

Late-autumn living radiolarian fauna in surface-subsurface waters of the Japan Sea off Sado Island

Toshiyuki Kurihara^{1*}, Atsushi Matsuoka¹

¹Niigata University

The radiolarian fauna on November 13, 2008 is documented from surface-subsurface waters (< 100 m depth) in the Japan Sea off Tassha, Sado City, Sado Island, Niigata Prefecture, central Japan. The sea-water temperature of the water mass from the surface to 100 m depth ranged from 19.4 to 17.1 degrees C. The temperature at 100 m depth (17.1 degrees C) was the highest value in the year-round record from March 2008 to February 2009. Seventeen spumellarian and 20 nassellarian species were identified from 1711 shells. The fauna is characterized by abundant warm-water species, including *Tetrapyle octacantha*, *Spongosphaera streptacantha*, *Pseudocubus obeliscus*, and *Didymocyrtis tetrathalamus*, along with *Acanthodesmia vinculata*, *Acanthosphaera circopora*, and *Dictyocoryne profunda* group. Given the abundance of *T. octacantha* and *S. streptacantha*, the species composition of the November fauna in 2008 is similar to that of September faunas recorded in our previous studies off Sado Island. This finding indicates that the radiolarian fauna inflowing within the Tsushima Warm Current around Sado Island in 2008 was under the influence of the same water current system from September to November, probably the Taiwan-Tsushima Warm Current System. In addition, the common occurrence of warm-water species dwelling in tropical to subtropical surface waters (e.g., *D. tetrathalamus*) demonstrates the influence of warm waters of the Kuroshio.