

Author Correction: Persistent organic matter in oxic subseafloor sediment

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Correction to: *Nature Geoscience* <https://doi.org/10.1038/s41561-018-0291-5>, published online 21 January 2019.

In the version of the Article originally published, incorrect units were used in the sediment thickness grid used in the integration of sedimentary organic carbon content. This mistake resulted in an overestimate of the oxic sedimentary organic carbon reservoir by three orders of magnitude.

Although the size of the carbon reservoir is significantly smaller after correction of the error, our chemical characterization of the hitherto uncharacterized organic carbon, and the proposed mechanisms that account for organic matter preservation, are unaffected. In the abstract, in the sentence “We estimate that up to 1.6×10^{22} g of organic carbon are sequestered on million-year timescales in oxic pelagic sediment, which exceeds current estimates of the total global sediment organic carbon and constitutes an important, previously overlooked carbon reservoir”, the term “ 1.6×10^{22} ” grams has been corrected to “ 1.6×10^{19} ” grams, and the statement “which exceeds current estimates of total global sediment organic carbon and constitutes an important, previously overlooked carbon reservoir” has been changed to “which constitutes an important, previously overlooked carbon reservoir”.

In Fig. 4a,b, the colour scales have been adjusted to cover a range from 10^9 to $10^{11.5}$ g km⁻² of organic carbon in the corrected version, compared to a range from 10^{12} to $10^{14.5}$ g km⁻² of organic carbon in the original version; colours have been modified to maximize clarity of the spatial variability patterns. The maximum point on the scale on Fig. 4c has been corrected from “ 2.0×10^{22} ” g of organic carbon to “ 2.5×10^{19} ” g. The associated values in the table have changed from “ 6.43×10^{21} ” and “ 1.32×10^{22} ” g of depth-integrated organic carbon to

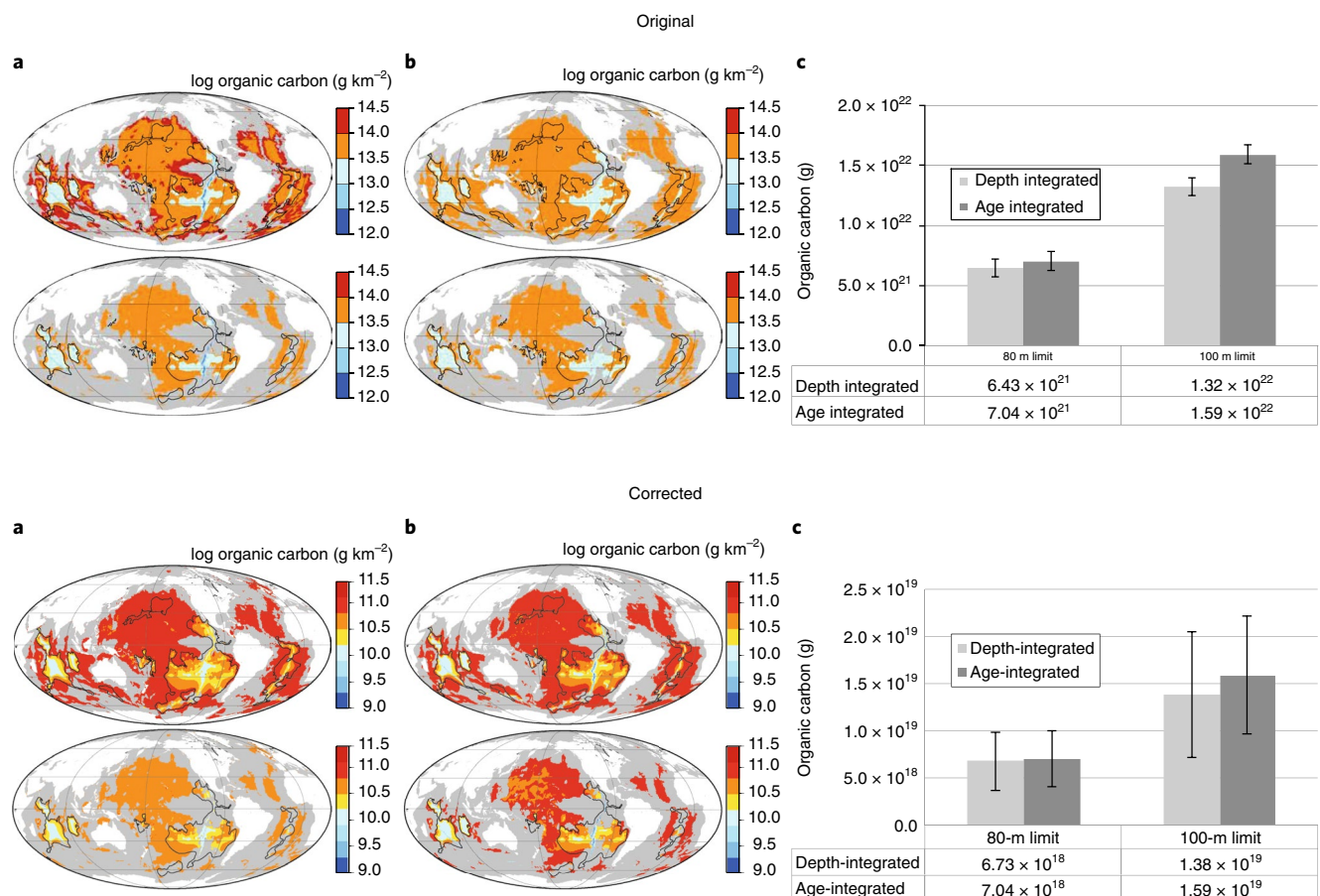


Fig. 4 | Original and corrected.

“ 6.73×10^{18} ” and “ 1.38×10^{19} ” g, respectively, and from “ 7.04×10^{21} ” and “ 1.59×10^{22} ” g of age-integrated organic carbon to “ 7.04×10^{18} ” and “ 1.59×10^{19} ” g, respectively. The figure caption range “ 6.4×10^{21} to 1.6×10^{22} g” has been corrected to “ 6.7×10^{18} to 1.6×10^{19} ”.

In the first two paragraphs of the section “Oxic sediment as a global organic carbon reservoir” the term “ 6.4×10^{21} ” has been corrected to “ 6.7×10^{18} ”; “ 1.6×10^{22} g” has been corrected to “ 1.6×10^{19} g”; “~50–120%” has been corrected to “~0.05–0.1%”; “Consequently, organic carbon preserved in oxic pelagic sediment globally has been greatly underestimated by previous studies” has been corrected to “Consequently, oxic pelagic sediment globally is an important, stable reservoir for organic carbon”. The sentence “Thus, our calculation implies that sediment globally sequesters substantially more organic carbon than previously considered” has been removed. The text “Previous estimates were primarily concerned with the reservoir of organic carbon in surface sediment” has been corrected to “Previous estimates of sediment organic carbon preservation have been primarily concerned with the reservoir of organic carbon in surface sediment”. The text “Our integration extends the sediment depth and timescale” has been corrected to “Our study and integration extends the sediment depth and timescale”.

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