

Advancing sustainable aquaculture through research and outreach



February 2018

\$9.3M

Sea Grant's national strategic investment in aquaculture in 2017*

\$12M

additional annual investment in aquaculture by the 33 Sea Grant programs in 2016 and 2017*

164

number of Sea Grant's active aquaculture projects in 2016*

110

Sea Grant aquaculture professionals working around the country* (does not include many partners)

Sea Grant invests in the development of sustainable marine and Great Lakes aquaculture to help coastal communities maintain a safe and sustainable local seafood supply. Sea Grant's investment in aquaculture focuses on research and technology transfer, often through one-on-one interactions with extension agents, to support and expand America's aquaculture industry.



\$90 million
economic impact

Sea Grant provides the technical assistance and policy experience to support a sustainable U.S. aquaculture industry.*

1,800

aquaculture-related jobs created or sustained*

900

aquaculture-related businesses created or sustained*

Sea Grant helps launch innovative aquaponics business

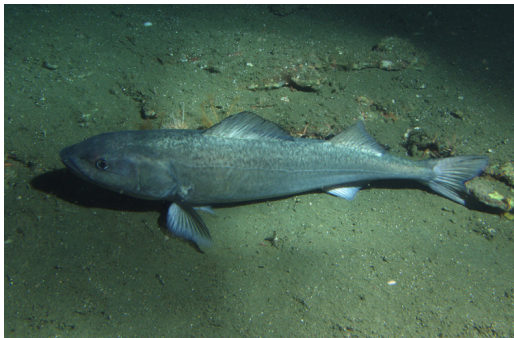
Using the knowledge formulated at the Sea Grant-supported Univ. of Wisconsin-Stevens Point Northern Aquaculture Demonstration Facility, investors opened Superior Fresh, a new aquaponics business in northwestern Wisconsin in late August 2017 as one of North America's first on-land salmon-rearing facilities. The company is expected to employ up to 30 people and is backed by more than \$10 million in investments. In addition to culturing Atlantic salmon and rainbow trout, the facility recirculates nutrient-rich water from the fish tanks to grow leafy green vegetables.



More information at seagrant.noaa.gov/aquaculture

*Numbers are approximate and based on available data

Sea Grant research addresses barriers to commercial sablefish aquaculture



Sablefish, also known as black cod, are found in the northeastern Pacific Ocean from northern Mexico to the Gulf of Alaska, westward to the Aleutian Islands and into the Bering Sea. Photo: NOAA

In 2016, Washington Sea Grant researchers worked with the Jamestown S’Klallam Tribe to resolve obstacles preventing sablefish aquaculture from becoming commercially viable. The researchers successfully adopted an all-female broodstock strategy, which shortened the time to market. The team improved egg quality and fertilization rates, sped up growth rates, reduced feeding costs, and successfully used a vaccine to prevent disease. They produced more than 60,000 all-female fingerlings, some of which were shipped to Perciformes Group, LLC, a Texas development facility, where they raised and marketed the fish to top D.C. restaurants. Perciformes also hosted a Michelin Chef tasting event featuring sablefish.

Sea Grant legal research streamlines Louisiana’s oyster culture permits



Sea Grant and many others associated with the aquaculture industry are working to advance methods of off-bottom oyster farming. Photo: NOAA

Louisiana Sea Grant’s Law and Policy Program worked with the Louisiana Department of Wildlife and Fisheries to develop the legal framework for Alternative Oyster Culture (AOC) permitting, removing a major barrier for oyster growers in Louisiana. As a result of the effort, the first three AOC permits have been issued as of late 2017. Coastal land loss and sea level rise have contributed to a nearly 80 percent loss of oyster resources in Louisiana over the past 10 years, creating a severe hardship in coastal communities where oyster production is a critical stimulus to the local economy. AOC involves growing oysters in suspended cages and not on the water bottom, drastically improving an oyster growers’ harvest.

Sea Grant supports new and existing businesses



In 2016, Connecticut Sea Grant extension assistance contributed to the establishment of five new shellfish and seaweed farms, and the strengthening and retention of 10 additional businesses, collectively affecting at least 15 jobs. The collective value of these 15 businesses is an estimated \$480,000. Connecticut Sea Grant Extension collaborates with industry, researchers, regulators and extension colleagues to conduct applied research, testing new gear and cultivation techniques, investigating potential processing bottlenecks and evaluating new product forms for safety.

Sea Grant advances striped bass aquaculture



A team of North Carolina Sea Grant research and NC State University researchers reared nine generations of domesticated striped bass for the National Program for Genetic Improvement and Selective Breeding for the Hybrid Striped Bass Industry. The N.C. operation produces more than 90 percent of fingerlings for the national HSB industry valued at \$50M per year, with \$12M of that in North Carolina. Consumers enjoyed thousands of pounds of farm-raised striped bass, Wolfpack Striper, via Locals Seafood and restaurants in Raleigh/Durham.

Sea Grant advances kelp aquaculture in Alaska



Research by Alaska Sea Grant published in [“Seaweed Farming in Alaska”](#) suggests that seaweed mariculture is a promising industry for Alaska. Alaska Sea Grant and partners have secured several grants to research various aspects of seaweed farming in Alaska. Seaweed has the potential to play a new role in the state’s aquaculture industry.