

## Projects related to *Alexandrium* in the Northeastern United States

Funding Agency	Principal Investigator	Institution	Title
NOAA Center for Sponsored Coastal Ocean Research	Anderson, D.	Woods Hole Oceanographic Institution MA	PCM HAB: Suppression of <i>Alexandrium</i> blooms by resuspension and burial of resting cysts
NOAA Center for Sponsored Coastal Ocean Research	Anderson, D.	Woods Hole Oceanographic Institution MA	ECOHAB: Deposition and resuspension of <i>Alexandrium fundyense</i> resting cysts in the Gulf of Maine, Phase II
NOAA Center for Sponsored Coastal Ocean Research	Anderson, D.	Woods Hole Oceanographic Institution, MA	ECOHAB: GOMTOX: Dynamics of <i>Alexandrium fundyense</i> distributions in the Gulf of Maine -- An observational and modeling study of nearshore and offshore shellfish toxicity, vertical toxin flux, and bloom dynamics in a complex sea shelf
NOAA Center for Sponsored Coastal Ocean Research; NSF	Anderson, D.	Woods Hole Oceanographic Institution, MA	ECOHAB Gulf of Maine - The ecology and oceanography of toxic <i>Alexandrium</i> blooms in the Gulf of Maine
NOAA Center for Sponsored Coastal Ocean Research	Anderson, D.	Woods Hole Oceanographic Institution, MA	ECOHAB: <i>Alexandrium</i> spp. cyst dynamics in the Gulf of Maine: delivery, deposition, and resuspension
NOAA Center for Sponsored Coastal Ocean Research	Anderson, D.	Woods Hole Oceanographic Institution, MA	Event Response: Response to the New England Red Tide of 2005
NOAA Center for Sponsored Coastal Ocean Research	Anderson, D.	Woods Hole Oceanographic Institution, MA	ECOHAB: Toxin composition variability as an indicator of nutritional status of <i>Alexandrium</i> field populations
NOAA Center for Sponsored Coastal Ocean Research	Coats, D.W.	Smithsonian Environmental Research Center	ECOHAB: Role of Parasitism on HAB Dynamics: <i>Amoebophrya</i> sp. ex <i>Alexandrium tamarense</i>
NOAA Center for Sponsored Coastal Ocean Research	Connell, L.	University of Maine, ME	ECOHAB: Spread of a sodium channel mutation in softshell clam, <i>Mya arenaria</i> , populations: Implication for risk assessment and management of PSP toxins
NOAA Center for Sponsored Coastal Ocean Research	Connell, L.	University of Maine, ME	MERHAB: Rapid HAB detection instrument development and deployment
NOAA Center for Sponsored Coastal Ocean Research	Connell, L.	University of Maine, ME	ECOHAB: A molecular basis for different susceptibility and accumulation of PSP toxins in commercial bivalves
NOAA Center for Sponsored Coastal Ocean Research	Couture, D.	Maine Department of Marine Resources	Event Response: Monitoring in Casco Bay, Maine, during <i>Alexandrium</i> HAB Event
NOAA Center for Sponsored Coastal Ocean Research	Dam, H.G.	University of Connecticut/Avery Point, CT	ECOHAB: Relation between grazer toxin dynamics and resistance to toxic dinoflagellates

NOAA Center for Sponsored Coastal Ocean Research	Dam, H.G.	University of Connecticut/Avery Point, CT	ECOHAB: Ecological and evolutionary consequences of spreading of <i>Alexandrium</i> to grazers, and implications for bloom formation and maintenance
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NOAA Center for Sponsored Coastal Ocean Research	Durbin, E.	University of Rhode Island, RI	ECOHAB: The role of zooplankton grazers in harmful algal bloom dynamics
NOAA Center for Sponsored Coastal Ocean Research	Dyrhman, S.	Woods Hole Oceanographic Institution, MA	Career 2004: Harmful Algae Research Program - A Coastal Development Initiative for Undergraduates
NOAA Center for Sponsored Coastal Ocean Research	Erdner, D.	University of Texas, TX	ECOHAB: Causes and consequences of cell death in the toxic dinoflagellate <i>Alexandrium tamarense</i>
NOAA Center for Sponsored Coastal Ocean Research	Frost, B.W.	University of Washington, WA	ECOHAB: The relationship between paralytic shellfish toxins and <i>Alexandrium</i> cysts in Puget Sound, Washington
NOAA Center for Sponsored Coastal Ocean Research	Heil, C.	Florida Fish & Wildlife Research Institute, FL	ECOHAB: Humic acid utilization by the HAB dinoflagellates <i>Karenia brevis</i> and <i>Alexandrium tamarense</i> : application of a new radioisotopic technique
NOAA Center for Sponsored Coastal Ocean Research	Hoagland, P.	Woods Hole Oceanographic Institution, MA	ECOHAB: Economic impacts of HAB events and the value of scientific predictions
NOAA Center for Sponsored Coastal Ocean Research	Karp-Boss, L.	University of Maine at Orono, ME	ECOHAB: Bloom dynamics of <i>Alexandrium</i> : the roles of resource competition and allelopathy
NOAA Center for Sponsored Coastal Ocean Research	Lefebvre, K.	NOAA Northwest Fisheries Science Center, WA	ECOHAB: Effects of algal toxin exposure in early life history stages of fish
NOAA Center for Sponsored Coastal Ocean Research	McGillicuddy, D.	Woods Hole Oceanographic Institution, MA	Event Response: Gulf of Maine Red Tide Response 2006
NOAA Center for Sponsored Coastal Ocean Research	McGillicuddy, D.	Woods Hole Oceanographic Institution, MA	MERHAB: Predictive models of the toxic dinoflagellate <i>Alexandrium fundyense</i> in the Gulf of Maine: quantitative evaluation, refinement, and transition to operational mode for coastal management
NOAA Center for Sponsored Coastal Ocean Research	McGillicuddy, D.	Woods Hole Oceanographic Institution, MA	ECOHAB: <i>Alexandrium</i> bloom transport: Observation and models
NOAA Center for Sponsored Coastal Ocean Research	Thomas, A.	University of Maine, ME	ECOHAB: Oceanographic links to <i>Alexandrium</i> -imposed toxicity in the Gulf of Maine
NOAA Center for Sponsored Coastal Ocean Research	Trainer, V.	NOAA Northwest Fisheries Science Center, WA	ECOHAB: Mechanisms and control of toxin accumulation in shellfish

