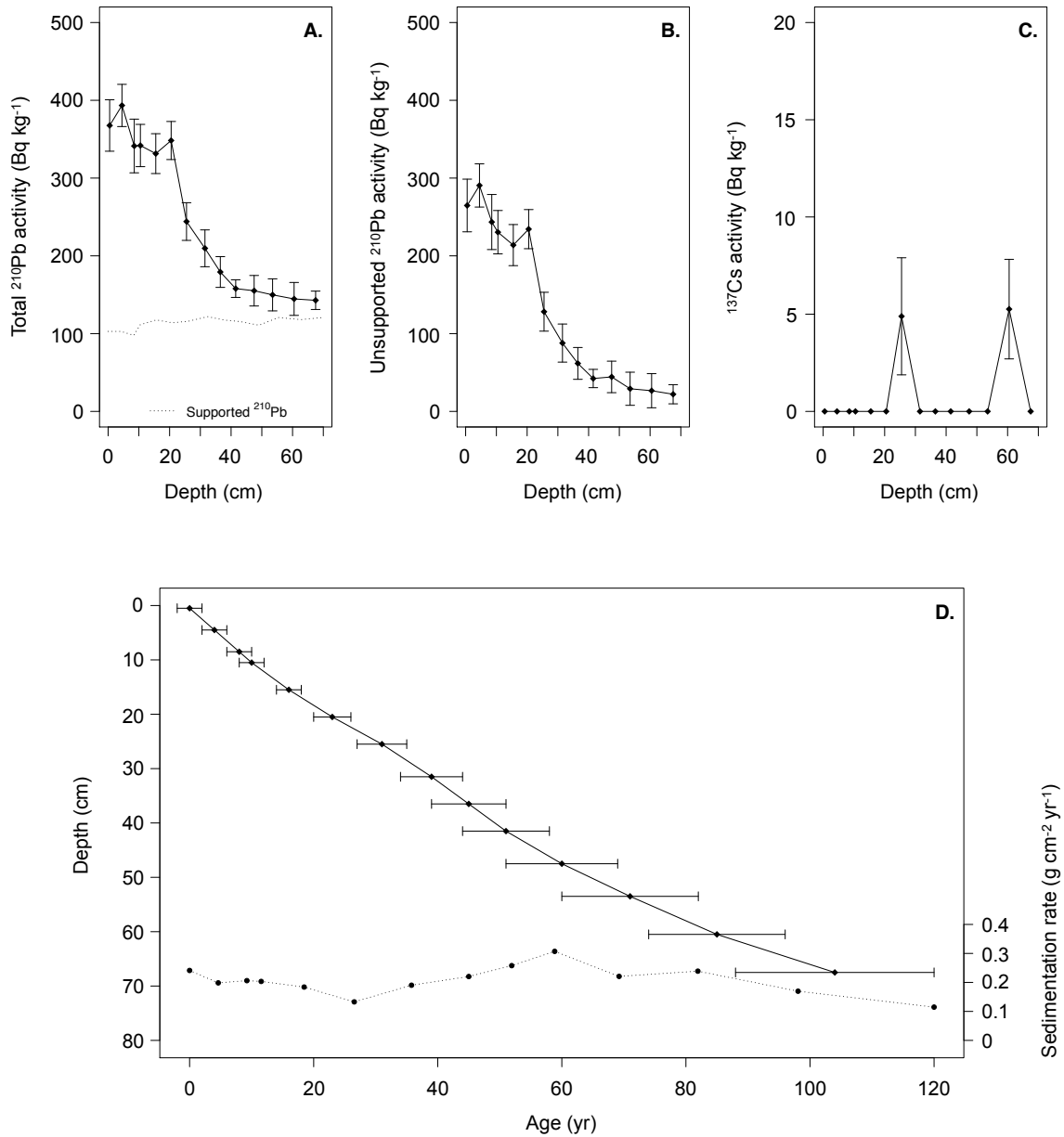
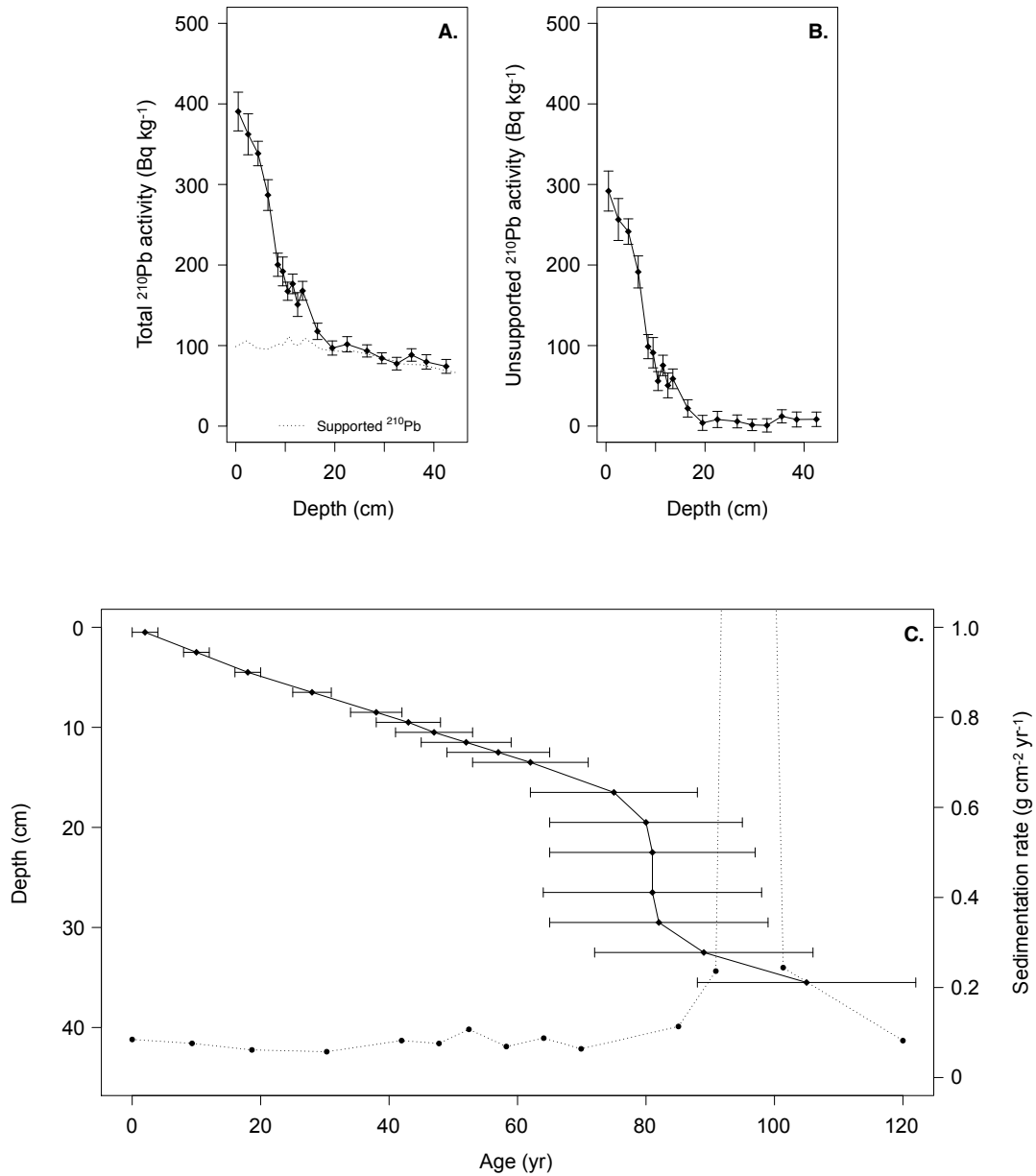


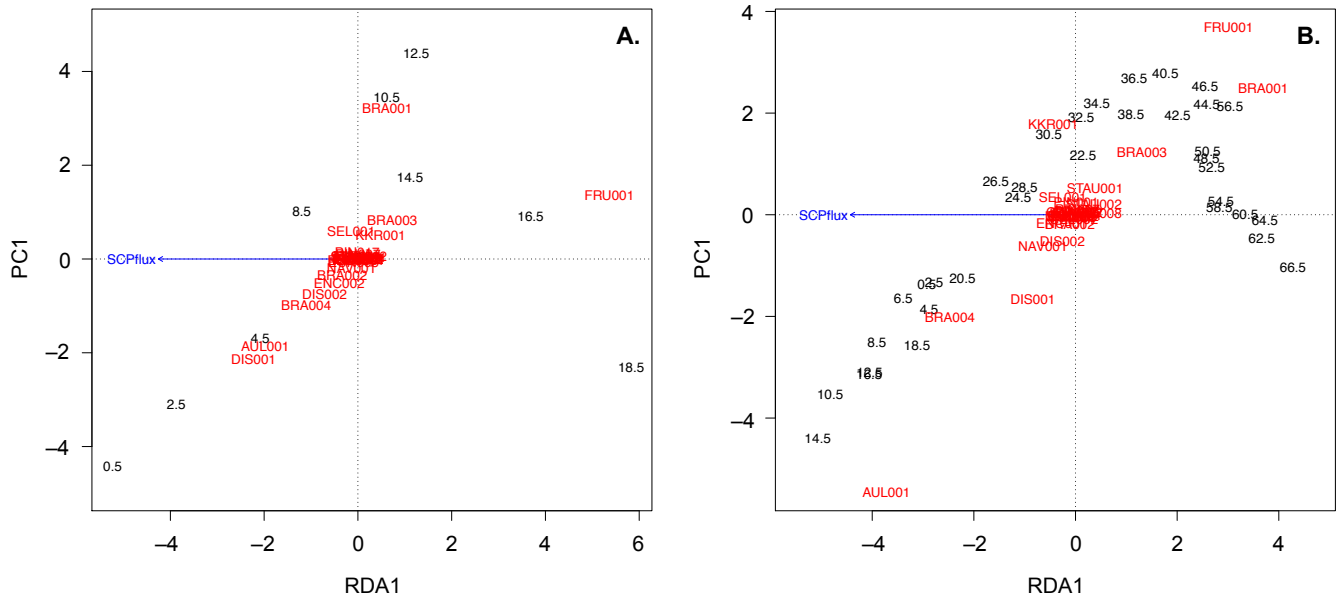
**Supplementary Figure 1.** Annual total precipitation deviations from the long-term mean over AD 1901–2015 in Singapore. A 5-year smoother is plotted using moving averages of the precipitation anomalies.



**Supplementary Figure 2.**  $^{210}\text{Pb}$  and  $^{137}\text{Cs}$  data for MRR2. **A.** Total and supported  $^{210}\text{Pb}$  activities. **B.** Unsupported  $^{210}\text{Pb}$  activities. **C.**  $^{137}\text{Cs}$  activity profile. **D.**  $^{210}\text{Pb}$  chronology and dry mass sediment accumulation rates. Linear interpolation with weighted averaging between the dated horizons was used to assign calendar dates and sediment accumulation rates to the remaining samples.



**Supplementary Figure 3.**  $^{210}\text{Pb}$  data for MRR1. **A.** Total and supported  $^{210}\text{Pb}$  activities. **B.** Unsupported  $^{210}\text{Pb}$  activities. **C.**  $^{137}\text{Cs}$  activity profile. **D.**  $^{210}\text{Pb}$  chronology and dry mass sediment accumulation rates. Linear interpolation with weighted averaging between the dated horizons was used to assign calendar dates and sediment accumulation rates to the remaining samples. No  $^{137}\text{Cs}$  activity was detected in the analysed samples.



**Supplementary Figure 4.** Redundancy analysis (RDA) biplots for **A.** MRR1 and **B.** MRR2. Each arrow represents the approximate (linear) correlation coefficient between diatoms and SCP fluxes. Diatom species are given as codes; corresponding taxonomic names can be found in Supplementary Table 3.

