

# Multilocus BOLD Dataset for Nearctic Polycentropodidae (Trichoptera): Metadata

Alexander Orfinger , Andrew Rasmussen & Raymond Hix



Freshwater Metadata Journal  
DOI 10.15504/fmj.2021.51  
ISSN 2312-6604  
Published online: 2021-02-16



Published by University of Natural Resources and  
Life Sciences, Institute of Hydrobiology and  
Aquatic Ecosystem Management, BOKU - Vienna



# Multilocus BOLD Dataset for Nearctic Polycentropodidae (Trichoptera): Metadata

Alexander Orfinger<sup>1,2</sup> , Andrew Rasmussen<sup>1</sup> & Raymond Hix<sup>1</sup>

<sup>1</sup> Florida A&M University, College of Agriculture and Food Sciences, Tallahassee, United States; corresponding author: [aborfinger@gmail.com](mailto:aborfinger@gmail.com)

<sup>2</sup> University of Florida, Department of Entomology and Nematology, Gainesville, United States

Please cite this paper as follows: Orfinger, A.B., Rasmussen, A.K. & Hix, R.L., 2021. Multilocus BOLD Dataset for Nearctic Polycentropodidae (Trichoptera): Metadata. *Freshwater Metadata Journal* 51: 1-6. <https://doi.org/10.15504/fmj.2021.51>

Received: 2021-02-06 / Published: 2021-02-16

## Keywords

Annulipalpia, biodiversity, caddisflies, distribution, DNA barcoding, phylogeny, taxonomy

## Short description of the dataset/summary

The BOLD dataset "DS-POLYCSS Nearctic Polycentropodidae (Trichoptera)" contains publicly accessible molecular data and associated voucher collection data. Data include two loci (nuclear 28s rRNA D2 and mitochondrial cytochrome oxidase C (COI)), specimen images, collection data, and additional specimen data. Data pertain to hundreds of treated specimens and dozens of treated species, of different life stages and both sexes, of the Trichoptera family Polycentropodidae in the Nearctic, with an emphasis on *Polycentropus sensu lato*. Data will continued to be added during continued systematic studies of the family by the authors.

## General information

dataset entry ID: FWM\_31

### name of the dataset:

full name of the dataset: Multilocus BOLD Dataset for Nearctic Polycentropodidae (Trichoptera)

dataset short name: DS-POLYCSS Nearctic Polycentropodidae

### type of dataset:

others

data type: descriptive data

### science keywords according to [GCMD](#):

topic: Biosphere, Biological Classification

### ISO topic category according to [ISO 19115](#):

Biota, Inland Waters

### INSPIRE keywords according to [GEMET](#):

Species distribution

**own science keywords:** aquatic insects, Annulipalpia, biodiversity, DNA barcoding, phylogeny, taxonomy, Trichoptera

**related project:** BOLD ORFIN - Nearctic Polycentropus sensu lato (Trichoptera: Polycentropodidae)

**funding:** This work was supported by the McIntire-Stennis Program from the USDA National Institute of Food and Agriculture and by the USDA National Institute of Food and Agriculture, 1890 Institution Capacity Building Grant Project 1021805.

## Technical and administrative specifications

**data format:** others/specify  
 others/details: Barcode of Life Database

**operating system:** all operating systems

**data language:** English

**current access level:** web (public)  
 web address:  
[http://www.boldsystems.org/index.php/Public\\_SearchTerms?query=DS-POLYCSS](http://www.boldsystems.org/index.php/Public_SearchTerms?query=DS-POLYCSS)

currently available through [GBIF](#): no

exchange planned: no

data in data repository: yes

specify repository: BARCODE OF LIFE DATA SYSTEM v4

**Do you plan to publish the data on the Freshwater Biodiversity Data Portal:**  
 no

**update level:** continuously updated, update planned

### contact details:

metadata contact person:

first, last name: Alexander Orfinger  
 phone: 3862902505  
 email: a.orfinger@ufl.edu  
 institution: University of Florida / Florida A&M University  
 address: 113 Perry-Paige S  
 postal code, city: 32307 Tallahassee  
 province, state: Florida  
 country: United States

technical contact person:

first, last name: Alexander Orfinger  
 phone: 3862902505  
 email: a.orfinger@ufl.edu

scientific contact person:

first, last name: Alexander Orfinger  
 phone: 3862902505  
 email: a.orfinger@ufl.edu

