendations to the President on better oceans management, yet those have yet to be implemented by Congress.

The Nicholas Institute for Environmental Policy Solutions at Duke University will draw on our faculty's world-renowned expertise to help forge a better approach to preserve ocean health.

To Consider

- From x to x number of federal and state agencies currently have jurisdiction and responsibility for managing ocean and coastal areas of the United States.
- Separating oceans management by sector – such as oil and gas, fisheries, and coastal development – has greatly contributed to our oceans' and coastal ecosystems' declining health.
- Governing by ecosystems – creating zones by topography, species distribution, and oceanography – can adjust human activity to be less destructive, reduce duplication of effort, and help assess and manage cumulative impacts.

The Nicholas Institute Brings

World-Renowned Expertise

- Long-standing research traditions in marine biology, marine geology and oceanography
- Contributing research from the Center for Marine Conservation, Duke Wetland Center, the Marine/Freshwater Biomedical Center, and the Integrated Toxicology Program.

New Tools and Policy Design Recommendations

- Design principles for ecosytem-based oceans management.
- Development of geospatial technology tools (GIS) to map ecosystem zones.

Political Savvy

- Staff familiar with both the legislative process and high levels of government.
- Faculty comfortable with sharing applied research findings in laymen terms.

For policymakers. For business leaders. For non-profits. For journalists.

Resources

Institute Staff and Partners

Timothy Profeta, Director
Nicole St. Clair, Associate Director, Washington, D.C.

Raphael Sagarin, Associate Director for Ocean and Coastal Policy

Faculty

Larry B. Crowder
Stephen Toth Professor of Marine Biology

Crowder's expertise lies in marine ecology with a special emphasis on endangered species and fisheries conflicts.

Patrick N. Halpin
Gabel Associate Professor of the Practice of Geospatial Analysis

Halpin's expertise lies in the development of geospatial technologies to help map ocean ecosystems and related land use.

William W. Kirby-Smith
Associate Professor of the Practice of Marine Ecology

Kirby-Smith's expertise lies in water quality impacts of freshwater runoff into estuarine headwaters.

Randall A. Kramer
Professor of Resource and Environmental Economics

Kramer's expertise lies in the role of economics in environmental policy and management.

Michael K. Orbach
Professor of the Practice of Marine Affairs and Policy

Orbach's expertise lies in applications of social science to environmental policy and management.

Orrin H. Pilkey
James B. Duke Professor Emeritus of Geology

Pilkey's expertise lies in coastal zone management and coastal geology.

Joseph S. Ramus
Research Professor of Biological Oceanography

Ramus' expertise focuses on the ecological response of the Pamlico Sound system, to watershed scale natural and human disturbances.

Andrew J. Read
Rachel Carson Associate Professor of Marine Conservation Biology

Read's expertise lies in marine mammals (particularly dolphins and porpoises), and effects of fisheries on marine ecosystems.

Curtis J. Richardson
Professor of Resource Ecology and Director, Duke University Wetland Center

Richardson's expertise lies in wetland ecology and restoration of wetland functions and structure on the landscape.

Cindy L. Van Dover
Director, Duke University Marine Laboratory

Van Dover's experise lies in deep-sea biology with a particular expertise in the ecology of chemosynthetic ecosystems.

Contact Information

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The Nicholas Institute is a university-wide initiative that operates in conjunction with the Nicholas School of the Environment and Earth Sciences at Duke University.

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