

Data Release Report: Water Chemistry and Macroinvertebrates Dataset, Northern Alaska

National Park Service

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Summary

Open-water areas that persist along rivers and lakes during arctic winters can be considered “islands” of open-water embedded within a frozen land. These open-water islands are associated with areas of groundwater inflow, and as a result exhibit relatively stable thermal regimes throughout the year. Their persistence is vital to the fitness and survival of many arctic organisms; thus, these habitats are an invaluable part of GAAR ecosystems. As the arctic climate continues to warm, altering regional as well as local hydrologic regimes, the persistence and ecological functioning of these open-water habitats may be altered dramatically. Researchers have documented the disappearance of many small, high-latitude lakes; however, our knowledge of the quantity and extent of open-water habitats remains scarce. Our objective was to collect baseline water-quality data and document the quantity and extent of these open-water islands and their association with stands of cotton wood and poplar during the winter. This dataset consists of water quality and macroinvertebrate data collected from sites in northern Alaska on May 1, 2007.

Files In This Release

This data release consists of a single file containing 4 records:

Water Quality and Macroinvertebrate Data Northern Alaska 2007.csv

Data Columns

Column	Data Type
ABR Sample Code	character
Site Name	character
Sample Date	numeric
Date	Date
waypoint from air	numeric
Latitude	numeric
Longitude	numeric

Column	Data Type
Winter landing site?	character
Time	character
Temperature C	numeric
sp cond ms/cm	numeric
DO mg/L	numeric
pH	numeric
bryophyte cover %	character
Substrate notes	character
sample notes	character
misc notes notes	character
Animal tracks	character
Weather	character
Width (m)	numeric
Depths (m) at evenyl spaced distances	numeric
Seconds	numeric
Distance (m)	numeric
Velocity (m/s)	numeric
m ³ /s	numeric
# surbers	numeric
area sampled (m ²)	numeric
# Grids Sorted (of 30)	numeric
(#/m ²)	numeric
Richness	numeric
Turbellaria	numeric
Nemata	numeric
Oligochaeta	numeric
Ostracoda	numeric
Trombidiformes	numeric
Baetis bicaudatus	numeric
Cinygmula spp.	numeric

Column	Data Type
Capnia sp.	numeric
Plumiperla sp.	numeric
Podmosta sp.	numeric
Prostoia sp.	numeric
Zapada Oregonensis Gr.	numeric
Arcynopteryx sp.	numeric
Apatania sp.	numeric
Pericoma sp.	numeric
Dicranota sp.	numeric
Cheatocladius sp.	numeric
Diamesa sp.	numeric
Diplocladius sp.	numeric
Eukiefferiella sp.	numeric
Hydrobaenus sp.	numeric
Micropsectra sp.	numeric
Orthocladius/Cricotopus Complex	numeric
Pagastia sp.	numeric
Pseudodiamesa sp.	numeric
Rheocricotopus sp.	numeric
Thienemanniella sp.	numeric
Unknown Orthocladiinae	numeric
total counted	numeric

Keywords

Temperature C, sp cond ms/cm, DO mg/L, pH, bryophyte cover %, Width (m), Depths (m), Velocity (m/s), Richness, Turbellaria, Nemata, Oligochaeta, Ostracoda, Trombidiformes, Baetis bicaudatus, Cinygmula spp., Capnia sp., Plumiperla sp., Podmosta sp., Prostoia sp., Zapada Oregonensis Gr., Arcynopteryx sp., Apatania sp., Pericoma sp., Dicranota sp., Cheatocladius sp., Diamesa sp., Diplocladius sp., Eukiefferiella sp., Hydrobaenus sp., Micropsectra sp., Orthocladius/Cricotopus Complex, Pagastia sp., Pseudodiamesa sp., Rheocricotopus sp., Thienemanniella sp., Unknown Orthocladiinae

Map

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Warning in CPL_read_ogr(dsn, layer, query, as.character(options), quiet, : GDAL
Error 1: Corrupted .shp file : shape 262 : nEntitySize = 8
```

