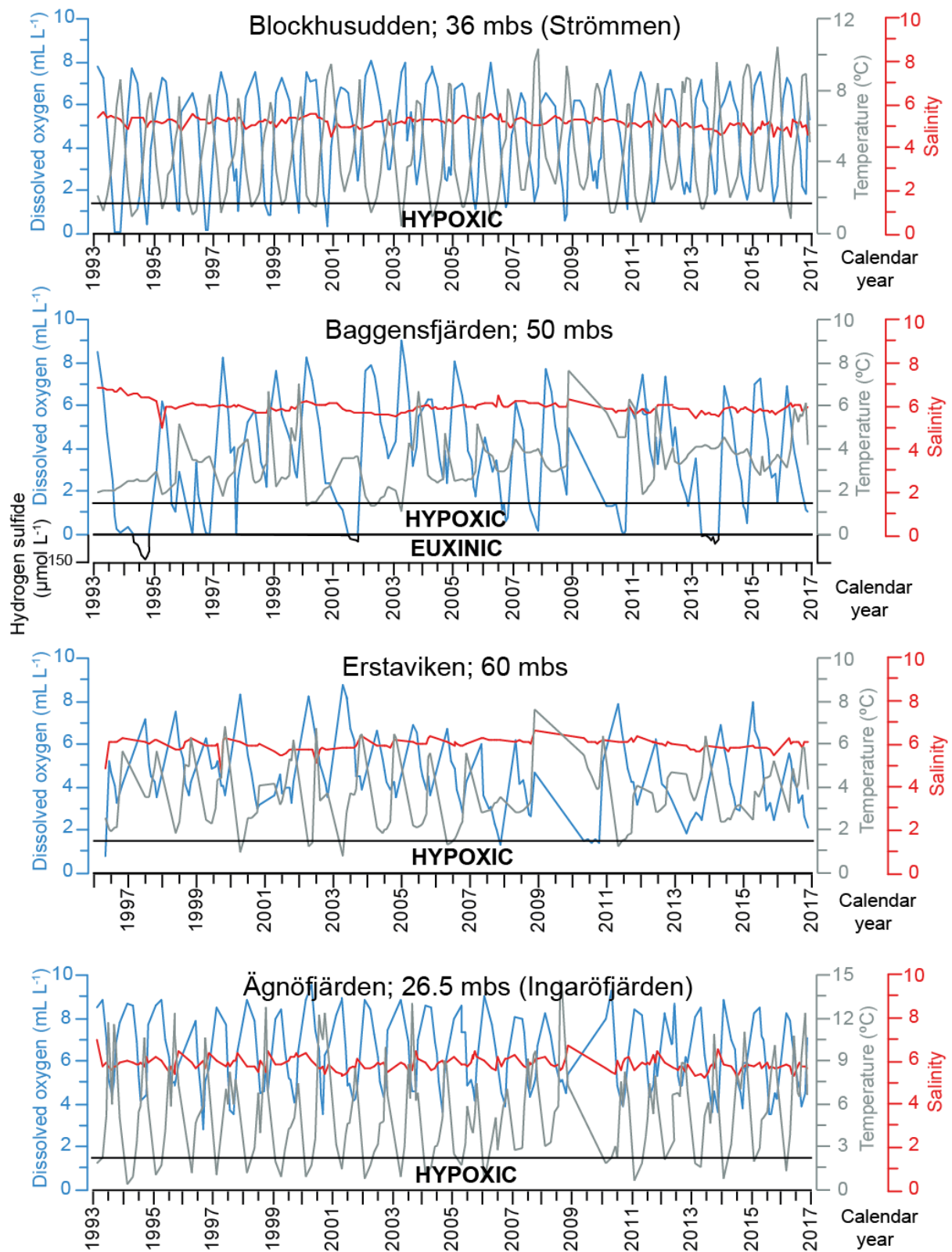
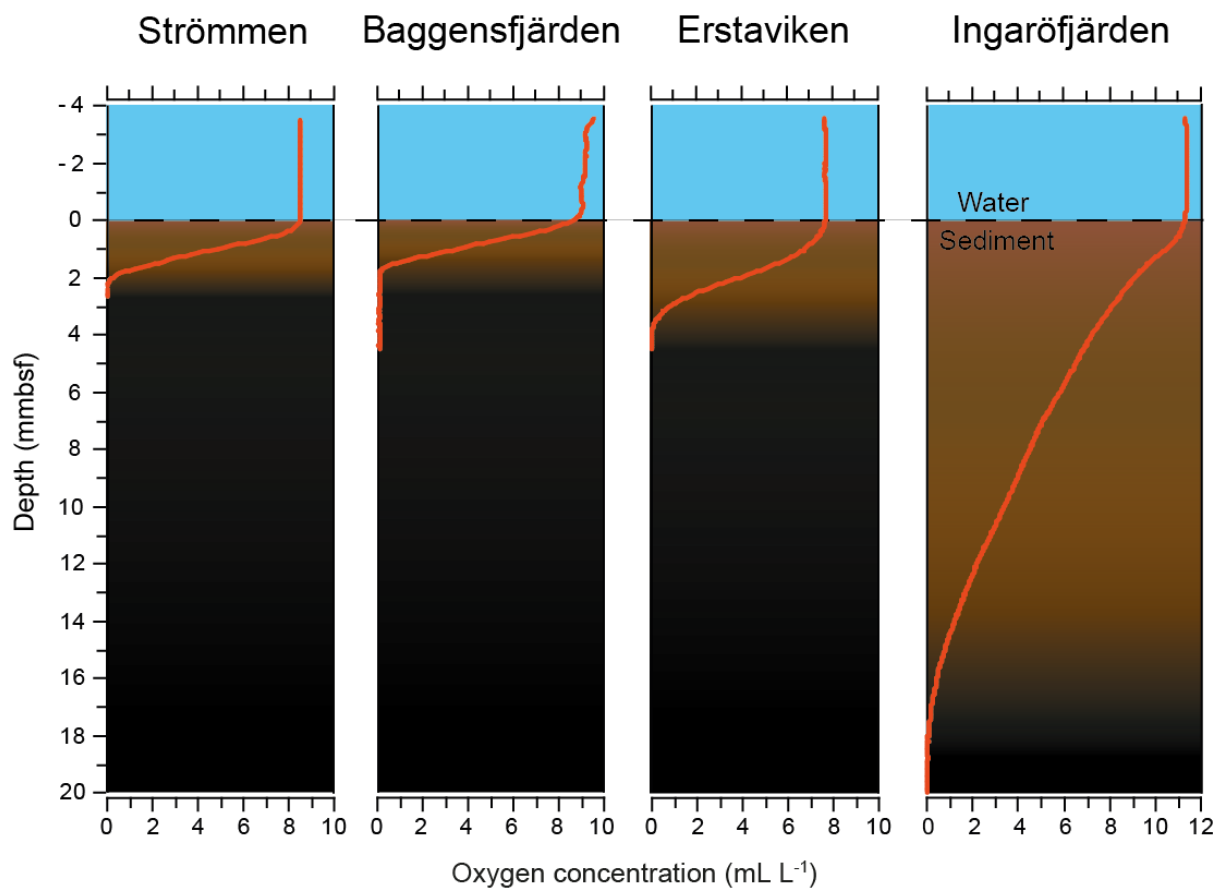
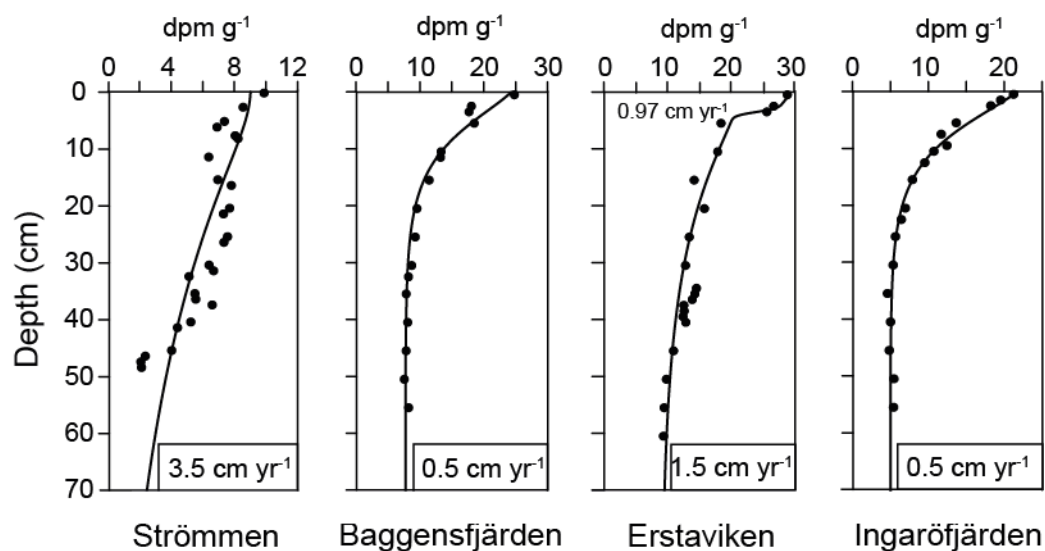
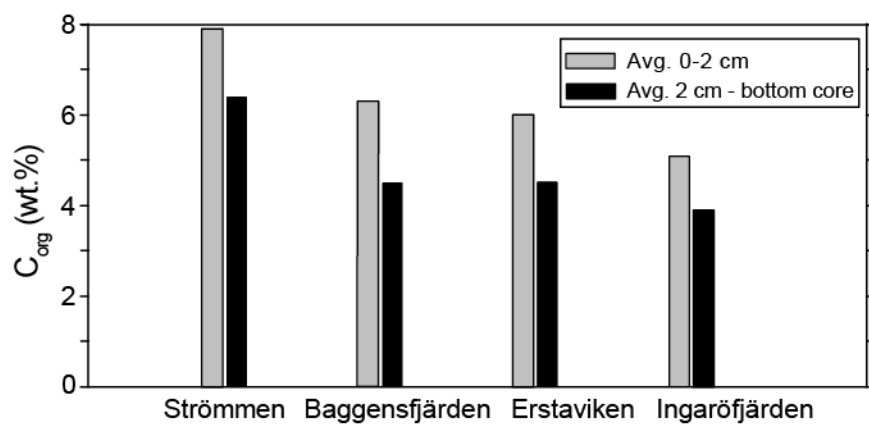
Supplementary material to van Helmond et al.

Supplementary Figure 1. Bottom water dissolved oxygen (and in the case of Baggensfjärden sulfide) concentrations, temperature and salinity for the nearest Swedish Meteorological and Hydrological Institute (SMHI) monitoring stations (Fig. 1).

Supplementary Figure 2. High resolution O$_2$ profiles.

10   **Supplementary Figure 3.** Solid phase depth profiles of ^{210}Pb model fits (black lines) for the study sites in the Stockholm Archipelago: Strömmen, Baggensfjärden, Erstaviken and Ingaröfjärden. Sediment accumulation rates per site are indicated in the figure. Note that the sediment accumulation rate at Erstaviken was lower in recent years.

15   **Supplementary Figure 4.** Bar diagram of the sedimentary organic carbon content for the study sites in the Stockholm Archipelago: Strömmen, Baggensfjärden, Erstaviken and Ingaröfjärden.