

## Sea Grant's Annual Report for FY 2008 – Return on Investment Measure

Measure: Return on investment from the discovery and application of new sustainable coastal, ocean, and Great Lakes products.

# of Businesses Created	# of Jobs Created	# of new Products commercialized	# of Patents	New Investments or return on investment from new products developed (\$M)
22	94 Created; 1,176 Retained	43	2	\$50.9M

### # BUSINESSES CREATED

**1 New Hampshire Sea Grant:** AE Lang Fisheries - a new offshore blue mussel aquaculture/farm business in New Castle, New Hampshire.

**5 North Carolina Sea Grant:** Five separate corporate entities have now invested more than **\$5 million** in facilities for production and food usage of fish meat isolates, in facilities located in Alaska, Oregon, Louisiana, Georgia, and Connecticut, plus offshore facilities in Trinidad, Peru, Iceland, Netherlands, and Viet Nam. NCSG researcher's work has been as a consultant to these corporations in the equipping and operation of these facilities.

**3 North Carolina Sea Grant:** In 2007 technical direction was provided to two North Carolina businesses and one Alabama processor to develop six products. Two of the six went to market in May 2007.

**1 North Carolina Sea Grant:** Researchers are working with the first commercial demonstration of flounder aquaculture in North Carolina.

**1 Wisconsin Sea Grant:** Licensed LLC created by a UW-Madison graduate student to implement more broadly the restoration approaches being researched as part of Wisconsin Sea Grant project R/LR-96.

**4 Michigan Sea Grant:** Sea Grant facilitated the formation of a new Great Lakes whitefish marketing cooperative among four existing commercial fishing/processing operations, which are now producing a branded pin-boned flash frozen, vacuum packed product--Legends of the Lakes--that meets the highest quality control criteria. This has increased the value added revenue for their catch.

**6 MIT Sea Grant:** The Bluefin Robotics Corporation was founded in May of 1997 as a spin-off from MIT Sea Grant's Autonomous Underwater Vehicles Laboratory. Over the years, Bluefin grew to become a world leader in AUV products designed for military, commercial (oil and gas exploration, sea floor mapping), archaeological, and other applications. By 2003 Bluefin was worth \$8.6 million and employed more than 60 people at its headquarters in Cambridge and its operations facilities in Quincy. In 2005, the company agreed to become a wholly owned subsidiary of Battelle, while retaining its name and operations and production facilities in Cambridge and Quincy, Massachusetts.

Bluefin now shares in Battelle's position as a global leader in science and technology. With the national labs it manages or co-manages, Battelle oversees 19,000 staff members and invests \$3 billion annually in research, generating between 50 and 100 patent applications each year. Since joining with Battelle, **Bluefin has won two Navy contracts worth \$30 million, including the delivery of 12-inch vehicles** under the \$18 million Surface Mine Countermeasure Program. The company provides important revenues and high-tech employment as a creative innovator in marine industry in Massachusetts.

**1 Virginia Sea Grant:** East Coast Ornamentals, LLC

### # JOBS CREATED

**Ohio Sea Grant:** 72 Jobs Retained; 58 Jobs Created - Economic development efforts through the Greater Cleveland Partnership resulted in the creation of 58 jobs, retention of 72 jobs and new investments totaling **almost \$8.9 million**. A/EP-1

**Ohio Sea Grant:** 190 Jobs Retained - American Tank & Fabricating: 190 jobs retained and **\$3.8 million** in new investments

**Ohio Sea Grant:** 10 Jobs Created -Thermo Fab: 10 new jobs created and **\$2.4 million** in new investments

**Ohio Sea Grant:** 3 Jobs Created - General Metal Heat Treating: 3 new jobs created and **\$250,000** in new investments

**Ohio Sea Grant:** 14 Jobs Retained - Arslanian Bros.: 14 jobs retained and **\$585,000** in new investments

**Ohio Sea Grant:** 5 Jobs Created - Cosmo Industries: 5 new jobs created and **\$925,000** in new investments

**Alaska Sea Grant:** 18 Jobs Created - Local tribal environmental coordinators to administer EPA Quality Assurance Project Plan (QAPP) protocols

**Michigan Sea Grant:** 900 Jobs Retained - Michigan and Minnesota Sea Grant developed Aquatic Invasive Species (AIS) Hazard Analysis and Critical Control Point (HACCP) to help aquaculture and baitfish businesses prevent the introduction and spread of AIS through their operations. Sixty Michigan baitfish wholesalers have participated in Michigan Sea Grant's training and have developed and implemented HACCP plans for their operations. Because they use this approach to deal with the viral hemorrhagic septicemia virus via certification, they have been able to remain in business and deal with other AIS at the same time.

#### **# NEW PRODUCTS commercialized**

**North Carolina Sea Grant** provides technological resources to help businesses successfully develop value-added products. Since 2001, nine companies have commercialized 41 new products for the wholesale and/or retail trades. (NCSG: Assisting Coastal Processors Add Value to North Carolina Seafood; R/MG-0611B, MD/A-2).

**Washington Sea Grant** created a software tool and made available online to assist scientists in analyzing DNA from environmental samples or bacterial samples. The website has run 1300 analyses since its inception in July 2007, and has been accessed by 160 visitors in 2008. R/B-46

**Oregon Sea Grant:** A remote PIT tag detection system (for monitoring the movements of tagged fish) developed for use in tidal wetlands as been adapted to studies of habitat use and behavior of juvenile salmon in the much larger Columbia River estuary. R/ECO-14

#### **PATENTS**

**California Sea Grant** researchers discovered a new genus of marine microbes, closely related to terrestrial microbes that have been the source of dozens of antibiotics. They have filed a composition of matter patent that covers a series of new antibiotic and anticancer agents from these microbes and have patented a method for producing sufficient quantities of these compounds for continued testing. (R/MP-96)

**California Sea Grant** researchers discovered a silicon technology derived from marine sponges was patented and the CASG researcher is discussing licensing agreements with several companies to commercially develop the technology. (R/MP-95)