

Supplementary Information for

Multi-proxy evidence for sea level fall at the onset of the Eocene-Oligocene transition

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This file includes:

Figures S1 to S3 and captions

Figure S1. Multi-proxy records from the Mossy Grove Core (MGC) in depth and age domains: Total organic carbon, carbonate fine-fraction (<20 μm) $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ records, and selected indicator of continental influence – sporomorph-to-dinocyst ratio. Key: epoch – Pleistocene (Pl.); lithostratigraphic units – Forest Hill (FH), Moodys Branch Formation (MB), Cockfield Formation (Cf).

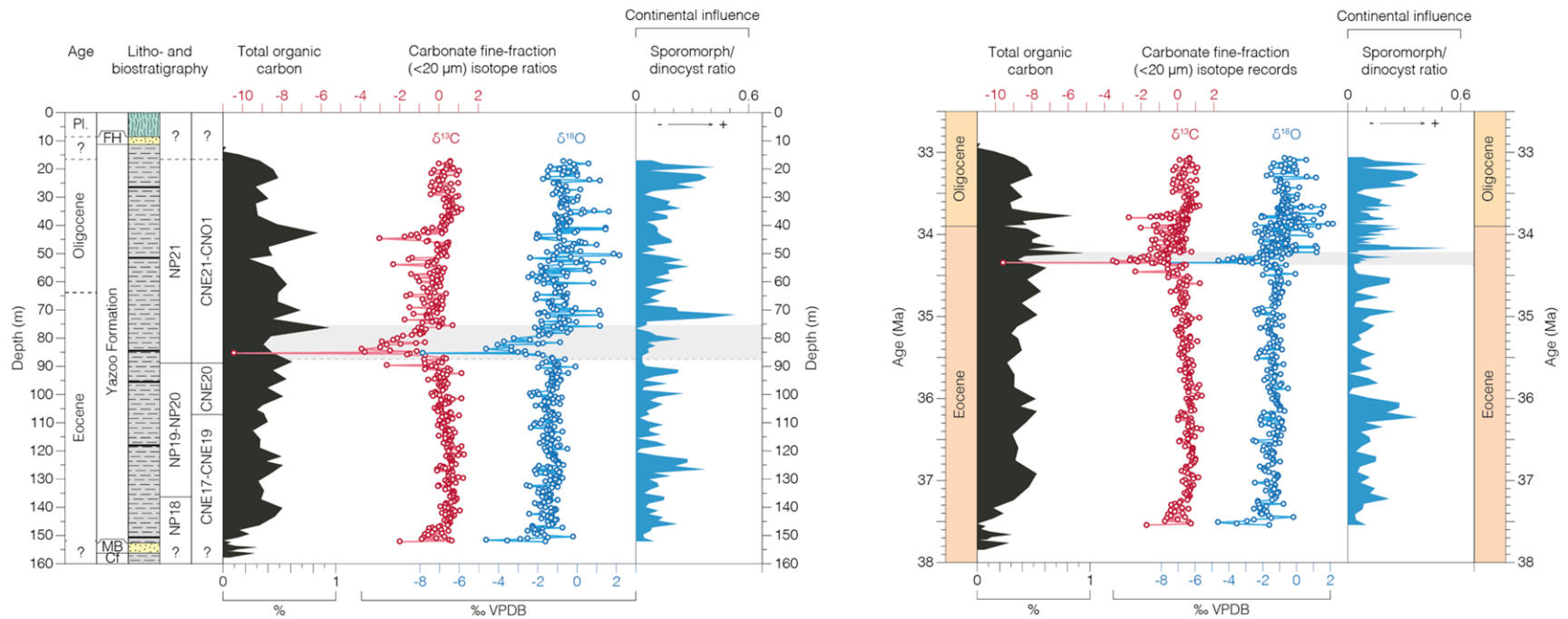


Figure S2. Microscopic images of *Cibicidoides* sp. (1, 2, 5) and *Uvigerina jacksonensis* Cushman (3, 4, 6) from sample MGC98 (29.9 m: 33.52 Ma): 1-3: scanning electron microscope (SEM) image of individual specimens; 4: SEM image of the specimen with cut off apical end; 5-6: optical microscopic image under reflected light. Scale bars: 100 μ m.

