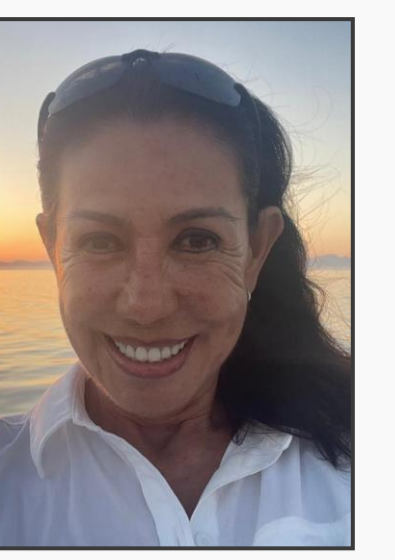


Vertical distribution of cephalopod paralarvae across the Eastern Tropical North Pacific Oxygen Minimum Zone

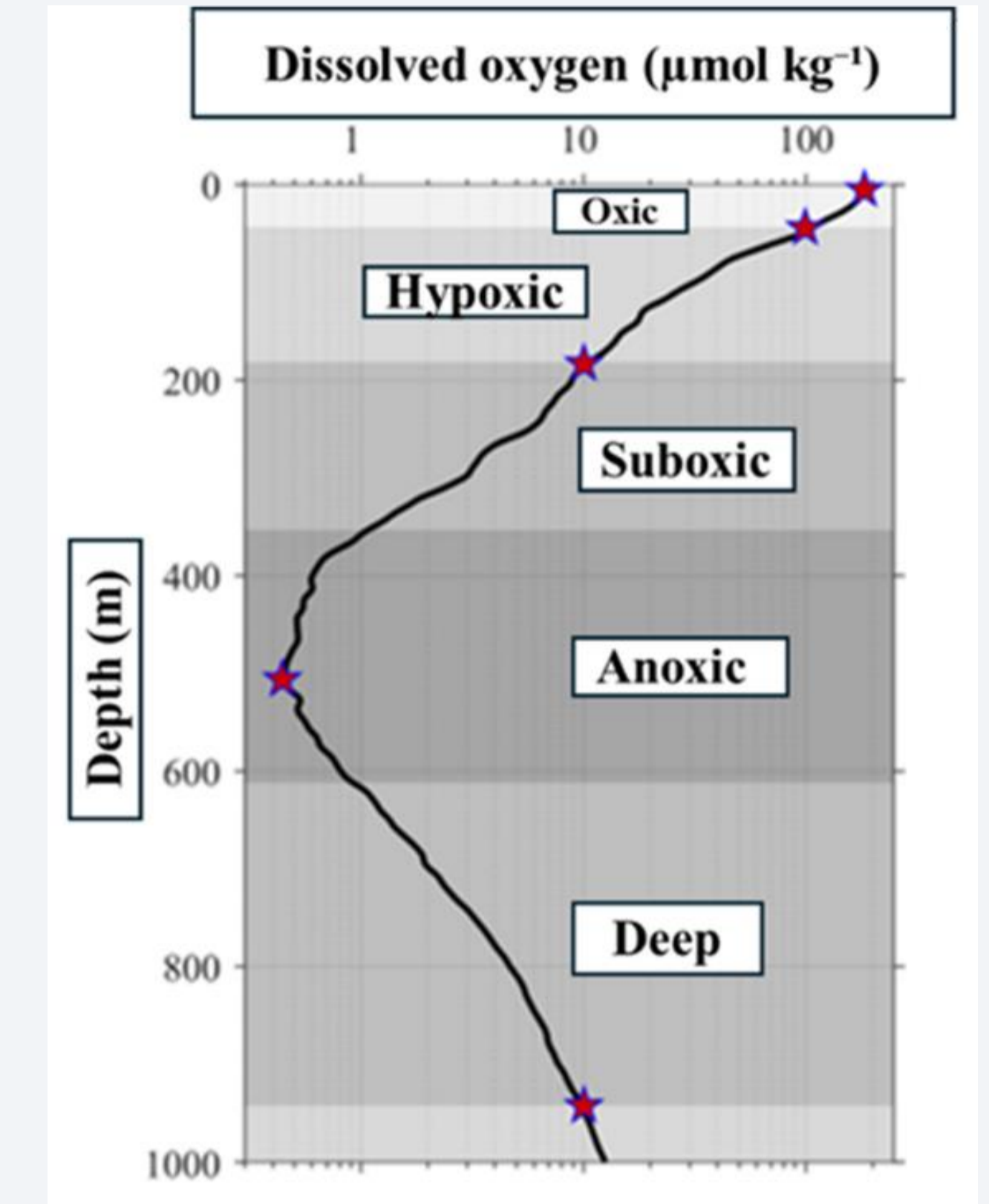
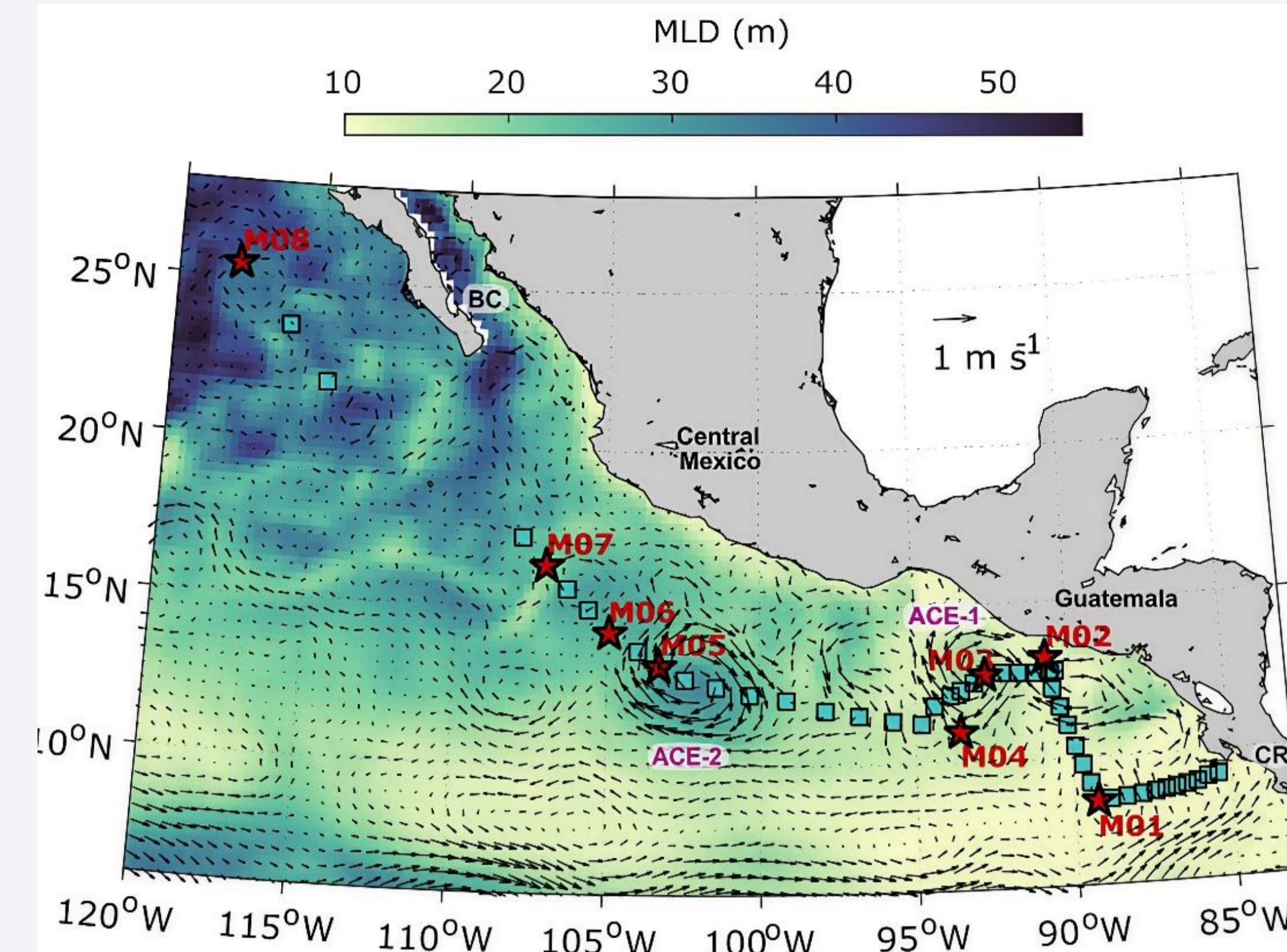


