



Supplement of

Climatology and annual cycle of global ocean dissolved oxygen represented by multiple observational gridded products

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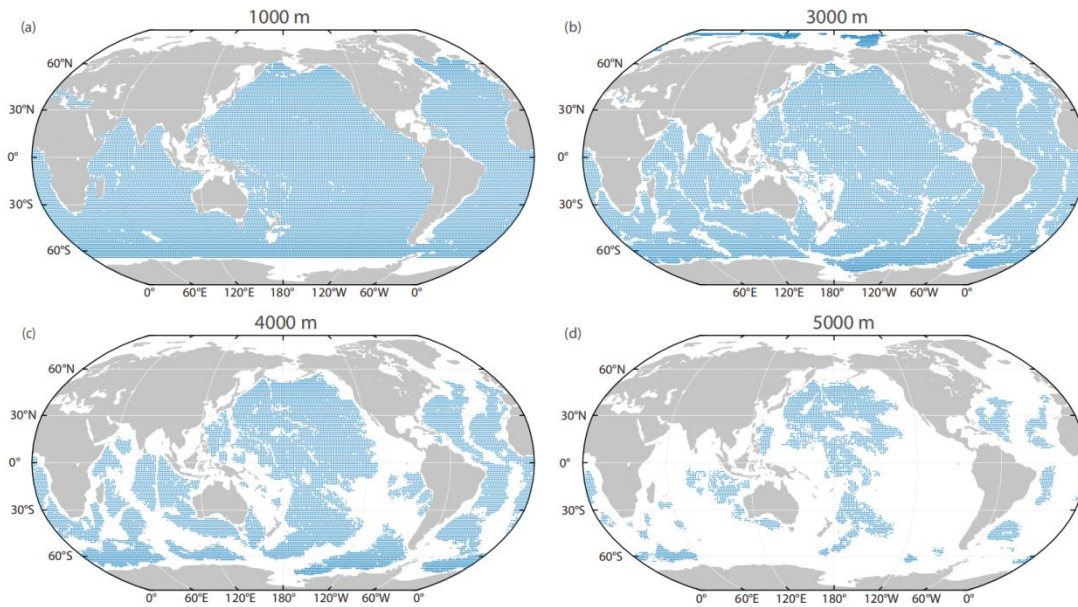
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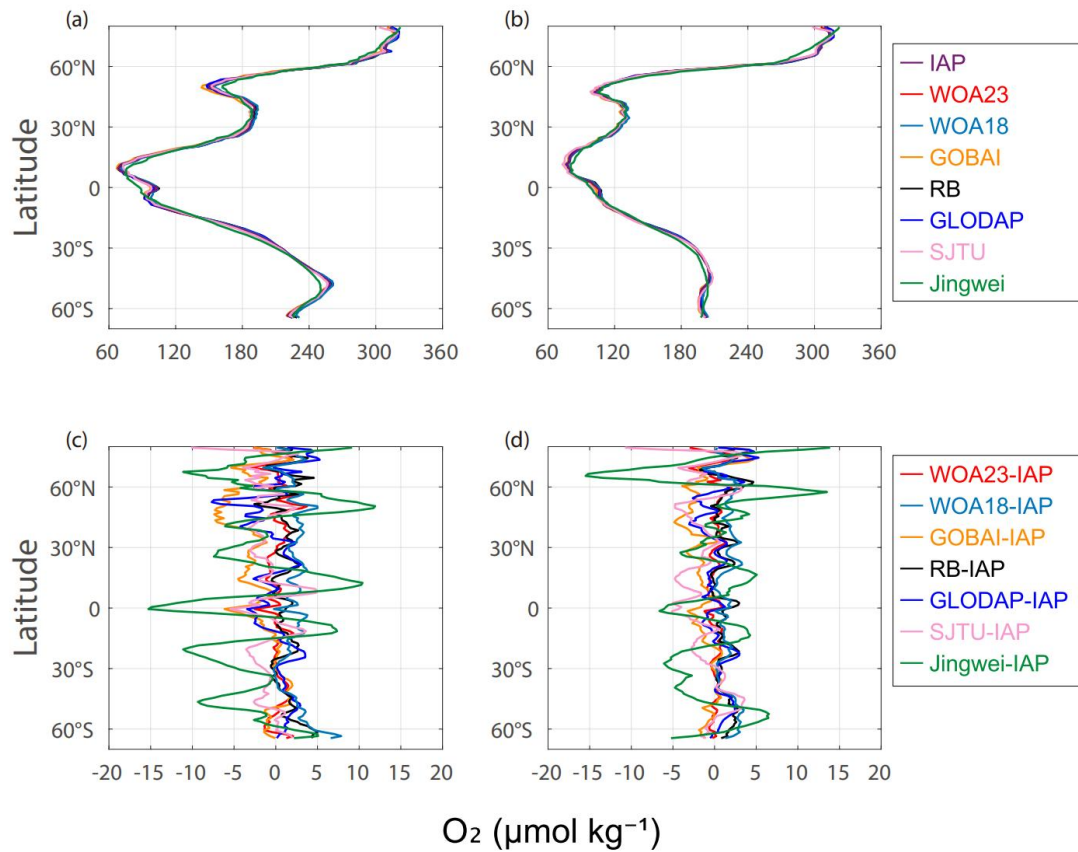
