

Figure captions.

Figure 1. Study area and sampling stations. a) Location of Sarawak, Malaysia; and b) the Rajang with its estuary/river mouth background shown. Samples upstream of S5 showed 0 salinity while downstream of S5 showed salinity >0 . Hence here from S5 to S10 is regarded as the fresh water section, and downstream of S5 is regarded as the estuarine section.

Figure 2. Distribution pattern of (a) TSM, (b) DOC and (c) POC along with conductivity/salinity in the Rajang. The fresh water dot stands for all samples with $S = 0$ and the error bar corresponds to the standard deviation. The marine dot is S1.

Figure 4. GABA% distribution pattern from fresh water to estuary in the Rajang: a) dissolved and b) particulate. The dashed line indicates the linear mixing line between fresh and marine endmembers. The fresh water endmember (brown triangle), it is calculated as the means of all fresh samples ($S = 0$), and the marine endmember (purple diamond) is calculated as the means of all offshore samples with salinity >30 . The error bar indicates the standard deviation.

Figure 5. Same as figure 4, but for D/L-Glx.

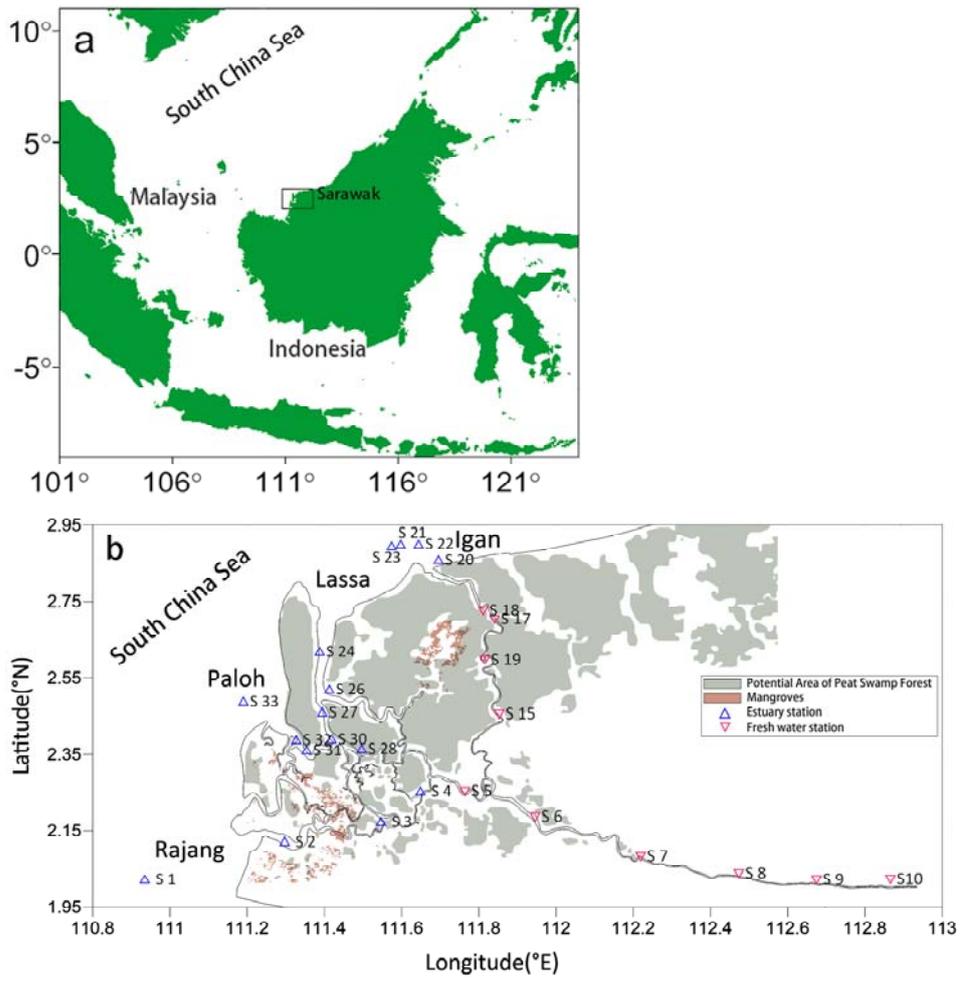


Figure 1.

