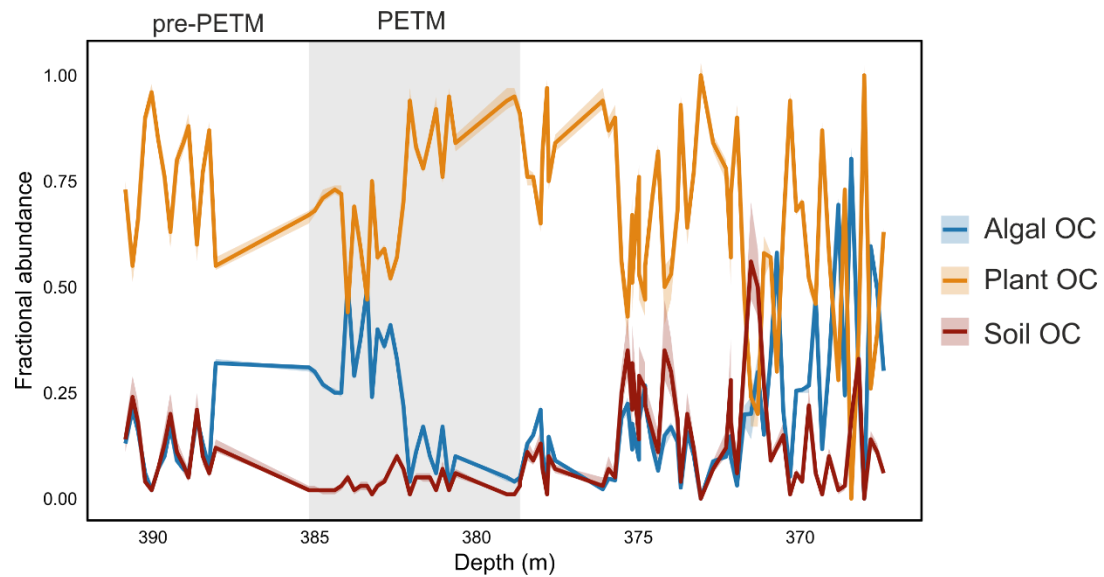
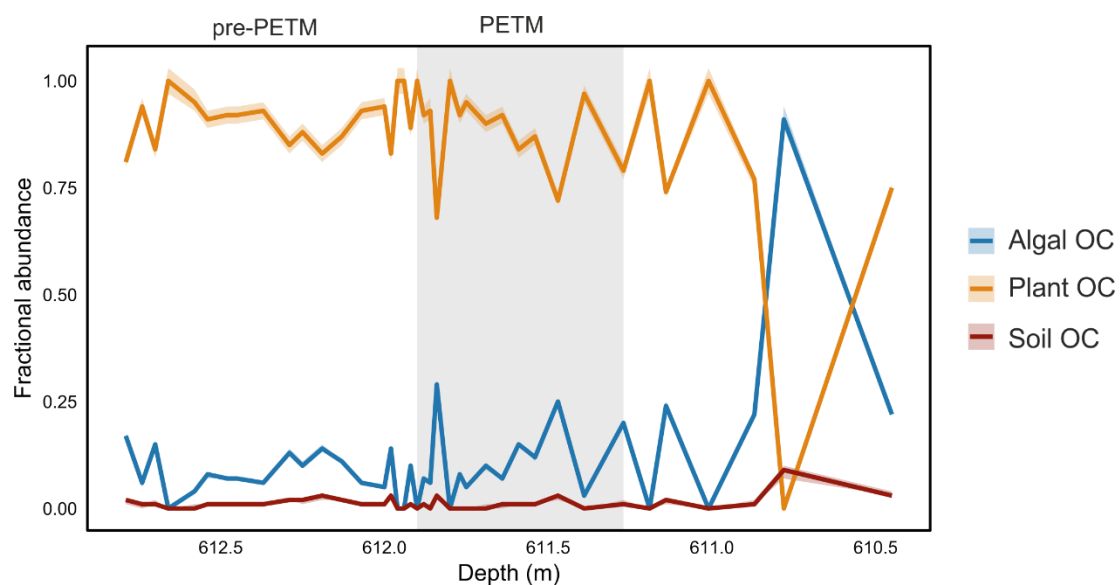


Supplementary Data:

