

**Fish and coral communities along the seawall of Sutera Harbour Marina, Kota  
Kinabalu, Sabah, Malaysia**

**ABSTRACT**

Coastal development involves the introduction of artificial substrates into the natural marine environment, thereby altering and causing the loss of natural habitat. Nevertheless, such artificial structures are known to provide novel habitat for the recruitment and growth of epifauna. Seawalls serve as hard substrata on which assemblages of benthic communities have been observed to settle and proliferate. This study investigated the diversity and abundance of marine fauna, with a primary focus on fish and hard coral communities along the seawall of Sutera Harbour Marina, Kota Kinabalu, Malaysia, in 2015 and 2022. Additionally, benthic cover was assessed in 2022. The assessment was conducted along 12 belt transects (each measuring 10 m × 3 m) placed on the seawall approximately 2–3 m from the bottom. Data on the diversity and abundance of fish and hard coral colonies were collected. Results showed that 105 fish species from 32 families and 48 genera of hard corals from 17 families inhabited the marina. There was an increase in the abundance and colony size of hard corals over time. Additional benthic data collected in 2022 indicated that the seawalls had a fair coral cover of 31.7%. Although the taxa richness for fish and hard corals was lower compared to surrounding natural reef habitats, this study presented that artificial structures such as seawalls in the marina can support the natural colonization of marine fauna. This study underscores the importance of artificial structures as possible refuges for marine organisms, particularly in urbanized coastal areas.