A new website for identification of late Pleistocene to early Holocene marine organisms from the Gastineau Channel Formation, a glaciomarine diamicton underlying the City and Borough of Juneau, Alaska.

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Beginning about 13,000 years ago, the Late-Pleistocene to Early Holocene Gastineau Channel Formation (GCF) was deposited as retreating glaciers calved bergs into newly inundated fjords following rising sea level in the Juneau area. The three facies of this formation contain ice-rafted debris dumped into bluish-gray marine silt and sand. These sediments provide the matrix that contains early Holocene marine mollusks, barnacles and foraminiferans. Radiocarbon analyses of GCF marine shells have yielded ages between 10,000 to 12,000 years ago (Miller, 1973, 1975). This glaciomarine diamicton is exposed throughout the Juneau area at elevations up to 230m and suggests that Last Glacial Maximum (LGM) ice-loading, locally depressed the crust well below the worldwide sea level drop of -120m.

Thilenius and Connor have sampled the GCF throughout the region, identified faunal constituents and reconstructed their distributions and ranges. Taxonomic keys were created and linked with photomicrographs to facilitate web-user identification of samples and for comparison of faunal constituents from other early Holocene fjord deposits elsewhere in the region. Bleidorn, and Knuth created a new GIS map that provides site location data, early Holocene inundation visualization, and the areal extent of the facies in the GCF. They built the web pages for this site and Orlikowska facilitated the online access for this information. The site will enable web visitors to key out species, locate invertebrate-rich outcrop locations, navigate through GCF stratigraphy, radiocarbon information, and learn about the areal extent of these uplifted fjord sediments.

It is hoped that this will be provide a useful tool and easily accessible source of information for researchers working on Quaternary sedimentary records of climate variability in the region.