



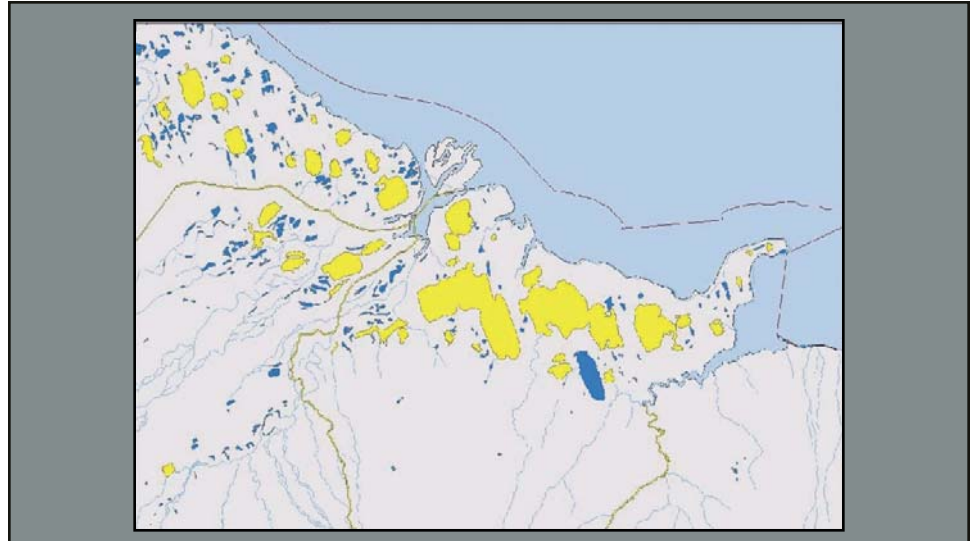
U.S. Fish & Wildlife Service

AQUABASE - Aquatic GIS Geodatabase

Fairbanks Fish & Wildlife Field Office

There is a need to compile the plethora of aquatic literature on the north slope of the Arctic National Wildlife Refuge (Refuge) in a useful, concise form so land managers, biologists, and project planners can access all the pertinent data relating to their individual needs. With this in mind, a user-friendly, map-based reference system, AQUABASE, is being developed.

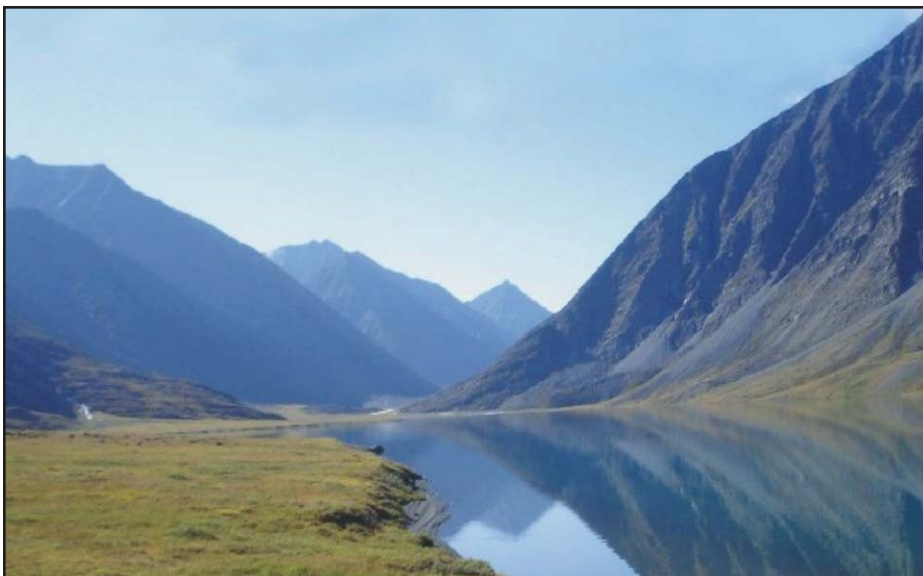
AQUABASE is a geodatabase that links freshwater fish and hydrological information with referenced waterbody locations. Presently, the geospatial region covered is Alaska's eastern North Slope, between the Canning River (west) and USA/Canada border (east). All the region lies within the Refuge. Waterbodies include freshwater lakes, rivers, and springs. Each waterbody relates to a series of standalone database tables containing detailed fisheries life history and hydrological data, full references to scientific publications, and hyperlinks to scientific publications in Adobe



Aquabase GIS-based map display. Yellow colored water bodies have biological and hydrological linked data, blue colored waterbodies have no previous data collected.



