Discharge and sediment load from a subarctic river basin: the Tanana River, Alaska

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The time series of discharge and sediment load from the subarctic Tanana River basin, Alaska, were simulated by a tank model. As a result, the simulations are reasonable, and hence, the contributions of glacier-melt runoff and glacier-melt sediment runoff to the Tanana discharge and sediment load were quantified at 26 - 57 % and 76 - 94 %, respectively.

Keywords: Glacier-melt runoff, sediment load, POC, PON, Permafrost, Snowmelt runoff