Japan Geoscience Union Meeting 2010
(May 23-28 2010 at Makuhari, Chiba, Japan)

MIS007-P07 会場:コンベンションホール 時間: 5月24日17:15-18:45

小笠原海台に分布する白亜系浅海性炭酸塩岩の堆積相および年代

Lithology and ages of Cretaceous shallow-water carbonates from the Ogasawara Plateau

高柳 栄子[1*], 井龍 康文[1]

Hideko Takayanagi[1*], Yasufumi Iryu[1]

[1]名古屋大学大学院環境学研究科

[1]Nagoya Univ.

There are many submerged seamounts and guyots capped with Cretaceous shallow-water carbonates in the northwestern Pacific Ocean. The shallow-water carbonates were recovered by ocean drilling during the Ocean Drilling Program (ODP) Legs 143 and 144 and by dredging many during scientific cruises (e.g. the Aries V Expedition) to reconstruct paleoclimatic and paleoceanographic conditions of Cretaceous shallow tropical seas and to delineate evolution in ecosystems of Cretaceous carbonate platforms. However, these scientific issues have not been well elucidated due to technical and logistical difficulties in collecting well-consolidated carbonates at high recovery.
Previous studies show that seamounts on the Ogasawara Plateau are capped with >1,000-m-thick Cretaceous shallow-water carbonates. Sr isotope stratigraphy indicate that the ages of the carbonates from the seafloor of this plateau fall in two discrete ranges, the Mid- (Aptian) and Late (Coniacian to Campanian) Cretaceous. Therefore the Ogasawara Plateau is one of the excellent ocean drilling targets to obtain continuous records of Cretaceous shallow-water carbonates. It is expected, by investigating these carbonates, for us to delineate paleoenvironments in Cretaceous tropical shallow seas and paleoecology and evolution of platform biotas in the greenhouse Earth.

From HT; I joined the "IODP New Ventures in Exploring Scientific Targets (INVEST)", which was held in September 23-25 2009 in Bremen, Germany, and made a poster presentation to propose scientific drilling into shallow-water carbonates on the Ogasawara Plateau. It was a nice meeting to understand the history, achievements, and roles of the Integrated Ocean Drilling Program (IODP) and to learn scientific goals of a new ocean drilling program, which will start in 2 013.

キーワード:小笠原海台,浅海性炭酸塩岩, Sr同位体層序,白亜紀

Keywords: Ogasawara Plateau, Shallow-water carbonate, Sr isotope stratigraphy, Cretaceous