Fish biodiversity in coral reefs and lagoon at the Maratua Island, East Kalimantan

Madduppa et al. (2012) Maratua Madduppa HH, Agus SB, Farhan AR, Suhendra D, Subhan B. 2012. Fish biodiversity in coral reefs and lagoon at the Maratua Island, East Kalimantan. Biodiversitas 13: 145-150. Fishes are one of the most important biotic components in the aquatic environment. They are filling different habitats, including coral reef and lagoon. This study aims to (1) assess biodiversity in coral reef and lagoon in Maratua Island, East Kalimantan, and (2) compare the fish community indices (Shannon-Wiener diversity, Evenness, and Dominance) between the coral reef and lagoon. A total of 159 fish species of belonging to 30 families were observed during five visual census of the study period. The number of species on coral reefs is higher (121 species) than in the lagoons (47 species). Relative abundance (%) of each species also varied and did not form a specific pattern. However, a clear cluster between the coral reef and lagoon habitats from fish relative abundance based on multivariate analysis and dendogram Bray-Curtis Similarity was revealed. The Evenness index value (E) ranged from 0.814 to 0.874, the dominance index (C) ranged from 0.023 to 0.184, and the Shannon-Wiener diversity index (In base, H') ranged from 1.890 to 4.133. Fish biodiversity in coral reefs was higher (H' = 3.290±0.301) than in the lagoon (H' = 2.495±0.578).