**ACCS Data Catalog**

**Project: Bristol Bay Monitoring Data**

**Contact: Rebecca Shaftel,** **rsshaftel@alaska.edu****, (907) 786-4965**

***Data files in Monitoring Data.zip***

ACCS Bristol Bay Sampling Sites 2015.csv: Latitude and longitude of 40 sites sampled in June 2015. Site IDs can be used to link locations to water chemistry, physical habitat, and biological community datasets. Includes stream name, or the nearest downstream named stream, in addition to 10-digit hydrologic unit code and name.

phab\_metrics\_2015.csv: Data frame with 357 physical habitat (phab) metrics for 40 sites sampled in 2015. Metrics were calculated using functions in the aquamet library1 for R: channel morphology, fish cover, large woody debris, slope bearing, residual pools, substrate characterization, bed stability, canopy densiometer, channel habitat, riparian vegetation. Field sampling methods for transect and site level measurements used as inputs to the aquamet functions are described in *Shaftel et al. 2019 Monitoring Stream Habitats and Biological Communities - Lime Hills Bristol Bay.pdf*.

NRSA\_Physical\_Habitat\_Metric\_Descriptions.pdf: Descriptions of the physical habitat metrics that can be calculated using functions in the aquamet library[[1]](#footnote-1) for R for both boatable and wadeable streams.

water\_chemistry\_2015.csv: Water chemistry data collected at 40 sites in June 2015. Samples were analyzed for dissolved and total metals, major ions, and nutrients. In-situ parameters were also collected and include pH, dissolved oxygen, specific conductance, and temperature. Field and laboratory methods and quality assurance procedures can be found in the report, *Hagedorn et al. 2020 Water Quality Evaluation of Streams - Lime Hills Bristol Bay.pdf*, also posted to the Data Catalog. Parameter names are found in the variable column and units and detection limits (LOD) are provided for each sample value. A qualifier field indicates if the sample was below the level of detection: U (below detection limit), NA (above detection limit).

BB Diatoms 2015-2018 QCd 09292020.xlsx: diatom results from field samples collected from 2015 to 2018. Forty sites were sampled in 2015 and 10 of the original 40 sites were sampled annually from 2016-2019. This workbook provides relative abundances for macroinvertebrates from samples through 2018. A metadata worksheet describes all fields in the data worksheet. Field sampling methods and laboratory identification methods are described in *Shaftel et al. 2019 Monitoring Stream Habitats and Biological Communities - Lime Hills Bristol Bay.pdf*.

BB Inverts 2015-2018 QCd 09292020.xlsx: benthic macroinvertebrate results from field samples collected from 2015 to 2018. Forty sites were sampled in 2015 and 10 of the original 40 sites were sampled annually from 2016-2019. This workbook provides abundances and densities for macroinvertebrates from samples through 2018. A metadata worksheet describes all fields in the data worksheet. Field sampling methods and laboratory identification methods are described in *Shaftel et al. 2019 Monitoring Stream Habitats and Biological Communities - Lime Hills Bristol Bay.pdf*.

***Project reports***

Woody et al. 2014. Long-Term-Monitoring-Plan-for-Nushagak-Kvichak-Headwaters.pdf: Original monitoring plan used to develop project objectives, study area, target population and study design, sampling indicators, field methods, and data analysis plan.

Hagedorn et al. 2020 Water Quality Evaluation of Streams - Lime Hills Bristol Bay.pdf: Description of field and laboratory methods used to collect and analyze water chemistry data from June 2015. Final report summarizes exceedances of water quality standards, interannual variability in water chemistry using historical data, differences in water chemistry between small and large wadeable streams, and possible mineralized locations in the study area based on the water chemistry data. Report was submitted to the Alaska Department of Environmental Conservation in January 2020.

Shaftel et al. 2020 Monitoring Stream Habitats and Biological Communities - Lime Hills Bristol Bay.pdf: Description of study design used to select probabilistic sites sampled in 2015 in addition to field methods for water chemistry, physical habitat, and biological community sampling (benthic macroinvertebrates, diatoms, and fish). Data analysis includes summary of current conditions of stream physical habitat, water chemistry, fish, macroinvertebrates, and diatoms using data from probabilistically-selected sites sampled in 2015; and selection of monitoring indicators that can be used to detect future changes from climate change and mineral development. A report submitted to the U.S. Fish and Wildlife Service as part of a project funded by the Southwest Salmon Habitat Partnership.

1. Seeliger, C. W., Blocksom, K. A., and Kincaid, T. M. (2014). aquamet: Aquatic Metrics Calculation. R

 package version 2.4. URL: http://www.epa.gov/nheerl/arm/. [↑](#footnote-ref-1)