VERTICAL STRUCTURE OF COPEPODS IN THE NORTHERN HUMBOLDT CURRENT SYSTEM (6° - 8°S) DURING FEBRUARY – 2008

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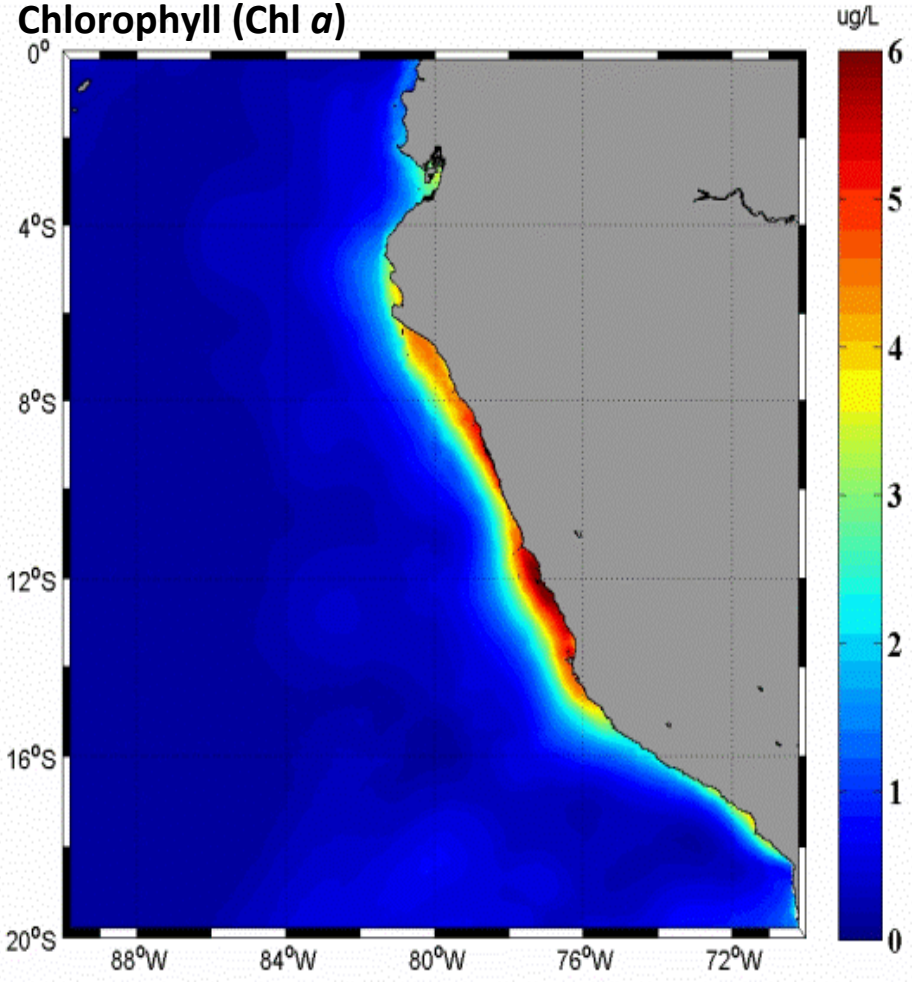
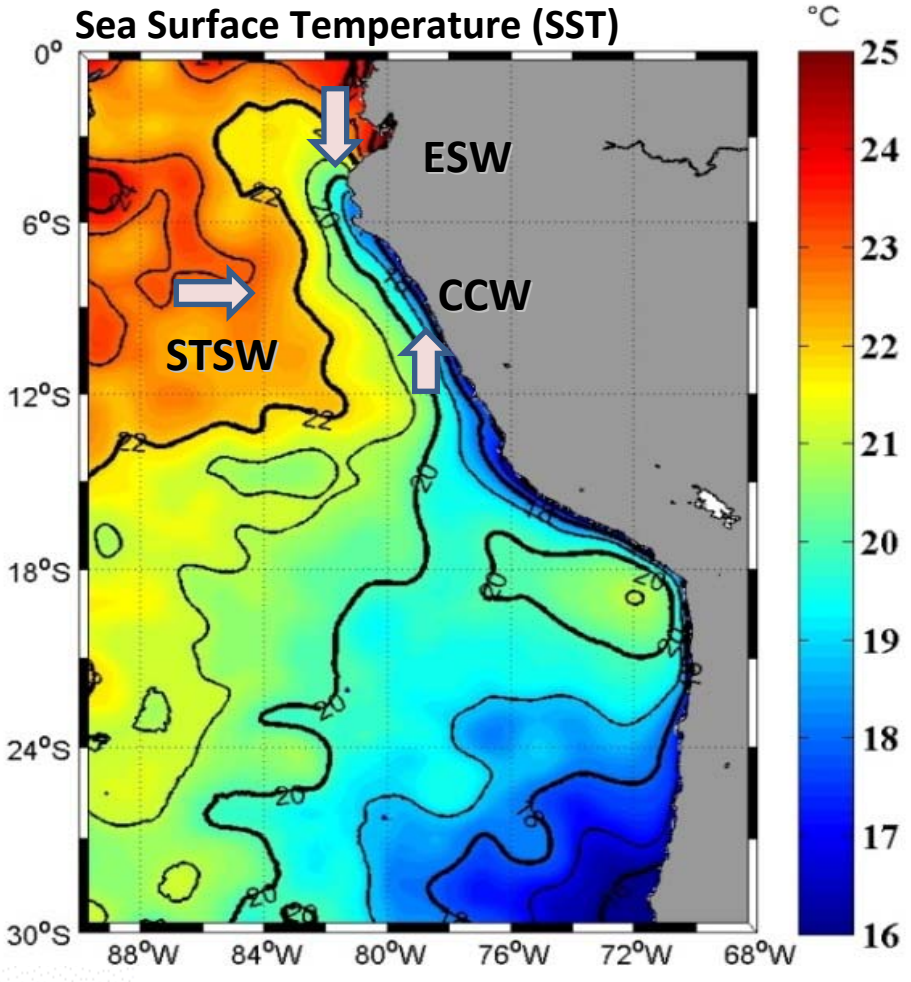
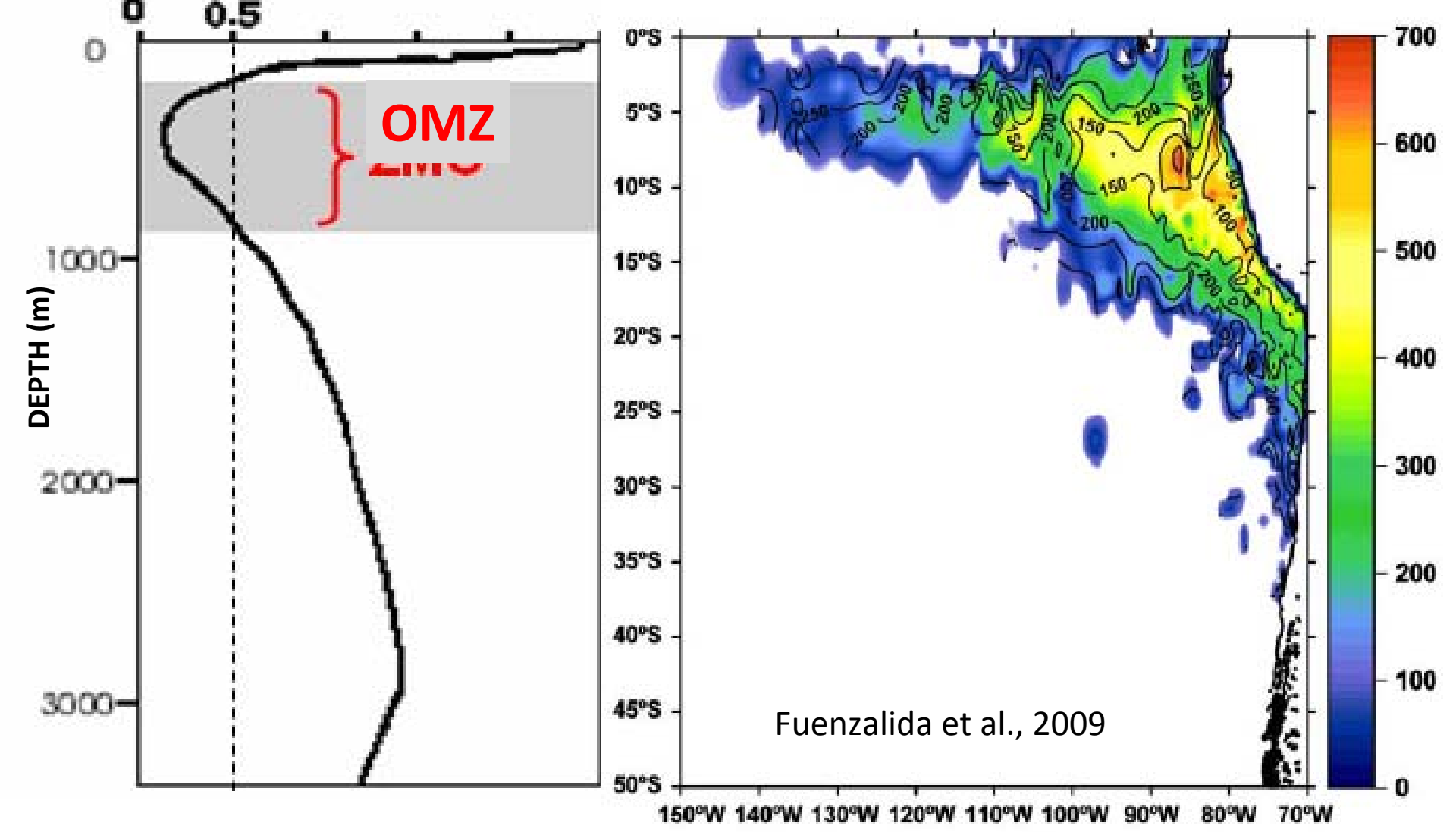
INTRODUCTION