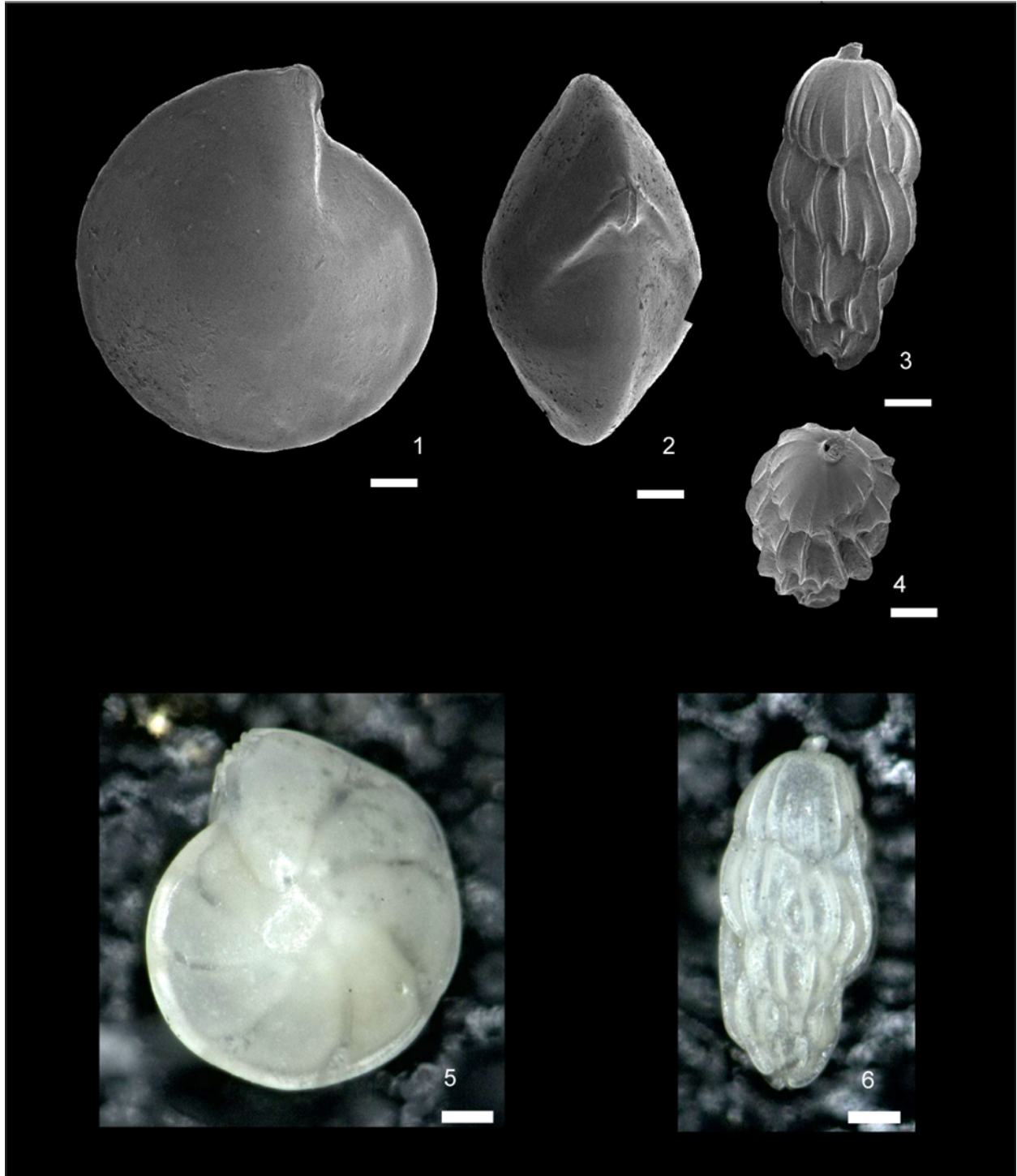


Figure S3. Simplified $\delta^{13}\text{C}$ curve across the negative isotope excursion (NIE; top), the respiration rates of organic carbon required by cGENIE to produce this NIE in marine dissolved inorganic carbon (DIC; middle), and global mean carbonate saturation horizon (CSH) depth changes simulated in response to the carbon respiration (bottom).

