

Denali, Alaska Den_AK_TIAG AK DEN

Contact Person: Roger Ruess ffrwr@uaf.edu 907 474 7153

Location within Domain: Headquarters of Denali National Park (DNP) is located at 63.72°N 148.92°W, at the eastern edge of the >24,000 km² preserve.

History: DNP was established in 1917, and was the focus of much early biological work in Alaska. The long-term research area within DNP was established in 1992, and expanded in 2001 to include a landscape-scale sampling design for climate, vegetation, passerine birds, and mammals.

Key Characteristics: Diverse cross-section of pristine subarctic ecosystems from boreal to alpine zones, including highest peak on the continent. Existing resources and projects can help address climate, ecological research themes; representative of the Subarctic Boreal forest and alpine; elevation range of < 200 m to > 6,300 m (Mt. McKinley); ongoing landscape-scale climate, vegetation, bird and mammal monitoring programs.

Existing Infrastructure Relevant to NEON: DNP is a premier subarctic wilderness park, and is designated as an International Biosphere Reserve. Because it was designated as a Park in 1917, Denali has a long history of research and monitoring efforts. Member of numerous existing networks include the following:

Air Quality and Pollutants:

1. National Atmospheric Deposition Program (NADP)
2. Interagency Monitoring of Protected Visual Environments (IMPROVE)
3. NPS Gaseous Pollutant Monitoring Network (ozone monitoring)
4. Clean Air Status and Trends Network (CASTNet)

Climate and weather

1. U.S. Climate Reference Network sites located across park
2. Western Regional Climate Center (WRCC) data network cooperator
3. National Climate Data Center (NCDC) network cooperator and member

Biological monitoring

DNP is part of the USNPS Vital Signs monitoring program, and was an original prototype park for the development of ecological monitoring in national parks, beginning in 1992. As a result, the park is home to numerous ongoing biological monitoring programs including landscape-scale vegetation monitoring project, passerine bird and golden eagle monitoring, small mammal population monitoring (in cooperation with UAF's Institute of Arctic Biology) and numerous monitoring programs for large mammal species, including a multi-decade predator-prey study of wolf and caribou dynamics. A soil survey and ecological site inventory of the entire park was recently completed, which includes spatial data describing soil units, permafrost status, potential vegetation across the Park. In addition, a satellite-derived landcover map was completed in 2002, and substantial satellite imagery has been archived, including Landsat, Ikonos and SPOT imagery.

Facilities: On-site structures provide nearby housing, field laboratory, maintenance, repair, and storage, and logistical support; modern utilities Internet access and year around road access.

