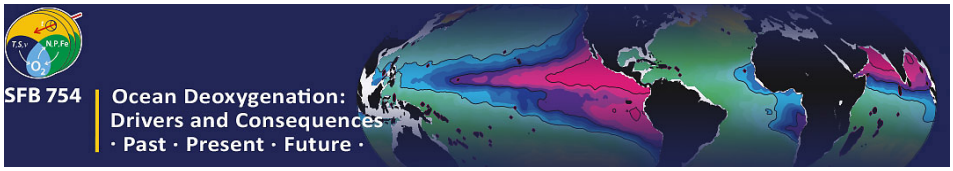

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On Nearshore hypoxia and oxygen ventilation in the Eastern tropical North Atlantic

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Among the eastern boundary systems, the Eastern tropical North Atlantic (ETNA) has the least extreme deoxygenation condition, both in terms of OMZ geographical extent and also of oxygen depletion level. On the other hand, the vertical structure of the oxygen distribution is such that low hypoxic values are found at ~ 100 m depth offshore of Senegal and Mauritania. This depth is approximately where the source waters for coastal upwelling are drawn from. In this presentation, the importance of these low oxygen concentrations values for the West African shelf ecosystems will be discussed briefly. Subsequently, elements of the offshore and continental slope circulation will be presented to clarify the ventilation context associated with the ETNA shallow hypoxic conditions. Owing to scarcity of in situ data in part of the ETNA, we will mainly rely on a model simulation to do so (albeit after careful evaluation against available observations).

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