

Supplementary Information

Table S1. Chronology data for each site (bog/fen) and species (black spruce/alder/birch/willow) with sample depth (referring to the number of samples per chronology), mean ring size (in mm) and the interseries correlation value (a measure of how synchronous ring measurements are between years). These chronologies run from 2008-2017.

Site	Location	Species	Sample depth	Mean ring size (mm)	Interseries correlation
Bog	Upstream	Black spruce	34	0.182	0.225
Bog	Downstream	Black spruce	118	0.215	0.287
Bog	Reference	Black spruce	35	0.283	0.190
Fen	Upstream	Alder	67	1.546	0.221
Fen	Downstream	Alder	47	1.646	0.266
Fen	Reference	Alder	10	1.495	0.044
Fen	Upstream	Birch	56	1.479	0.136
Fen	Downstream	Birch	28	1.683	0.355
Fen	Reference	Birch	11	1.743	0.067
Fen	Upstream	Willow	68	1.046	0.103
Fen	Downstream	Willow	56	1.227	0.257
Fen	Reference	Willow	10	1.343	0.001