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# The Ecological Society of America

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March 7, 1996

Dear Representative:

I write on behalf of the more than 7,000 members of the Ecological Society of America, the premier professional society of ecologists in North America. Ecology and related environmental sciences are among the many areas of science and technology in which the United States is a world leader. Strong Federal support has built and sustained the robust scientific research enterprise that underpins the future welfare of the nation. Current investments in scientific and technological leadership will strongly influence the security and economic competitiveness of the nation, our ability to solve pressing social and environmental problems, and the quality of life of all Americans. The research, education, and training provided by universities and other organizations, with funding provided by the federal government, produces the workforce needed to lead future innovations.

Americans understand that scientific research is a proper and vital function of the Federal Government. According to six separate polls conducted by the Public Opinion Laboratory in Chicago, Illinois, from 1982 to 1994, more than 75% of the American public agrees that... "scientific research that advances the frontiers of knowledge is necessary and should be supported by the government." This same viewpoint is reinforced by a recent petition signed by the Conference of Mayors, by 15 state governors, and in a petition signed by the CEOs of 15 major U.S. Corporations. More than one dozen independent studies have shown that each dollar invested in federally supported, fundamental scientific research repays the economy 20% to 50% annually in each succeeding year.

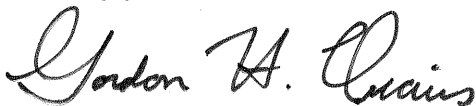
Investments in ecological research have frequently helped the United States deal with environmentally related problems. A striking recent example concerns the Hantavirus epidemic, which struck the desert Southwest in 1993. The newly-identified disease causes rapid and severe respiratory collapse that has resulted in 45 deaths. Scientists suspected that the carrier for the disease was a rodent species, but they needed long-term population data to understand why the outbreak was occurring. Biologists at the Sevilleta Long-term Ecological Research Program (LTER)--funded by the National Science Foundation--had the necessary information and were able to provide data showing 10-fold increases in populations of wood rats and chipmunks during 1992 and early 1993. These increases substantially raised the probability of human-rodent contacts and transmission of the deadly disease. The results of the LTER analysis identified the cause of the dangerous outbreak and are now key to developing disease-prevention plans.

In addition to benefiting human health, ecological research has helped local and regional governmental agencies assess and solve pollution problems. For example, when a blue-green bacterium, *Oscillatoria*, first appeared in the waters of Lake Washington, adjacent to the city of Seattle, limnologists immediately recognized that increases in phosphorus concentrations in the lake were responsible. Because of data gathered on other temperate-zone lakes, they were able to predict what would happen to Lake Washington's waters if discharges of municipal wastes into the lake continued. Residents of the region heeded the warnings of the scientists, and funded and constructed a system that diverted municipal wastes to a treatment plant on the shores of Puget Sound. Lake Washington quickly recovered, and today the citizens of the region enjoy fishing and swimming in the lake.

I could cite and document many other examples of the value of ecological research, involving important topics such as erosion control, biological control of agricultural pests that reduces reliance on toxic chemicals, and restoration of degraded landscapes. (Additional examples are available from the Public Affairs Office of the Ecological Society of America). However, the two examples cited above clearly illustrate the value to society of sound scientific information that identifies causes of problems and, by providing accurate diagnoses, enables cost-effective solutions to be implemented.

Federal investment in ecological research allows Americans to reap countless, often unnoticed benefits. Ecological and environmental knowledge enables us to make wise decisions affecting human health and the nation's resources. Therefore, the Ecological Society of America urges Congress to continue to support a strong federal commitment to ecological research, both basic and applied. We recognize the fiscal constraints the nation faces, but the returns from federal investments in ecological research are far too great to be sacrificed to achieve small budget cuts.

Sincerely yours,

A handwritten signature in cursive script that reads "Gordon H. Orians". The signature is written in dark ink and is positioned above the typed name and title.

Gordon H. Orians, President  
Ecological Society of America  
University of Washington