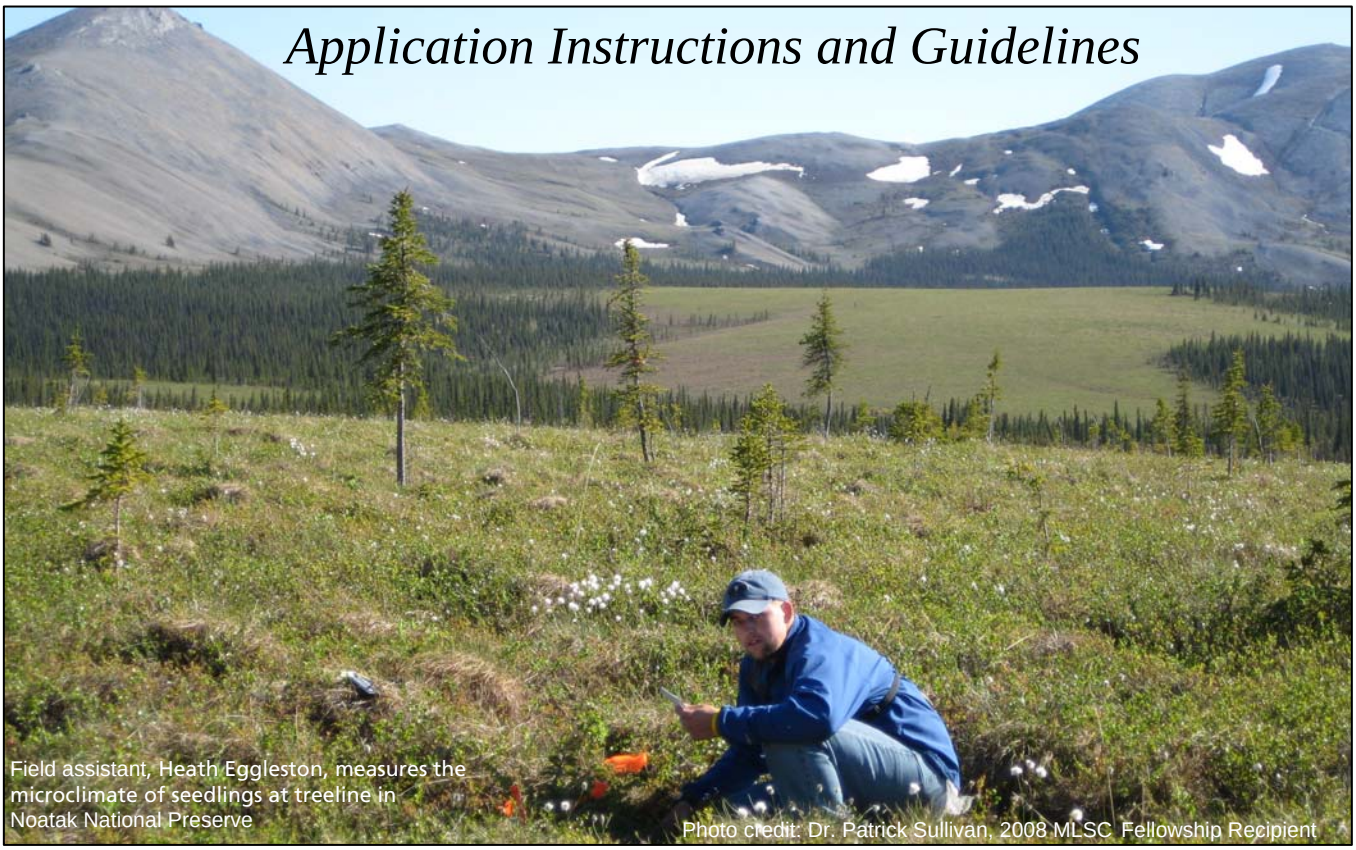
National Park Service
U.S. Department of the Interior

Murie Science and Learning Center
Denali National Park and Preserve

Murie Science and Learning Center
2009 Research Fellowship Program

Application Instructions and Guidelines



Field assistant, Heath Eggleston, measures the microclimate of seedlings at treeline in Noatak National Preserve

Photo credit: Dr. Patrick Sullivan, 2008 MLSC Fellowship Recipient

A grant program offered to researchers working in partnership with the National Park Service at

Bering Land Bridge
Cape Krusenstern
Denali
Gates of the Arctic
Kobuk Valley
Noatak
Wrangell - St. Elias
Yukon – Charley Rivers

The goal of the Murie Science and Learning Center Research Fellowship Program is to support scientific research that assists park managers in making informed decisions to protect natural and cultural resources in arctic and subarctic parks.

Background

To encourage scientific and scholarly research that addresses management issues in arctic and subarctic national parks, the National Park Service and the Murie Science and Learning Center (MSLC) is offering a research fellowship program in 2009.

Research fellows will provide research or scholarship to address issues of importance to park managers, and will also share their research with others through some form of outreach as agreed upon with the host park.

A typical fellowship grant is expected to be $3,000 to $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. Projects are more likely to be successful if they are topics which park managers have identified as important ones needed to gather missing resource information or tackle current management issues.

Eligibility

The Murie Science and Learning Center Research Fellowship supports field research in any of the national park service units coordinating with the MSLC. There are two broad ecosystems and Inventory and Monitoring Networks served by the MSLC: the Arctic Network (Bering Land Bridge National Preserve, Cape Krusenstern National Preserve, Gates of the Arctic National Preserve, and Noatak National Preserve) and the Central Alaska Network (Denali National Park and Preserve, Wrangell – St. Elias National Park and Preserve, and Yukon – Charley Rivers National Preserve).

