

沖縄島のサンゴ礁埋立地下の掘削コアを用いた完新世の海水準記録 Holocene sea-level record from a drilled core at land reclamation on reef crest in Okinawa Island

本郷 宙軌^{1*}; 藤田 和彦¹; 川崎 裕子¹; 嶺井 翔伍¹; 佐々木 徹¹
HONGO, Chuki^{1*}; FUJITA, Kazuhiko¹; KAWASAKI, Yuko¹; MINEI, Shogo¹; SASAKI, Toru¹

¹ 琉球大学理学部物質地球科学科

¹Dept. Physics & Earth Sciences, University of the Ryukyus

Holocene sea level records provide the opportunity to understand reef formation history, mangrove development, and settlement by ancient people. Especially, the mid-Holocene sea-level record is important to accurate forecast coastal response to sea-level change in the near future because the amplitude of sea-level rise is similar to that of future sea-level rise. However, the magnitude and timing of Holocene sea-level records display great variability, inflecting ice sheet unloading and the redistribution of water masses in the global ocean, and glacio-isostatic and hydro-isostatic effects. Therefore, the local sea-level record is fundamental to a geological evidence for understanding the above topics. In the present study, we analyzed a drilled core and five radiocarbon ages at land reclamation on reef crest in Okinawa Island, Ryukyu Islands. Analyses of corals (*Isopora* sp. and *Goniastrea reriformis*) enable the reconstruction of a sea-level curve because these species are distributed in a shallow water depth. The Holocene sea-level curve reconstructed based on the drill core data reveals a sea-level rise until ca. 7000 cal. years BP. A mid-Holocene highstand occurred at 6760 cal. years BP, at a level of 2.7 m above the present mean sea level. The reconstructed mid-Holocene highstand is characterized by one of highest and oldest records in the Ryukyu Islands. The finding reflects the hydro-isostatic effect in response to size and volume of islands because Okinawa Island is the biggest island in the Ryukyu Islands.