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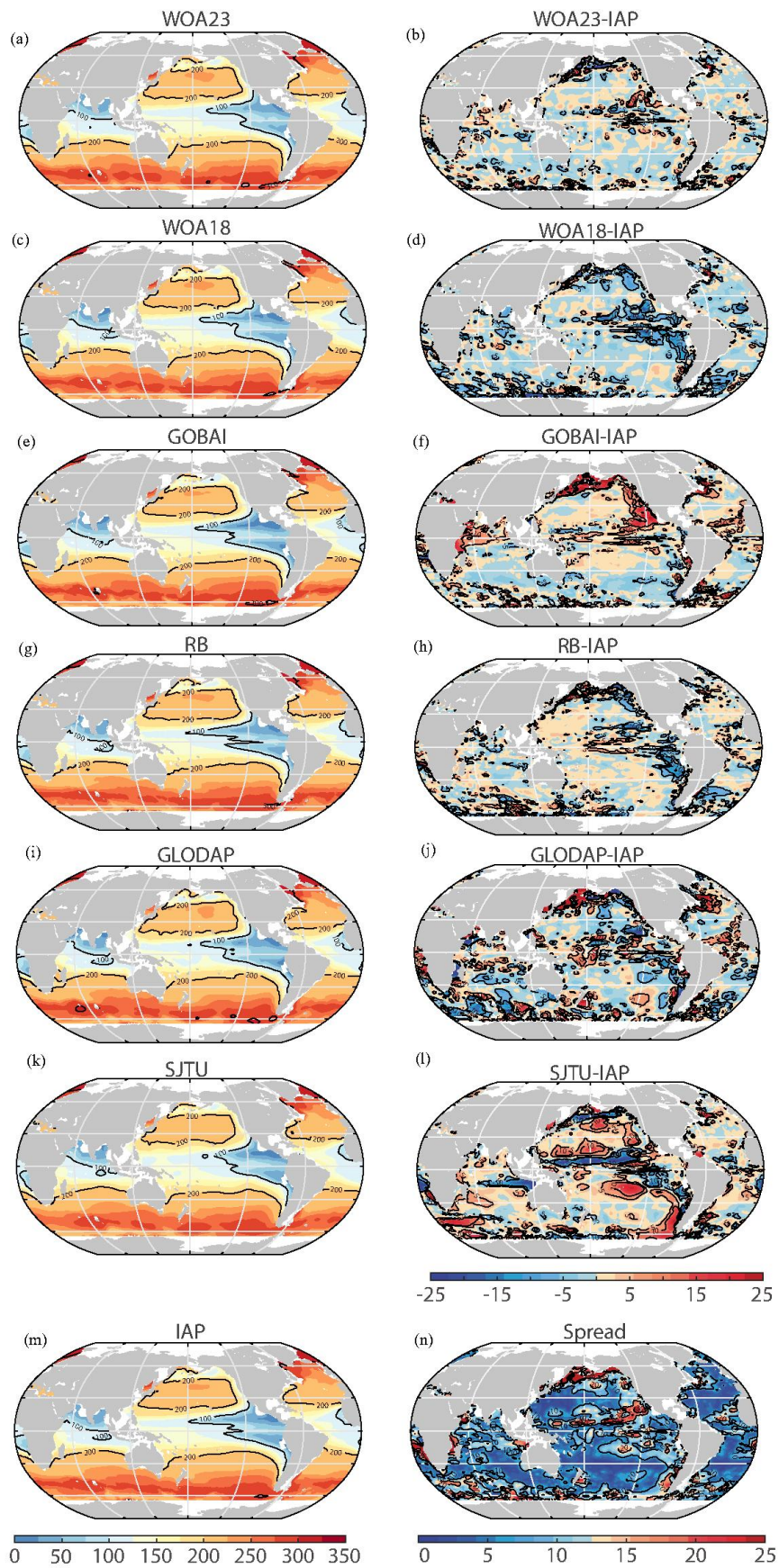
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Figure S1 Common land-ocean mask for the depth layers of 1000 m, 3000 m, 4000 m and 5000 m.