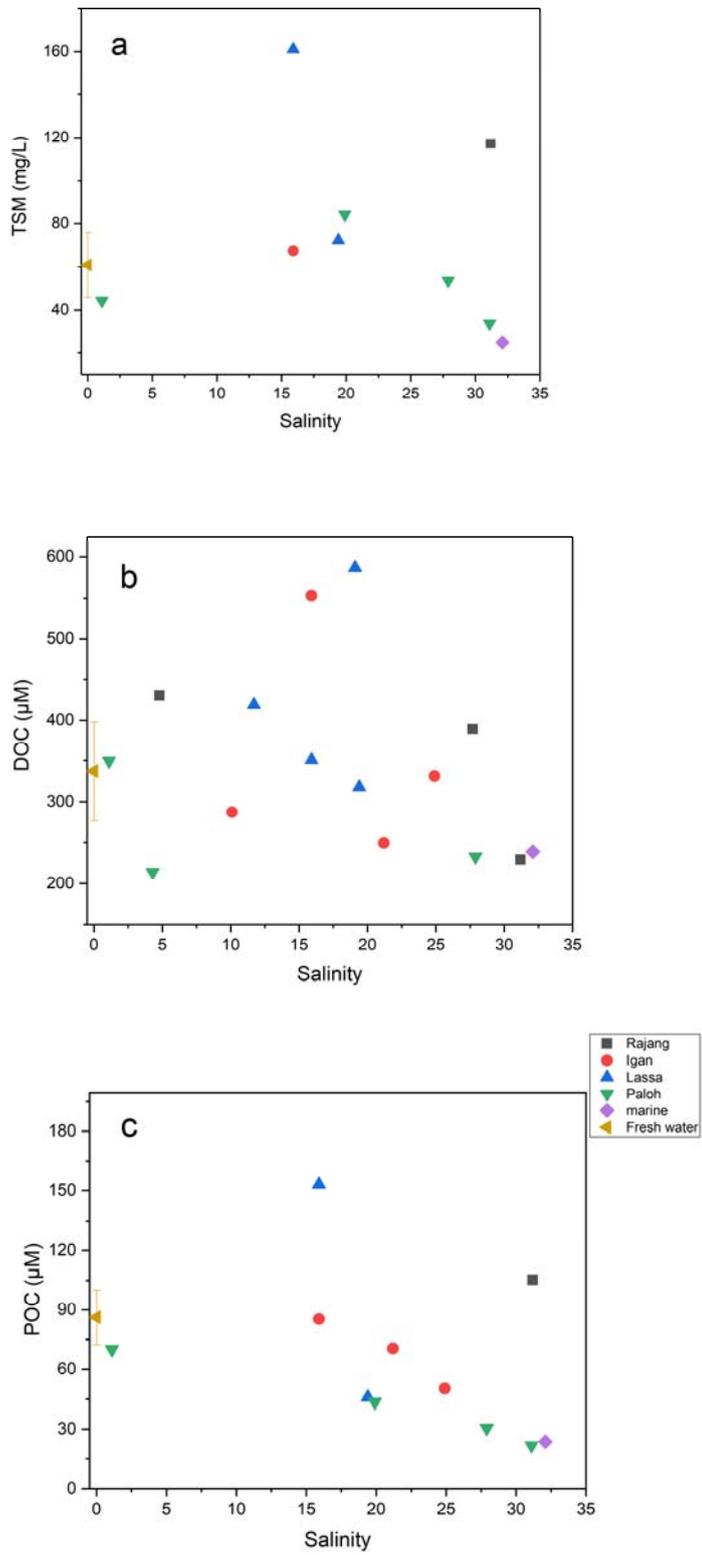


Figure 2.

