Table 1. Description of the fields needed to describe the creation of your dataset.

Title of dataset	*Station_Details*
URL of dataset	*https://github.com/spencer-tassone/RiverineHeatwaves/blob/main/Station_Details.csv*
Abstract	*Heatwaves are increasing in frequency, duration, and intensity in ocean, coastal, and lake ecosystems. While positive water temperature trends have been documented in many rivers, heatwaves have not been analyzed. This study examined heatwaves in rivers throughout the United States between 1996-2021. Riverine heatwaves increased in frequency over the study period, with significant increases in summer, in mid to high order streams, and at free-flowing sites and sites above a reservoir. The increase in heatwave frequency was accompanied by an increase in moderate strength heatwaves as well as an increasing trend in the average number of heatwave days each year. Riverine heatwaves were most likely to occur during periods of normal or below-normal discharge conditions and at sites with a mean annual discharge ≤ 250 m^3 s^{-1}. These results provide the first assessment of heatwaves in rivers for a large geographic area in the United States.* *The dataset described here provides station specific details regarding location, altitude, reservoir position, and stahler stream order.*
Keywords	*USGS, stream, river, altitude, reservoir, stream order*
Dataset lead author	*Spencer Tassone*
Position of data author	*Graduate student*
Address of data author	*Department of Environmental Sciences* *University of Virginia* *Clark Hall* *291 McCormick Rd* *P.O. Box 400123* *Charlottesville, VA 22904*
Email address of data author	*sjt7jc@virginia.edu*
Primary contact person for dataset	*Spencer Tassone*
Position of primary contact person	*Graduate student*
Address of primary contact person	*Department of Environmental Sciences* *University of Virginia* *Clark Hall* *291 McCormick Rd* *P.O. Box 400123* *Charlottesville, VA 22904*
Email address of primary contact person	*sjt7jc@virginia.edu*
Organization associated with the data	*NA*
Usage Rights	*Publicly available and free to use*
Geographic region	*United States of America*

Geographic coverage	*Alabama, Alaska, California, Colorado, Georgia, Michigan, Montana, Nevada, New Jersey, New York, Oregon, Pennsylvania, South Carolina, Texas, Washington*
Temporal coverage - Begin date	*2021*
Temporal coverage - End date	*2021*
General study design	*This study collected USGS site specific variables using several publicly available datasets.*
Methods description	*Altitude was extracted using the United States Geological Survey (USGS) 'dataRetrieval' R package. Stahler stream order was determined using the USGS NHDPlus High Resolution geospatial database using ESRI ArcMap version 10.8. Categorical assignment of site position relative to a reservoir (i.e., above, below, none) was determined from aerial photographic visual inspection of each sites location relative to the U.S. Army Corps of Engineers National Inventory of Dams (NID) in ArcMap.*
Laboratory, field, or other analytical methods	*The USGS conducts high-frequency surface water monitoring throughout the U.S. as part of its national water information system. All sites with daily mean water temperature records available for the 26-year period of 1996-2021 were identified using the R package 'dataRetrieval' version 2.7. Tidally influenced and lake sites were removed, as were all flagged data other than those 'Approved', 'Approved Revised', 'Approved Edited', or 'Provisional'. Sites with < 90% of their daily records were also excluded. Linear interpolation was applied to water temperature gaps ≤ 2 days. For larger gaps, multiple linear regression models were developed using 1 km2 resolution, daily climate data using the R package 'daymetr' version 1.6. Only those sites with regressions where $R^2 \geq 0.80$ were used in this analysis (mean ± SD $R^2 = 0.91 \pm 0.04$). Seventy long-term water temperature sites were identified, resulting in a total of 1,820 station years of water temperature data available for analysis.* *Site specific variables included region, altitude, Stahler stream order, and position in landscape relative to a reservoir. Regional assignment was classified according to historically climatic consistent regions of the U.S. (https://www.ncei.noaa.gov/monitoring-references/maps/us-climate-regions). Altitude was extracted using the 'dataRetrieval' R package. Stahler stream order was determined using the USGS NHDPlus High Resolution geospatial database using ESRI ArcMap version 10.8. Categorical assignment of site position relative to a reservoir (i.e., above, below, none) was determined from aerial photographic visual inspection of each sites location relative to the U.S. Army Corps of Engineers National Inventory of Dams (NID) in ArcMap (https://nid.sec.usace.army.mil).*
Quality control	*Visual inspection of sites was warranted as the NID may exclude low head dams or historical mill dams.*
Additional information	*Altitude was converted from NGVD 29 to NAVD 88 by adding 3.6 feet prior to conversion to units of meters. See USGS report for vertical datum conversion https://pubs.usgs.gov/sir/2010/5040/section.html.* *Many USGS site numbers begin with the number zero. Noted in table 2, all sites numbers in this analysis < 10301500 (< line 47) begin with a zero.*

Table 2. Description of the variables (i.e., columns) in the dataset in sufficient detail for another user to understand and use the data.

Column name	Definition	Units
station_nm	*Station name issued by the USGS*	*NA*
site_no	*Site number issued by the USGS. All sites numbers < 10301500 (< line 47) start with a zero which gets dropped in csv file format*	*NA*
lat	*Site latitude provided by the USGS*	*Decimal degrees*
long	*Site longitude provided by the USGS*	*Decimal degrees*
state	*United States - state name where the site is located*	*NA*
STUSAB	*United States - two letter state name abbreviation*	*NA*
StreamOrder	*Stahler stream order for each site as determined by the USGS NHDPlus High Resolution geospatial database using ESRI ArcMap version 10.8*	*NA*
Reservoir	*Site position relative to a reservoir. The categorical values can either be 'Above', 'Below', or 'None' indicating if the site is above a reserovir, below a reservoir, or free-flowing with no reservoir present*	*NA*
DrainageArea_km2	*Watershed drainage area for each site*	*Square kilometers*
altitude_m_NAVD88	*Altitude of each site based on the North American Vertical Datum of 1988 (NAVD88)*	*Meters*