



NExUS Ongoing Projects and Activities Fri Nov 16 03:01:06 EST 2018

Name	Resource Finfish Species and Ecosystem Impacts
Description	<p>This project examines the impacts of high CO₂ and acidity of marine waters on fish. These experiments will help build a foundation of knowledge regarding which species, lifestages, and performance measures might be most vulnerable to ocean acidification (OA), and when in the future such effects can be expected.</p> <p>During FY12, two OA experiments were performed on two species of concern to the NE USA, the summer flounder and the winter flounder. These experiments tested the effects of elevated CO₂ concentrations on early lifestages of summer flounder and the combined effects of CO₂ and water temperature on winter flounder. Embryos and larvae of the flounder were subjected to three constant levels of CO₂ and associated pH that ranged from local ambient (775 ppm, pH 7.82), to 2.4 x ambient CO₂ (1,860 ppm, pH 7.44), and 6x ambient CO₂ (4,717 ppm, pH 7.06). These experiments are being conducted in controlled environments at NOAA's Howard Marine Laboratory, Northeast Fisheries Science Center using parents of known history, and maintaining sibling groups in separate replicated rearing environments. Further details about this experiment are in Chambers et al. (2013 Biogeoscience, in review).</p>
Category	<ul style="list-style-type: none"> - Climate-change Specific Projects - Research
Sector	<ul style="list-style-type: none"> - Managed Ecosystems
Focus Area	<ul style="list-style-type: none"> - Sustainability of Marine Ecosystems
Region	<ul style="list-style-type: none"> - Regional Or State -- New England
Status	<ul style="list-style-type: none"> - Ongoing
Lead Agencies	NOAA Northeast Fisheries Science Center
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