## Intellectual property rights and citation

**dataset publisher:** BARCODE OF LIFE DATA SYSTEM v4 (BOLD)

**dataset creator (data compiler):**

contact name: Alexander Orfinger

contact email: a.orfinger@ufl.edu

contact institution: University of Florida / Florida A&M University

**data contributors to/owners of this dataset:**

multiple

number: 3

**data contributor/owner 1:**

contact name:

contact email: a.orfinger@ufl.edu

contact institute: University of Florida / Florida A&M University

criteria for using this part of the dataset:

The dataset is publicly available (data portal, data archive) and can be used without restrictions, but dataset creator/data contributors must be informed prior to publication. Data must be acknowledged and cited correctly.

**data contributor/owner 2:**

contact name:

contact email: andrew.rasmussen@fam.u.edu

contact institute: Florida A&M University

criteria for using this part of the dataset:

The dataset is publicly available (data portal, data archive) and can be used without restrictions, but dataset creator/data contributors must be informed prior to publication. Data must be acknowledged and cited correctly.

**data contributor/owner 3:**

contact name:

contact email: raymond.hix@fam.u.edu

contact institute: Florida A&M University

criteria for using this part of the dataset:

The dataset is publicly available (data portal, data archive) and can be used without restrictions, but dataset creator/data contributors must be informed prior to publication. Data must be acknowledged and cited correctly.

**citation of this dataset:**

author(s): Orfinger, A.B., Rasmussen, A.K. & Hix, R.L.

title and journal (name, number, pages):

Dataset - DS-POLYCSS Nearctic Polycentropodidae (Trichoptera),

BARCODE OF LIFE DATA SYSTEM v4, 2021, accessible at

[http://www.boldsystems.org/index.php/Public\\_SearchTerms?query=DS-POLYCSS](http://www.boldsystems.org/index.php/Public_SearchTerms?query=DS-POLYCSS)

year: 2021

doi: <https://doi.org/10.5883/DS-POLYCSS>

**citation of the metadata:**

author(s): Orfinger, A.B., Rasmussen, A.K. & Hix, R.L.

title and journal (name, number, pages):

Multilocus BOLD Dataset for Nearctic Polycentropodidae (Trichoptera):

Metadata. Freshwater Metadata Journal 51: 1-6

year: 2021

doi: <https://doi.org/10.15504/fmj.2021.51>

## General data specifications

### regional coverage of the dataset:

spatial extent of the dataset: continental  
 continents: North America

### spatial extent (bounding coordinates):

southernmost latitude [°]: 10.7612000°  
 northernmost latitude [°]: 66.2282000°  
 westernmost longitude [°]: -146.2500000°  
 easternmost longitude [°]: -057.7410000°  
 countries: North America: Canada, Costa Rica, Cuba, Dominican Republic, Mexico, United States

