

Polycystine radiolarian fauna and paleoceanographical changes in the Shimokita Peninsula through the last 750 ky.

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The Northwestern Japanese Pacific Ocean margin is a region presenting high water masses mixing caused by the influences of three distinct currents (the Kuroshio Current, the Tsugaru Current, and the Oyashio Current). Our Studied Site, the Shimokita region located in front of the Tsugaru Strait, is a region directly influenced by the Tsugaru Warm Current, and the Oyashio Subarctic Current. Many studies of this region concerning the last 50 ky have been conducted for understand this region oceanographic changes through the late Pleistocene. At this time there are no long term paleoceanographical studies of this region for period older than the last 150 ky. In this context the core hole C9001C drilled at the 1,180 m water depths of the sea-bottom in the D/V Chikyū 2006 Mission, is an excellent example of a stratigraphic succession off Japan. This core has a high sedimentation rate and provides a nearly continuous record from MIS 18 (750 ka) to present, covering the Brunhes normal polarity epoch. Polycystine radiolarians due to their water masses vertical distribution, and their ecological properties is the most efficient micropaleontological proxy for establish paleoceanographical study of this region. The purpose of this study is to establish the first long term polycystine radiolarian assemblages faunal evolution of this region, and discuss the polycystine radiolarian faunal evolution through the last 750 ky. In this context we will focus our study on the unusual climatic change event as the Matsuyama/Brunhes magnetic susceptibility reversal period, the Mid Brunhes event (400-300 ky after Jansen et al., 1986), the MIS 9, the MIS 8 and the MIS 6.5 (Martinson et al., 1987).

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