S03-18913

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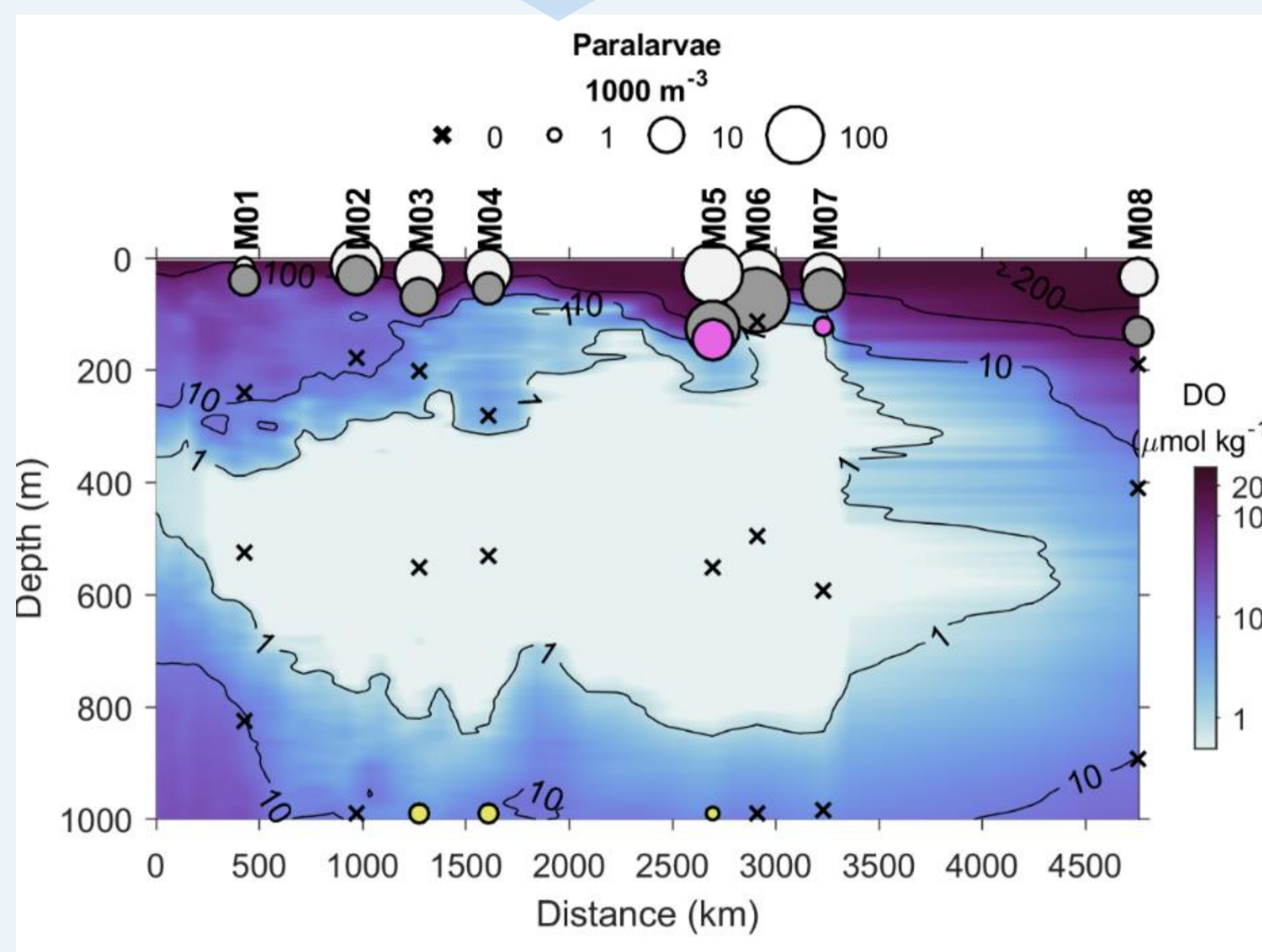
