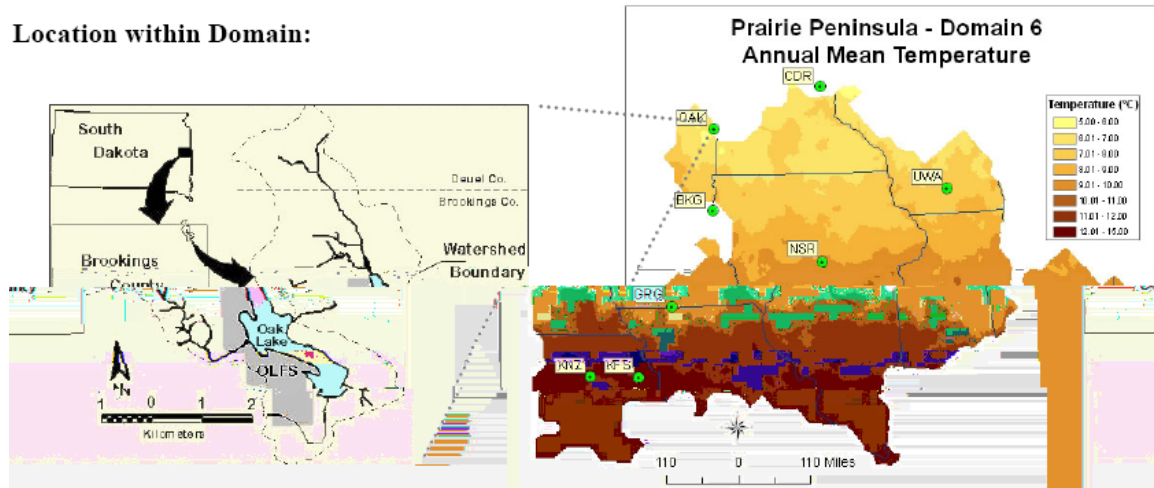


Oak Lake Biological Field Station (OAK): Prairie Peninsula Domain (Gradient Site)

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Web Page: <http://biomicro.sdstate.edu/oaklake/index.htm>

Location within Domain:



History: Biological field station owned by South Dakota State University, established in 1989. Was farmland from the time of European settlement (early 1870's), then used as a Girl Scout camp from 1962-1988.

Key Characteristics: Land holdings of 232 ha adjacent to a 163 ha prairie pothole lake. Existing vegetation consists of native tallgrass prairie maintained by annual burning, mowed grasslands, oak forest, sedge/cattail wetlands, and cropland. Vegetation is characteristic of the northern Central Plains, and existing resources at the site can be used to address climate (part of a larger north-south gradient), land use, and invasive species ecological research questions. Elevation range 549-573 m; represents the drier and colder end of the climate gradient within Domain 6 (mean annual ppt and temperature: 58.3 cm, 5.9°C). Wind monitoring tower installed by The University of North Dakota Wind Energy Institute in June 1998 with thermometers and anemometers at 10m, 30m and 40m.

Existing Infrastructure: Member of several existing networks including the Organization of Biological Field Stations (OBFS), High Plains Regional Climate Center (HPRCC) Automated Weather Data Network (AWDN), and NOAA/NWS Cooperative Observer Program (since 1994). Located 40 km NE of the Brookings AmeriFlux tower. Online datasets include realtime automatic weather data, wind tower data; phytoplankton and limnological data collected on Oak Lake beginning in 1974 (monthly since 1993); flow data for inlet and outlet streams; other datasets on plant and animal populations, woody plant invasion, mosquito vectors of West Nile Virus. Established Middle School Summer Science Camp.

Facilities: On-site structures include bunkhouse, dining hall, indoor and outdoor classroom buildings, field laboratory, caretaker's residence, maintenance, repair, and storage; site managed by Director (20% time), on-site caretaker, and 2 full-time seasonal employees; ethernet connections within classroom/laboratory building with wireless network connection to SDSU campus; within 40 km of additional modern laboratories at SDSU; year around road access; controlled access during winter, gate open during summer.