Cedar Creek Natural History Area (CDR): Prairie Peninsula Domain (Gradient Site)

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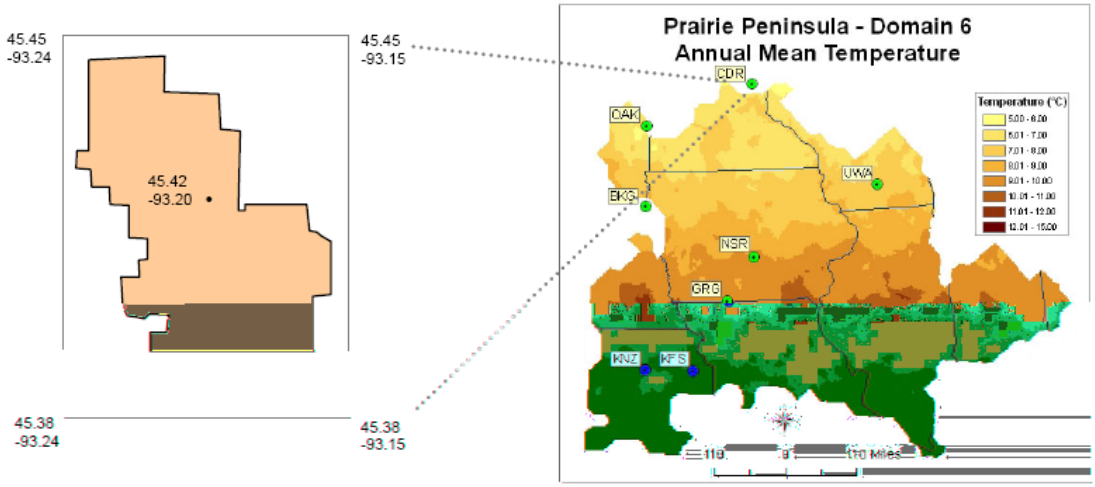
Location within Domain:



History: Cedar Creek Natural History Area was established in 1940 by the University of Minnesota in cooperation with Minnesota Academy of Science, and became a member of the LTER Network in 1982.

Key Characteristics: Cedar Creek (elevation range 175-288 m) is a 2,185 ha continental ecotonal site located on the western edge of Domain 5, near the nexus with Domains 6 and 9; continental climate and soils derived from a glacial outwash sandplain. Ecosystem types include oak savanna, oak forest, prairie-like successional grasslands, pine forest, marshes and conifer bogs. Three lakes, including Cedar Bog Lake, and several km of the namesake creek are located within the borders.

Existing Infrastructure: Major research includes a 40-year prescribed burn experiment in oak savanna, a 24-year nitrogen deposition experiment, a biodiversity experiment started in 1994, a FACE x biodiversity x N deposition experiment started in 1996, a warming experiment and 2,200 permanent, periodically-resampled plots used to study the composition, dynamics and nutrient cycling of savanna and grassland ecosystems. Cedar Creek is part of the National Atmospheric Deposition Program. Numerous data sets from the past 25 years are available at www.cedarcreek.umn.edu. Cedar Creek's broader impacts include involvement of approximately 50 undergraduates in onsite research, training of graduate students and post-doctoral researchers, a Schoolyard LTER program hosting summer teacher training, on-site ecology programs for K-12 classes, guided natural history/science tours for the general public, and active communication of scientific results with the media and government.

Facilities: Sites for intensive field research have electric power and web access. Two on-site laboratory buildings, totaling 12,000 sf. Additional campus facilities within 50 km. Research facilities consist of laboratory-classroom areas, computer labs, conference rooms, analytical chemistry lab, drying room, weighing stations, an herbarium, insect collection with >4000 species, thousands of soil and plant samples archived over the past 24 years, as well as T1 wireless network access. There is 8 FTE of on-site staff support. Residential buildings include 5 dormitories and 7 cabins, housing up to 70 people. A new lab building houses a 1,400 sf public education and outreach center. An additional 8,000 sf is devoted to sample storage, vehicle and equipment storage and workshop space. Approximately 40 km of internal roads provide access to field sites.