

## Subducting features of the Woodlark Basin by using OBS, Solomon Islands region

# Shinji Yoneshima [1], Eiichiro Araki [2], Kimihiro Mochizuki [3], Kiyoshi Suyehiro [4], Ryota Hino [5], Masanao Shinohara [6]

[1] ORI, [2] ORI,U-Tokyo, [3] MG&G, ORI, Univ. of Tokyo, [4] ORI, U. Tokyo, [5] RCPEV, Tohoku Univ., [6] Dept. Earth Sciences, Fac. Sci., Chiba Univ.

Woodlark Basin is considered to be formed 5Ma ago. We conducted a 40-day long natural earthquake observation by using 6 OBSs during Feb.-Mar., 1998. We determined 744 hypocenters within 10km errors. The characteristics of hypocentral distribution are : seismicity becomes active below about 20km depth; the subducting plate can be inferred from seismicity down to 180 km, however, there is a seismic gap between 60-100km depths. We found 2 prominent clusters within the OBS net, where the focal mechanisms and hypocentral distribution in each cluster showed different aspects. The results are compared with OBS seismicity of Sanriku region where the tectonic regime is quite different.