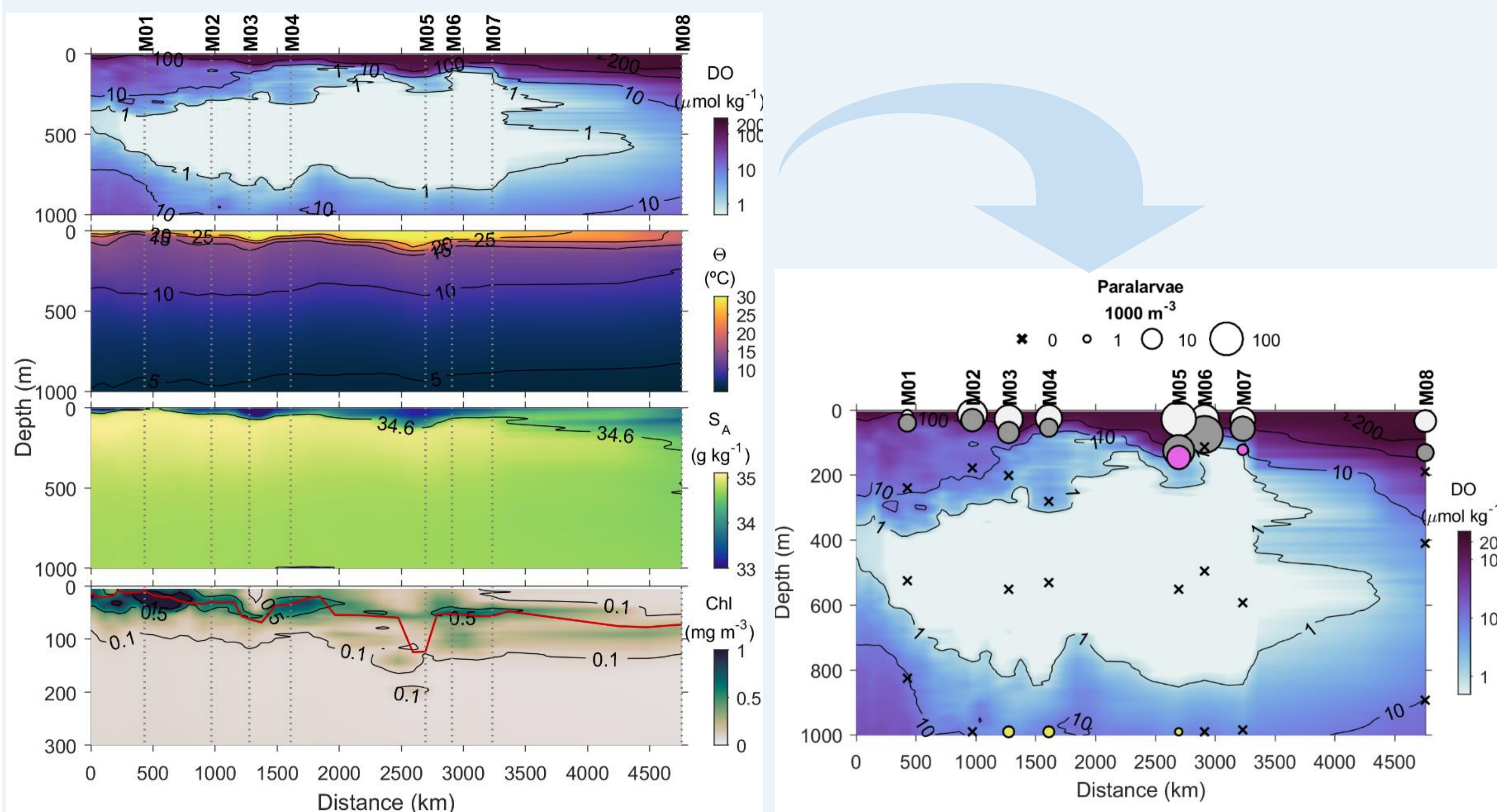
BACKGROUND & OBJECTIVE