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 arctic and subarctic parks.

Funds may be used for a variety of purposes including salary support; room, board, and travel directly associated with fieldwork; supplies; analytical costs; and educational outreach. 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. Fellowship funds cannot be used for tuition, fringe benefits, institutional overhead, thesis preparation, publication of results, or costs associated with attendance at professional meetings. Projects need not have matching funds, but collaborative projects are encouraged.

Opportunities for Research

Ecosystems in the Arctic and Central Alaska Networks range from coastal marine ecosystems to lowland boreal forests, riverine systems, and sand dunes to sub-alpine scrub vegetation, alpine and arctic tundra, and high alpine snowfields and glaciers.

Arctic and subarctic parks and preserves offer 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.

There are many layers or themes in the extensive regional Geographic Information Systems (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. To see what is available in GIS, visit the website www.nps.gov/akso/gis, select the link to the "NPS Data Store" and click on the park of interest. For assistance with GIS information, contact Jon_Paynter@nps.gov (for Denali), Joshua_Scott@nps.gov (for Wrangell – St. Elias) or Joni_Piercy@nps.gov (for other parks).

For more information about each park, go to the parks website or search by park on the Research Permit and Reporting System website (http://science.nature.nps.gov/research Discussions with park staff about your project are encouraged to maximize its value to managers. Contact Lucy_Tyrrell@nps.gov (at Denali) for referrals to appropriate staff contacts at the other parks associated with the MSLC (listed on the cover).

Special Research Considerations

Arctic and subarctic parks are primarily pristine wilderness parks. Millions and millions of acres included in the national park system provide outstanding research opportunities in landscape settings. Researchers 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 remote places must be planned in advance with respective park staff. Backcountry travel may be arduous and time-consuming. There may be special research travel considerations in each park. For example, in Denali, 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, and can provide 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. By request, research fellows will be able to use Murie Science and Learning Center guest researcher facilities (e.g., wireless services, computer access, work space, and storage space).

For all parks, limited or no housing is available inside or outside parks. Requests for backcountry camping permits and for housing (cabins, dorm, apartment, or campgrounds, as available by park) should be incorporated into the research proposal after conferring with respective park staff.

To ensure that research proposals match the high-priority research needs of arctic and subarctic parks, applications for fellowship funding **must be accompanied by a letter of support from the park superintendent** where the research is planned. This requirement is waived for Denali, because park staff coordinating the review of proposals is familiar with Denali's research priorities. To facilitate project administration and coordination, a park staff member may be assigned as a research liaison to each research fellow.

Provisional Acceptance Pending Research Permit

Acceptance in the Fellowship Program for work inside a park is provisional until a Research and Collecting Permit is issued to the recipient. Details of the research permit review process vary by park, although the application process is the same for all parks. 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. 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 a park setting? Initial acceptance as a research fellow is NOT A GUARANTEE that a research and collecting permit will be issued for research as proposed. Modification of methods or sites may be necessary. Fellows are encouraged to submit the application for a research and collecting permit as soon as possible but at least 2 to 3 months prior to the anticipated start of the project in the park.

Requirements of Award Winners

Each fellow is required to provide the following within 6 months of field work (except where noted or arranged):

- Educational outreach such as a public involvement in research, a talk or seminar, a poster or fact sheet, or a hi-tech or classroom activity to share the research process and the results (see flier with ideas at www.nps.gov/dena)
- Provide electronic final report (summary or abstract, intro, methods, results, discussion, literature cited)
- Provide a brief summary of research results for the general audience (ask about format).
- Send several digital photographs of researcher/field work in progress (as jpg or tif files), with a word document of captions). The summary and the photos may be used by parks in brochures or fact sheets.

Research fellowship recipients must fulfill all conditions of the park research permit (e.g., submit an Investigator's Annual Report, submit theses or publications, and comply with curatorial requirements for collections).

Important Dates

For 2009 fellowships, t**he deadline for applications is February 20**. Awards will be announced in early March. 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 research fellowship administrator (see contact information below). Brief summaries, photos, final reports, and educational outreach products 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 (on receipt of research and collecting permit if in a park and on tentative selection of educational outreach), and the remaining 40 percent when all specified project deliverables have been received.

Application Process

Individuals wishing to apply for a MSLC 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 (Applicants to Denali need only submit one cover sheet/application to apply to both Discover Denali and MSLC fellowships. A researcher would not receive more than one fellowship).

- 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) Requests for logistical help in the park
  (e.g., camping in the backcountry, housing, temporary work or storage space, 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
  (7) Annotated list of project deliverables (see Requirements above)

- 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
- **A letter of support from the Superintendent of the national park of interest** (all parks except Denali)

Proposals will be evaluated by a panel in conjunction with the park of interest.
The following criteria may be very important in determining which projects 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 provide missing resource information or help set targets for indicators of desired resource condition?
  (least preferred) Does it provide other information about park resources?
(2) Proposal (Is the proposal complete, does the project have scientific or scholarly merit? Are the study questions and methods clear?)
(3) Feasibility and scope of work (Is it realistic for the timeframe suggested?)
(4) Novelty of project—
  (most preferred) Is the research a new project?
  (preferred) Is it a new angle on 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 to
Lucy_Tyrrell@nps.gov Research Administrator at Denali National Park and Preserve, (907)-683-6352
Discuss educational outreach with
Christie_Anastasia@nps.gov Education Coordinator, Murie Science and Learning Center, (907) 683-6440.