

Marine Cage Culture & the Environment: Building NOAA's Information Toolbox

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Science to Inform A Sustainable Industry

We have completed a comprehensive analysis of global research on environmental effects of marine cage culture. This analysis comprises summaries of knowledge of water quality and benthic impacts across a wide range of marine trophic levels — from primary producers to marine mammals.

In FY12, we conducted a workshop to collect critiques and recommendations from a panel of aquaculture experts. We also learned how to incorporate the findings of our analysis into development and validation of environmental impact models to support the needs of industry and agency partners.



Photos by Snapperfarm

Best Management Practices

A team of scientists and aquaculture experts are preparing guidelines of best management practices for cage culture in the U.S. Caribbean. This tool will be available in 2012. These BMPs will serve as a template for use in other regions and with other species cultured in the United States.

Using the Toolbox

The tools we are producing will be valuable to:

Farm owners and operators can use them to learn more about the current state of knowledge regarding environmental effects of cage culture and to guide siting and other farm management practices. **NOAA and other regulatory agencies** can use them in developing and implementing the permitting and monitoring processes for the aquaculture industry in the U.S. They also provide the scientific basis for outreach and education. The **research community** can use them to guide future research to improve our knowledge of how cages function within the marine ecosystem, help improve farm efficiency and further decrease environmental effects. **Coastal communities** can use them to make good decisions about the environmentally sustainable economic opportunities that aquaculture offers.



Together, the NOS National Centers for Coastal Ocean Science and the NMFS Office of Aquaculture are assessing environmental effects of marine cage culture and developing tools for ecologically sustainable growth of the U.S. marine aquaculture industry.