



Corrigendum to

“On mode water formation and erosion in the Arabian Sea: forcing mechanisms, regionality, and seasonality” published in Ocean Sci., 21, 1349–1368, 2025

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Published: 30 October 2025

We regret to have found an error in the computation of the oxygen content presented in Sect. 4.2 in our paper entitled “On mode water formation and erosion in the Arabian Sea: forcing mechanisms, regionality, and seasonality” (Ocean Sci., 21, 1349–1368, <https://doi.org/10.5194/os-21-1349-2025>, 2025). Specifically, we integrated the oxygen mass concentration instead of the oxygen volume concentration, which led to an underestimation of the oxygen content by approximately a factor of 1000. The scientific interpretation and conclusions of the paper remain unchanged. This correction affects the left axis of Fig. 9a as well as the quantification given on page 1361, which should be revised as follows: “The maximum MW oxygen content in the Arabian Sea is found during spring when the MWL is thickest, contributing a total of 31 ± 9 Tmol, which is 17 ± 5 % of the total upper-ocean content (Fig. 9a). . . . In the southern Arabian Sea, during spring, the MW contribution is 15 ± 4 % due to its shorter duration and thinner MWL (Figs. 3, 7b, and 9a, d) (. . .) After the summer monsoon, MWs formed in the southern Arabian Sea are the primary contributors to oxygen content (5 ± 4 %; Fig. 9f).”.

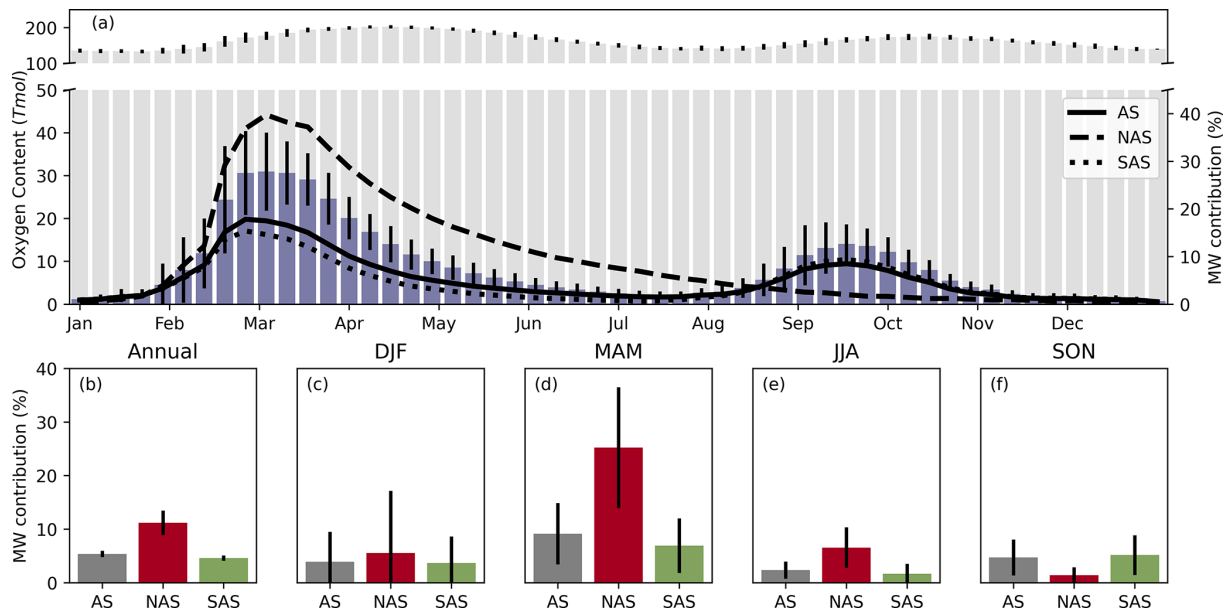


Figure 9. Mode water contribution to the subsurface oxygen content of the Arabian Sea. **(a)** Climatological average of the oxygen content below the surface mixed layer and up to 250 m in the Arabian Sea (grey bars), together with the contribution of the MWL (blue bars) from the 3D MOM4p1–TOPAZ. The vertical bars show the standard deviation across the basin. The lines depict the percentage of the contribution of MW to the total upper-ocean oxygen content – excluding the surface mixed layer – for the Arabian Sea (solid line), northern Arabian Sea (dashed line), and southern Arabian Sea (dotted line). **(b)** Annual and **(c–f)** seasonal MW contributions to the oxygen content below the surface mixed layer for the Arabian Sea (grey), northern Arabian Sea (red), and southern Arabian Sea (green).