DATA

Regardless of whether you are a scientist, teacher, student, journalist, or anyone else, **we hope that Polaris Project data will be useful to you**.

To encourage use of Polaris Project data, we strive to make it readily available in a variety of formats. We only ask that you credit the Polaris Project, our website, and our primary funder (National Science Foundation) in any publications or presentations that result. Though not required, we would also appreciate an email detailing how the data will be used.

Polaris Project data can be tabular, spatial, or both. Links are provided below. The Polaris Project ArcGIS Online homepage highlights interactive maps of Polaris spatial data and also allows data download and connections via Esri's Desktop and Server GIS software for mapping and analysis purposes.

AQUATIC SURVEY

The flow of water connects terrestrial uplands to lakes, streams, rivers, estuaries, and finally the coastal ocean. Water also transports carbon, nutrients, and other compounds from land to ocean. And finally, processes occurring in aquatic ecosystems transform and process the constituents as they flow from land to ocean.

To help establish the magnitude of these fluxes and transformations, and to provide background data against which to compare future changes, the Polaris Project annually conducts a broad survey of surface water chemistry in the Kolyma River watershed. This activity began in 2008 (Year 1 of the Polaris Project) and has continued since then, with the protocols becoming gradually more formalized in order to facilitate comparison across years.

Here we present a unified spreadsheet containing Aquatic Survey data from 2011 and 2012. We also present the Sample Collection and Sample Processing protocols for 2011 and 2012. We are in the process of reviewing and standardizing datasets from earlier years, as well as preparing details of analytical methods.

Polaris Aquatic Survey Dataset *[updated October 26, 2012]*

Sample COLLECTION Protocol 2011

Sample PROCESSING Protocol 2011

Sample COLLECTION Protocol 2012

Sample PROCESSING Protocol 2012

TERRESTRIAL SURVEY

Terrestrial ecosystems in the Arctic store large pools of carbon, which are at risk of being transferred to the atmosphere as greenhouse gasses as the climate warms. In order to understand future changes in carbon storage, we first need to estimate the current size of these pools. The objective of the Terrestrial Survey is to measure carbon stocks in vegetation, thawed soils, and permafrost in the Kolyma watershed. This survey supports our overarching goal of quantifying the transport and transformation of carbon among terrestrial and aquatic components of the watershed and between the biosphere and atmosphere. Data collected as part of this survey will be tied into satellite imagery that covers a much wider footprint than we will directly measure. We also will link terrestrial stocks of carbon and nutrients to biogeochemical processes we measure in lakes, streams, and rivers.

Polaris Terrestrial Survey Dataset *[updated March 24, 2015]*

Terrestrial Survey Field Protocol 2012

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