

## Role of the Bering Strait in radiolarian biogeography

# Takuya Itaki[1]

[1] GSJ, AIST

The Bering Strait connecting the Bering Sea and Arctic Ocean plays an important role in transport of the Pacific water to the Atlantic Ocean. The marine biota could also communicate between the both oceans through the strait. However, it is little known the biogeography of radiolarians, which is one group of marine plankton, in the Arctic area. In this study, radiolarians in the Chukchi Sea, Beaufort Sea and Bering Sea including the Bering Strait were examined using 26 depth-stratified plankton samples collected during cruises MR00-K06, MR04-05 and MR06-04 of R/V Mirai of JAMSTEC. Results are following.

(1) Radiolarian absent area was recognized in the shelf around the Bering Strait. It might be related with the Bering Sea coastal water.

(2) Radiolarian assemblages between the Arctic seas (Chukchi and Beaufort seas) and the Bering Sea were significantly different each other.

(3) Some radiolarians, which occurred in the both areas, were deep or eurybathyal dwellers, and known as cosmopolitan species.

(4) Major living depths of radiolarians restricted in the Bering Sea side were deeper than 50 m. Therefore these species cannot to pass through the Bering Strait, if the coastal water is not much in this area.