

Preliminary result of population structure of reef fishes in coral reef restoration sites in Tun Sakaran Marine Park, Semporna, Sabah

ABSTRACT

Restoration of coral reefs at the Tun Sakaran Marine Park (TSMP) started in 2009. Various methods are adopted, although the Coral Frame method is preferred mainly due to the low maintenance cost and its durability and is currently still being used. However, since the beginning of its deployment, there has been little study on the effectiveness of the coral restoration project. Thus, this study was conducted to determine the population structure of indicator coral reef fish around the coral frames. Two study sites (Site 1: Bohey Dulang; Site 2: Mantabuan) with existing coral frames within the TSMP were selected. At each site, a baited remote underwater video system (BRUVS), was deployed, and each was set to capture approximately one-hour footage. The first BRUVS deployment of this 24-month project was made on 21 July 2020, during the peak of the Southwest Monsoon. A total of 20 families (32 species) and 19 families (42 species) were recorded at Site 1 and Site 2, respectively. The Small-tooth whiptail, *Pentapodus caninus* (MaxN:14) and fusilier, *Caesio* sp. (MaxN: 101) are the most abundant species at Site 1 and Site 2, respectively. The preliminary findings reveal a low abundance and diversity counts of indicator reef fish (Serranidae, Labridae, Scaridae and Lutjanidae) at the coral restoration sites within TSMP. However, it is suspected that opportunistic local fishermen try their luck to fish in restricted parts of the park (pers. Observ.), while local fishermen try to play the game of 'mouse and cat' with the Park's Law Enforcement.