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Supplement of

Are dissolved organic carbon concentrations in riparian groundwater linked to hydrological pathways in the boreal forest?

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Supplementary Materials:

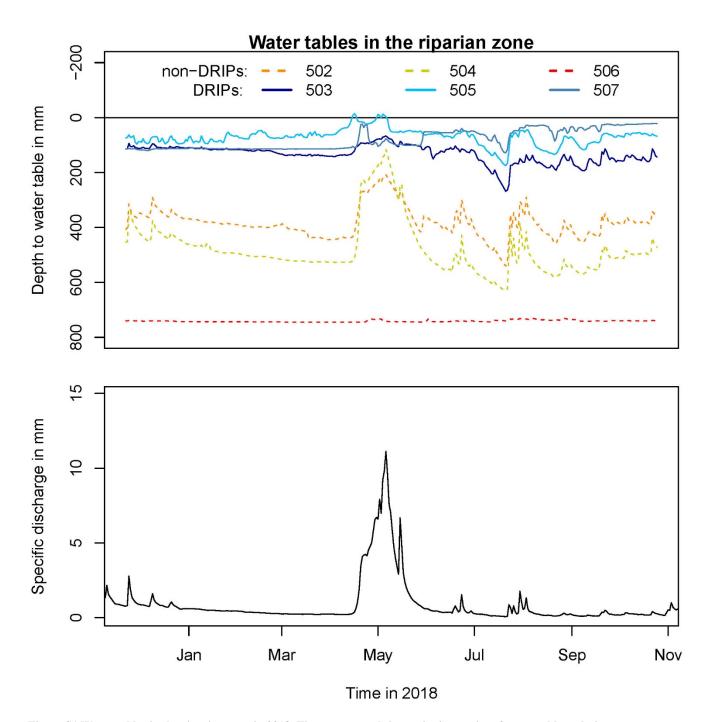


Figure S1 Water tables in the riparian zone in 2018. The upper panel shows six time series of water tables relative to the surface. Non-Drips are represented in orange, yellow and red dotted lines (well numbers 502, 504, 506). In the three shades of blue DRIP wells are demonstrated (wells 503, 505, 507). All wells were in a 5 meter distance from the stream, mostly within the first 2 meters. In the second panel specific discharge is presented over the same period. This is the discharge from the riparian zone, based on two gauging stations upstream (C5) and downstream (C6) of

the stream reach.

Figure S2 Photograph of a DRIP in July 2017 by Stefan Ploum

Preliminary analysis of DRIPs across the Krycklan catchment:

For the preliminary analysis of DRIP coverage across the Krycklan catchment the following approach was followed:

The stream network was defined by a 10 ha flow initiation threshold using a 2 meter DEM. Then a DRIP network was defined using a 2 ha initiation threshold. Each point where the 2 ha stream network was incorporated in the 10 ha network, was considered as a DRIP site. The area of the catchment was 62 km². The contributing area of the DRIPs was 35.34 km², which is 57 % of the catchment area. The total length of the stream network was 162.5 km. We considered the total length of both sides of the stream as the riparian zone, which was 325 km. The total length of stream banks where DRIPs flow into the stream network was 20.75 km, when assuming a width of 25 meters for each DRIP (n=830). The total area of DRIPs was 12.8% of the total length of stream banks of the 10 ha stream network.