

12 6**PALEOCEANOGRAPHIC SIGNIFICANCE OF HOLOCENE MUD IN THE
ULLEUNG BASIN, EAST SEA(SEA OF JAPAN)**

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The bioturbated mud facies, which consists of the *Thalassimoides* ichnofabric, occur in the topmost parts of cores from the East Sea(Sea of Japan). The thickness of the bioturbated mud is about from 6 cm to 80 cm, and it increases from the southern slope of the Ulleung Basin to northern basinplain. The thickest bioturbated mud facies occurs at cores 95PC-3 and 95PC-4 in the central Ulleung basinplain. The cores of the Korea Plateau contain only this bioturbated mud with thickness of less than 5 cm. This bioturbated mud was deposited during the Holocene, whose age was dated by the Ulleung-II tephra (about 9300 yr B.P.) and AMS ¹⁴C dating. The bioturbated mud was mainly accumulated in the Ulleung Basin along the pathway of the ESWC(East Sea Warm Current).

However, the lowermost parts of cores 95PC-6, 95PC-9, 95PC-10 and 96EBP-5 are composed of a very thick-bedded bioturbated mud which includes randomly-oriented pyriteized burrows overlain by thick-bedded turbidite deposits. This bioturbated mud is intercalated with the Aso-3 tephra(about 120,000 yr B.P.). Therefore, deposition of this bioturbated mud is interpreted to have been initiated immediately after middle Pleistocene. The result indicates that the *Thalassimoides* bioturbated muds were only deposited during the sea-level rise in the Ulleung Basin.