

This README file was generated on April 20, 2022, by Sara JS Wuitchik.

GENERAL INFORMATION

1. Data from 'Evolution of thermal physiology alters projected distributions of threespine stickleback under climate change'
2. Author information
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3. Date of data collection: Sept 2014 – July 2018
4. Geographic location of data collection: Bamfield, BC and Calgary, AB, CANADA

DATA & FILE OVERVIEW

1. File list
 - a. dryad_f1.csv
 - b. dryad_f2.csv
 - c. dryad_wild.csv

METHODOLOGICAL INFORMATION

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

Adult threespine stickleback were run through a standard critical thermal minimum (CTmin) experiment, allowed to recover for at least three days, run through a standard critical thermal maximum (CTmax) experiment, and allowed to recover for an additional three days before being placed in a Shuttlebox holding a static temperature gradient. Mass measurements were taken at time of tagging and sex was determined by polymerase chain reaction (PCR) for the sex-specific *idh* locus.
2. Instrument- or software-specific information needed to interpret data

Specific packages/libraries for data processing can be found in the manuscript methods section
3. People involved with sample collection, processing, analysis, or submission
 - a. Sample collection:
 - i. Sara JS Wuitchik
 - ii. Tegan N Barry
 - iii. Jori Harrison
 - b. Sample processing:
 - i. Sara JS Wuitchik
 - ii. Tegan N Barry
 - iii. Antoine Paccard
 - c. Sample analysis:
 - i. Sara JS Wuitchik
 - d. Submission:
 - i. Sara JS Wuitchik

DATA-SPECIFIC INFORMATION FOR DRYAD_F1.CSV

1. Number of variables: 10
2. Number of rows: 125 (including header)
3. Variable list
 - a. Habitat: which marine or freshwater habitat the individual is from (M, marine, or FW, freshwater)
 - b. Source Pop: which population the individual is from
 - c. Indiv: the individual identifier by cross and number
 - d. Tag: the unique visible implant elastomer tag each individual was tattooed with

- i. Either R (right) or L (left)
 - ii. Either D (dorsal) or C (caudal)
 - iii. Either S (single tag) or D (double tag)
 - iv. Pk (pink), R (red), B (blue), G (green), O (orange), W (white), Y (yellow)
 - e. ctmin: the CTmin value at loss of equilibrium (LOE) (in °C)
 - f. ctmax: the CTmax value at LOE (in °C)
 - g. pref: the average preferred ambient temperature from the Shuttlebox experiment (in °C)
 - h. coretemp: the average estimated core body temperature from the Shuttlebox experiment (in °C)
 - i. mass: mass at time of tagging (in g)
 - j. sex: genetic sex determination (M, male, or F, female)
4. Missing data codes
- a. Empty cells mean the individual did not complete that experiment

DATA-SPECIFIC INFORMATION FOR DRYAD_F2.CSV

- 1. Number of variables: 8
- 2. Number of rows: 104
- 3. Variable list:
 - a. Cross: source populations of cross
 - b. Indiv: the individual identifier by cross and number
 - c. Tag: the unique visible implant elastomer tag each individual was tattooed with
 - i. Either R (right) or L (left)
 - ii. Either D (dorsal) or C (caudal)
 - iii. Either S (single tag) or D (double tag)
 - iv. Pk (pink), R (red), B (blue), G (green), O (orange), Y (yellow), Br (brown), Pu (purple)
 - d. ctmin: the CTmin value at loss of equilibrium (LOE) (in °C)
 - e. ctmax: the CTmax value at LOE (in °C)
 - f. pref: the average preferred ambient temperature from the Shuttlebox experiment (in °C)
 - g. coretemp: the average estimated core body temperature from the Shuttlebox experiment (in °C)
 - h. mass: mass at time of tagging (in g)
- 4. Missing data codes:
 - a. Empty cells mean the individual did not complete that experiment

DATA-SPECIFIC INFORMATION FOR DRYAD_WILD.CSV

- 1. Number of variables
- 2. Number of rows
- 3. Variable list:

- a. habitat: which marine or freshwater habitat the individual is from (M, marine, or FW, freshwater)
 - b. pop: which population the individual is from
 - c. Individual: the individual identifier by cross and number
 - d. Tag: the unique visible implant elastomer tag each individual was tattooed with
 - i. Either R (right) or L (left)
 - ii. Either D (dorsal) or C (caudal)
 - iii. Either S (single tag) or D (double tag)
 - iv. Pk (pink), R (red), B (blue), G (green), O (orange), W (white), Y (yellow)
 - e. ctmin: the CTmin value at loss of equilibrium (LOE) (in °C)
 - f. ctmax: the CTmax value at LOE (in °C)
 - g. pref: the average preferred ambient temperature from the Shuttlebox experiment (in °C)
 - h. coretemp: the average estimated core body temperature from the Shuttlebox experiment (in °C)
 - i. mass: mass at time of tagging (in g)
 - j. sex: genetic sex determination (M, male, or F, female)
4. Missing data codes:
- a. Empty cells mean the individual did not complete that experiment