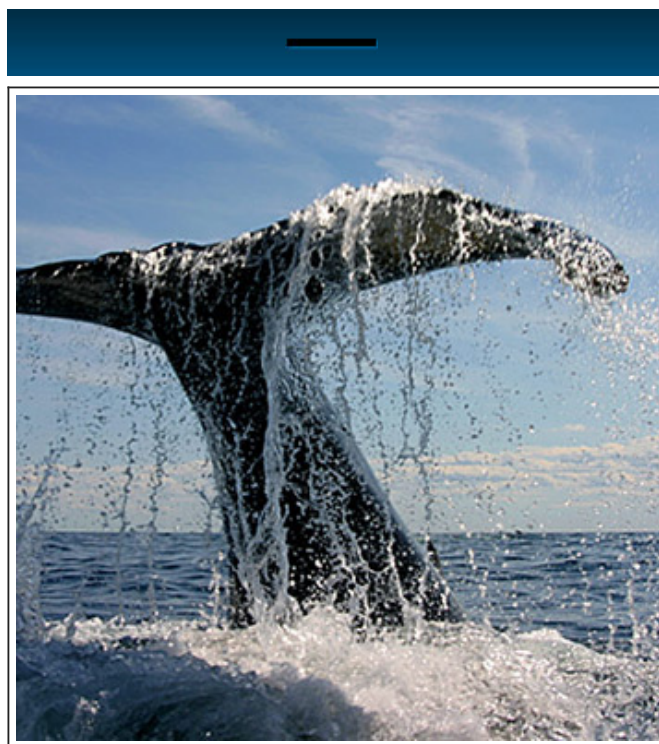


## CICOR: Ecosystems

### CICOR Research Theme: Marine Ecosystem Processes Analysis

NOAA has a mandate to bring its resources to bear on the protection and management of ocean ecosystems, and the mission has never been more important, nor so complex. Woods Hole scientists are working with NOAA to help develop understanding and capabilities that will eventually be needed in order to develop the required ability to predict ocean ecosystems. Recent coupled NOAA/WHOI activities include the following:

- Global harmful algal bloom (HAB) research, under the leadership of Donald Anderson has made major strides in terms of understanding of harmful species distributions and how they respond to oceanographic conditions. Within the nearby Gulf of Maine, researchers Dennis McGillicuddy and Rouing He are developing very promising physical-biological computer simulations that have strong potential, in combination with sustained observations, for a predictive capability.
- Woods Hole scientists have a long tradition of cooperation with the NOAA Northeast Fisheries Science Center. Recently, there has been joint work on the GLOBEC (Global Ocean Ecosystems Dynamics) project on Georges Bank, a physical-biological effort focused on year-to-year variations in cod and haddock in this historically prosperous fishery.
- Peter Tyack's research on acoustic communication between whales has strong implications for the NOAA mandate to regulate the exposure of marine mammals to anthropogenic sounds.
- Woods Hole scientists are actively engaged in the planning and implementation of sustained ocean measurements, both through the NSF-sponsored observatories effort, and through the needs-oriented Integrated Ocean Observing System. For example, Janet Fredericks is actively engaged in the developing the system's data management and transport. Projects range from biological sensor development, to data management, to system planning.



[» View Projects](#)

*Last updated: August 19, 2008*

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