

Fish Inventory of the Bering Glacier Region

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Resident freshwater and anadromous species pairs of threespine sticklebacks (*Gasterosteus aculeatus* species complex) in lakes are known to exist only in the Azabachije Lake basin in Kamchatka, in Lake Sana in the Kuril Islands, in three lakes on Hokkaido Island, and in Mud Lake, Alaska. We discovered such pairs in three new lakes (Vitus, Midtimber, and unnamed), a stream/wetland complex (Tsiu), and two rivers near the Bering Glacier, Alaska. The Bering Glacier is the largest glacier in the world outside of Greenland and Antarctica and the largest surging glacier on Earth. Its surges are accompanied and ended by massive glacial outburst floods, which together with high suspended sediment loads, tidal influx, supercooled water, and constantly changing flow regimes create unmatched dynamics in the surrounding lakes and streams. This is the first report of a stickleback species pair in a proglacial lake (Vitus), a lake that did not exist 100 years ago. These species pairs may have arisen through sympatric speciation, double invasion by anadromous sticklebacks, or independent colonization by resident freshwater and anadromous forms.