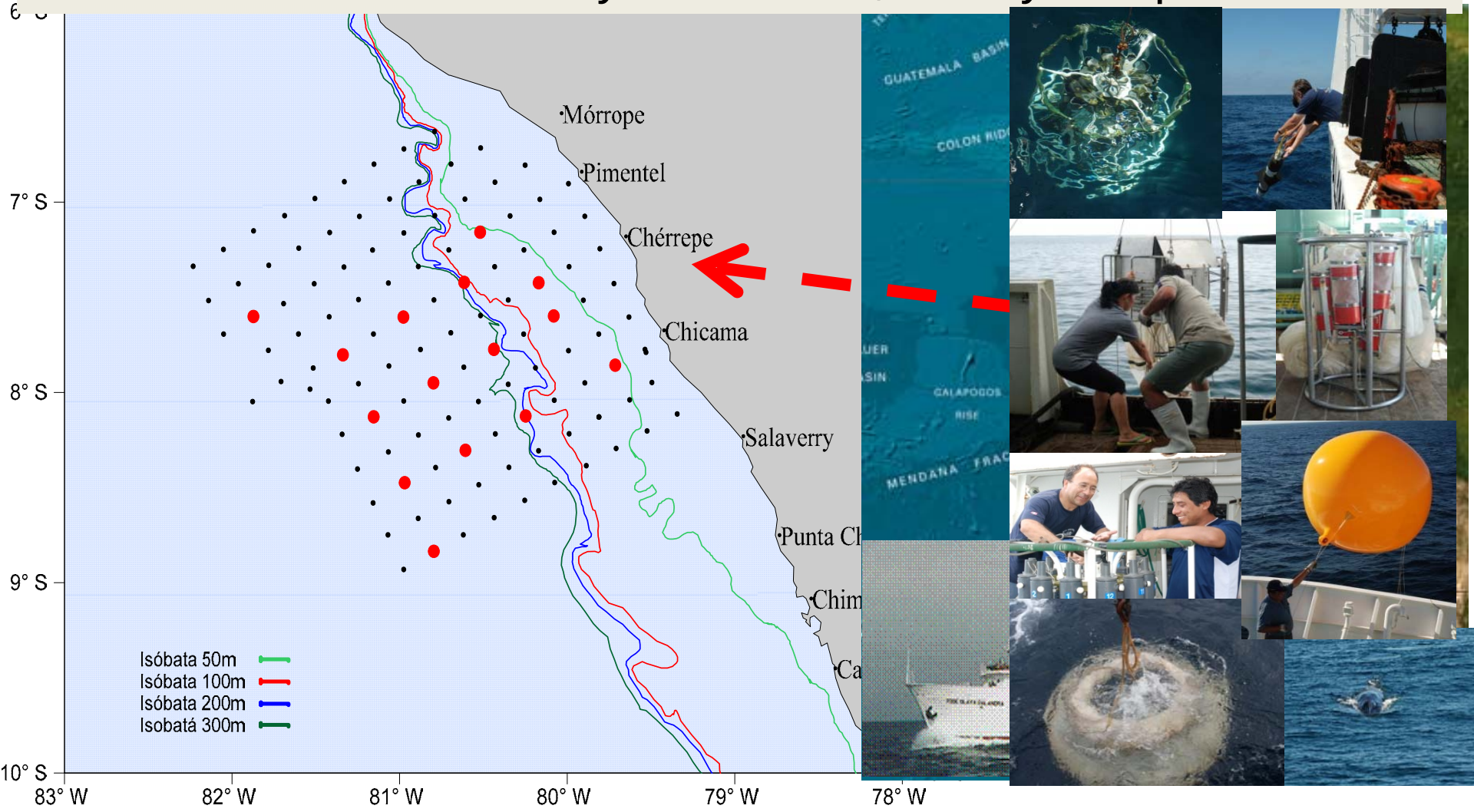
Do copepods show strong variations in the cross-shore ?



