

## Distribution of the storm wave boulders at the Ryukyu Island chain, Japan

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We investigate the size, position and the long axis orientation of the boulders at the Ryukyu Island chain, Japan. These boulders were deposited from the reef crest to the slope of the moat and were found to distribute within a distance of 275 m from the reef edge. They are fragments of the reef rocks and their sizes were estimated to be less than 127 t. The second largest boulder (54 t) at Kudaka Island was not observed in the aerial photograph taken in 1993, whereas it appears in the photograph taken in 2005. Moreover, the positions of many boulders were found to have shifted during this period. Most these boulders including the second largest one should have been displaced and repositioned by the typhoon-generated storm waves, because there was no tsunami event during this period. We also found that boulders show an exponentially fining trend shoreward. This trend fits well with the distribution of the height of the storm wave on the reef flat. The largest storm waves (typhoon 0704 in 2007) could have been responsible for the current distribution of boulders.