Lake trout are found in deep clear lakes along the north slope and Brooks Range.



Peters/Schrader Lakes, Brooks Range, ANWR.

PDF format. Currently, there are 283 water bodies linked to specific references and aquatic data. Some of these water bodies are highlighted in light green on the map above.

Land managers, resource planners, and biologists will benefit from the easy data access, visual data displays, and waterbody-linked references. These data will be available through either a server-based Arc-Server map or a portable DVD. No additional software will be needed to read and interact with the database. Users can quickly access all published aquatic data on any specific waterbody. Data gap analysis can

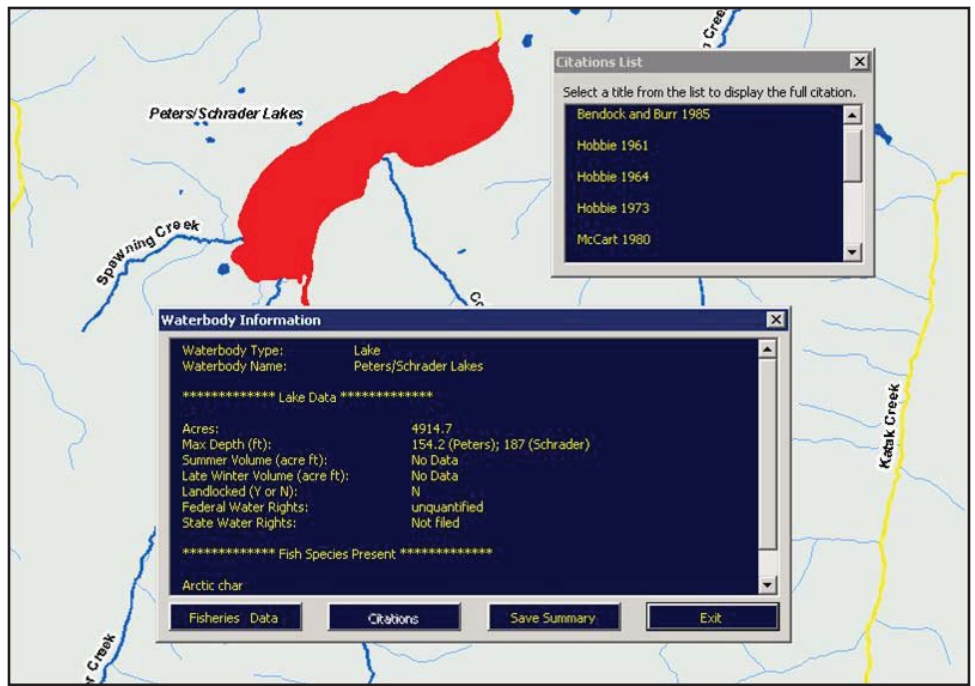


Arctic grayling are mostly found in rivers.

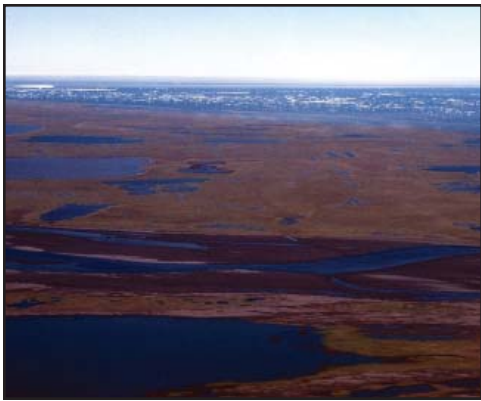


Dolly Varden char are found in rivers, lakes, and spring areas.

be performed with a minimum of additional effort since missing data areas are easily displayed on the geo-referenced map. Yearly updates will be performed to keep the database current.



Data display of summary hydrological data and reference list for Peters/Schrader Lakes.



Canning River Delta with Beaufort Sea and coastal lagoon in background.



Land-locked lakes on the coastal plain of Arctic National Wildlife Refuge.



Itkilyariak Creek, typical braided coastal plain creek draining north into the Beaufort Sea.



The Kongakut is a large river originating in the Brooks Range of ANWR.



Shublik Spring is a large spring that flows into the Canning River.