Japan Geoscience Union Meeting 2014
(28 April - 02 May 2014 at Pacifico YOKOHAMA, Kanagawa, Japan)

HCG37-11 Room:421 Time:April 30 17:00-17:15

Deposition and preservation of fine-grained turbidites around the Japanese islands

IKEHARA, Ken[1*] ; USAMI, Kazuko[1] ; NISHIDA, Naohisa[1]

[1]Geological Survey of Japan, AIST

We will report the sedimentological characteristics of fine-grained turbidites occurred around the Japanese islands such as off Sanriku, off Kumano, Suraga Bay, Beppu Bay, Japan Trench and off Hidaka. Some of these are thought to be formed in relation to the slope failures by the earthquake-ground shaking. Sometimes, subaqueous debris flow deposits were observed below the fine-grained turbidites. Agitation of the shelf floor by the tsunami waves is another mechanism to create the fine-grained turbidites. Third mechanism is the hyperpycnal flows related to the flood events. Preservation potential of the fine-grained turbidites will be discussed based on the repeated surveys of surface sediments off Sanriku region after the 2011 Tohoku-oki earthquake and its related tsunami. Based on these observation, we will discuss on the depositional processes of the fine-grained turbidites and preferable setting to preserve them as the geological records.

Keywords: turbidite, earthquake, tsunami, preservation potential, sedimentary structure, depositional process