North Temperate Lakes Metadata Report (NTL)

near Boulder Junction, Wisconsin

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Research Area Information

North Temperate Lakes

Research Area Information

Harvest URL - Option 1

http://www.limnology.wisc.edu/cgi-bin/ntl_climate.cgi/

Harvest URL -Option 2

http://lter.limnology.wisc.edu/hydrodb/ntl_hydrodb.txt

Site URL

http://limnosun.limnology.wisc.edu/

USGS Harvest URL

http://gce-lter.marsci.uga.edu/harvest/usgs/ntl_lter.txt

Meteorlogical Stations

Noble F. Lee Municipal airport north of Minocqua.....AIRPORTWOO
Madison raw climate data.....MADISON01
Madison adjusted climate data MADISON01A
MINOCQUA.....MINOCQUA

Noble F. Lee Municipal airport north of Minocqua

Meteorological Station

Latitude (decimal degrees) 45.928
Longitude (decimal degrees) .....-89.371
Elevation (meters; a.m.s.l.) 500
Exposure (degrees) .....15 degrees
Wind Exposure (degrees azimuth) .....10 degrees
Begin Date..... jan-01-1989
End Date..... Present

Topography

minimal slope and variation

Surface

tall grass to height not exceeding 1 meter

Area Description

open grassy field

History

relocated to the south by about 100 meters and to the west by about 50 meters in June, 1996

Photo URL

lter.limnology.wisc.edu/p0000282b.jpg

Air Temperature

Begin Date..... jan-01-1989
End Date..... Present
Data Logger Sampling Interval..... 1 minute
Summary Interval .....hourly and daily
Instrument Height (meters) 1.5

Instrumentation Description

Campbell Scientific, Inc. Model number cs500

Methods Description

The data was collected using a Campbell CR10X data logger. These samples were

taken at 1 minute intervals which produces an hourly average. These averages are then put into an excel spreadsheet and graphed.

Sensor History

The station was relocated to the South by about 100 meter and to the West by about 50 meters in June of 1996.

Precipitation

Begin Date Jan-01-1989
End Date ..... Present
Data Logger Sampling Interval ..... 1 minute
Summary Interval ..... Hourly Averages
Data Accuracy (millimeters) ..... +/-4%at rate of 1-6" per hour
Instrument Height (meters) 1.65

Instrumentation Description

Sierra-Misco, Inc. Model number 2501

Methods Description

The data was collected using a Campbell CR10X data logger. These samples were taken at 1 minute intervals which produces an hourly average. These averages are then put into an excel spreadsheet and graphed.

Sensor History

The station was relocated to the South by about 100 meter and to the West by about 50 meters in June of 1996.

Relative Humidity

Begin Date Jan-01-1989
End Date ..... Present
Data Logger Sampling Interval ..... 1 minute
Summary Interval ..... Hourly Average
Instrument Height (meters) 1.5

Instrumentation Description

Campbell Scientific, Inc. Model number cs500

Methods Description

The data was collected using a Campbell CR10X data logger. These samples were taken at 1 minute intervals which produces an hourly average. These averages are then put into an excel spreadsheet and graphed.

Sensor History

The station was relocated to the South by about 100 meter and to the West by about 50 meters in June of 1996.

Calibration History

2002

Wind Direction and Resultant Wind Direction

Begin Date..... Jan-01-1989
End Date..... Present
Data Logger Sampling Interval..... 1 Minute
Summary Interval ..... Hourly Averages
Instrument Height (meters) 3

Instrumentation Description

Met One Instruments, Inc. Model number 014A (Annemometer)

Methods Description

The data was collected using a Campbell CR10X data logger. These samples were taken at 1 minute intervals which produces an hourly average. These averages are then put into an excel spreadsheet and graphed.

Sensor History

The station was relocated to the South by about 100 meter and to the West by about 50 meters in June of 1996.

Calibration History

New in 1999 Calibrated April 23, 1999

Wind Speed and Resultant Wind Speed

Begin Date..... Jan-01-1989
End Date..... Present
Data Logger Sampling Interval..... 1 minute
Summary Interval ..... Hourly Averages
Instrument Height (meters) 3

Instrumentation Description

MetOne Instruments, Inc. Model number 025A (Wind Vane)

Methods Description

The data was collected using a Campbell CR10X data logger. These samples were taken at 1 minute intervals which produces an hourly average. These averages are then put into an excel spreadsheet and graphed.

Sensor History

The station was relocated to the South by about 100 meter and to the West by about 50 meters in June of 1996.

Calibration History

New in 1999 Calibrated on April 23, 1999

Madison raw climate data

Meteorological Station

Elevation (meters; a.m.s.l.) 261.5

Topography

flat but in a valley at almost same level as Lake Mendota

Area Description

The station location varied over time. A history of locations is given in Appendix II-A of Robertson, D. M. 1989. The use of lake water temperature and ice cover as climatic indicators. Ph. D. dissertation, Univ. of Wisconsin-Madison. Since 1939 the station was located at the Dane County airport.

History

This station is a NOAA weather station. The station location varied over time. A history of locations is given in Appendix II-A of Robertson, D. M. 1989. The use of lake water temperature and ice cover as climatic indicators. Ph. D. dissertation, Univ. of Wisconsin-Madison. Since 1939 the station was located at the Dane County airport.

Madison adjusted climate data

Meteorological Station

Latitude (decimal degrees) .....+43.1

Longitude (decimal degrees) .....-89.3

Elevation (meters; a.m.s.l.) 261.5

Begin Date..... 1989-01-01

End Date..... Present

Area Description

The raw data for this station are in MADISON01. These adjusted data are attempts to correct for changes in station location or station design, changes in the time of recording data, and changes in the equipment or techniques used to collect data. The station location varied over time. The corrections are described in Chapter 2 and a history of locations is given in Appendix II-A of Robertson, D. M. 1989. The use of lake water temperature and ice cover as climatic indicators. Ph. D. dissertation, Univ. of Wisconsin-Madison. Since 1939 the station was located at the Dane County airport.

History

This station is a NOAA weather station. The raw data for this station are in MADISON01. These adjusted data are attempts to correct for changes in station location or station design, changes in the time of recording data, and changes in the equipment or techniques used to collect data. The station location varied over time. The corrections are described in Chapter 2 and a history of locations is given in Appendix II-A of Robertson, D. M. 1989. The use of lake water temperature and ice cover as climatic indicators. Ph. D. dissertation, Univ. of Wisconsin-Madison. Since 1939 the station was located at the Dane County airport.

MINOCQUA

Meteorological Station

Latitude (decimal degrees) .....+45.874

Longitude (decimal degrees) .....-89.727

Elevation (meters; a.m.s.l.) 490

Topography

small hill

Surface

grass

Area Description

Station is located behind the house of the observer, about 100 meters south of the Minocqua Lake outlet. There are trees at the periphery of the lot. It is about 15 meters from the house.

History

This station is a NOAA National Weather Service Cooperative station. The only known changes have been observation times.

Watershed

Gauging Stations