

## ***Interactive comment on “Fast local warming of sea-surface is the main factor of recent deoxygenation in the Arabian Sea” by Zouhair Lachkar et al.***

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The findings of the paper are interesting. However, two relevant papers we found missed in citing in this work, as follows.

Sreeush M. G., R. Saran, V. Valsala, S. Pentakota, K.V. S.R. Prasad, R. Murtugudde Variability, trend and controlling factors of Ocean acidification over Western Arabian Sea upwelling region, 2019, Marine Chemistry doi.org/10.1016/j.marchem.2018.12.002

Praveen, V., V. Valsala, R. Ajayamohan, and S. Balasubramanian Oceanic mixing over

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northern Arabian Sea in a warming scenario: Tug of war between wind and buoyancy forces. *Journal of Physical Oceanography*, <https://doi.org/10.1175/JPO-D-19-0173.1>

In the first one, the paper addresses trends in Arabian Sea acidification over 50 years, which in the present paper, the acidification is mentioned relating to the DO trends. The above paper could be mentioned/cited as that is the first-ever paper available which looks at long-term trends in the Arabian Sea acidification.

In the second paper above, the increase in winds (as mentioned in this paper too) how it impacts the ocean mixing due to counteracting forcing of buoyancy and production is discussed. The wind intensified deoxygenation found north of 20N in this paper is worth pointing out in view of the above paper which exclusively discussed the mechanistic point of view of with exhaustive downscaling modeling of CMIP-5 boundaries. The paper is also worth mentioning/citing too.

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Interactive comment on *Biogeosciences Discuss.*, <https://doi.org/10.5194/bg-2020-325>, 2020.

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