

Fig. 1 Map showing the two working areas: nBus and sBus, as well as CTD stations near the long-term mooring sites. The positions of the long-term mooring sites are marked with open circles. The CTD stations of the cruise M153 and SO285 are marked with blue and red circles. The numbers are the station numbers.

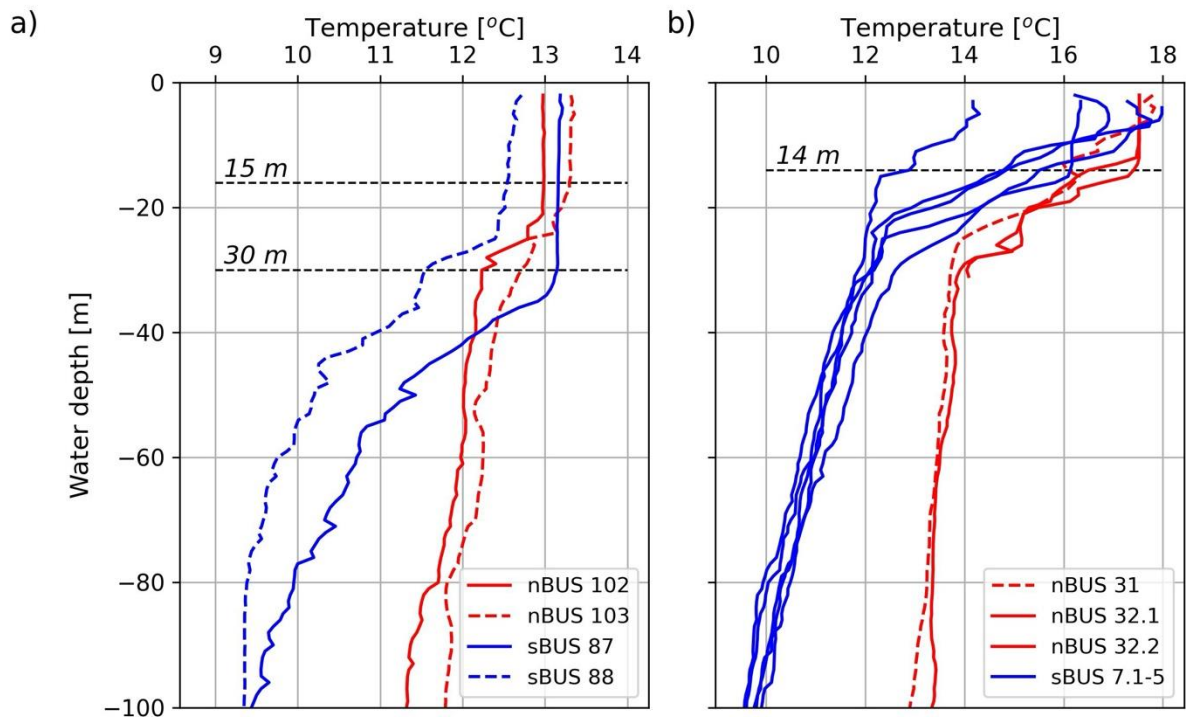


Fig. 2 Temperature profiles at the CTD stations (depth resolution of 1 m) closest to the long-term mooring site during the cruises SO285 (a) and M153 (b). The positions of the stations are shown in Figure 1. Decimal places indicate that there have been several casts at the

stations. Station 7 was a long station at which five CTD casts have been carried out over the course of a day. It should be noted that the MLD showed a diurnal variation, with a maximum depth of approx. 14 meters. A maximum MLD of approx. 14 m was also shown in the nBUS (station 32). During the SO285 cruise in the southern winter, the MLDs varied between approx. 30 m and 15 m. The dashed lines were inserted to illustrate the maximum MLDs.

nBUS

sBUS

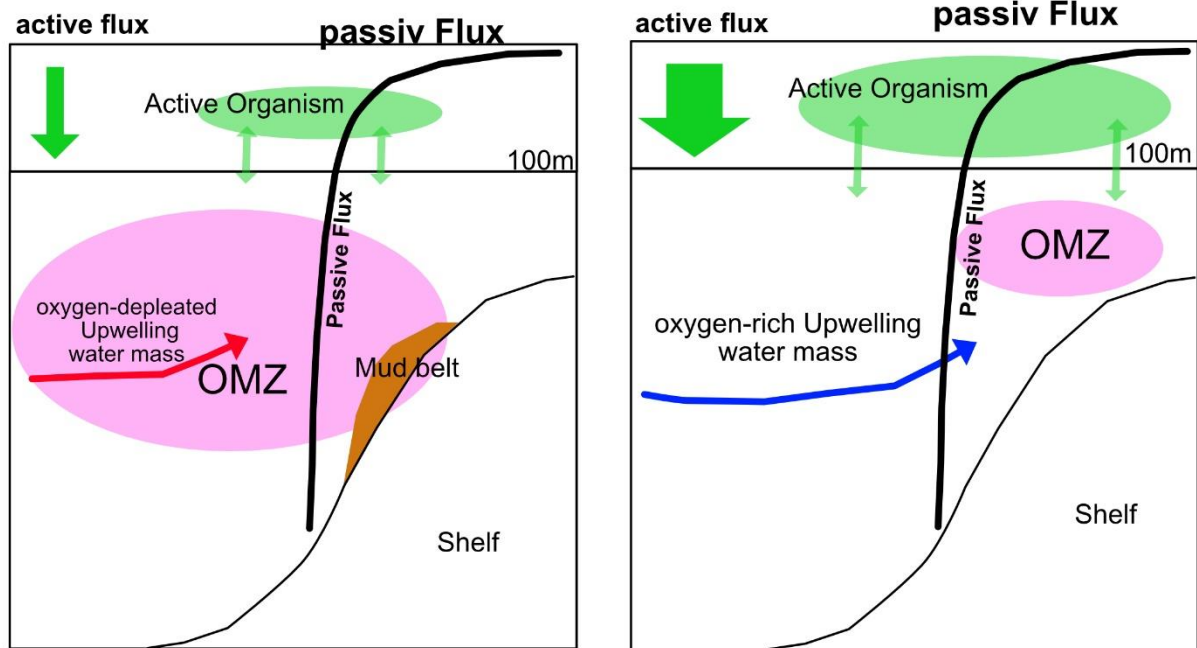


Fig. 3 The preliminary system schematics left nBUS and right sBUS, with all the relevant processes described. the black curve here indicates the passive flux. OMZ Oxygen Minimum Zone