Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

©2011. Japan Geoscience Union. All Rights Reserved.



BBG021-P05 Room:Convention Hall Time:May 26 10:30-13:00

Kleptoplastidy in the benthic foraminifera *Planoglabratella opercularis* (d'Orbigny)

Seiji Miyawaki^{1*}, Katsuyuki Uematsu³, Masashi Tsuchiya², Tame Akiniro³, Hiroshi Miyake¹

¹JAMSTEC/Kitasato Univ., ²JAMSTEC, ³Marine Works Japan LTD.

The aim of this study is to clarify the mechanism of endosymbiosis of *P. opercularis*, we conducted culture experiment, ultrastructural observation by using transmission electron microscope (TEM), and molecular phylogenetic analyses of both host foraminiferal small subunit (SSU) ribosomal RNA (rRNA) and chloroplastid 16S rRNA. Chloroplasts were existed inside the foraminferal cell as kleptoplast that originate diatom species belonging to *Bacillariophyceae*. The culture experiments suggest that host foraminifers gain chloroplast only from diatom cells.