

# Sea Grant 2017–18 Annual Report Highlights

\$13,262,835

**Economic benefits from Oregon Sea Grant activities** 

150,740

People engaged in Oregon Sea Grant-supported informal education

39,035

Preschool through 12th-grade students reached directly or through Oregon Sea Grant-trained educators

16,064

**Hours contributed by volunteers and citizen scientists** 

53

Products, technologies, educational materials, and models created with funding from Oregon Sea Grant and used by others

Higher-education degrees awarded to Oregon Sea Grant-funded scholars

34

**Oregon Sea Grant-funded student scholars who landed jobs** related to their degrees within two years of graduating



## **Providing Collaborative STEM Opportunities**

Students engaged in immersive research develop interest and competence in science, technology, engineering, and math (STEM), but few such opportunities exist along the Oregon coast. Oregon Sea Grant-funded researchers worked with students at a coastal high school to manufacture enhanced sensors usable by fishermen to measure water temperature, depth, and salinity. In addition to supporting STEM experiences for students, this collaborative effort enhanced existing relationships between researchers and fishermen. bit.ly/2Fiu8Qw

#### **Supporting Local Economies**

Since 1965, the Oregon Sea Grant-operated Visitor Center at Hatfield Marine Science Center has been teaching children and adults about marine science through fun, hands-on exhibits. In 2017, Oregon Sea Grant contracted with an Oregon State University Extension economist to study the Visitor Center's economic impacts. The study determined that the Visitor Center annually supports \$5.4 million in income, \$9.7 million in sales, and 133 jobs for local residents—impacts that are more than 10 times the Center's operating costs. bit.ly/2JxZBnW

#### **Protecting Coastal Residents**

Scientists say there's a 30 percent chance of a massive earthquake and tsunami striking the Pacific Northwest in the next 50 years. Oregon Sea Grant organized workshops bringing educators, state parks personnel, researchers, and emergency management experts together to discuss how to help communities prepare for a tsunami by creating Tsunami Quests—fun, clue-directed hunts that teach people how to respond to an earthquake or tsunami while walking an evacuation route. Watch a video about the project: bit.ly/2JMEzOx

#### **Reducing Pollution and Waste**

Pollution prevention helps reduce, eliminate, or prevent pollution at its source, also known as source reduction. In its pilot year, the Oregon Applied Sustainability Experience enabled five Oregon Sea Grant students to gain industry experience in pollution prevention practices and yielded measurable impacts for host businesses. If the interns' recommendations are implemented, host businesses could reduce water use by 60 million gallons, eliminate 8.5 tons of solid or hazardous materials, and save more than \$900,000 a year. bit.ly/2Grktfg

### **Establishing a Microplastics Baseline**

Microplastics are contaminants of emerging concern, partly due to the toxicity of plastics, and also because other organic contaminants attach themselves to these materials. Oregon Sea Grant-supported researchers measured microplastic concentrations in the tissues of commercially valuable Pacific oysters and razor clams to establish the state's first baseline. Preliminary results indicate that every oyster site sampled contained organisms with microplastics. Public education aimed to reduce source pollution is underway. Video: bit.ly/2lc0wfr