

## Magnetostratigraphy of the Nemuro Group in the Shiranuka Hill area in eastern Hokkaido

\*Hiroyuki Hoshi<sup>1</sup>, Yota Kitano<sup>1</sup>, Ichiha Mita<sup>1</sup>, Reishi Takashima<sup>2</sup>, Keiichi Hayashi<sup>3</sup>

1. Aichi University of Education, 2. Tohoku University, 3. Hokkaido Research Organization

Previous and ongoing studies have suggested that a Cretaceous–Paleogene (K–Pg) boundary is present in a muddy sequence of the Nemuro Group in the Shiranuka Hill area in eastern Hokkaido. An interdisciplinary approach, including detailed mapping, radiometric dating, geochemical analyses, and biostratigraphic and magnetostratigraphic investigations, is needed to locate a K–Pg horizon in the group. For this purpose, we are currently investigating the magnetic polarity stratigraphy of the Kawaruppu and Tomikawa Formations of the group. Mudstones and fine tuffs were sampled along two sections for magnetic measurements; one section is along the Kawaruppu River, where a sedimentary sequence of the two formations is well exposed, and the other section is along a tributary of the Kawaruppu River, where a probable K–Pg horizon exists in the Kawaruppu Formation. Demagnetization experiments yielded preliminary results showing a reverse–normal–reverse polarity sequence in the Kawaruppu River section and a reverse polarity sequence in the tributary section. The probable K–Pg horizon is within a reverse polarity sequence, which is compatible with the fact that the K–Pg boundary is located within reverse polarity chron C29r. The normal polarity portion is in the Tomikawa Formation and is probably correlated to a normal polarity chronozone in the Danian stage.

Keywords: K–Pg boundary, Shiranuka Hill, Nemuro Group, Magnetostratigraphy