Are copepods constrained by the OMZ ?

The FILAMENTOS 2008-02 Cruise

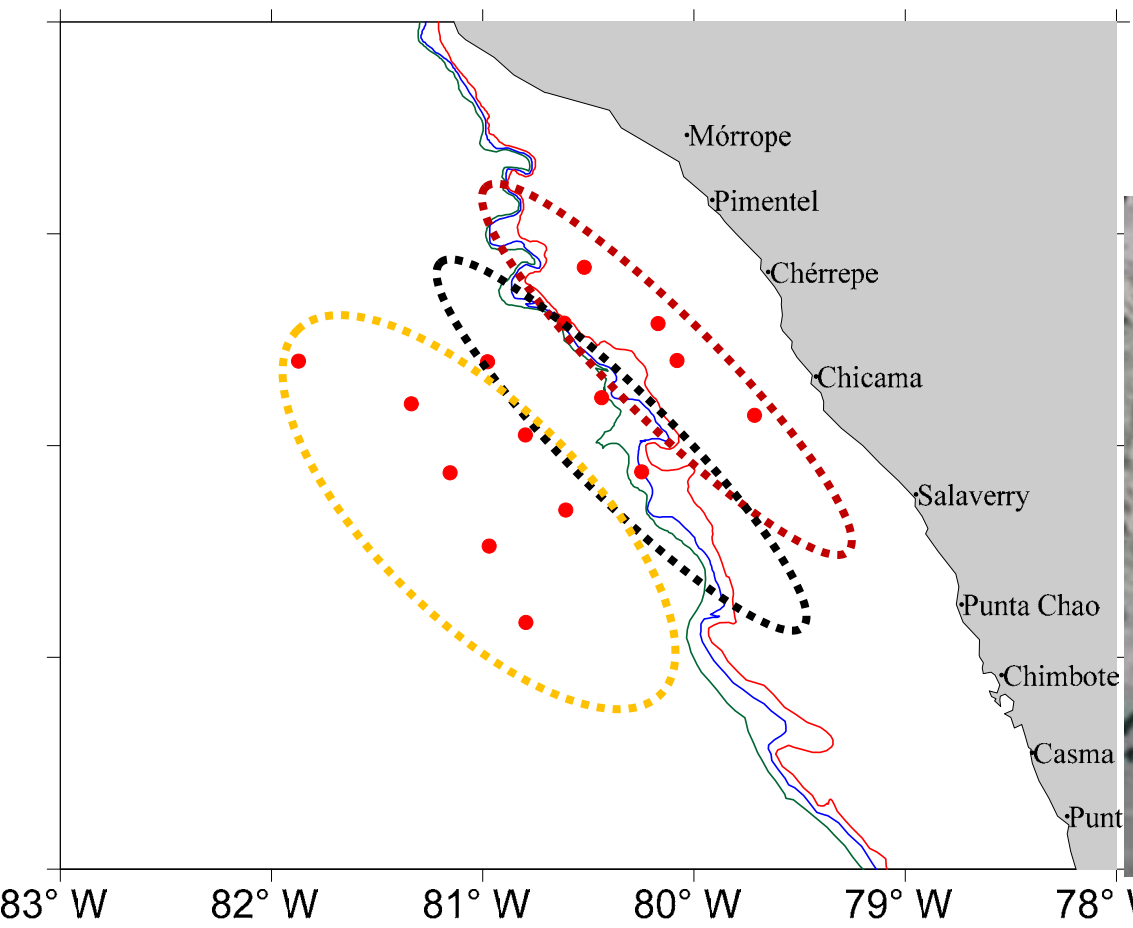
Surveyed region: 6° - 8°S, extended to 120 nm,
Multidisciplinary cruise: atmosphere, physics, biogeochemitry, hydroacoustic, fishery and plankton

