



Monthly observations of total organic carbon (TOC) and alkalinity in the stream at the outlet of the catchment were available from 1987–2006 through the Swedish University of Agricultural Sciences (SLU) Department of Environmental Assessment.

Seasonal variation of stream water alkalinity and total organic carbon (TOC) for the Abiskoajokken catchment based on 20 years of observation (1987–2006). Black stars for the 20-year monthly average values and the vertical black bars show one standard deviation. Grey points show all monthly observations. Alkalinity peaks in value during winter periods (January to March). The winter peak of alkalinity in stream water chemistry indicates that winter stream flows are maintained by water coming from deeper inorganic aquifers as alkalinity is a proxy for weathering. Counter to this, TOC has a large peak in response to spring floods (May) with a secondary peak (and increased standard deviation across the 20 years of sampling) occurring in August–September. The increase in TOC during the spring and summer indicates that stream flow during this period of time is being dominated by a shallow subsurface flow maintained in soil layers that are richer in organic matter than deeper aquifers.