Geologic age of the whale fossil-bearing calcareous float concretion from the Hae River, Hokkaido, Japan, based on radiolarian and diatom analyses

*Isao Motoyama[1], Toshiaki Maruyama[1], Tomohiro Nishimura[2], Kazuhiko Sakurai[2], Akane Kasukawa[1], Kenji M. Matsuzaki[3]

1.Department of Earth and Environmental Sciences, Yamagata University, 2.Hobetsu Museum, 3.Geological Survey of Japan, AIST

Radiolarian and diatom fossils have been used to constrain the age of calcareous concretion collected from the Hae River, Hidaka Town, southern central Hokkaido, Japan. The calcareous concretion contains whale fossils and was discovered as a float during the riparian works in 2005. Recovered radiolarian and diatom assemblages indicate the *Lipmanella redondoensis* Zone (9.0 to 7.4 Ma) and the *Rouxia californica* Zone (7.7 to 6.5 Ma), respectively. Thus the concretion can be dated as 7.7 to 7.4 Ma. This age is concordant with the age range of the Nina Formation which is distributed near the locality of the concretion and was previously dated as ca. 10.1 to 3.5 Ma based on the diatom stratigraphy in the surrounding area. We will examine some samples collected from the Nina Formation exposed along the Hae River to confirm the origin of the concretion.

Keywords: whale fossil, Radiolaria, Diatom

©2016. Japan Geoscience Union. All Right Reserved.