

## An overview of NOAA grants on aquaculture and the environment

Shiyu Rachel WANG\*

---

**Abstract:** NOAA funds extramural research on aquaculture and environmental change through three major competitive grants: Small Business Innovation Research (SBIR) Program, Saltonstall-Kennedy (SK) Grant Program and Sea Grant Program. From 2002 to 2016, NOAA has spent \$9.2 million U.S. dollars on research projects focus on the interactions between aquaculture and the environment, with \$6.5 million federal funds and \$2.7 million matching funds. Annual spending fluctuated with a maximum of \$1.3 million in 2005 and a minimum of \$0.14 million USD in 2002 and zero spending in 2009. Out of the three major funding programs, Sea Grant funded 75 % of the entire spending. A total of 43 projects on aquaculture and related topics including nutrient removal, carbon fixation, ocean acidification, waste treatment and related topics were completed. Analysis of the impact of these projects is planned. An understanding of NOAA's spending can help identify research gaps, evaluate impact, inform policy and allocate budget related to aquaculture in a changing environment.

**Key words:** N/A

---

### Annotated bibliography

(1) Love D. C., Gorski I., and Fry J. P., 2017: An Analysis of Nearly One Billion Dollars of Aquaculture Grants Made by the US Federal Government from 1990 to 2015. *J. World Aquac. Soc.*, **48(5)**, 689-710.

The authors conducted a study on U.S. federal spending for aquaculture by tracking 2957 federal research grants awarded through different agencies from 1990 to 2015. For the past quarter century, 1.04 billion US dollars were spent on aquaculture research with about 90 % of federal funds and 10 % matching funds. Aquaculture production sciences received the most funding (27 %) out of 13 major disciplines

in aquaculture, followed by aquatic animal health and disease (17 %). Environment related aquaculture topics including water and waste management and environmental interactions received 7 % of the total federal funding across all related agencies. Comparing the U.S. domestic aquaculture production with the federal spending, the authors concluded a 37-fold return in federal government investments in aquaculture since 2000. This study can be used as a framework to track and assess federal agencies' spending on different topics of aquaculture, identify research gaps and inform policy making and grant allocation.