

### **Description of Additional Supplementary Information**

**Supplementary Data 1.** Total Hg and Hg stable isotope data for Supplementary Fig. 1-3 in the Supplementary Information section.

**Supplementary Data 2.** Total Hg and Hg stable isotope composition measured in this study. Total Hg is per wet weight for biota tissue and dry weight for peat. Abbreviations used: ISO=Isortoq; QEQ=Qeqertarsuaq; QAA=Qaanaaq; ITT=Ittoqqortoormiit; ZAC=Zackenberg. Mdn=Median. Q1 and Q3=1st and 3rd quartile.