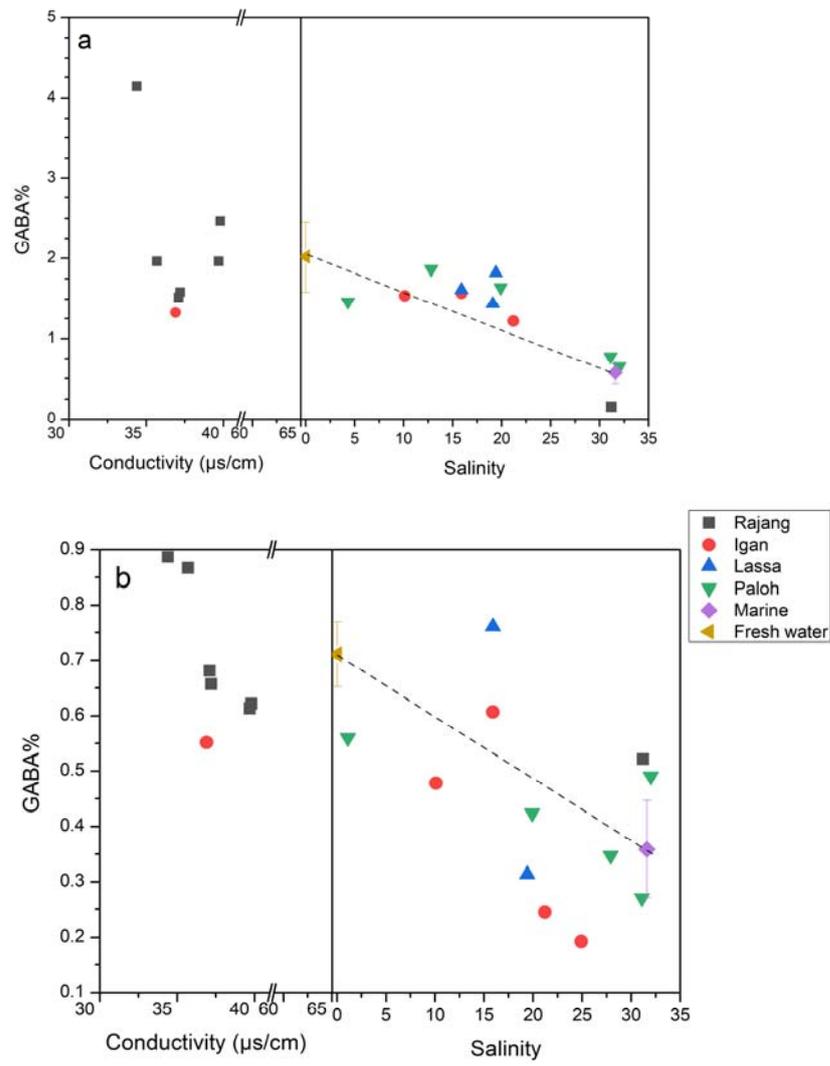


Figure 4.

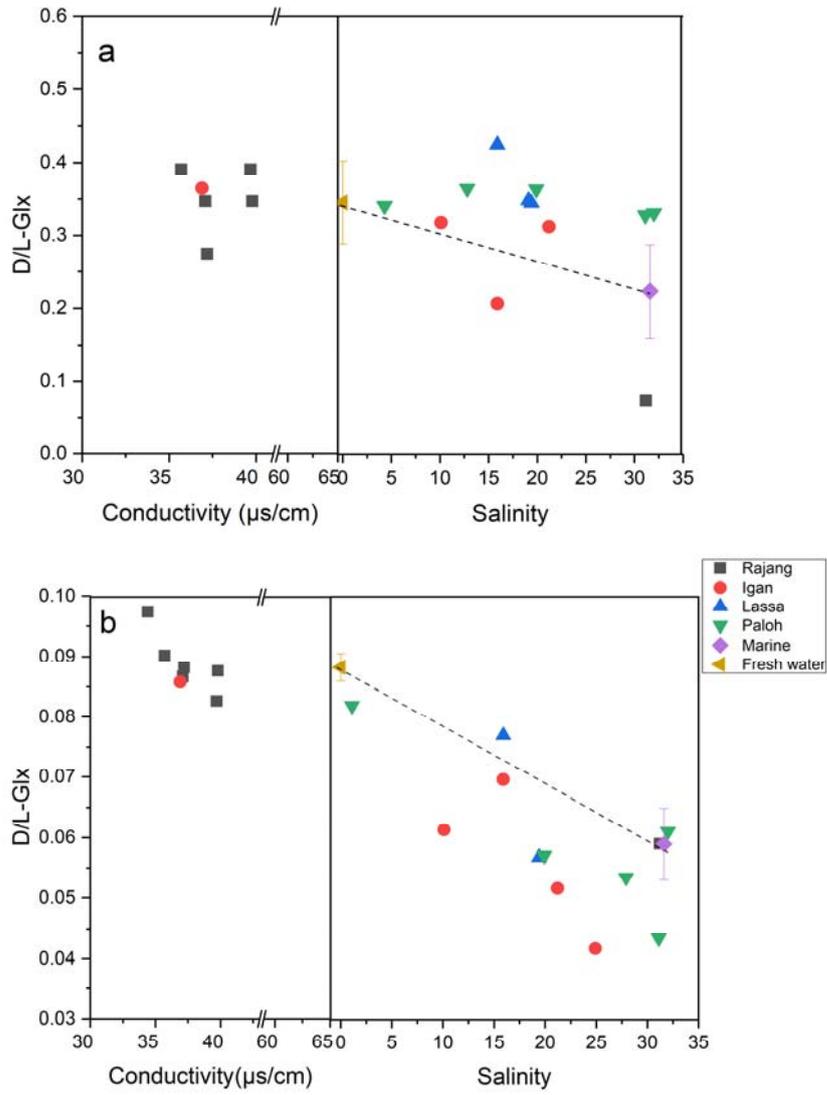


Figure 5.