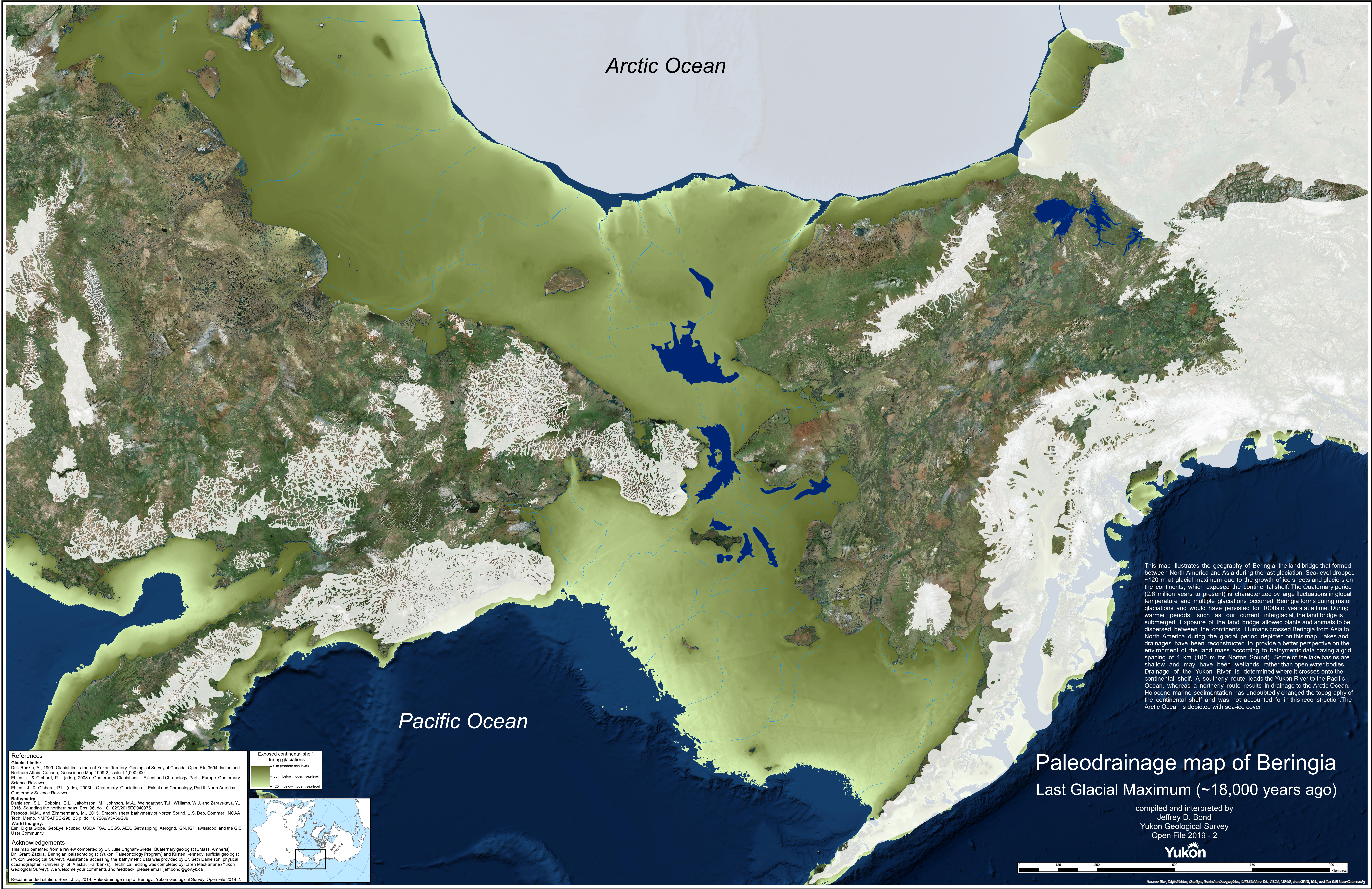




Arctic Ocean

Pacific Ocean

This map illustrates the geography of Beringia, the land bridge that formed between North America and Asia during the last glaciation. Sea-level dropped ~120 m at glacial maximum due to the growth of ice sheets and glaciers on the continents, which exposed the continental shelf. The Quaternary period (2.6 million years to present) is characterized by large fluctuations in global temperature and multiple glaciations occurred. Beringia forms during major glaciations and would have persisted for 1000s of years at a time. During warmer periods, such as our current interglacial, the land bridge is submerged. Exposure of the land bridge allowed plants and animals to be dispersed between the continents. Humans crossed Beringia from Asia to North America during the glacial period depicted on this map. Lakes and drainages have been reconstructed to provide a better perspective on the environment of the land mass according to bathymetric data having a grid spacing of 1 km (100 m for Norton Sound). Some of the lake basins are shallow and may have been wetlands rather than open water bodies. Drainage of the Yukon River is determined where it crosses onto the continental shelf. A southerly route leads the Yukon River to the Pacific Ocean, whereas a northerly route results in drainage to the Arctic Ocean. Holocene marine sedimentation has undoubtedly changed the topography of the continental shelf and was not accounted for in this reconstruction. The Arctic Ocean is depicted with sea-ice cover.

Paleodrainage map of Beringia

Last Glacial Maximum (~18,000 years ago)

compiled and interpreted by
Jeffrey D. Bond
Yukon Geological Survey
Open File 2019 - 2



Source: SRTM, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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