This documentation file was generated on **2021-11-18** by **Dana Warren**

GENERAL INFORMATION
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1. Title of Dataset
Fish and temperature data from Hinkle Creek summer 2021

2. Creator Information
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3. Collaborator information

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3. Contact Information

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CONTEXTUAL INFORMATION
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1. Abstract for the dataset

These data were all collected in summer 2021 at Hinkle Creek watershed, a headwater ecosystem in a managed forest landscape in western Oregon. The data set has two components. The first component of the data set includes information about age 1 and older fish collected from two sections of the South Fork of Hinkle Creek in summer 2021 using multiple pass depletion backback electrofishing methods. Electrofishing in these two reaches were conducted in July 2021 and again in September 2021 – each month has its own csv data file. Information in these two components of the data set include the total length (mm), weight (g) and species of fish (*Oncorhynchus clarkii; Oncorhynchus mykiss*). We also include data on which pass each fish was captured so depletion-based population estimates can be calculated. The second component of this study is stream temperature from the mainstem of the South Fork Hinkle Creek, and also includes two data files. The first data file includes stream temperature (in Celsius) from summer 2021 collected using a HOBO data logger within 20m of each of the two fish survey locations. The second data file includes maximum daily temperatures from each site in 2021 and from data collected at these sites from 2006 to 2011, before the Archie Creek Fire impacted this site (in Sept. 2020).

2. Context of the research project that this dataset was collected for.

Data were collected to evaluate temperature and fish responses in the system in the summer after a severe fire impacted the watershed in September 2020.

3. Date of data collection:

Temperature data: 2021-06-25 to 2021-09-15

Stream vertebrate surveys: 2021-07-13, 2021-07-14, 2021-09-16, 2021-09-17

4. Geographic location of data collection:
South Fork Hinkle Creek; a tributary to the Umpqua River in the western Cascade Mountains of central Oregon.

5. Funding sources that supported the collection of the data:
National Council for Air and Stream Improvement
Oregon Forest Industries Council

SHARING/ACCESS INFORMATION
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1. Licenses/restrictions placed on the data:

2. Links to publications related to the dataset:
Warren, Roon, Swartz, Bladon. *In Review.* Cold-water fish persist in a stream system with elevated summer temperatures after a severe wildfire.

3. Links to other publicly accessible locations of the data:
NA

4. Recommended citation for the data:
Warren, D., Bladon, K., & Roon, D. (2022). Fish and temperature data from Hinkle Creek summer 2021 (Version 1) [Data set]. Oregon State University. https://doi.org/10.7267/BK128K15D

5. Dataset Digital Object Identifier (DOI)
https://doi.org/10.7267/bk128k15d

6. Limitations to reuse
None

VERSIONING AND PROVENANCE
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1. Last modification date
2021-11-22

2. Links/relationships to other versions of this dataset:
NA

3. Was data derived from another source?
No

METHODOLOGICAL INFORMATION

We deployed water temperature loggers throughout the stream network beginning in late June 2021. In mid- July 2021 (7/15 and 7/16), we conducted quantitative multiple-pass depletion surveys of fish at two locations along South Fork Hinkle Creek. We returned to these sites in September 2021 (9/16 and 9/17) and conducted a second survey using identical field methods.

1. Description of methods used for collection/generation of data:
Water temperature loggers were deployed in South Fork Hinkle Creek mainstem beginning on June 25, 2021. In mid- July 2021 (7/15 and 7/16), quantitative multiple-pass depletion surveys were conducted at two locations along South Fork Hinkle Creek. We returned to the same sites in September 2021 (9/16 and 9/17) and completed a follow-up survey using identical field methods. All captured fish were measured to the nearest millimeter in total length and weight to the nearest 0.1 gram.

2. Methods for processing the data:
Data were review and evaluated for quality/accuracy

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

4. Standards and calibration information, if appropriate:
NA

5. Environmental/experimental conditions:
Sunny

6. Describe any quality-assurance procedures performed on the data:
We plotting all of the data and reviewed any outlier data points

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DATA & FILE OVERVIEW

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1. File List

A. Filename: *Warren_et_al_-_July_Age-one-plus_Fish_for_Scholar_LSFH_MSFH*
Short description: Data on fish collections from the two focal study reaches in the south fork of Hinkle Creek in July 2021.

B. Filename: *Warren_et_al_-_Sept_Age-one-plus_Fish_for_Scholar_LSFH_MSFH*
Short description: Data on fish collections from the two focal study reaches in the south fork of Hinkle Creek in September 2021

C. Filename: *Warren_et_al_-_Summer2021_temp_data-Hinkle_Creek_SFHC.csv*
Short description: Data on stream temperature (Celsius) from Hobo data loggers located in or very near the two focal study reaches in the south fork of Hinkle Creek. Data loggers collected temperature information from June 25 to September 15.