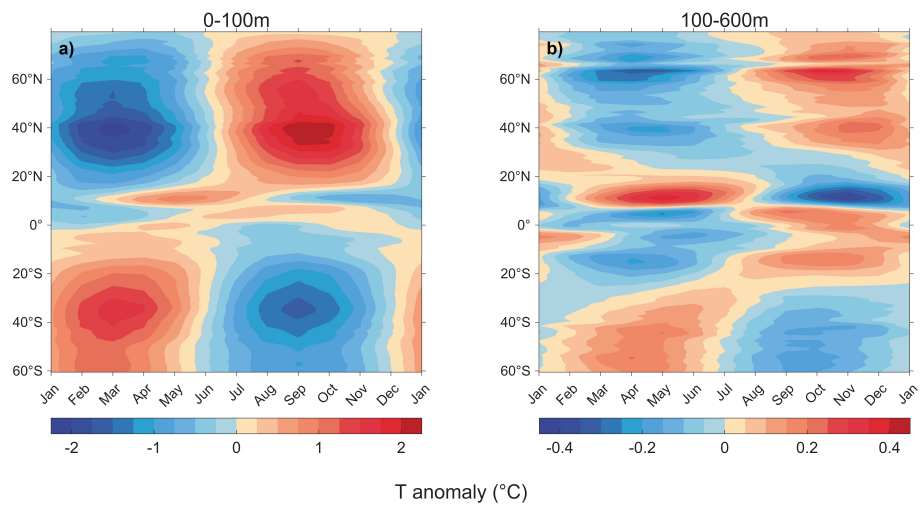
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Figure S2 Global zonal mean O_2 concentration and differences for 0-600 m (a, c) and 0-2000 m (b, d) (unit: $\mu\text{mol kg}^{-1}$).

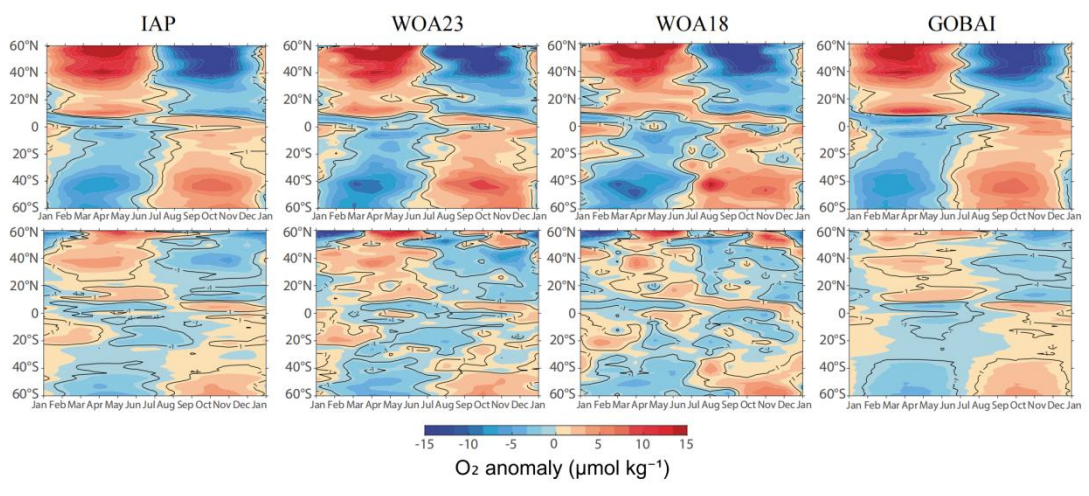


O_2 ($\mu\text{mol kg}^{-1}$)

