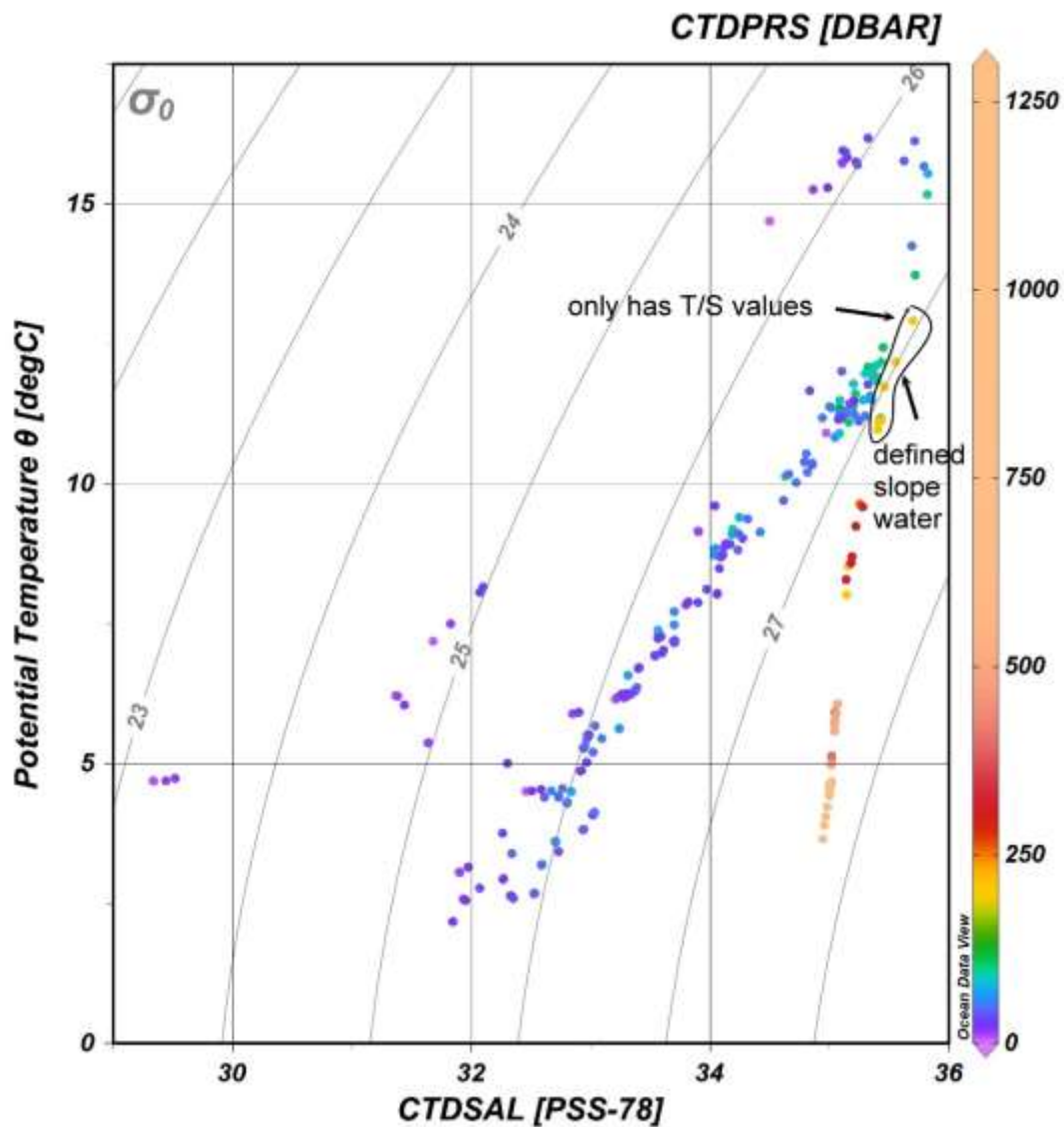
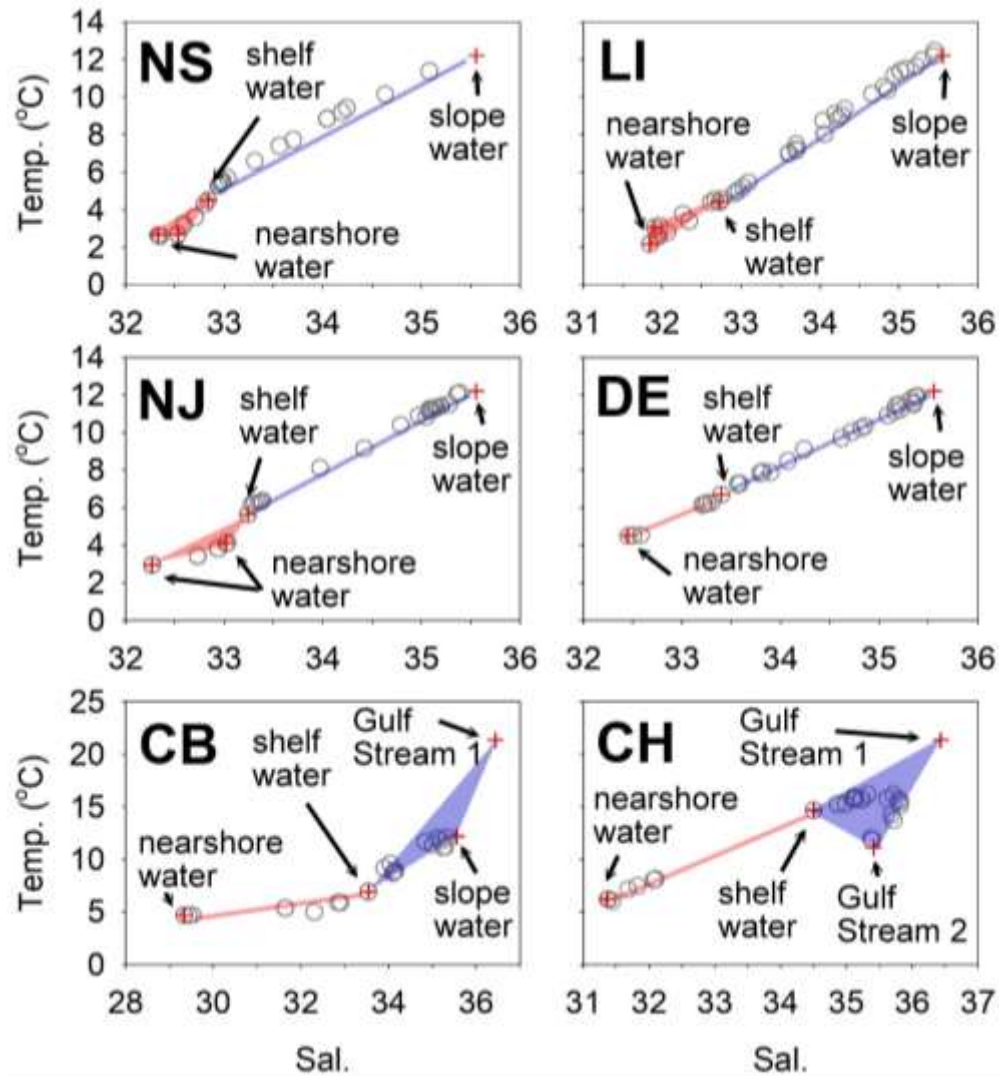


Supplementary Material

Supplementary Figure 1. Potential temperature and salinity diagram. The different colors correspond to different sampled depths and the gray lines depicted the isopycnal level. The samples along the isopycnal of 27 (inside the black line area) were the potential slope water.



Supplementary Figure 2. Potential temperature and salinity diagram for each transect. The gray circles and red crosses represented sample data and endmembers, respectively. The samples between the plume nearshore and the shelf water as well as the samples between the shelf water and the slope water/ Gulf Stream were divided into the red and blue regions, correspondingly. The line and triangle represented the estimations of two-endmember or three-endmember.