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

BPT023-04 Room:201B Time:May 22 11:30-11:45

In situ burrow casting on the deep sea: an example from the Off Hatsushima cold seep site

Koji Seike[1*], Robert Jenkins[2], Hiromi Watanabe[3], Hidetaka Nomaki[3], Kei Sato[2]

[1]Port and Airport research Institute, [2]Yokohama National University, [3]JAMSTEC

Burrows produced by marine invertebrate animals are quite important for our understanding of benthic ecology. Burrows also affect significant impact on geochemical properties of the marine sediments where their producers live, because they provide seawater into sediments. However, burrow morphology on the deep sea had been unknown to date, although numerous burrows occur on the seafloor. Here we document an experimental in situ burrow casting on the Off Hatsushima cold seep site (1173 m deep) for the first time. Casts were made with polyester resin using the ROV *Hyperdolphin* and the casting device *Anagattinger*. Anastomosing network of the small burrows and Y-shaped burrow of *Acharax johnsoni* were observed. This result indicates that complex and abundant burrow system occur under the deep seafloor. In addition, the burrows might affect subsurface geochemical properties of the sediments in the seep site. Our technique can contribute to deep sea ecology, microbiology, and geology.