

NATIONAL SCIENCE FOUNDATION  
WASHINGTON, D.C. 20550

A NEW EMPHASIS IN LONG-TERM RESEARCH

Original  
LTER  
Announcement  
-1979-

Recognizing that environmental biological research may require more time than allowed by the usual two- to three-year grant period, the Division of Environmental Biology has developed a new emphasis in long-term research. Beginning in fiscal year 1980 the National Science Foundation will make available limited support for long-term research projects. Since Foundation policy requires that budget requests be for no more than five years, initial proposals should request support for three- to five-year periods while presenting a research project in its complete time perspective. Detailed budgets need not be presented beyond the initially requested support period, but the project plan should include a complete treatment of anticipated levels of effort. Awards will be enacted as continuing grants, which require the annual submission of progress reports and updated budgets. This emphasis is organized in the two efforts described below.

I. LONG-TERM RESEARCH IN ENVIRONMENTAL BIOLOGY

This effort will include the programs of Ecology, Systematic Biology, Population Biology and Physiological Ecology, and Ecosystem Studies. Individuals or groups may submit proposals that identify questions requiring acquisition of data over long periods of time. Where appropriate, applicants are encouraged to coordinate their research with "Long-Term Ecological Research" (LTER) described below. Proposals will be evaluated by the appropriate program of the Division of Environmental Biology.

II. LONG-TERM ECOLOGICAL RESEARCH (LTER)

The Division of Environmental Biology will make available support for pilot studies in Long-Term Ecological Research (LTER). The goals of LTER are to (1) initiate the collection of comparative data at a network of sites representing major biotic regions of North America and (2) evaluate the scientific, technical and managerial problems associated with such long-term comparative research. Initially, the Foundation expects to fund three to five projects at funding levels not to exceed \$300,000 per year.

LTER will involve groups of investigators working at representative sites located over the continent or within geographic regions. Investigators must focus on a series of core research topics, coordinate their studies across sites, utilize documented and comparable methods, and be committed to continuation of work for the required time.

The core research areas are:

- (1) pattern and control of primary production,
- (2) dynamics of populations of organisms selected to represent trophic structure,
- (3) pattern and control of organic matter accumulation in surface layers and sediments,
- (4) patterns of inorganic inputs and movements of nutrients through soils, groundwater, and surface waters, and
- (5) patterns and frequency of disturbances.

An LTER proposal may be developed for sites with ongoing research or for sites that are entirely new. The principal investigators must be prepared to make long-term time commitments and should consider (1) continuity of leadership, (2) institutional cost sharing, (3) physical facilities, (4) site integrity, (5) conflict in use of a site, and (6) long-term agreements with site owners. Attention must be given to the following items: (1) baseline information, (2) bibliographies and libraries, (3) reference collections, (4) data storage, and retrieval, (5) information synthesis and publication, (6) site promotion and (7) external review of project operation. Priority will be given to sites identified in Experimental Ecological Reserves: A Proposed National Network (available from the Superintendent of Documents, also U.S. Govt. Printing Office, Washington, DC 20402, No. 038-000-00321-6).

During the early phases of a project, attention must be given to the tasks of assuring information comparability and inter-project coordination. These tasks will be facilitated through workshops and meetings between LTER investigators. Adequate provision for these meetings should be made. Baseline studies of macroclimate, geology, soils and sediments, flora and fauna, and past disturbances may be initiated as they relate to the five core areas. Researchers should coordinate their studies with those working at other reserves and natural areas, such as Biosphere Reserves.

Contact: Long-Term Research  
Division of Environmental Biology  
National Science Foundation  
1800 G street, N.W.  
Washington, DC 20550

Proposal Preparation:

Requirements for format cited in "Grants for Scientific Research (NSF78-41)" apply generally. Cover pages should be clearly marked in one of the following fashions: "Long-Term Research in Environmental Biology" or "Long-Term Ecological Research."

Proposal Deadline: February 4, 1980.

NSF 79-64

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