

EDI Metadata Template (2020)¹

Data should be in csv text file. If starting with an Excel spreadsheet, please make sure it does not contain any formulas and comments on cells. If you need comments put them in their own column. If data were used in a database and major table linking is necessary to analyze, please de-normalize into a flat file, not just database table exports.

Dataset Title

University of Michigan Biological Station Weather Observations 1/1/80 – 4/30/20

Short name or nickname you use to refer to this dataset:

UMBS Weather

Abstract

This data set includes daily year-round weather measurements and observations recorded at the University of Michigan Biological Station from 1980-present. Parameters include maximum and minimum temperatures, precipitation, snowfall, snowpack, and estimated cloud cover and type recorded daily at approximately 08:00. Maximum and minimum temperatures were measured at the Biological Station campus with National Weather Service liquid-in-glass thermometers housed in a Weather Service (a.k.a., Cotton Region) shelter located on State Road. Precipitation was measured with either a Belfort Rainfall Transmitter 5915 or an ETI NOAA IV Total Precipitation Gauge in the “UV Field” located immediately northwest of the Biological Station campus. Snowfall and snowpack were also measured in the UV Field on snowboards using National Weather Service according to National Weather Service snow measurement guidelines. Cloud cover was estimated in oktas and classified into one of the ten basic cloud types.

(include what, why, where, when, and how)

Investigators

(list in order as for a paper with e-mail addresses, organization and preferably ORCID ID, if you don't have one, get it, it's easy and free: <http://orcid.org/>) add table rows as needed

First Name	Middle Initial	Last Name	Organization	e-mail address	ORCID ID (optional)
Robert		Vande Kopple	University of Michigan Biological Station	bvk@umich.edu	
Adam	T	Schubel	University of Michigan	aschubel@umich.edu	

¹ This document liberally borrows from similar documents at SBC and GCE

			Biological Station		
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Other personnel names and roles

(dataset creators & contact, field crew, data entry etc. with e-mail addresses, organization and ORCID ID)

First Name	Middle Initial	Last Name	Organization	e-mail address	ORCID ID (optional)	Role in project
Jason		Tallant	University of Michigan Biological Station	jtallant@umich.edu	0000-0003-4790-8772	Data manager
Sherry		Webster	University of Michigan Biological Station	swebs@umich.edu		Data entry
Alexandria		Pawlik	University of Michigan	apawlik@umich.edu	0000-0001-7806-8206	Data cleaning and packaging

License

(Select a license for release of your data. We have 2 recommendations: [CCO – most accommodating of data reuse](#), & [CCBY – requires attribution](#))

CCBY

Keywords

(List keywords and separate with commas. Using keywords from a controlled vocabulary (CV) will improve the future discovery and reuse of your data. The LTER CV is effective at describing ecological and environmental data. [Access the LTER CV here](#). [Try this text mining service to extract LTER CV keywords from your abstract or methods](#). Additionally, please determine one or two keywords that best describe your lab, station, and/or project (e.g., Trout Lake Station, NTL LTER). This will help others discover your data by site/project).

Funding of this work:

Add rows to table if several grants were involved, list only the main PI, start with main grant first:

PI First Name	PI Middle Initial	PI Last Name	PI ORCID ID (optional)	Title of Grant	Funding Agency	Funding Identification Number

Timeframe

- Begin date: 1 Jan 1980
- End date: 30 Apr 2020
- Data collection ongoing

Geographic location

- Verbal description: University of Michigan Biological Station in Pellston, MI
- North bounding coordinates (decimals)
- South bounding coordinates (decimals)
- East bounding coordinates (decimals)
- West bounding coordinates (decimals)

Taxonomic species or groups

Methods

(please be specific, include instrument descriptions, or point to a protocol online, if this is a data compilation please specify datasets used, preferably their DOI or URL plus general citation information)

Maximum and minimum temperatures were measured at the Biological Station campus with National Weather Service liquid-in-glass thermometers housed in a Weather Service (a.k.a., Cotton Region) shelter located on State Road. Measurements were recorded to the nearest degree Fahrenheit. Precipitation was measured with either a Belfort Rainfall Transmitter 5915 or an ETI NOAA IV Total Precipitation Gauge in the "UV Field" located immediately northwest of the Biological Station campus. Measurements from the Belfort were recorded on charts and transcribed to the nearest hundredth inch. Measurements from the ETI were logged in a Campbell Scientific CR1000 data logger. Snowfall and snowpack were also measured in the UV Field on snowboards using National Weather Service according to [National Weather Service snow measurement guidelines](#). Cloud cover was estimated in oktas and classified into one of the ten basic cloud types.

Data Table

- Column name: exactly as it appears in the dataset. Please avoid special characters, dashes and spaces.
- Description: please be specific, it can be lengthy
- Unit: please avoid special characters and describe units in this pattern: e.g. microSiemenPerCentimeter, microgramsPerLiter, absorptionPerMolePerCentimeter
- Code explanation: if you use codes in your column, please explain in this way: e.g. LR=Little Rock Lake, A=Sample suspect, J=Nonstandard routine followed

- Data format: please tell us exactly how the date and time is formatted: e.g. mm/dd/yyyy hh:mm:ss plus the time zone and whether or not daylight savings was observed.
- If a code for 'no data' is used, please specify: e.g. -99999

Please add rows as needed

Table description: Add a description for each table

Column name	Description	Unit or code explanation or date format	Empty value code
Date		YYYY-MM-DD	NA
Time	Not collected until 2017	MM:SS	NA
Max_Temperature	24 hr	Fahrenheit	NA
Min_Temperature	24 hr	Fahrenheit	NA
Current_Temperature	current	Fahrenheit	NA
Precipitation_Belfort	24 hr, Belfort rain gauge data refer to precipitation in the previous 24 hours from the time of collection (08:00). ETI rain gauge data refer to 24 hour precipitation from midnight to midnight.		NA, 0
Precipitation_ETI	24 hr		NA, 0
Snowfall	24 hr		NA, 0
Snow_On_Ground	current		NA, 0
Wind_Direction		Cardinal direction	NA
Wind_Speed		mph	NA
Sky_Cover	Cloud cover estimate.	okta	NA
Cloud_Type			NA
Notes			NA
Flag_Max_Temperature			
Flag_Min_Temperature			
Flag_Current_Temperature			
Flag_Precipitation_Belfort		T: Trace	
Flag_Precipitation_ETI		R: value potentially out of range	
Flag_Snowfall		D: possible damage to equipment	
Flag_Snow_On_Ground		I: Possible instrument change	
Flag_Wind_Direction			
Flag_Wind_Speed			
Flag_Sky_Cover			
Flag_Cloud_Type			

Articles

(List articles citing this dataset)

[illegible]

Scripts/code (software)

(List any software scripts/code you would like to archive along with your data. These may include processing scripts you wrote to create, clean, or analyze the data.)

[illegible]

Data provenance

(Were these data derived from other data? If so, you will want to document this information so users know where these data come from.)

[illegible]

Notes and Comments