Composition of Carbonate Sediments Near Weno Island, Chuuk, Micronesia

Woo, K. S.[1], Park, J. S.[1] and Park, H. S.[2]

[1] *Department of Geology, Kangwon National University, South Korea,*

[2] *Korea Ocean and Research and Development Institute*

Chuuk is the state that belongs to the Federated States of Micronesia and is a typical atoll in Pacific Ocean. The atoll has been developed by subsidence of the volcanic island. Within the atoll, there are still several volcanic islands which used to be topographically high areas in the past before the subsidence of the original volcanic island. Among small islands within the atoll, the Weno Island is the largest. The Korean research base (Korea-South Pacific Ocean Research Center) is located in Weno Island. Small fringing reefs have developed along the rim of the island. Carbonate sediments near the Weno Island are almost entirely composed of carbonate sediments of local and biological in origin and volcanic sediments from the island are extremely rare. Especially, *Halimeda* fragments are the main constituents, but others such corals and benthic foraminifers are also present. Nine sites in Chuuk were investigated and carbonate sediments were sampled by scuba diving. Also, two transects were made from shore to offshore areas around Weno Island by systematic sampling. Sampled sediments were sieved and impregnated, and they were examined using binocular and petrographic microscopes. The sediments analyzed are mostly composed of *Halimeda* fragments with a minor contribution of red algal fragments and benthic foraminifers. It is notable that the proportion of red algal fragments and benthic foraminifers increases with decreasing size fractions.