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Abstract

We investigated radiocesium concentrations in sediments and in Manila clams *Ruditapes philippinarum*. The samples were taken from three points in Tokyo Bay on September 2014. The ranges of radiocesium concentration in sediments were $<0.35 \sim 0.59$ Bq/kg-dry of ^{134}Cs and $1.2 \sim 1.9$ Bq/kg-dry of ^{137}Cs . Each highest value was obtained from the most inside point of the bay. The ranges of radiocesium concentration in Manila clams *Ruditapes philippinarum* were <0.091 Bq/kg-wet of ^{134}Cs and $0.13 \sim 0.16$ Bq/kg-wet of ^{137}Cs . The highest value of ^{137}Cs in Manila clam also was obtained from the most inside point of the bay. Radiocesium concentrations in Manila clam living in Tokyo Bay are in safe level as a food. These data suggested that the level of radiocesium in the sediment affected that of Manila clam. In order to assess the risk of radiocesium in ecosystem of Tokyo Bay after the Fukushima Daiichi Nuclear Power Station (FDNPS) accident, we need to know accurate concentration of radiocesium (^{134}Cs , ^{137}Cs) in Manila clam. We estimated ^{134}Cs concentrations of Manila clam by using ^{137}Cs concentrations of that and $^{134}\text{Cs}/^{137}\text{Cs}$ activity ratio of FDNPS in that time. The estimated concentrations of ^{134}Cs in Manila clam were in $0.042 \sim 0.051$ Bq/kg-wet. There was no discrepancy between the measured concentration value and the estimated one. It is considered that this estimation method is useful in case of low level radiocesium.