



S1 Figure. Physicochemical zonation and rates of microbial respiration in the OMZs off Namibia and Peru. **a-c**, Namibian shelf (station 243, 103 m). **d-f**, Upper Peruvian continental slope (station 13, 356 m). **g-i**, Lower Peruvian continental slope (station 36, 2845 m). Dashed lines indicate the upper OMZ boundary ($O_2 \leq 15\ \mu mol\ l^{-1}$). Rates of aerobic + anaerobic NH_4^+ oxidation are $10 \times$ magnified. *Chlorophyll a concentrations in panel **b** in relative units.