

This Headwaters_SE_Sweden_readme.txt file was generated on 2022-12-09 by Sarah Conrad.

GENERAL INFORMATION

1. Title of Dataset: Headwaters_SE_Sweden

2. Author Information

A. Principal Investigator Contact Information

Name: Sarah Conrad

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Email: sarah.conrad@ltu.se

3. Date of data collection:

Three sampling campaigns:

A) 2016-08-22 to 2016-09-08

B) 2016-11-17 to 2016-12-01

C) 2017-03-27 to 2017-04-11

4. Geographic location of data:

SE Sweden (Blekinge län, Jönköpings län, Kalmar län, Kronobergs län, Örebro län, Östergötlands län, Skåne län, Västra Götalands län). Exact coordinates of each sampling location are included in the data sheet.

5. Information about funding sources that supported the collection of the data:

Funding sources for the data collection include Bio4Energy, a Strategic Research Environment, the Swedish Energy Agency (project no 31708-3) and the Swedish Agency for Marine and Water Management (project no 1985-16).

SHARING/ACCESS INFORMATION

1. Links to publications that cite or use the data:

[Conrad et al., 2019: Seasonal variations of redox state in hemiboreal soils indicated by changes of d56Fe, sulfate, and nitrate in headwater streams](#)

[Conrad 2019: Iron isotopes in aquatic systems](#)

2. Links to other publicly accessible locations of the data: N/A

3. Links/relationships to ancillary data sets:

4. Was data derived from another source? yes/no

Yes.

Catchment composition is based on data available from SGU.

DATA & FILE OVERVIEW

1. File List:

Headwaters_SE_Sweden.xlsm

2. Relationship between files, if important:

N/A

3. Additional related data collected that was not included in the current data package:

N/A

4. Are there multiple versions of the dataset?

No

METHODOLOGICAL INFORMATION

1. Description of methods used for collection/generation of data:

Data collection methods are described in the sampling and analytical methods section of this article:

[Conrad et. al., 2019: Seasonal variations of redox state in hemiboreal soils indicated by changes of d56Fe, sulfate, and nitrate in headwater streams](#)

2. Methods for processing the data:

Processing Methods are described in the methods sections of the following articles:

[Conrad et. al., 2019: Seasonal variations of redox state in hemiboreal soils indicated by changes of d56Fe, sulfate, and nitrate in headwater streams](#)

3. Instrument- or software-specific information needed to interpret the data:

N/A

4. Standards and calibration information, if appropriate:

IRMM-14 measurements verify iron isotope data.

5. Environmental/experimental conditions:

N/A

6. Describe any quality-assurance procedures performed on the data:

N/A

7. People involved with sample collection, processing, analysis and/or submission:

Johan Ingri, Stefan Löfgren, Sarah Conrad, Ilia Rodushkin

DATA-SPECIFIC INFORMATION FOR: Headwaters_SE_Sweden.xlsm

There are four sheets in the excel file.

1. Station and catchment info

Contains station IDs, station coordinates (based on SWEREF99), catchment size in hectare (ha), catchment slope (min, max, mean and standard deviation), and catchment composition (based on data from SGU).

2. Element concentration

Contains element concentrations of the listed elements in the variable list for unfiltered water samples during sampling events A, B, and C. Additionally, during sampling event C, 10 samples were filtered in-situ with 0.22 μm filters to separate the dissolved (<0.22 μm) from the particulate (>0.22 μm) fraction.

3. Fe isotopes

Contains Fe isotope ratios for 16 stations during sampling events A, B, and C. Additionally, the Fe isotope ratios of the dissolved (<0.22 μm) and the particulate (>0.22 μm) fraction of the 10 filtered samples are presented.

4. REE and Ce anomaly

Summary of the rare earth elements, including results for the sum of the light REE, the sum of the heavy REE and the Ce anomaly.

ΣLREE= La, Ce, Pr, Nd, Sm

ΣHREE= Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu

Ce anomaly

$$\delta Ce = \frac{\left(\frac{Ce}{Ce_N}\right)}{\frac{2}{3}\left(\frac{La}{La_N}\right) + \frac{1}{3}\left(\frac{Nd}{Nd_N}\right)} - 1$$

1. Number of variables: 75

2. Number of cases/rows: 252

3. Variable List:

<list variable name(s), description(s), unit(s) and value labels as appropriate for each>

Date (YYYY-MM-DD), Ag (nmol/l), Al (nmol/l), As (nmol/l), Au (nmol/l), B (nmol/l), Ba (nmol/l), Be (nmol/l), Bi (nmol/l), Br (nmol/l), Ca (nmol/l), Cd (nmol/l), Ce (nmol/l), Co (nmol/l), Cr (nmol/l), Cs (nmol/l), Cu (nmol/l), Dy (nmol/l), Er (nmol/l), Eu (nmol/l), Fe (nmol/l), Ga (nmol/l), Gd (nmol/l), Ge (nmol/l), Hf (nmol/l), Hg (nmol/l), Ho (nmol/l), I (nmol/l), Ir (nmol/l), K (nmol/l), La (nmol/l), Li (nmol/l), Lu (nmol/l), Mg (nmol/l), Mn (nmol/l), Mo (nmol/l), Na (nmol/l), Nb (nmol/l), Nd (nmol/l), Ni (nmol/l), Os (nmol/l), P (nmol/l), Pb (nmol/l), Pd (nmol/l), Pr (nmol/l), Pt (nmol/l), Rb (nmol/l), Re (nmol/l), Rh (nmol/l), Ru (nmol/l), S (nmol/l), Sb (nmol/l), Sc (nmol/l), Se (nmol/l), Si (nmol/l), Sm (nmol/l), Sn (nmol/l), Sr (nmol/l), Ta (nmol/l), Tb (nmol/l), Te (nmol/l), Th (nmol/l), Ti (nmol/l), Tl (nmol/l), Tm (nmol/l), U (nmol/l), V (nmol/l), W (nmol/l), Y (nmol/l), Yb (nmol/l), Zn (nmol/l), Zr (nmol/l), pH, Alk./Acid (meq/l), SO₄ (meq/l), TOC (mmol/l), d⁵⁶Fe (‰)

4. Missing data codes:

TOC – total organic carbon

5. Specialized formats or other abbreviations used: N/A