

## Ecological Society of America 1990 M Street, NW Suite 700 Washington, DC 20036

April 10, 2015

The Honorable Richard Shelby Chairman Appropriations Subcommittee on Commerce, Justice, and Science US Senate Washington, DC 20510 The Honorable Barbara Mikulski Ranking Member Appropriations Subcommittee on Commerce, Justice, and Science US Senate Washington, DC 20510

Chairman Shelby and Ranking Member Mikulski:

On behalf the Ecological Society of America, the world's largest society of professional ecologists, we urge you to support \$7.7 billion for the National Science Foundation (NSF) in Fiscal Year 2016, a 5.2 percent increase over FY 2015.

Nearly one out of every four basic research projects at colleges and universities across the nation is funded by NSF. Unfortunately, over the past decade, NSF funding has remained largely flat. In fact, between 2001 and 2011, the share of the world's research and development performed by the United States has decreased from 37 percent to 30 percent as the share of other countries research funding has risen. This growing research deficit jeopardizes the United States' current status as the world's leader in innovation. A 5.2 percent funding increase would help NSF keep pace with inflation while ensuring the United States doesn't fall behind other countries in our commitment to lead in research and innovation.

This funding would also help sustain NSF's Biological Sciences Directorate, which is the primary federal funding sources for basic biological research at US colleges and universities. Its research disciplines include botany, zoology, microbiology, ecology, basic molecular and cellular biology and other fields that enhance our understanding of the natural world and contribute to the development of sustainable solutions to environmental challenges such as drought, flooding and natural disasters.

The American Association for the Advancement of Science reports that between FY 2005–2014, overall investment in environmental research and development at federal agencies has fallen 10.3 percent. A better understanding of life on Earth helps us to make new biological discoveries in the realms of food, fiber, fuel, pharmaceuticals, and bio-inspired innovation. This research also increases our understanding of how biological systems, infrastructure and natural resources are affected by environmental changes.

Further, NSF provides critical funding for Science, Technology, Mathematics and Engineering (STEM) education programs that are vital to fostering and sustaining American jobs in science fields. In a given year, NSF awards reach nearly 1,900 colleges, universities, and other public

and private institutions in all 50 states the District of Columbia and five territories. These programs fund early career scientists and enable undergraduate and graduate students to conduct research, ensuring future generations obtain the skillset to pursue careers in science that are vital for job creation and maintaining our nation's global competitiveness.

The Society is appreciative of the strong bipartisan bicameral support NSF has received from House and Senate appropriators over the years. Maintaining this support is vital towards sustaining our nation's capacity for economic growth, job creation and innovation.

Sincerely,

Dr. David W. Inouye

**ESA President**