D. Filename: *Warren_et_al_-_Hinkle_Creek_pre-post fire_MaxStreamTemp_2006-2021*
Short description: Data on maximum daily stream temperature (Celsius) through the summer from Hobo data loggers located in or very near the two focal study reaches in the south fork of Hinkle Creek from years 2006, ’07, ’08, ’09, ’10, ’11 before the fire, and 2021 after the fire.

2. Relationship between files: **Files A and B have the same type of data from the same locations but one is early summer and one is late summer 2021. File C has post-fire summer temperature data at 15 minute-intervals, File D has pre-fire summer temperature data and 2021 data but lists only the daily maximum through the summer for 2006-2011 and 2021.**

3. Formats
All files are csv files.

TABULAR DATA-SPECIFIC INFORMATION FOR: [FILENAME]

A. Filename: *Warren_et_al_-_July_Age-one-plus_Fish_for_Scholar_LSFH_MSFH*
1. Number of variables: 10 (these are the columns with data)
2. Number of cases/rows: 127
3. Missing data codes: [blank] (Blank = data not recorded)
4. Variable List
Date: date when the sample was taken in format mm/dd/yyyy
Year: year when the sample was taken
Month: month when the sample was taken

Day: Day of the month (in this case July) when the sample was taken
DOY: Day of the year when the sample was taken (with January 1 as "day 1")
Stream: location of the sample.
LSFH Lower South Fork Hinkle Creek – near confluence with Fen Creek
MSFH Middle South Fork Hinkle Creek – near confluence with Russel Creek
Pass_NUM: The electrofishing pass number on which a given fish was caught
SpeciesCode: the species or age class of individuals captured in electrofishing surveys. Codes follow the table below.

Code	common name	Species name	Notes
CT	cutthroat trout	*Oncorhynchus clarkii*	
ST, RT	Steelhead/rainbow trout	*Oncorhynchus mykiss*	

TotalLength_mm: Total length (tip of "nose" to tip of tail) of each individual in millimeters
Weight_g: Weight in grams of each individual

B. Filename: *Warren_et_al_-_Sept_Age-one-plus_Fish_for_Scholar_LSFH_MSFH*

1. 1. Number of variables: 10 (these are the columns with data)
2. Number of cases/rows: 154
3. Missing data codes: [blank] (Blank = data not recorded)
4. Variable List

Date: date when the sample was taken in format mm/dd/yyyy
Year: year when the sample was taken
Month: month when the sample was taken
Day: Day of the month (in this case July) when the sample was taken
DOY: Day of the year when the sample was taken (with January 1 as "day 1")
Stream: location of the sample.
LSFH Lower South Fork Hinkle Creek – near confluence with Fen Creek
MSFH Middle South Fork Hinkle Creek – near confluence with Russel Creek
Pass_NUM: The electrofishing pass number on which a given fish was caught
SpeciesCode: the species or age class of individuals captured in electrofishing surveys. Codes follow the table below.

Code	common name	Species name	Notes
CT	cutthroat trout	*Oncorhynchus clarkii*	
ST, RT	Steelhead/rainbow trout	*Oncorhynchus mykiss*	

TotalLength_mm: Total length (tip of "nose" to tip of tail) of each individual in millimeters
Weight_g: Weight in grams of each individual

C. Filename: *Warren_et_al_-_Summer2021_temp_data-Hinkle_Creek_SFHC*

1. Number of variables: 9 (these are the columns with data)
2. Number of cases/rows: 23,987
3. Missing data codes: [blank] (Blank = data not recorded)
4. Variable List

Date_Time: date and the time of day (on a 24 hour clock in 15 minute intervals) when the data was recorded. Format: mm/dd/yyyy h:min
Date: date when the sample was taken in format mm/dd/yyyy
Year: year when the sample was taken
Month: month when the sample was taken
Day: Day of the month (in this case September) when the sample was taken
Hour: Hour of the day (in a 24 hour clock) when the data were recorded

Temp logger Site: location in the stream network where logger was placed. Location names correspond to temperature logger locations from the 2001-2011 Hinkle Creek study.
Associated fish site: Fish sampling location that the logger occurs in or is very near to.
Temp_C: Temperature in Celsius recorded by the data logger a given date and time.

D. Filename: *Warren_et_al_-_Hinkle_Creek_pre-post fire_MaxStreamTemp_2006-2021*

1. Number of variables: 5 (these are the columns with data)
2. Number of cases/rows: 966
3. Missing data codes: [blank] (Blank = data not recorded)
4. Variable List

FirePeriod: Indicates whether data were before or after the Archie Creek Fire that impacted Hinkle Creek in Sept. 2020.
Year: year when the sample was taken
Date: Date of the maximum temperature reading
Sensor ID: Location of the logger relative to the sampling reach (**LSFH** = Lower South Fork Hinkle Creek, and **MSFH** = Middle South Fork Hinkle Creek).
DailyMax_C: Maximum temperature recorded at a given site each day in degrees Celsius. Hobo water temperature loggers recorded temperature every 15 minutes.