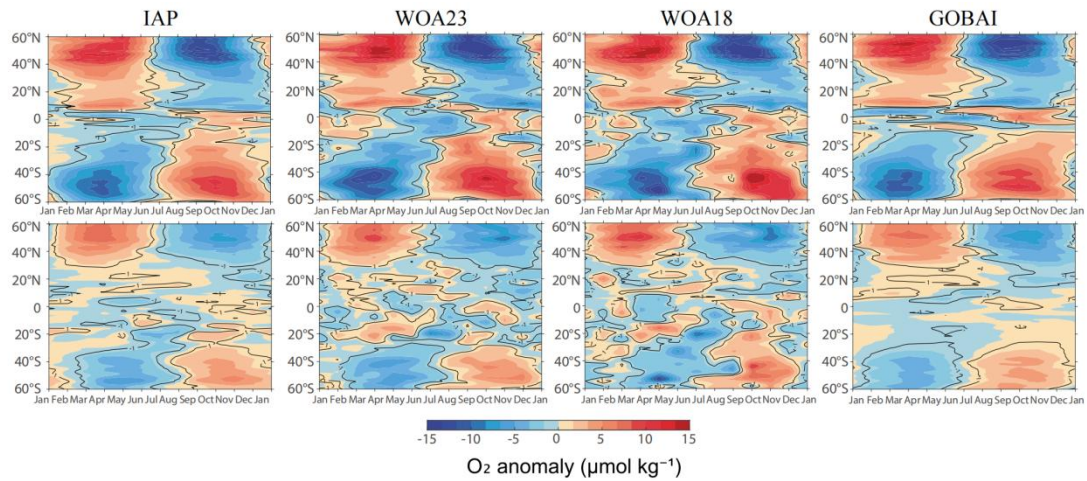
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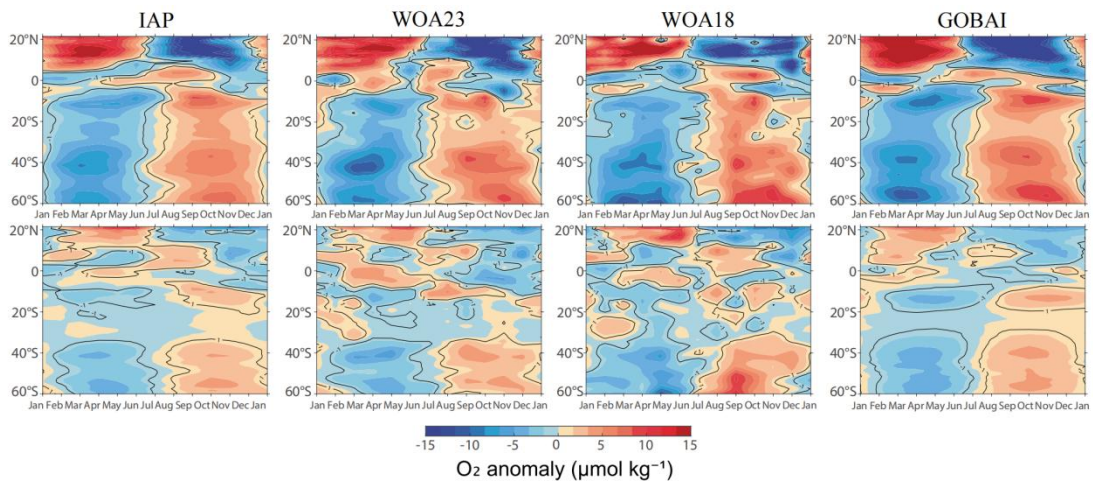


