

## Development of oyster reef and its associated community in the Sanbanze tidal flat - Focusing on bivalves and benthic foraminiferas

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In order to know the formation process and to conduct an evolutionary study on the oyster reef, we are surveying an extant oyster reef near the mouth of Nekoanegawa River in the western part of Sanbanze, Tokyo Bay. We examined aerial photos of this area taken at different dates, and also we used  $^{14}\text{C}$  dating method (by correlating the decreasing pattern of  $^{14}\text{C}$  after its increase by atomic bombing). Also we also examined the change of benthic fauna during its formation by digging the oyster bed down.

By the result of the aerial photos and by the  $^{14}\text{C}$  dating, initial reef was probably formed within these 20 years. The digging went to the lower limit of the oyster bed. We also recovered sediments of every 10cm and examined bivalves and benthic foraminifera contained in the sediments. As a result, bivalve assemblage changed as the oyster reef started to form. Before the formation of the oyster reef, the bivalve assemblage was dominated by infaunal *Ruditapes philippinarum*, that is a characteristic species of tidal flat sand. After the appearance of oysters, some epifaunal species appeared, such as *Mytilus galloprovincialis*. We are not examining change of foraminiferal assemblages during the formation of the reef.