

National Park Service  
U.S. Department of the Interior

Murie Science and Learning Center  
Denali National Park and Preserve



# Discover Denali Research Fellowship Program

## *2009 Application Instructions and Guidelines*



Photo credit: David Sunderlin, 2007 Discover Denali Research Fellow

**A program of the Murie Science and Learning Center  
offered in partnership between the  
Denali Education Center 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

Many complex issues threaten the integrity of natural ecosystems, cultural resources, and visitor experiences at national parks including Denali National Park and Preserve. 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 Education Center 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 Education Center 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 Education Center 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.

Research fellows will provide research or scholarship to address issues of importance to park managers, and will also share their research with others through a public lecture and another form of educational outreach.

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, social, and cultural sciences. Project requests are more likely to be successful if they address topics that that will help park managers tackle management issues.

## Eligibility

The Discover Denali Research Fellowship Program supports 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.

Recipients may apply for a Discover Denali Research Fellowship in subsequent years, but project proposals will be evaluated independently of the previous year's work. Projects need not have 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's 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, fire effects, visitor experiences, subsistence harvests, traditional and ecological knowledge, and the effects of climate change on physical and biological resources and on landscapes.

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.

A list of research desired or needed by Denali managers, including topics with existing data to utilize, is posted at <http://www.nps.gov/dena/>. Also on the website is information about Denali's Resource Stewardship Strategy (RSS) being finalized in 2008, including a list of the 19 strategies and 99 projects that will provide focus for the research, resource, and science education programs at Denali for the next two decades. Discussions with park staff about your project are encouraged to maximize its value to managers. Contact [Lucy Tyrrell@nps.gov](mailto:Lucy_Tyrrell@nps.gov) to learn about appropriate staff to contact.

## Special Research Considerations

Denali is primarily a pristine wilderness park. Its six million acres provide outstanding research opportunities in landscape settings. Researchers have responsibilities to adhere to laws protecting wilderness, follow Leave-No-Trace guidelines, and 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 private-vehicle 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. Limited housing is available outside the park, at park headquarters, and along the park road. **Requests for park housing** (confer with [Lucy Tyrrell@nps.gov](mailto:Lucy_Tyrrell@nps.gov) to hear availability), **campgrounds**, or **backcountry camping permits should be incorporated into the proposal.**

By request and as available, research fellows will be able to use Murie Science and Learning Center facilities for guest researchers (e.g., wireless service, computer access, work space, and storage).

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

## Provisional Acceptance Pending Research Permit

For those Discover Denali Research Fellows who propose to conduct fieldwork within Denali, acceptance in the Fellowship Program is provisional until a Research and Collecting Permit is issued to the recipient. Initial acceptance as a Fellow is NOT A GUARANTEE that a research and collecting permit will be issued for work in Denali as written in the proposal. 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 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 April 1, 2009 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

Each fellow is required to provide to Discover Denali's research administrator the following within 6 months of field work (except where noted or arranged):

- A talk at the Murie Science and Learning Center (at the time research is conducted at the park, or as otherwise arranged) to share plans for study, observations so far, similar projects already completed, etc.
- Another educational outreach (such as a public involvement in research, poster, fact sheet, hi-tech or classroom activity) to share the research process and the results (see flier with ideas at [www.nps.gov/dena/](http://www.nps.gov/dena/)). Tentative choice for educational component will be discussed with Discover Denali administrator prior to distribution of 60% funding.
- Provide electronic final report (intro, methods, results, discussion, literature cited, acknowledgments)
- Provide a one-page summary (abstract) of research results for a general audience (ask about format)
- Send several digital photos (jpg or tif files) of researcher/field work in progress, with captions for photos in a separate word document

Discover Denali Research Fellowship recipients must also fulfill all conditions of the park research permit (e.g., submit an Investigator's Annual Report and any publications/thesis, and comply with curatorial guidelines for collections).

## Important Dates

For 2009 fellowships, the **deadline for applications is February 20, 2009**. Awards will be announced in early March 2009. Field work must begin within a reasonable time after receipt of the fellowship (usually prior to September 1, 2009). However, exceptions may be appropriate and should be discussed with the Discover Denali administrator (see contact information below). Educational outreach, final report, summary, photos, and captions are due *within six months after the completion of field work*. Awards will be disbursed in two payments: (1) 60 percent at the outset of the field work (on approval of research and collecting permit, if in Denali; and on setting tentative date for talk and nature of educational outreach product), and (2) the remaining 40 percent when all specified project deliverables have been received at Denali.

## 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 or questions }
  - (3) Methods including data analysis }
  - (4) Logistical help requested in the park, with tentative dates  
(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 (see Requirements above)
- A basic 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 panel of staff from Denali National Park and Preserve, and from Denali Education Center. These criteria may be very important in distinguishing projects that are funded or unfunded.

- (1) Significance of the project to park management issues or resources
  - (most preferred) Does it help managers make decisions about critical resource issues?
  - (preferred) Does it gather missing resource data or help set targets for indicators of desired resource condition?
  - (least preferred) Does it provide other information about Denali resources?
- (2) Proposal content and organization (Is it proposing scholarly or scientifically credible work? Is the proposal complete? Are the study questions and methods clear?)
- (3) Feasibility and scope of work (Is it realistic to accomplish in the timeframe suggested?)
- (4) Novelty of project—
  - (most preferred) Is the research a new project?
  - (preferred) Is it a new angle for an on-going 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?

## Contact information

Ask questions and submit proposals for Discover Denali Research Fellowship Program to [Lucy Tyrrell@nps.gov](mailto:Lucy_Tyrrell@nps.gov) (907)-683-6352