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 53 **Figure S5** Zonal mean annual cycles of Pacific Ocean for 0-100 m (upper) and
 54 100-600 m (lower) for different data products (unit: $\mu\text{mol kg}^{-1}$).
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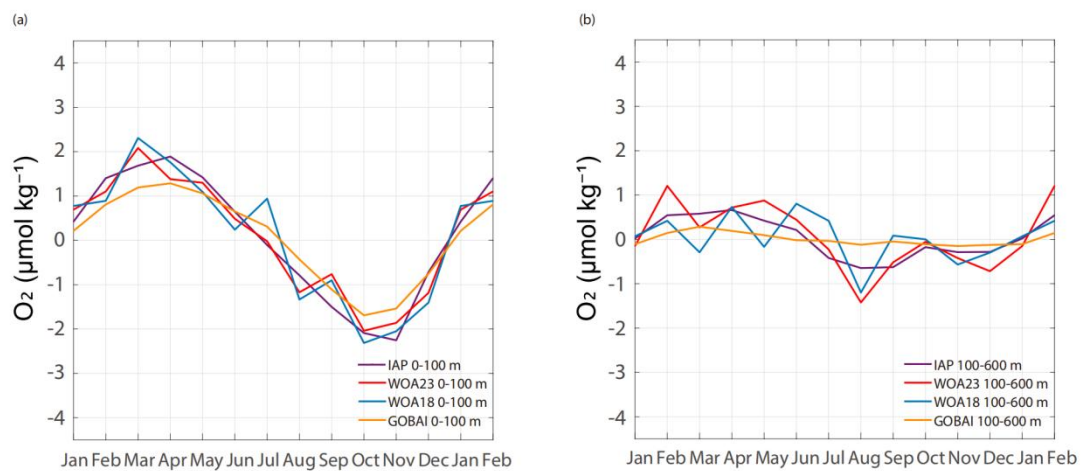
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Figure S6 Zonal mean annual cycles of Atlantic Ocean for 0-100 m (upper) and 100-600 m (lower) for different data products (unit: $\mu\text{mol kg}^{-1}$).



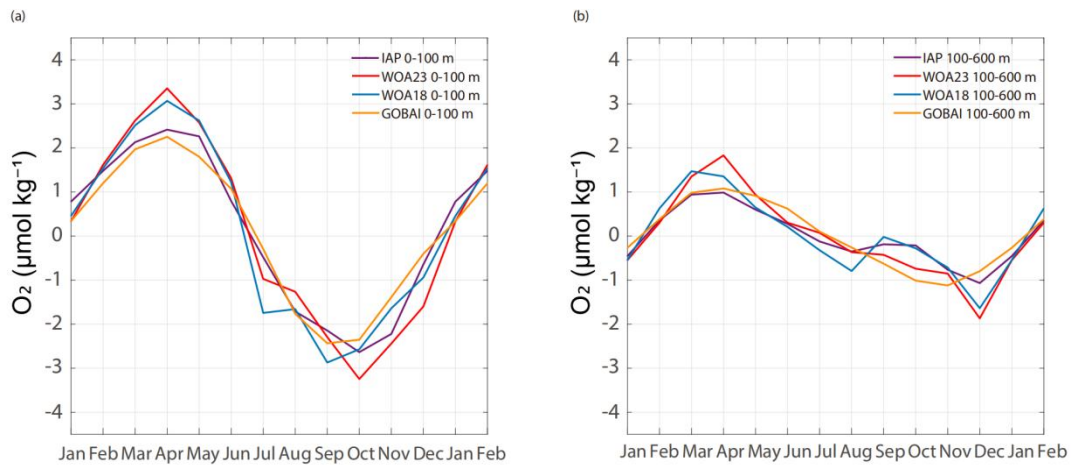
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Figure S7 Zonal mean annual cycles of Indian Ocean for 0-100 m (upper) and 100-600 m (lower) for different data products (unit: $\mu\text{mol kg}^{-1}$).



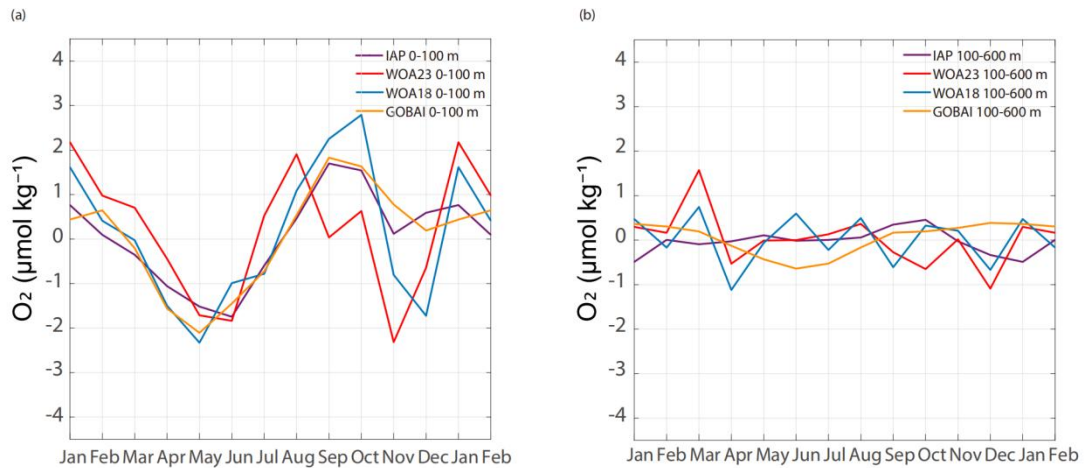
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Figure S8 Annual variation for the Pacific Ocean of the (a) 0-100 m and (b) 100-600 m mean O_2 for IAP, WOA23, WOA18, and GOBAI datasets (unit: $\mu\text{mol kg}^{-1}$).



