DATA TITLE: Chemical and physical data of East and West Okoboji Lake (Iowa, USA) collected in 2017

PROJECT TITLE: Iron availability allows sustained cyanobacterial bloom: a dual-lake study

ASSOCIATED PUBLICATION: Leung T, Wilkinson G, and ED Swanner. “Iron availability allows sustained cyanobacterial bloom: a dual-lake study.” (2021) Inland Waters.

DATA ABSTRACT: Dataset comprises of nutrients, chlorophyll a, and physical parameters collected from 5 sites in East and West Okoboji Lakes (Iowa, USA) from May through October 2017.

AUTHORS:

Author: Elizabeth Swanner

ORCID: https://orcid.org/0000-0001-9507-0893

Institution: Iowa State University

Email: [eswanner@iastate.edu](mailto:eswanner@iastate.edu)

Author: Grace Wilkinson

ORCID: https://orcid.org/0000-0003-4051-2249

Institution: Iowa State University

Email: [gwilkinson@wisc.edu](mailto:gwilkinson@wisc.edu)

Author: Tania Leung

ORCID: https://orcid.org/0000-0002-8218-1313

Institution: Iowa State University

Email: [tleung1@iastate.edu](mailto:tleung1@iastate.edu)

Corresponding author: Elizabeth Swanner

COLLECTION INFORMATION:

Time period(s): May to October 2017

Location(s): West Okoboji Lake (43.376001270329475, -95.17262098603292),

East Okoboji (43.385713, -95.119648)

# ----- FILE DIRECTORY -----

\* Okoboji\_data\_directory\_Leung\_et\_al\_2021.csv – data dictionary.

\* 2017\_Okoboji\_Physical\_Leung\_et\_al\_2021.csv – Tabular data containing physical data collected from May through October 2017.

\* 2017\_Okoboji\_Nutrients\_Leung\_et\_al\_2021 – Tabular data containing chlorophyll-a and nutrients data collected from May through October 2017.

## ----- VARIABLES -----

Variables, abbreviations, units are defined in the data dictionary.

# ----- METHODS AND MATERIALS -----

## ----- DATA COLLECTION METHODS -----

All data were collected from May through October 2017 across five sites in East and West Okoboji Lakes. Chlorophyll a data represent subsurface measurements from Okoboji Lake and were measured by a multi-wavelength fluorometer (Walz PhytoPAM-II). Nutrients were measured by colorimetric analysis and physical parameters were measured by YSI probe.

# ------- EQUIPMENT -------

Chlorophyll a data represent subsurface measurements from Okoboji Lake and were measured by a multi-wavelength fluorometer (Walz PhytoPAM-II).

Manufacturer: Walz

Model: Compact PhytoPAM-II

Embedded Software/Firmware Name: PhytoWin Software

Additional Notes: Output are fluorescence measurements and chlorophyll a estimates

# ------- LICENSING -------

This work is licensed under the Creative Commons Attribution (CC-BY) 4.0 International License. For more information visit: <https://creativecommons.org/licenses/by/4.0>