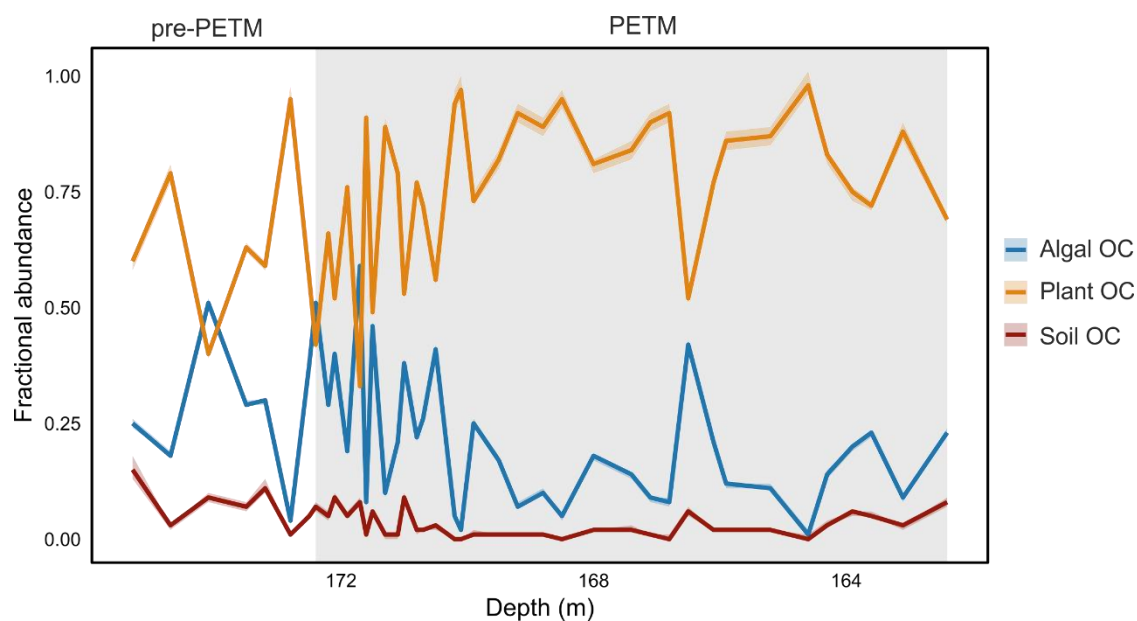
Extended Data Fig. 1: Fractional abundance of plant (orange), soil (red), and marine OC (blue) in the High Arctic during the Paleocene-Eocene. Error bars represent the 25% and 75% quantiles. Grey bar denotes the PETM onset, body and recovery interval.



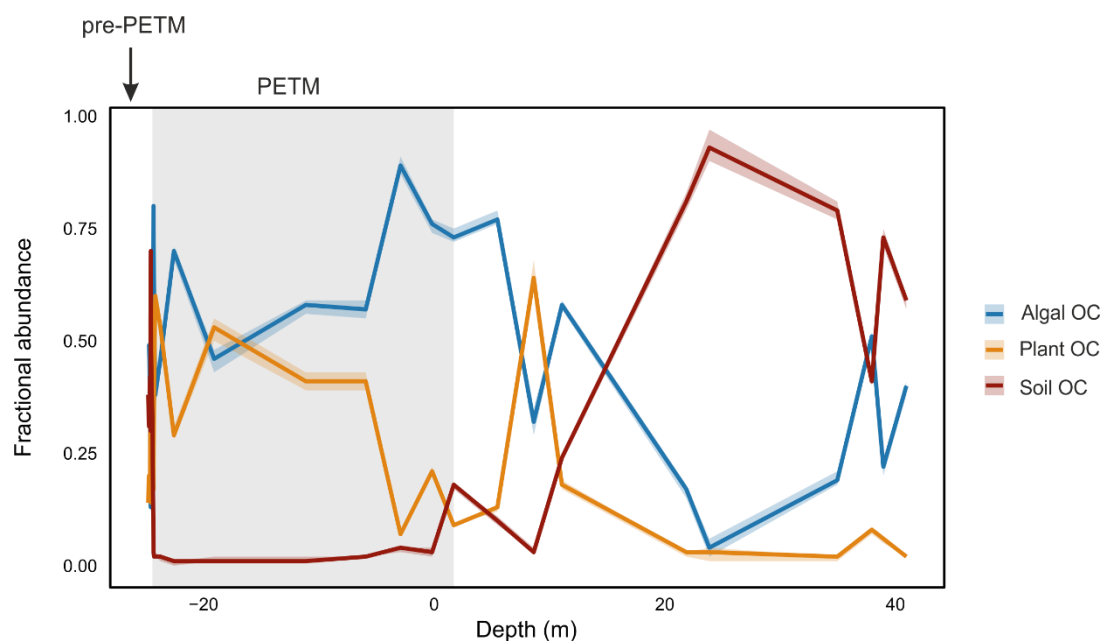
Extended Data Fig. 2: Fractional abundance of plant (orange), soil (red), and marine OC (blue) in the Tasman Sea during the Paleocene-Eocene. Error bars represent the 25% and 75% quantiles. Grey bar denotes the PETM onset, body and recovery interval/



Extended Data Fig. 3: Fractional abundance of plant (orange), soil (red), and marine OC (blue) in the New Jersey Margin during the Paleocene-Eocene. Error bars represent the 25% and 75% quantiles. Grey bar denotes the PETM onset, body and recovery interval.



Extended Data Fig. 4: Fractional abundance of plant (orange), soil (red), and marine OC (blue) in Denmark during the Paleocene-Eocene. Error bars represent the 25% and 75% quantiles. Grey bar denotes the PETM onset, body and recovery interval.



Extended Data Fig. 5: Fractional abundance of plant (orange), soil (red), and marine OC (blue) in Tanzania during the PETM and earliest Eocene. Error bars represent the 25% and 75% quantiles. Grey bar denotes the PETM onset, body and recovery interval.