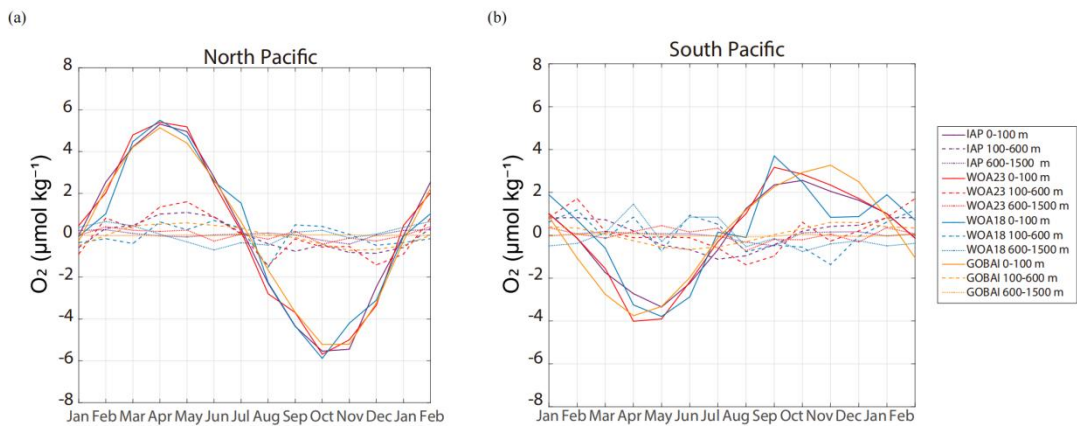
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69 **Figure S9** Annual variation for the Atlantic Ocean of the (a) 0-100 m and (b) 100-600
 70 m mean O₂ for IAP, WOA23, WOA18, and GOBAI datasets (unit: $\mu\text{mol kg}^{-1}$).
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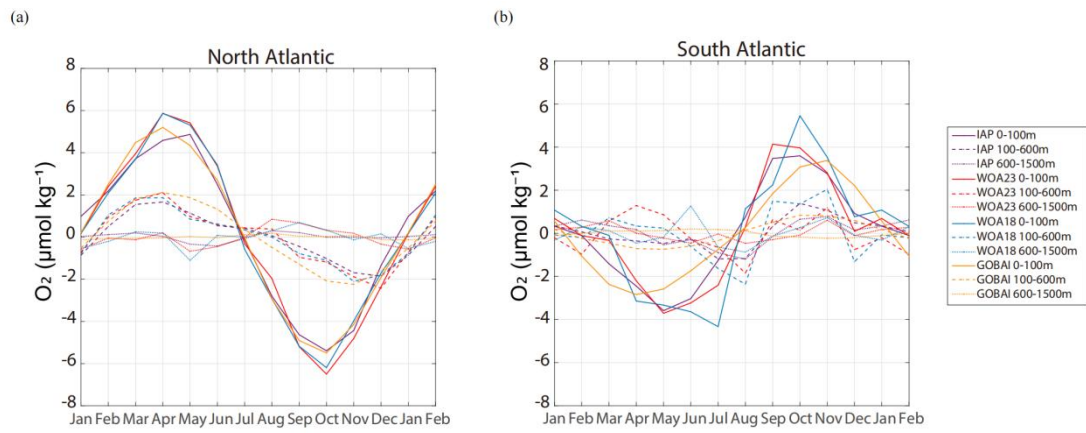
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