Tropical weathering of the Taconic orogeny as a driver for Ordovician cooling

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We agree with Saltzman’s (2017) assessment that “the existing Ordovician δ18O paleotemperature curve is relatively poorly constrained in the interval of changing δ18O and 87Sr/86Sr.” The interpretation put forward by Landin (2018) that the 87Sr/86Sr data of Trotter et al. (2008) show a rise at ca. 460 Ma is neither robust within the uncertainty of the relevant data nor reflective of the inherent variability between samples seen in higher-resolution Silurian data (Trotter et al., 2016; Swanson-Hysell and Macdonald, 2017, our figure 2). Even the more standard interpretation of Ordovician cooling to stasis to cooling based on the Trotter et al. (2008) data is arguably an over-interpretation given these caveats. Improving this proxy record through the Middle to Late Ordovician is a pressing need to advance understanding of this critical interval of Earth history.

REFERENCES CITED


