

Field Survey of the Wrought Iron Butterflyfish *Chaetodon daedalma* on the Ogasawara Islands

○Satoru Matsumura¹, Masaaki Kodama¹,
Hiroshi Nakamura¹, Naoaki Kawahara¹,
Hiroshi Arai²

1. Tokyo Sea Life Park
2. Tama Zoological Park

The Wrought iron butterflyfish *Chaetodon daedalma* is endemic species to Japan and mainly distributed around Izu and Ogasawara Islands, Tokyo. Although this species is well known to constitute a temporary aggregation which occasionally consists of more than 100 individuals in spring, detailed field study has not been conducted. Furthermore, the Wrought iron butterflyfish is listed on the red list of threatened species of Tokyo as a concern species because of apprehension about overfishing by aquarium fishery. To provide ecological information which leads to its conservation, Tokyo Sea Life Park (TSLP) has started a field survey around the Ogasawara Islands since 2012. As the result of the social grouping survey focusing on the number of individuals swimming together, we found that they usually form pairs. Also the results of tagging study showed that 26 individuals were tagged and released, and 21 individuals were recaptured including 9 pairs. Consequently, It appears that they inhabits the same home-range for 768.5 ± 348.6 days ($n=21$) on average and the pairs stay together more than one year including non-reproduction season (645.4 ± 351.5 , $n=9$). Those results suggest that the Wrought iron butterflyfish has a monogamous social system. Also, shearing the information on focal species with local community plays an important role for their conservation. TSLP occasionally holds a lecture meeting on the wrought iron butterflyfish and is planning to build a framework for conducting surveys in collaboration with local recreational dive operations.