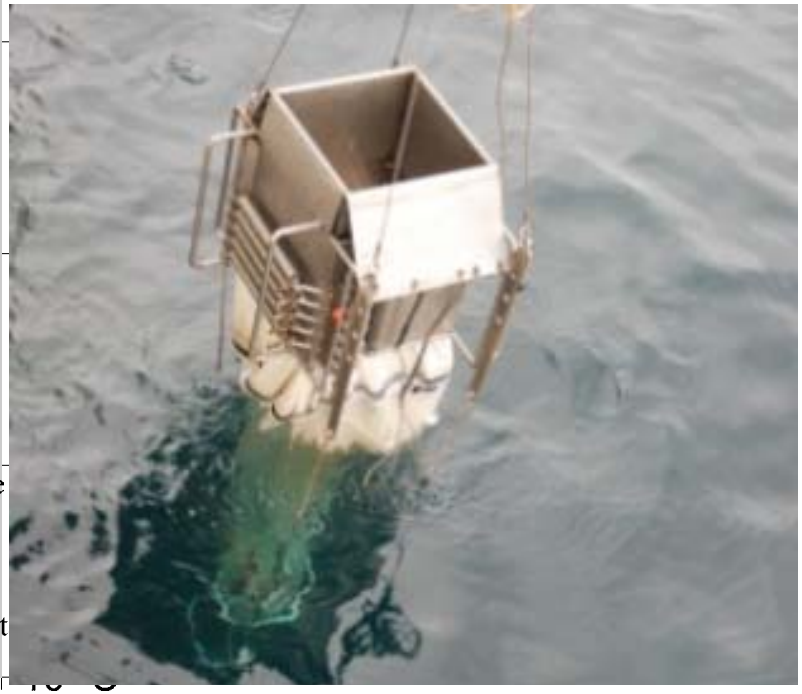


MATERIAL AND METHODS

Selected stations: 15 (shelf, 4; slope, 3; offshore, 8)

Multinet (300 µm): 6 depth strata (20-0, 50-20, 100-50, 200-100 300-200 and 500-300m)





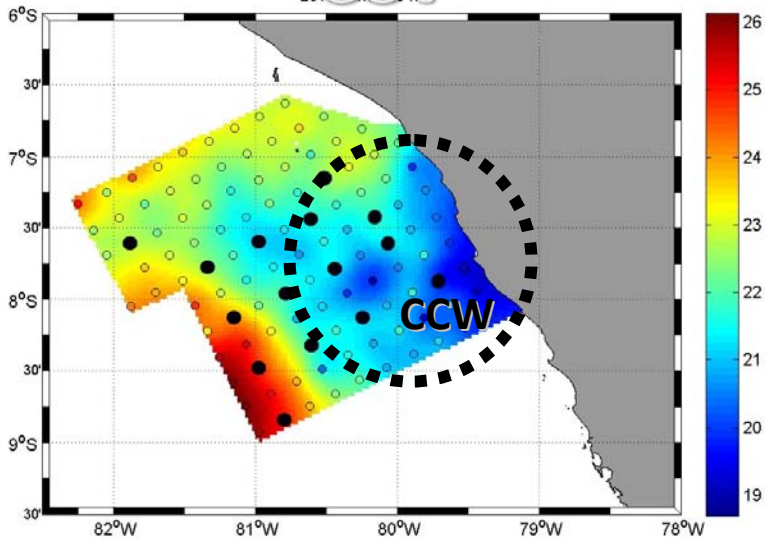
OBJECTIVES

- **Vertical structure and diel migration of copepods**
- **Crosshore distribution of copepods**
- **Relationship between the observed distributions with water masses and OMZ**