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NOAA Center for Coastal Environmental Health and Biomolecular Research	Doucette, G.	NOAA Center for Coastal Environmental Health and Biomolecular Research	Elucidate the Transfer Pathways of HAB Toxins Through the Foodweb
NOAA Center for Coastal Environmental Health and Biomolecular Research	Doucette, G.	NOAA Center for Coastal Environmental Health and Biomolecular Research	Remote detection of HAB toxins
NOAA Center for Coastal Environmental Health and Biomolecular Research	Morton, S.	NOAA Center for Coastal Environmental Health and Biomolecular Research	Identification of New Harmful Algal Species
NOAA Center for Coastal Environmental Health and Biomolecular Research	Van Dolah, F.	NOAA Center for Coastal Environmental Health and Biomolecular Research	Laboratory validation of paralytic shellfish poisoning detection method
NOAA Center for Coastal Environmental Health and Biomolecular Research	Van Dolah, F.	NOAA Center for Coastal Environmental Health and Biomolecular Research	Technology Transfer for Harmful Algae and Toxin Detection Methods
NOAA Center for Coastal Environmental Health and Biomolecular Research	Van Dolah, F.	NOAA Center for Coastal Environmental Health and Biomolecular Research	Evaluation of the potential for a roe-on scallop industry in the Northeast US
NOAA Oceans and Human Health Initiative	Jellet, J.	Jellett Rapid Testing Limited, Canada	Investigations into the use of lateral flow tests for the detecting and monitoring of shellfish toxins
NOAA Oceans and Human Health Initiative	Doucette, G.	NOAA Center for Coastal Environmental Health and Biomolecular	A saxiphilin-based assay for PSP toxin detection on field-portable and autonomous, subsurface sensors – research & development phase

		Research	
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NOAA Oceans and Human Health Initiative	Stumpf, R.	NOAA Center for Coastal Monitoring and Assessment	Field Testing and Expansion of Capabilities of the Environmental Sample Processor: Necessary Steps Toward Operational HAB Monitoring and Forecasting in the Gulf of Maine
NOAA Sea Grant	Anderson, D.	Woods Hole Oceanographic Institution, MA	Dynamics of the toxic dinoflagellate <i>Alexandrium</i> in the Gulf of Maine: Source populations and downstream impacts
NOAA Sea Grant	Anderson, D.	Woods Hole Oceanographic Institution, MA	Detection of harmful algal species using molecular probes: Field Trials
NOAA Sea Grant	Boyer, G.	State University of New York at Buffalo, NY	Construction and testing of an inexpensive PSP Toxin Analyzer
NOAA Sea Grant	Plumley, F.	University of Alaska, AK	Identification of the cyanobacterial "saxitoxin genes"
NOAA Sea Grant	Plumley, F.	University of Alaska, AK	Paralytic shellfish poisoning: Bacteria as regulators or <i>Alexandrium</i> growth and toxin synthesis
NOAA Sea Grant	Plumley, F.	University of Alaska, AK	Molecular biology of paralytic shellfish poisoning: role of prokaryotes in toxin production
EPA (ECOHAB)	Dam, H.	University of Connecticut/Avry Point, CT	Linking food webs structure, grazer toxin resistance, and ecological stoichiometry in understanding bloom formation and maintenance
EPA (ECOHAB)	Dyrman, S.	Woods Hole Oceanographic Institution, MA	The development of a single-cell field diagnostic for nitrogen limitation in harmful algae
EPA (ECOHAB)	Juhl, A.	Lamont-Doherty Earth Observatory of Columbia University, NY	Quantifying grazing on harmful algae with a novel qPCR-based technique
EPA (ECOHAB)	Wikfors, G.	NOAA Northeast Fisheries Science Center, CT	Trophic effects of two dinoflagellates
NASA (ECOHAB)	Roesler, C.	Bigelow Laboratory for Ocean Sciences, ME	Ecophysiology of subpopulations of <i>Alexandrium tamarense</i>
NSF (ECOHAB)	Durbin, E.	University of Rhode Island, RI	Zooplankton grazing of toxic <i>Alexandrium</i> spp. as a mechanism in the control of bloom formation and toxin transfer
NSF (ECOHAB)	Kvitek, R.	California State University / Monterey Bay, CA	Influence of harmful algal blooms on the distribution and ecology of high level marine predators

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NSF/NIEHS OHH	Anderson, D.	Woods Hole Oceanographic Institution, MA	<i>Alexandrium</i> population biology in the Gulf of Maine
NSF/NIEHS OHH	Anderson, D.	Woods Hole Oceanographic Institution, MA	Transcriptional Markers of Life Cycle Transitions in Harmful Algal Blooms
NSF/NIEHS OHH	McGuillicuddy, D.	Woods Hole Oceanographic Institution, MA	Hydrodynamic forcings of <i>Alexandrium</i> population biology