

## Sedimentary facies of Upper Triassic limestone in Hedo-misaki area, Okinawa

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The major purpose of this paper is to discuss the depositional environment of Upper Triassic bedded limestone of the Sambosan accretionary complex in Okinawa Island, Japan. The study area is Hedo-misaki area in northernmost tip of Okinawa Island. The paper describes the stratigraphy and microscopic characteristics of the Upper Triassic bedded limestone of this area.

The Sambosan accretionary complex of the Hedo-misaki area consists of bedded-dark gray limestone of the Nakijin formation. The Nakijin formation divided into lower, middle, upper, and uppermost members. Lower member (ca.110m thick) consists mostly of the bedded-dark gray limestone. The beds of the limestone range in thickness from 30cm to 80cm. Many, calcareous shale beds, less than 30cm thick, separate the limestone. This calcareous shale beds yield Upper Triassic ammonites (Ishibashi, 1974, J. Geol. Soc. Jpn, 80, 329). The limestone comprises radiolarians and filamentous shell of thin-shelled bivalve. Middle member (ca.180m thick) is characterized by the dark-gray clastic limestone. Sedimentary structures, including graded bed, parallel and cross laminae, are observed in the clastic limestone. The clastic limestones contains shallow-water skeletal debris, such as bivalves, crinoids, and foraminifera. Upper member (ca.110m thick) consists mostly of the clastic limestone. Some intermittent beds of the slump deposit occur at several levels of Upper member. Uppermost member (ca.50m thick) is composed of the bedded-dark gray limestone accompanied by intercalation of basaltic volcanoclastic rocks in the lower part.

The study reveals that the bedded-dark gray limestone of the Nakijin formation is interpreted as a deep-water deposit, on the basis of dominance of planktonic biota. Thin-section analysis of the dark-gray clastic limestone shows that the limestone clasts were formed in a shallow-water environment. These results concluded that the shallow-water carbonates, possibly resting upon an oceanic plateau or seamount, were displaced by sediment gravity flows down into deep-water basins.