

National Park Service
U.S. Department of the Interior

Murie Science and Learning Center
Denali National Park and Preserve



Discover Denali Research Fellowship Program *2007 Grant Application Instructions and Guidelines*



**A Murie Science and Learning Center grant program
offered in partnership between the
Denali Foundation and the National Park Service**



The goal of the Discover Denali Research Fellowship Program is to support scientific research that assists park managers in making informed decisions about the natural and cultural resources at Denali National Park and Preserve.

Background

A number of increasingly complex issues threaten the integrity of natural ecosystems, cultural resources, and visitor experiences at national parks including Denali National Park and Preserve. Increased visitation, increased development, global warming, global contaminants, introduced species, changes in hunting pressure, and increased statewide predator control efforts are just a few of the challenges Denali is facing in the coming decades. To protect and maintain unimpaired the quality of park resources and visitor experiences, park managers must understand these challenges and make decisions based on scientifically credible information. Research is one important tool used by the National Park Service to meet its stewardship responsibilities.

To encourage scientific and scholarly research that addresses management issues, the National Park Service and the Denali Foundation have established the Discover Denali Research Fellowship Program through the Murie Science and Learning Center (MSLC), located in Denali National Park and Preserve. This fellowship program is made possible through proceeds from Discover Denali, an MSLC program developed jointly by the Denali Foundation and the National Park Service. Discover Denali, the program that gives both its name and funding to the research fellowship program, helps Royal Celebrity tour participants learn about Denali's natural and human history.

The Denali Foundation seeks to connect people to Denali through research, education, and communication. The Murie Science and Learning Center was established in the spirit of the Natural Resource Challenge, a National Park Service initiative aimed at increasing research and education efforts in our national parks.

A typical fellowship grant is expected to be \$3,500; however, grant requests of up to \$5,000 will be considered. The fellowship program supports field research in the biological, physical, ecological, social, and cultural sciences. Project requests are more likely to be successful if they pose hypotheses or address research topics that that will help park managers tackle management issues.

Eligibility

The Discover Denali Research Fellowship Program is intended to support field research in the Denali National Park and Preserve area. The fellowship program is open to undergraduate and graduate students, college and university faculty, state and federal agency scientists, and private-sector researchers. Research fellows must be self-directed individuals whose work will contribute to the scientific knowledge of the natural and cultural resources of Denali.

Funds may be used for a variety of purposes including salary support; room, board, and travel directly associated with fieldwork; supplies; and analytical costs. Requests for permanent equipment are not encouraged but will be considered; any permanent equipment purchased with fellowship funds remains the property of the National Park Service and will be returned to the park at the end of the yearly funding cycle. Fellowship funds cannot be used for tuition, fringe benefits, institutional overhead, thesis preparation, publication of results, or costs associated with attendance at professional meetings.

Individuals receiving an award may apply for the Discover Denali Research Fellowship in subsequent years, but projects will be evaluated independently of the previous year's work. Maximum grant awards are \$5,000. Projects need not show evidence of matching funds, but collaborative projects are encouraged.

Opportunities for Research

Ecosystems in Denali National Park and Preserve range from lowland boreal forests and riverine systems to sub-alpine scrub vegetation, alpine tundra, and high alpine snowfields and glaciers. Denali has more than 750 species of vascular plants, 39 species of mammals, including grizzly and black bear, caribou, moose, wolf, Dall sheep, wolverine, lynx, and red fox, 165 species of birds, 15 species of fish, and one species of amphibian.

Denali offers vast, relatively unmodified landscapes in which to study such topics as glaciers, rivers, air quality, effects of climate change on plant and animal resources (e.g., treeline shifts), landscape change, fire effects, visitor experiences, subsistence harvests, and traditional and ecological knowledge.

Denali has several hundred layers or themes in its extensive Geographic Information System (GIS) database (e.g., hydrology, elevation, soils, and landcover) that can be used to build composite information about potential study sites or to model habitat suitability. For assistance with GIS needs, please contact Jon_Paynter@nps.gov.

For a list of research needed by Denali managers along with an indication of which topics have existing data, see the document “Information for Denali Researchers” posted on the Denali website: <http://www.nps.gov/dena/>

Special Research Considerations

Denali is primarily a pristine wilderness park. Its six million acres provide outstanding research opportunities in landscape settings. Researchers in Denali have responsibilities to adhere to laws protecting wilderness, to follow Leave-No-Trace guidelines, and to consider wilderness values in making minimal impacts in all aspects of research.

