

Japan Geoscience Union Meeting 2011

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

©2011. Japan Geoscience Union. All Rights Reserved.



SSS032-04

Room:302

Time:May 24 15:00-15:15

Late Holocene faulting along the Sarobetsu fault zone in northern Hokkaido, Japan

Sunao Ohtsu^{1*}, Gentaro Kawakami¹, Kenji Nishina¹, Makoto Tamura¹

¹Geol. Surv. Hokkaido

Detailed mapping based on LiDAR by Ministry of the Environment, analysis of morpho-sedimentary units, and radiocarbon dating of the prograding beach-ridge complex of the Teshio Lowland in northern Hokkaido allow the differentiation of six prograding units. These are called: III-VII, 6000-4650 yBP; VIII, 4650-2190 yBP; IX, 2190yBP-Present. These units are deposited during periods of high relative sea level.

Longitudinal profiles of swales parallel to shoreline, show southward tilting of the beach-ridge plain. The relative heights between the northern and southern end of the profiles are 6.5m (III-VII), 1.5-1.7m (VIII), and 1.4m (IX). These differences seem to be caused by coseismic coastal uplift due to the active blind thrust fault, the Sarobetsu fault zone.

Keywords: the Sarobetsu fault zone, late Holocene faulting, beach ridges