

NATIONAL SCIENCE FOUNDATION  
WASHINGTON, D. C. 20550

LONG-TERM ECOLOGICAL RESEARCH (LTER)

Since research in environmental biology focuses upon phenomena which do not always fit conveniently into the usual two or three-year grant period, the Division of Environmental Biology (DEB) has developed an emphasis in long-term ecological research (LTER). In fiscal year 1982 the National Science Foundation will again make available limited support for long-term ecological research projects. Proposals should request support for a five-year period although projects should be planned for a longer intended duration. Detailed budgets (both annual and summary) should be presented for the five-year requested support period. The project plan should include a complete treatment of anticipated levels of effort. Resultant awards will be made as five-year continuing grants which require the annual submission of progress reports and updated budgets. It is expected that awards will be initiated on or about January 1, 1982, and that their annual funding rates should not exceed \$300,000 per year. Continuation of LTER projects beyond the initial five years will depend on (1) peer evaluation of performance, (2) availability of funds, and (3) Foundation priorities at the time.

The goals of LTER are to augment the progress of ecosystem science through (1) collection of comparative data at a network of sites representing major biotic regions of the U.S. and (2) cooperative evaluation of the scientific, technical, and managerial problems associated with long-term comparative research. LTER projects involve groups of investigators working at large, secure, and biologically diverse sites. Projects should develop a series of core research topics elaborating long-term questions and hypotheses that rely upon the core data for their resolution and that make use of the unique qualities of the specific research site.

Core research topics include:

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

In addition to addressing the core research topics, research groups will be expected to coordinate their studies with those at other LTER sites, utilize well documented and comparable methods, and provide for the continuation of the work for the required time.

An LTER proposal may be submitted for a site with ongoing research or for a site which would require an entirely new effort. The principal investigators will be expected to make long-term time commitments and should consider and give assurances related to (1) continuity of project leadership, (2) institutional cost sharing, (3) adequacy of physical facilities, (4) site integrity, (5) resolution of conflicts in use of the site, (6) long-term agreements with site owners, (7) baseline

information, (8) bibliographies and libraries, (9) reference collections, (10) data storage and retrieval, (11) information synthesis and publication, (12) site promotion, and (13) external review of project operation.

Each proposed LTER project should give significant attention to the tasks of assuring LTER information comparability and inter-project coordination. These tasks will be facilitated through meetings and workshops for LTER investigators. Operation plans and budgets should make adequate provision for up to six meetings annually. Baseline characterization of macroclimate, geology, soils and sediments, flora and fauna, and disturbance history should be initiated as they relate to the five core research areas. Proposals should be clearly identified by the addition of the acronym "LTER" to the project title.

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Proposal Preparation:

Requirements for format cited in "Grants for Scientific Research (NSF 78-41)\*" apply generally. Proposals should be limited to 60 double-spaced pages for the body of the research proposition (i.e. introduction, literature review, hypothesis exposition, methods, project execution and management plan). Appendices of supporting materials (e.g. bibliographies, budgets, professional resumes, catalogs of extant site information and ongoing research efforts, etc.) should be limited to 40 single-spaced pages. Proposals should be printed on one side of the page only and should be bound only in the top left corner. Titles of proposals should incorporate the LTER acronym as specified previously.

Proposal Submission Deadline: April 1, 1981.

- Catalogue of Federal Domestic Assistance Number 47.051
- CFDA Title: Biological, Behavioral, and Social Sciences
- OMB Circular A-95 is not applicable to this Program

\* NSF 78-41 available on request from Publications, NSF, 1800 G Street, NW., Washington, DC 20550.

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