Travel in Denali must be planned in advance. Backcountry travel may be arduous and time-consuming. Projects that do not require helicopter access or special travel permits on the Park Road are more favored. Shuttle buses travel along the 90-mile Park Road from mid-May to mid-September, providing researcher access to sites along the road corridor. Researchers could apply fellowship funds toward the shuttle bus fees. Park entrance fees are waived for research fellowship recipients.

To facilitate project administration and coordination, a park staff member will be assigned as a research liaison to each research fellow.

By request, research fellows will be able to use Murie Science and Learning Center and Denali Foundation facilities for guest researchers (e.g., work space, computer access, lecture space, and housing as available). Limited housing is available inside and outside the park.

Provisional Acceptance Pending Research Permit

For those Discover Denali Research Fellows who propose to conduct fieldwork within Denali National Park and Preserve, acceptance in the Discover Denali Research Fellowship Program is provisional until approval of a research and collecting permit is confirmed. Initial acceptance as a Discover Denali Fellow is NOT A GUARANTEE that a research and collecting permit will be issued for work in Denali. Modification of methods or sites may be necessary. Information on applying to conduct research in Denali or any national park may be found at the NPS research permit and reporting system website <http://science.nature.nps.gov/research> and can be viewed at anytime. Discover Denali fellows intending to work within Denali must submit an application for a research and collecting permit no later than March 1, 2007 or at least 3 months prior to the anticipated start of the project in the park whichever is earlier. Prior to issuing a permit, park staff reviews the project for compliance with wilderness and park policies and administrative concerns —is the research study appropriate for Denali?

Requirements of Award Winners

Discover Denali Research Fellowship recipients must fulfill all conditions of the park research permit (e.g., submit an Investigator’s Annual Report and a copy of the final report or thesis, comply with curatorial guidelines for collections). In addition, fellows are required to:

- Provide a talk at the Denali Foundation in conjunction with the field project (about plans for the current project or about similar projects already completed)
- Create an educational outreach product such as a poster, fact sheet, web screen, or interpretive activity to share the research process and/or the results. Another presentation (evening program or workshop) at the Denali Foundation or the Murie Science and Learning Center would also satisfy this requirement.
- Provide a photograph of themselves at work and brief summaries of their research results that Denali National Park and Preserve, the Denali Foundation, and/or the Murie Science and Learning Center may use in newsletters and brochures.

Important Dates

In 2007, the deadline for applications is January 15. Awards will be announced by January 31. Field work must begin within a reasonable time within receipt of the fellowship (usually prior to September 1, 2007. However, exceptions may be appropriate and should be discussed with the program administrator (see contact information below). Final reports are due within six months after the completion of field work. Awards will be disbursed in two payments: 60 percent at the outset of the field work, and the remaining 40 percent when all specified project deliverables have been received by Denali National Park and Preserve.

Application Process

Individuals wishing to apply for the Discover Denali Research Fellowship must submit (electronically) to the program research administrator listed at the bottom of this page the following documents in MS Word (.doc) format:

- A completed application cover sheet that can be downloaded from the following website <http://www.nps.gov/dena>
- A research proposal that contains the following sections, with headings:
 - (1) Project title } no more than 1500 words in total for these sections
 - (2) Research objectives }
 - (3) Methods including data analysis }
 - (4) Requests for logistical help or park equipment
(e.g., housing at Headquarters or in cabins along the Park Road, camping in the backcountry or in campsites, temporary work or storage space, road access by private vehicle)
 - (5) Project budget for funds received (including any matching funds received or anticipated)
 - (6) Project timeline, including tentative schedule for fieldwork in Denali
 - (7) Annotated list of project deliverables
- A curriculum vitae or resume that lists research experience, published papers, presentations, etc.
- If applicable (student), a letter of support from an academic advisor or principal investigator

Proposals will be evaluated by a scientific panel based on the following criteria. Criteria are listed in order of their value to the selection.

- (1) Significance of the project to park management issues or resources
 - (high priority) Does it help managers make decisions about critical resource issues?
 - (medium) Does it provide managers with some background information about critical resource issues?
 - (low) Does it provide information about other Denali resources?
- (2) Scientific or scholarly merit of the proposal
- (3) Feasibility and scope of work (Can it be done in the timeframe suggested?)
- (4) Novelty of project—
 - (most preferred) Is the research a new project?
 - (preferred) Is it a new angle on an old project?
 - (least preferred) Is it a continuation of an existing project?
- (5) Demonstrated ability of the investigator to carry out the proposed research
 - What experience or credentials prepare the applicant to do this research?

Questions?

Submit questions and proposals to:

Lucy Tyrrell, Ph.D.

Attention: Discover Denali Research Fellowship Program

Denali National Park and Preserve

P.O. Box 9, Denali Park AK 99755

Lucy_Tyrrell@nps.gov, (907)-683-6352