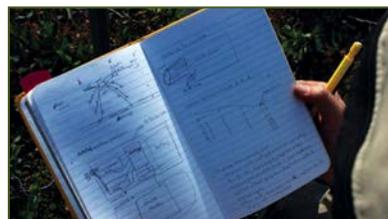




Supporting Arctic Research and Education



Logistics & Housing

- Assists with design and fabrication in support of research
- Trains and assists researchers on use of tools and equipment
- Repairs and troubleshoots science-support equipment
- Offers online housing reservation system
- Provides information on lodging in Fairbanks, Alaska
- Provides field-trip reservation guidelines
- Provides online lab safety training
- Offers transportation to and from TFS and use of TFS vehicles
- Provides Dalton Highway visitor guide, travel links and road condition information
- Offers warm and cold shipping and storage
- Assists with permits and BLM Research Natural Area site coordination

Environmental Data Center

- Records the environmental and biological context in which scientists can interpret their research
- Manages a suite of common-use laboratory and field equipment
- Provides limited assistance with fieldwork
- Provides current weather data with data query capability
- Maintains list of current MET components
- Maintains lists of status and abundance of birds and plants seen in and around Toolik Field Station
- Provides plant phenology data
- Provides snow-cover and depletion time-lapse photography
- Provides photographic list of general-use equipment and equipment checkout calendar

GIS & Remote Sensing

- Provides direct consultation and participation with scientists
- Incorporates spatial data and analyses into research
- Produces planning tools for land management and permitting
- Provides outreach to agencies and organizations
- Supports and participates with regional and international entities developing Arctic spatial data infrastructure and decision support systems
- Maintains a rich geospatial database, develops project-specific data
- Conducts spatial analyses
- Offers technical expertise, consultation, and documentation
- Summer services provided on-site at Toolik Field Station and year-round from Toolik's office at the Institute of Arctic Biology, University of Alaska Fairbanks

About Toolik

Toolik Field Station (TFS), located in the northern foothills of the Brooks Range, Alaska, has been a major site for national and international scientific research in the North American Arctic since 1975.

TFS's mission is to support research and education that creates a greater understanding of the Arctic and its relationship to the global environment. Scientists study the Arctic's biological and physical environments and their links with global systems.

TFS is operated and managed by the Institute of Arctic Biology at the University of Alaska Fairbanks and supported by a cooperative agreement with the National Science Foundation.

North America's Premier Arctic Research Facility



Research

Much of what is known about terrestrial and aquatic ecosystems of the Arctic has emerged from long-term research projects at Toolik Field Station.

Projects address the effects of environmental change on Arctic ecology, ecosystem structure, and the function of arctic tundra, streams, and lakes. Current projects focus on the role of disturbance, especially fire and thermokarst, and interactions with climate change.

Projects on animal adaptation to the Arctic include long-term studies of the behavior, ecology, physiology, endocrinology, and genetics of hibernating mammals, migrating songbirds, and overwintering insects.

Climate & Light

Average monthly temperatures are below freezing for nine months of the year and days of minus 40 F are not uncommon. The sun is above the horizon 24 hours a day in June, July, and August and these are the only months in which average temperatures exceed 32 F. Summer temperatures can reach into the 80s.

Weather

Current Toolik Field Station weather data, a queryable weather database, and a webcam are online at: toolik.alaska.edu/edc

Toolik Field Station
Institute of Arctic Biology
University of Alaska Fairbanks
900 Yukon Drive, Bldg. T-4
PO Box 757000
Fairbanks, Alaska 99775-7000
907.474.5063/5159



Major Facilities

Toolik Field Station provides researchers with 10 modular labs with wet chemistry prep, fume hoods, and high/low bench space. A 6,076-square-foot kitchen facility with two dining rooms and an outside deck can seat 100. Housing is provided in modular dorms and fabric-covered metal-frame tents. A lecture hall, community center, mini-gym, washroom, laundry, sauna, Internet, and telephone are available to residents.

General-use scientific equipment includes balances, leaf-area meters, freeze dryers, microscopes, incubator cabinets, six water-bath chambers, drying ovens, RO water, a spectral analyzer, autoclave, and flow tracker.

The station can accommodate 150 people during the summer field season and 24 people during the winter.



Recreation

Researchers, staff, and students have unrivaled opportunities for recreation in and around Toolik Field Station.

Join your colleagues for self-organized field trips to the Brooks Range, Gates of the Arctic National Park and Preserve, Prudhoe Bay, and other Arctic environs.

The station provides a variety of bicycles for transportation at the station and for recreation off-site.

Collaborations

Toolik Field Station has a decades-long relationship with the Arctic Long-Term Ecological Research Program, established by the National Science Foundation and administered by The Ecosystems Center in Massachusetts.

The station participates in the International Tundra Experiment, an international network of climate-warming experiments on vegetation across the circumpolar Arctic. The station is a member of SCANNET, a circumpolar, multinational network of field stations for terrestrial observations. The station is also the core site for the National Ecological Observatory Network's tundra domain.

Fun Facts

Toolik Field Station is

- located at Mile 284.5 Dalton Highway
- 357 (driving) miles north of Fairbanks
- 117 miles south of the Arctic Ocean
- at latitude 68° 37' 39" North
- at longitude 149° 35' 51" West
- your research home in the Arctic

