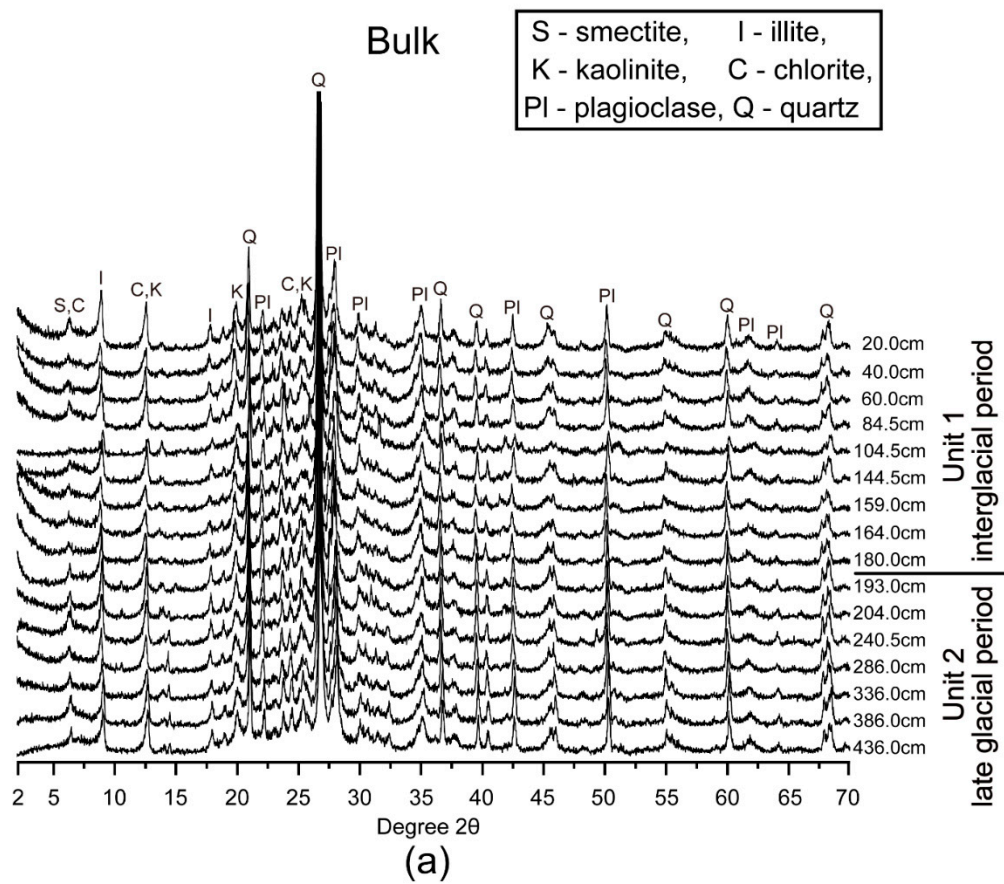


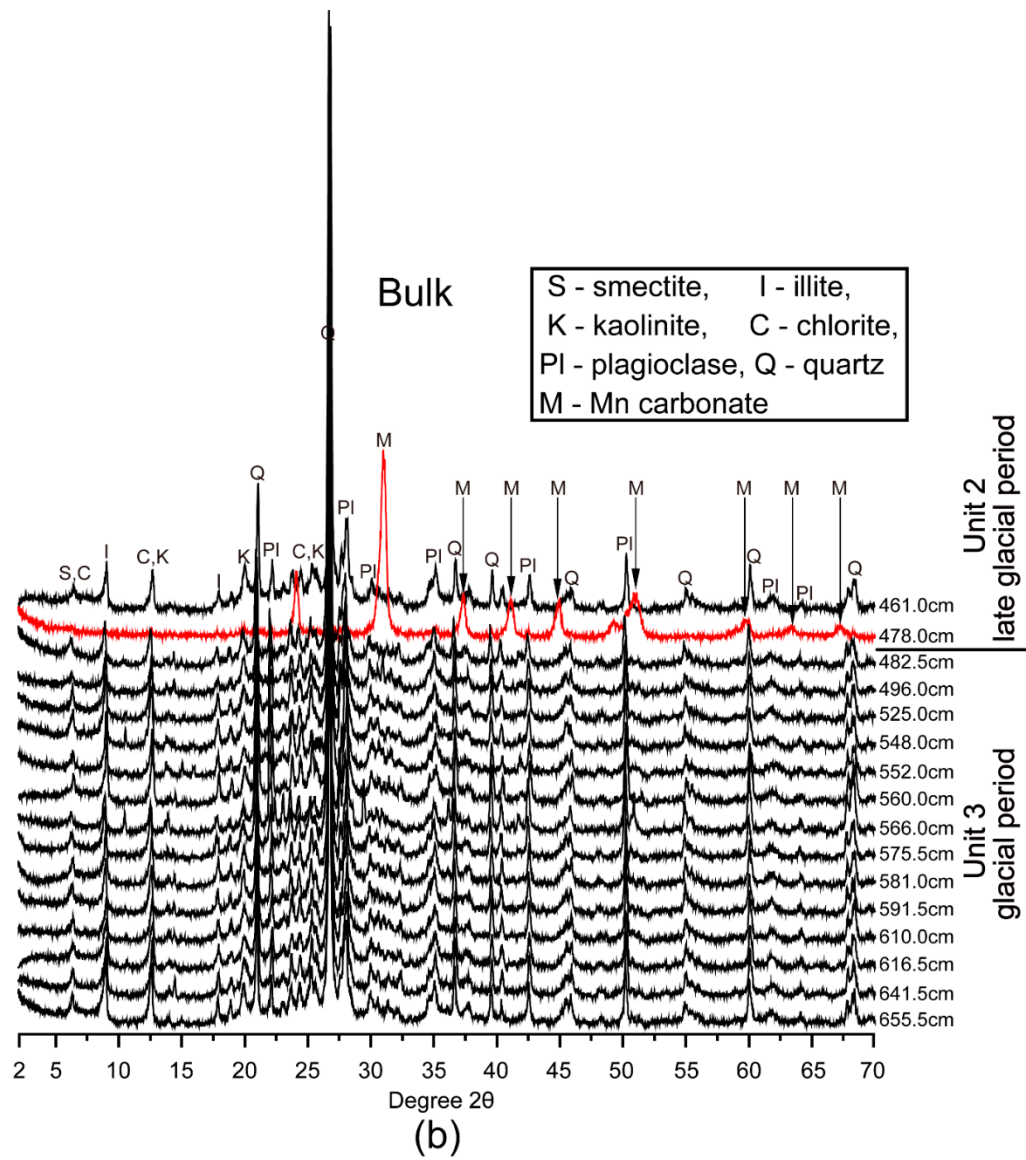
# Supplementary material: Microbial Diversity Responding to Changes in Depositional Condition during the Last Glacial and Interglacial Period: NE Ulleung Basin, East Sea (Sea of Japan)