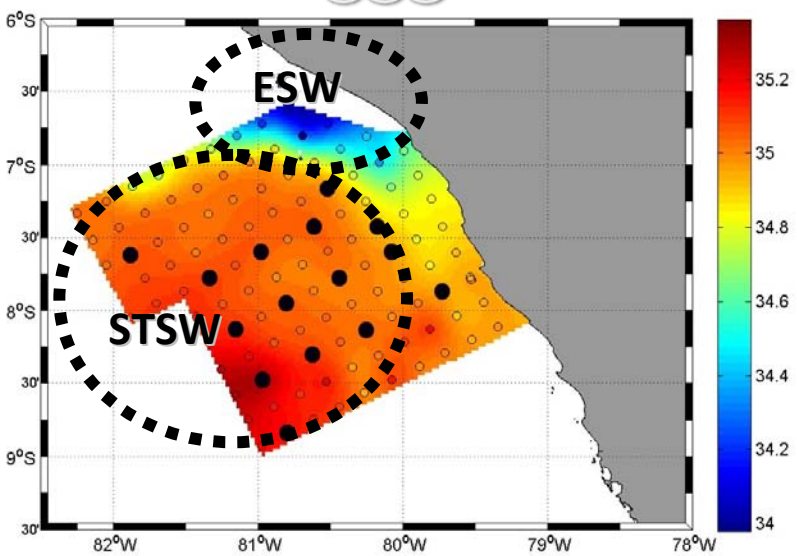

RESULTS

ENVIRONMENTAL CONDITIONS

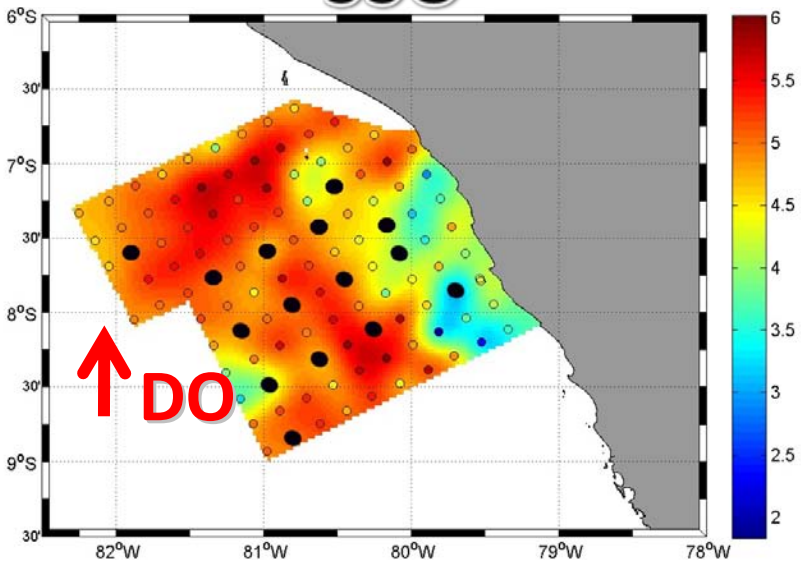
SST



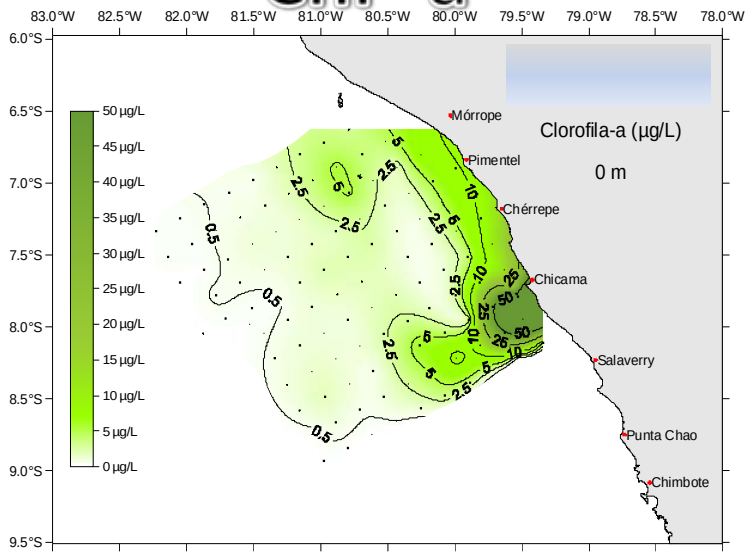
SSS



SSO

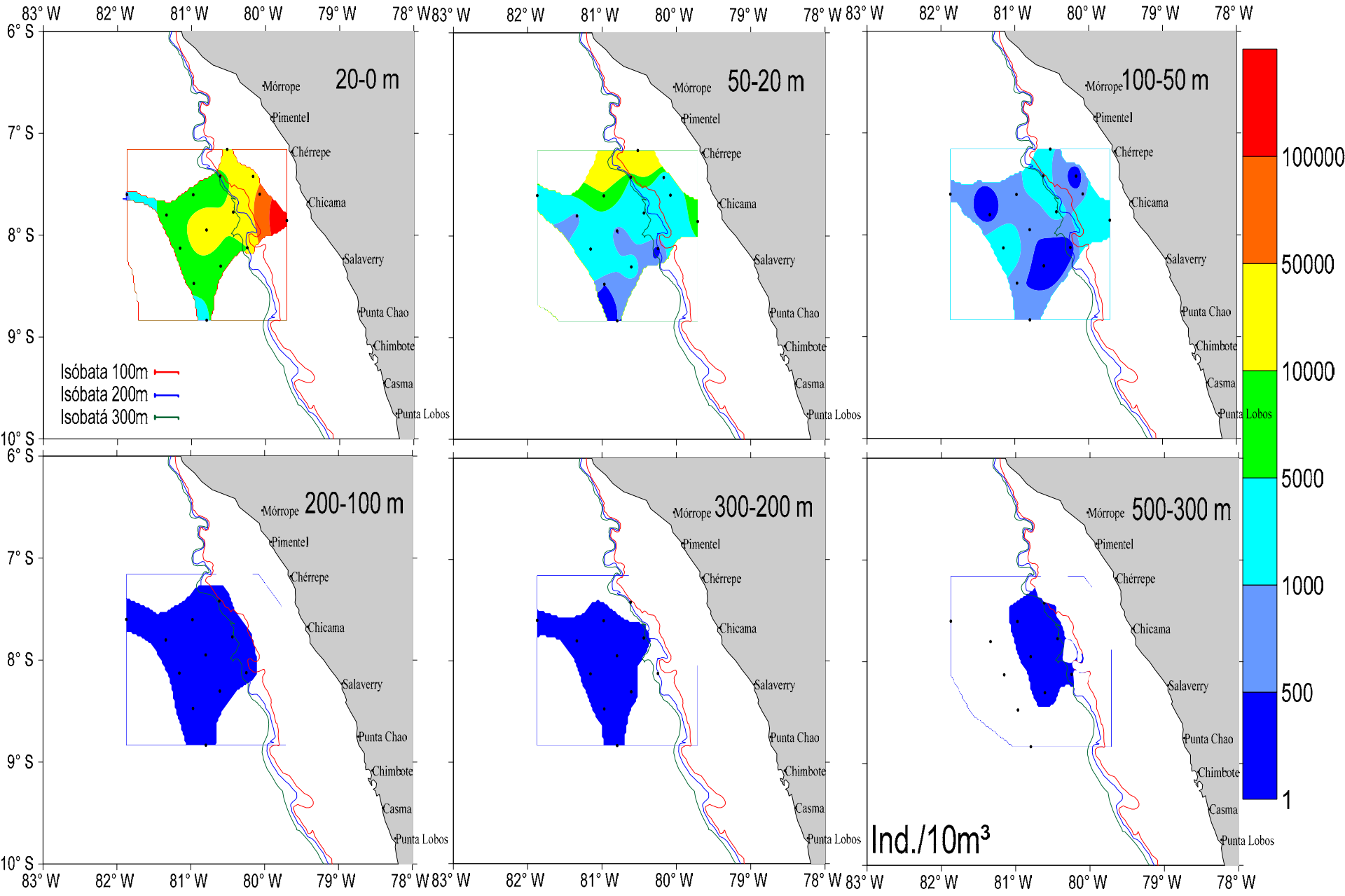


Chl "a"

