

Description of Additional Supplementary Files

File name: Supplementary Data 1. *Soil respiration from boreal to tropical peatlands.*

Description: The dataset was compiled from 36 published studies that contain annual mean soil respirations observed in over 200 locations globally across latitudes between 2°S and 75°N.

File name: Supplementary Data 2. *Mean relative abundance of OTUs.*

Description: Mean relative abundance of the (OTU relative abundance >0.1%) from ITS4 primer in the subtropical shrub-dominated and the boreal *Sphagnum*-dominated peatlands. The relative abundance > 1% are indicated in Bold.