Geology and geological age of Upper Cretaceous seqence in the Hobetsu Inasato area, Hokkaido, Japan

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The Cretaceous Yezo Group distributed in the Hobetsu area, Hokkaido, Japan was geologically mapped based on newly surveyed lithological and micropaleontological data. Though the Inasato Formation in this area correlated to Cenomanian, our preliminary study found planktonic foraminiferal species that indicate Turonian or later from the localities previously mapped as the Inasato Formation. Geological map published by Takahashi (2002) is needed to be renewed.

Thirty seven planktonic foraminiferal species belonging to eleven genus were identified in this study. Lithostratigraphic classification shown in the previous study was basically followed but the chronological information from the foraminifera is reflected to renew the map of the west of Hobetsu Dam. The mudstones had been assigned to the Inasato Formation but divided into three formations, as follows: Inasato, Nutapomanai and Osawa formations. They are fault-bounded and some new faults are distinguished and mapped. Occurrence of *Praeglobotruncana delrioensis*, *Rotalipora cushmani*, *Thalmaninella globotruncanoides* among others from the Inasato Formation show that this formation is correlated to the Cenomanian. *Dicarinella canaliculata* and *Marginotruncana marginata* collected from the Nutapomanai Formation show Turonian age of this foramtion. *Contusotruncana fornicata*, *Globotruncana arca* and *Hedbergella holmdelensis* from the Osawa Formation indicate Coniacian to Santonian, or Campanian age.

Planktonic foraminifera observed here were highly diversified. Many specimens has white or pale yellow in color and were not filled with recrystallized calcite showing good preservation. They are especially preserved in the Osawa Formation. This is exceptional feature in southern Hokkaido. For example, specimen of *C. fornicata* have clear double keels on the peripheral side and opened pore on the surface of the chambers indicating very low degree of recrystallization. Many occurrence of *Dicarinella hanzawai* (Takayanagi) and *Dicarinella japonica* (Takayanagi), which is known as endemic species in Japan were also observed in the formation. Re-description of these species appears to be needed as their morphologies are highly diversified. Exceptionally well preserved nature of the specimen (even umbilical structures can be recognized) indicates the Inasato area suits for such descriptive study.

Keywords: Hokkaido, Hobetsu Inasato, Upper Cretaceous, Inasato Formation, planktonic foraminifera

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