

アサリの非対称殻膜様出現頻度における地域差

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Locality difference in the frequency of asymmetric shell marking type of the Manila clam *Ruditapes philippinarum*

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Asymmetric shell marking (type A) in the Manila clam *Ruditapes philippinarum* is known to be a heritable dominant characteristic. We collected local samples from a wide range of the Japanese Archipelago and China, and found that the frequency of type A was heterogeneous among the samples. The frequency was significantly higher (14.5-28.1%) in samples collected in Hokkaido and the Kanto area (Tokyo Bay, Sagami Bay and Numazu) than those (0-9.9%) in the other samples collected in Tohoku and west of Hamana Lake including China. Non-native clam individuals had been released in the Banzu area of Tokyo Bay for nearly two decades, ceasing in 2007. The clam samples collected at Banzu in 2005 were subdivided into small (<20 mm in shell length) and large (>25 mm) size groups, and a significantly higher frequency of type A was observed in the same group (22%) than in the large group (0%). On the other hand, clam samples collected at the same area in 2011-2012 presented a higher frequency of type A (17.2-20.3%) regardless of the size. Samples collected from other areas of Tokyo Bay where no exogenous individuals had been released were observed to have maintained a high frequency of type A (17.9-26.4%). This simple phenotypic marker indicates that the Manila clam population in Japan is genetically structured and exogenous individuals introduced to Tokyo Bay may have had little effect on diminishing the frequency of type A.

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