**ecosystem type:** rivers, lakes/ponds, general freshwater

**covered timeframe:** 1979 - 2021

## Site specifications

**coordinate system/grid data:** latitude/longitude, format: DD

datum (e.g. WGS84): WGS84

grid data available: yes

resolution: 10 - 100

unit: m

**number of sites:** 100 - 1000

exact number of sites: 181

**comments:** The number of sites is current as of February, 2021 but will increase as additional data are added.

## Climate and environmental data

**climate related data:** no climate data available

**environmental data:** no environmental data per catchment available

available parameters per site: information on riparian vegetation (incl. information on modification)  
 data source: collector(s)  
 information on embankment (incl. information on modification)  
 data source: collector(s)  
 information on channel form (incl. information on modification)  
 data source: collector(s)  
 information on water uses (e.g., irrigation, fish ponds)  
 data source: collector(s)  
 distance to the next main village/town upstream  
 data source: collector(s)  
 stream order (according to Strahler)  
 data source: collector(s)  
 altitude  
 data source: collector(s)  
 information on instream habitat (incl. information on modification)  
 data source: collector(s)

**physico-chemical data:** no physico-chemical data available

**stressors influencing the sites:** no stressor data available

## Biological data

**biological data origin:** from sampling,  
various projects  
**organism group addressed:** macro-invertebrates (Trichoptera)

## Sample specifications/sample resolution

### macro-invertebrates:

#### sample information:

**covered timeframe:** 1979 - 2021  
**historical data:** yes  
**palaeo data:** no  
**season:** spring, summer, autumn, winter  
**temporal resolution/frequency of sampling:**  
infrequent sampling frequency  
**comments:** Data collection and input are ongoing.

#### taxonomic resolution:

**level:** order, family, sub-family, genus, species  
**percentage of species level data:** 85  
**comments:** Specimens are identified to species when possible.

#### taxonomic coding:

**taxalist according to:** Trichoptera Nearctica and Trichoptera World Checklist  
**reference(s):** - Rasmussen, A.K. & Morse, J.C., 2020. Distributional Checklist of Nearctic Trichoptera (Fall 2020 Revision). Unpublished, Florida A&M University, Tallahassee. 517 pp. [Available at <http://www.Trichoptera.org>]  
- Morse, J.C. (ed.), 2021. Trichoptera World Checklist. <http://entweb.clemson.edu/database/trichopt/index.htm>

#### sample specifications:

**type:** qualitative, presence/absence  
**replicate samples:** yes  
**specification of method(s) used for sampling and sorting:**  
Sampling methods varied according to life stage and collector. Collection method data are available within the individual specimens' "Specimen Page" when known. Collection methods included UV light trapping, sweep netting, malaise trapping, and emergence trapping for adults, and hand picking and standard benthic collecting methods for immature stages.

## Other specifications

### GIS layers, shape files related to the dataset:

no data available

**availability of photos:** yes

**availability of maps:** yes

**quality control procedures:**

Were any quality control procedures applied to your dataset?

yes

quality control protocols and comments:

Standard BOLD quality assurance procedures.

reference(s):

[http://www.boldsystems.org/libhtml\\_v3/static/BOLD4\\_Documentation\\_Draft1.pdf](http://www.boldsystems.org/libhtml_v3/static/BOLD4_Documentation_Draft1.pdf)

## Acknowledgements

This work was supported by the McIntire-Stennis Program from the USDA National Institute of Food and Agriculture and by the USDA National Institute of Food and Agriculture, 1890 Institution Capacity Building Grant Project 1021805. Numerous museums and researchers provided specimens and data for production of this data set, for which the authors are very grateful. The authors also appreciate the helpful review of Dr. Astrid Schmidt-Kloiber (BOKU, Vienna).

## References

Morse, J.C. (ed.), 2021. Trichoptera World Checklist. <http://entweb.clemson.edu/database/trichopt/index.htm>

Rasmussen, A.K. & Morse, J.C., 2020. Distributional Checklist of Nearctic Trichoptera (Fall 2020 Revision). Unpublished, Florida A&M University, Tallahassee. 517 pp. [Available at <http://www.Trichoptera.org>]

Ratnasingham, S. & Hebert, P.D., 2007. BOLD: The Barcode of Life Data System (<http://www.barcodinglife.org>). *Molecular Ecology Notes*, 7(3), 355-364. <https://doi.org/10.1111/j.1471-8286.2006.01678.x>