- Oxygen Minimum Zones (OMZs) are expanding, reducing habitable space for marine organisms.
- The response of early life stages to oxygen gradients remains poorly understood, particularly for cephalopod paralarvae.
- Vertical distribution across oxygen-defined layers in the Eastern Tropical North Pacific to assess taxon-specific responses to dissolved oxygen.

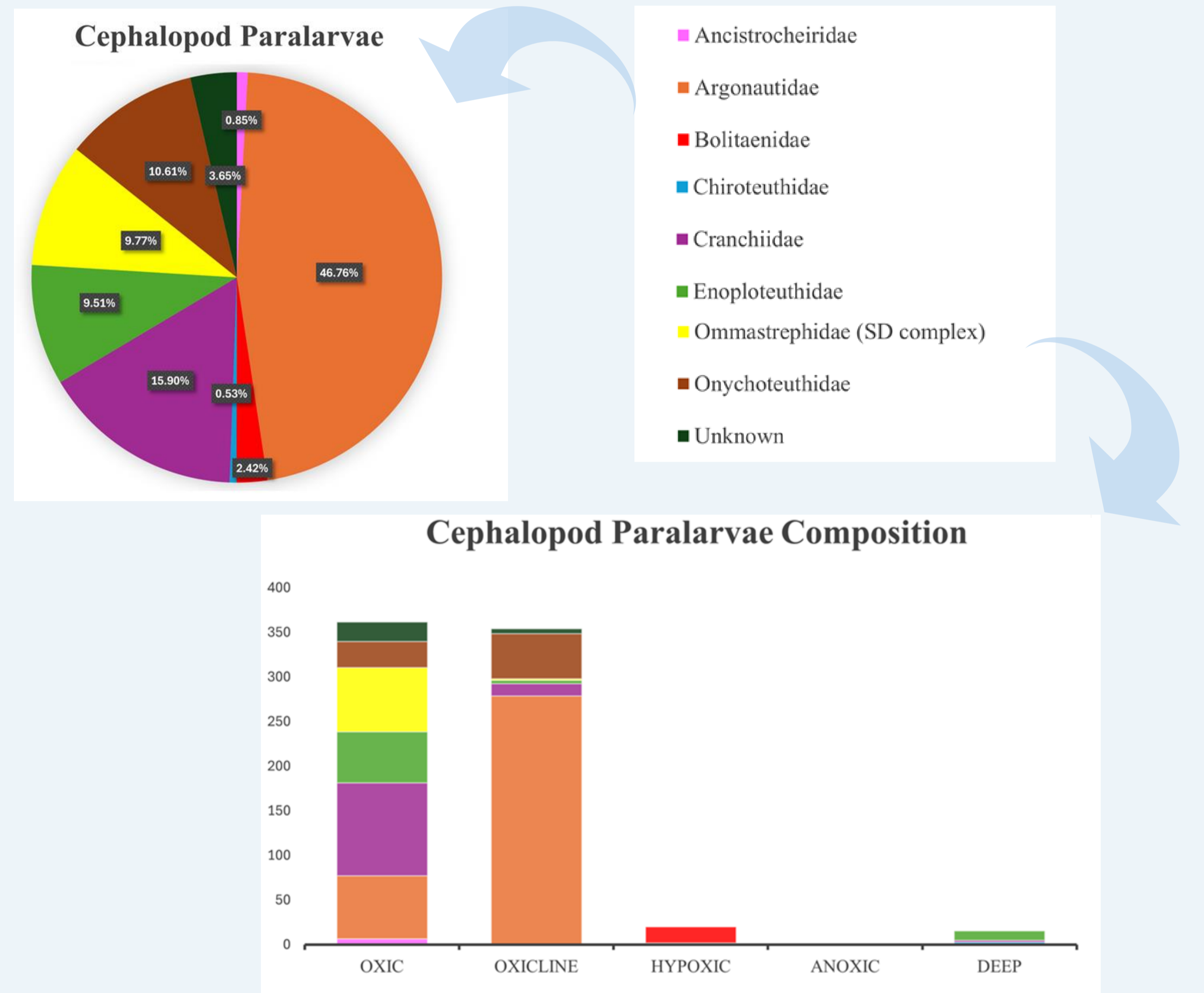


RESULTS

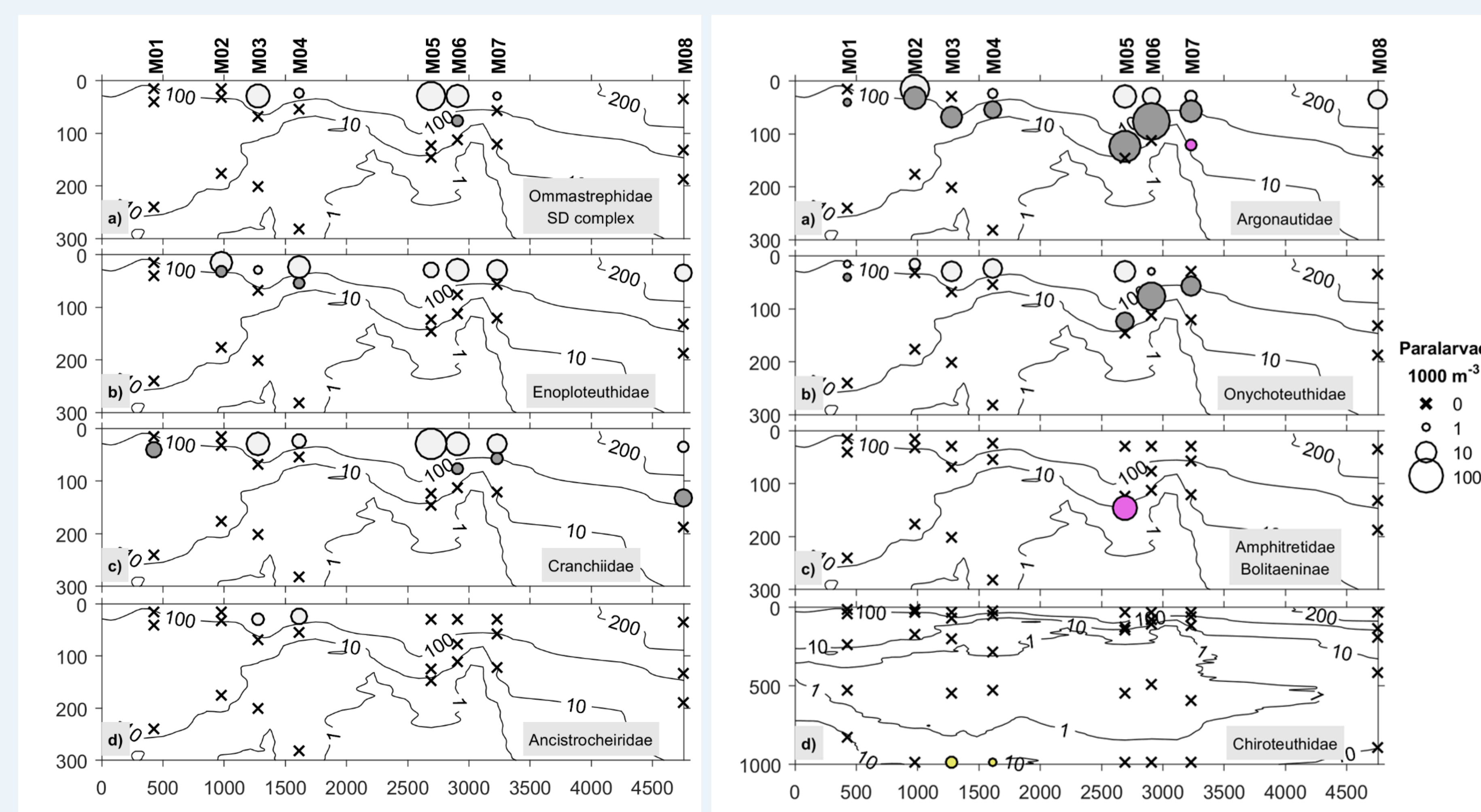
Oxygen-Driven Vertical Distribution of Paralarvae



Paralarvae composition and abundance across oxygen-defined layers



Vertical distribution of paralarvae by family across oxygen gradients



CONCLUSIONS

- Dissolved oxygen strongly structures the vertical distribution of paralarvae.
- No paralarvae were found within the anoxic core
- Taxa exhibit distinct oxygen tolerances and vertical partitioning.
- Mesoscale anticyclones enhance favorable conditions and abundance.
- OMZ expansion may compress suitable habitats and impact pelagic food webs taxon-specific vertical partitioning reflects different oxygen tolerances and habitat preferences.

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