Kee Hwan Lee, Chang Hwan Kim, Chan Hong Park, Kiho Yang, Sang Hoon Lee, In Soo Lee, You Jin Kwack, Jae Woo Kwak, Jaewoo Jung, and Jinwook Kim

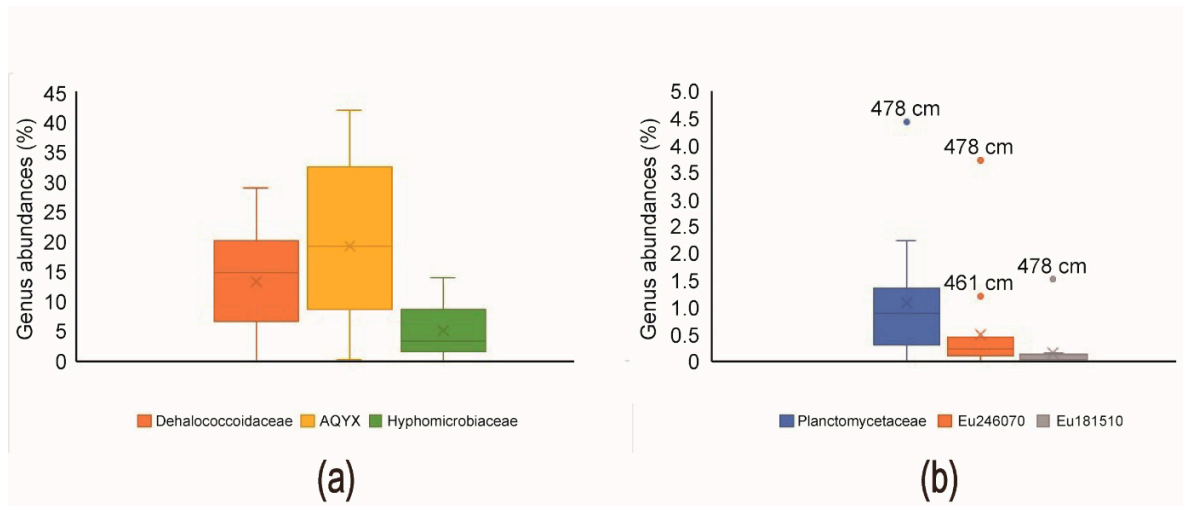
**Table S1.** Mean and Standard Deviation of *Gammaproteobacteria* based on Genus Abundances. *Gammaproteobacteria* are evenly distributed in the interglacial period, while sharply reduced in the late glacial period. The relatively high values in the glacial period is due to abundance of *Thiomicrospira* (95.33 %) at 482.5 cm. Except for *Thiomicrospira*, the amount of *Gammaproteobacteria* decreases from interglacial to glacial periods.

|                    | Interglacial Period (%) | Late Glacial Period (%) | Glacial Period (%) | Glacial Period (%) (Except <i>Thiomicrospira</i> ) |
|--------------------|-------------------------|-------------------------|--------------------|----------------------------------------------------|
| Mean               | 4.91                    | 0.06                    | 2.01               | 0.10                                               |
| Standard Deviation | 9.306                   | 0.219                   | 13.470             | 0.253                                              |





**Figure S1.** Bulk XRD with depth as periods. (a) is upper part, (b) is lower part. The red line indicates Mn carbonate. S = Smectite, I = Illite, K = Kaolinite, C = Chlorite, Pl = Plagioclase, Q = Quartz, M = Mn carbonate.



**Figure S2.** The Boxplot shows Genus Relative Abundances in Family Level. **(a)** Normal distribution of *Dehalococcoidaceae*, *AQYX*, and *Hyphomicrobiaceae* in all sediments. *AQYX* is unclassified strain. **(b)** Normal distribution with z-score values in all sediments. *Planctomycetaceae*, *EU246070*, *EU181510* are belonging to the *Planctomycetes*. The central box indicates the upper and the lower quartile (25th to 75th percentiles). Whiskers extend from end of box that mark the lowest and highest values in family group. Z-score greater than 3 or less than -3 is considered to be an outlier. Outlier value indicates 3.08 in *Planctomycetaceae*, 3.56 in *EU246070* and 3.70 in *EU181510* at 478 cm.