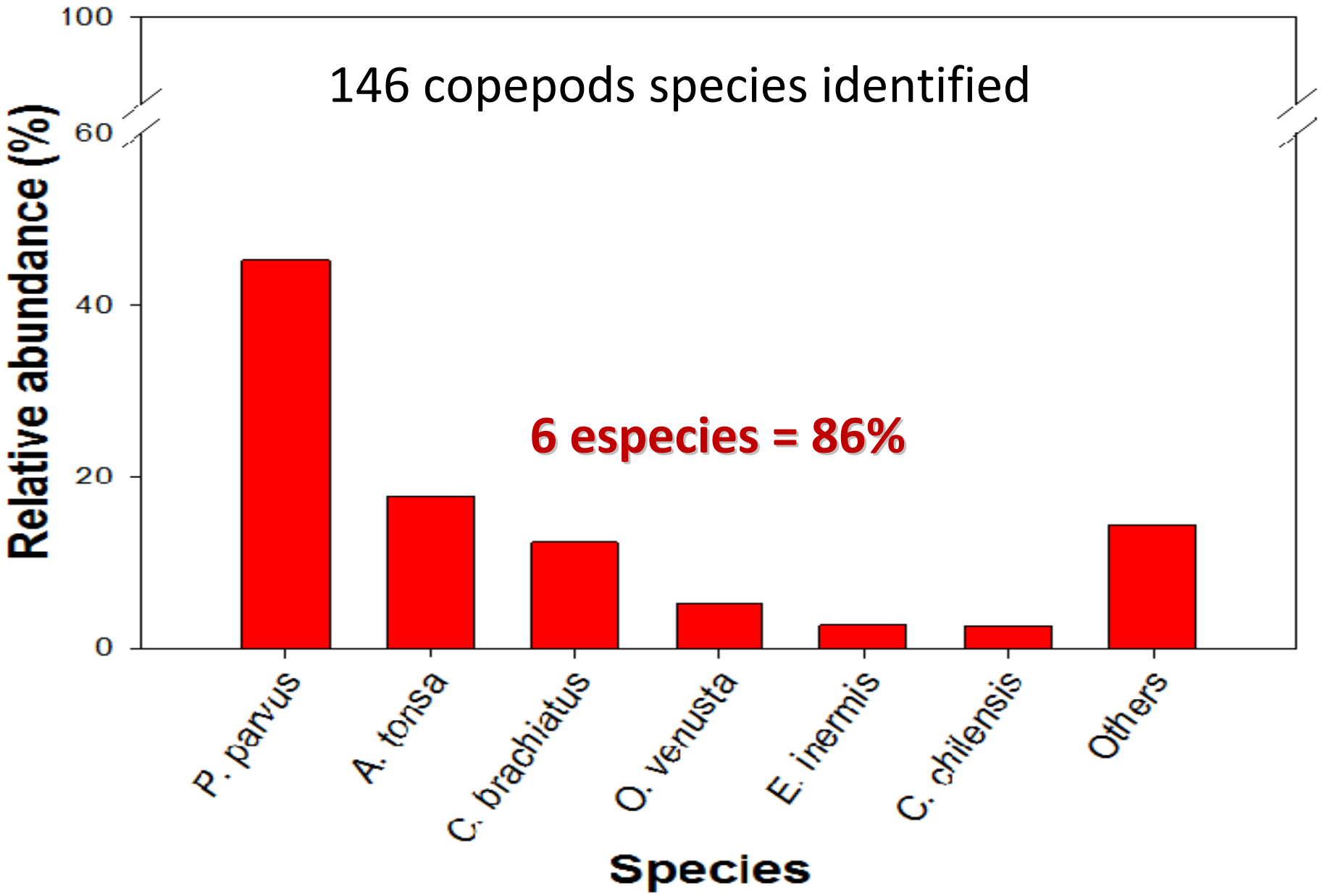


Filamentos 0802 Cruise, Unplublished data
Graco, Ledesma UIOQ-Imarpe

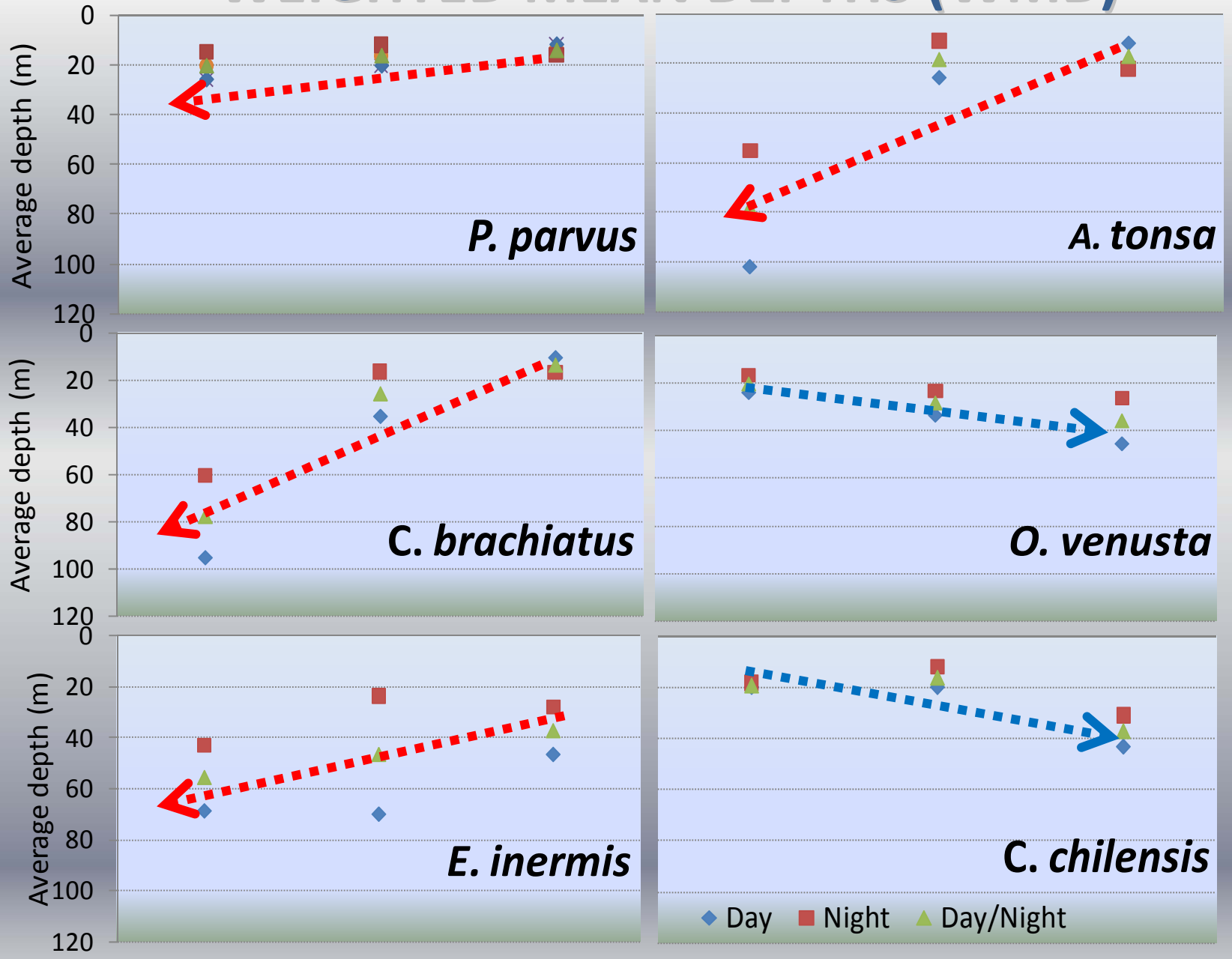
COPEPODS ABUNDANCE BY STRATUM



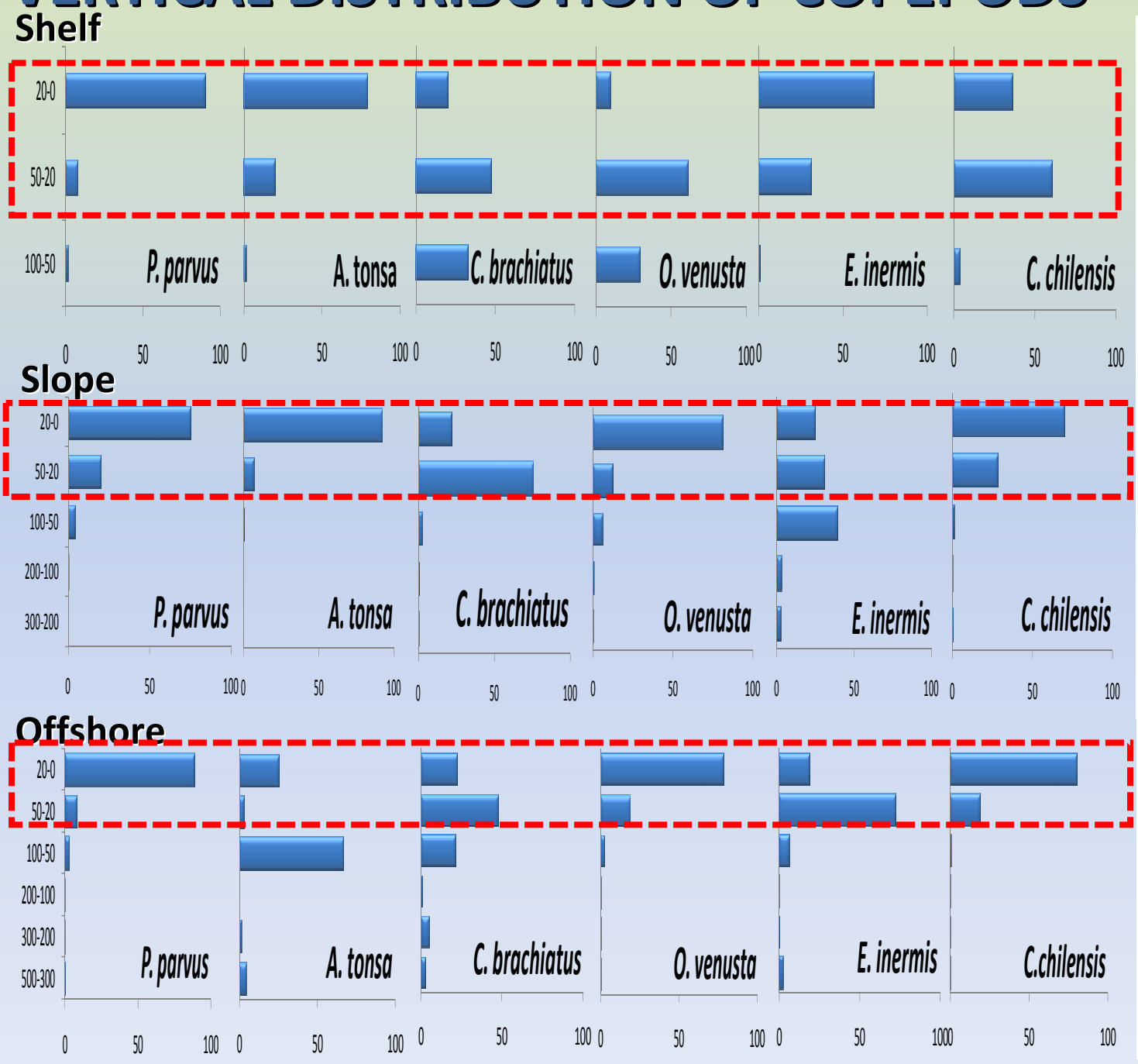
RELATIVE ABUNDANCE OF COPEPODS

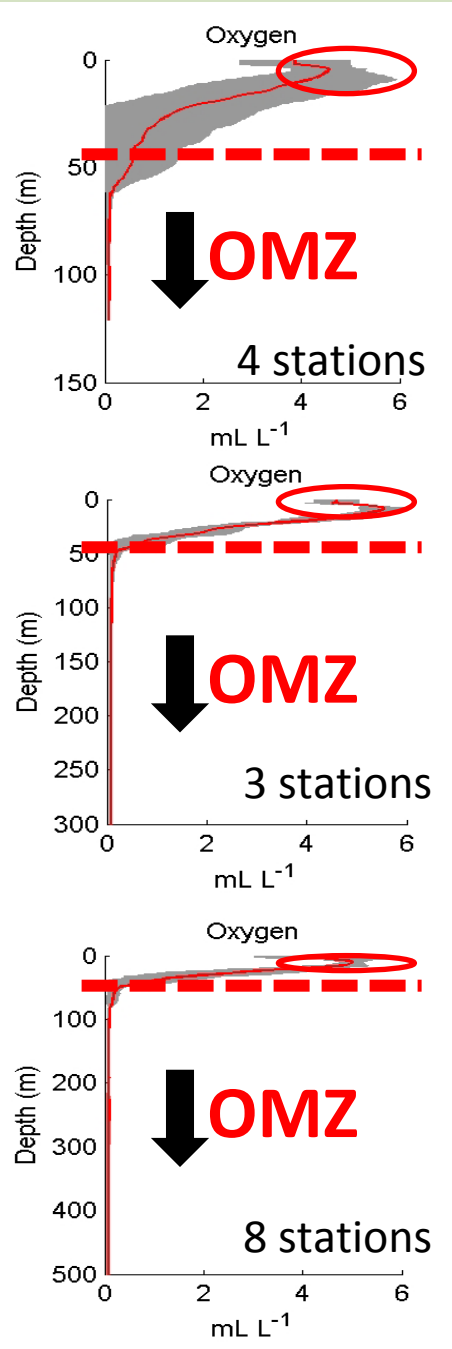


WEIGHTED MEAN DEPTHS (WMD)

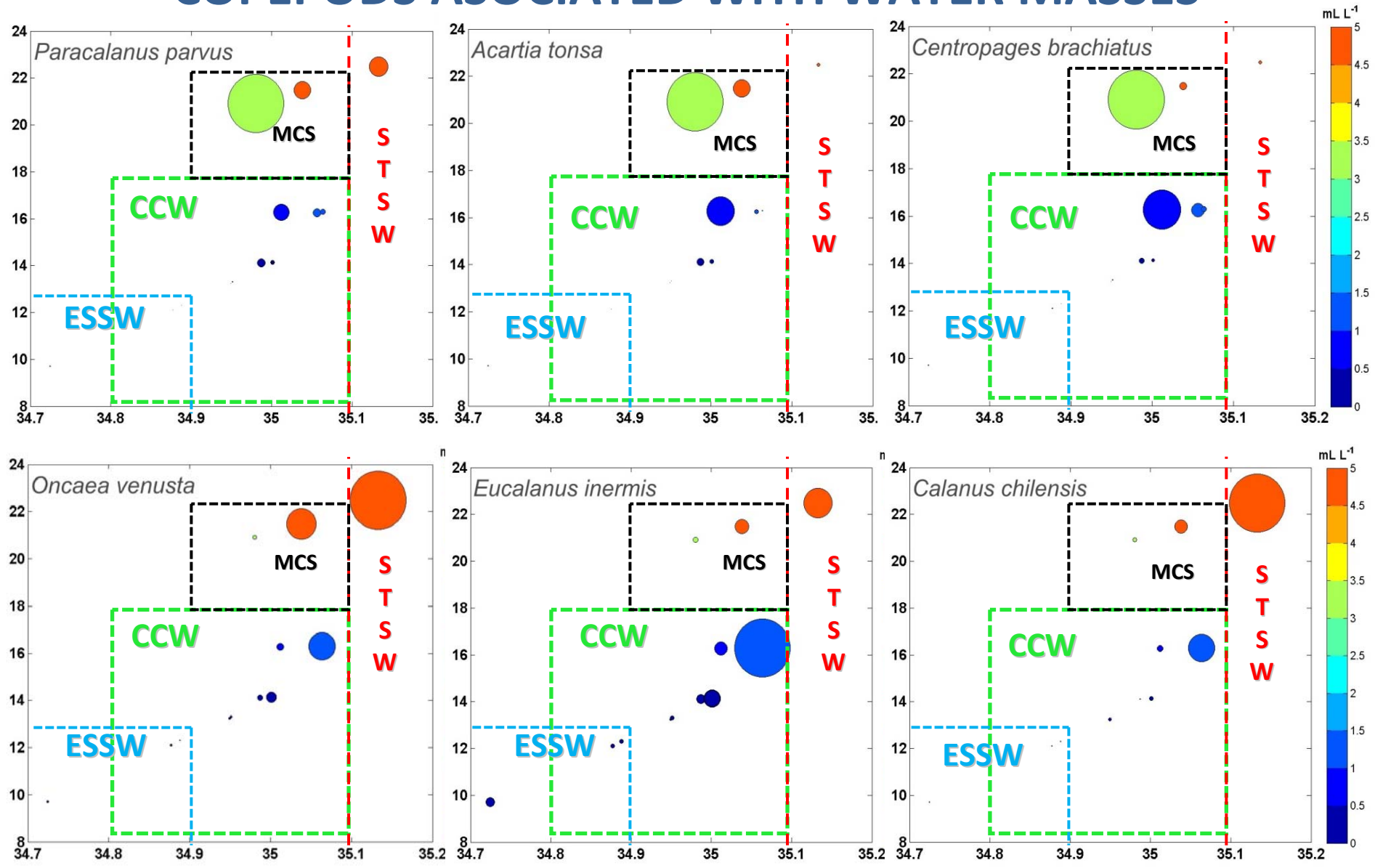


VERTICAL DISTRIBUTION OF COPEPODS





COPEPODS ASOCIATED WITH WATER MASSES



CCW	34.8 - 35.1 S‰	14°- 18°C
SSW	35.1 – 35.7 S‰	18°- 27°C
ESSW	34.9 - 35.1 S‰	13°- 15°C

MCS (Mixed CCW and SSW) Zuta and Guillén (1970), Morón (2000), Gutierrez et al. (2005)c

SUMMARY

The diel migration was only noticeable in some species: *C. brachiatus, A. tonsa and E. inermis.*

All species have their highest abundances above the oxycline in the three zones, perhaps related to high concentrations of oxygen.

The OMZ wasn't a limitanting factor in the vertical distribution of copepods because *A. tonsa, C. brachiatus* and *E. inermis* had significant abundances in the 500 – 300 m layer.

The dynamics of water masses give us a wide range of habitat in wich these species would be found.

ACKNOWLEDGEMENTS

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To the crew of RVs Jose Olaya and SNP-2 for the valuable help provided during the cruise