

ABSTRACT

This research was conducted at Sejarah Beach, Batu Bara Regency, North Sumatra Province, with the aim of determining the existing environmental conditions and the area's carrying capacity for marine ecotourism. Sejarah Beach is characterized by a muddy shoreline with a mangrove ecosystem dominated by *Avicennia marina*, *Rhizophora apiculata*, and *Rhizophora mucronata*, covering an area of approximately 10 hectares. The analysis indicates that the carrying capacity of the Sejarah Beach area is able to accommodate approximately 500–700 visitors per day for a 10-hour recreation period, while maintaining environmental sustainability and tourist comfort. In addition to the mangrove ecosystem, Sejarah Beach has a good level of safety due to the absence of dangerous biota and offers beautiful evening panoramas that are a tourist attraction. This study recommends sustainable management of the area through collaboration between the Batu Bara Regency Environmental Agency and the beach management, including through mangrove replanting, developing the tourist area without altering its natural character, and providing environmental education to tourists. Further research is recommended to expand the suitability parameters for marine ecotourism to enhance Sejarah Beach's feasibility as a mangrove ecotourism area in North Sumatra Province.

Keywords: Beaches, Carrying capacity, Environment, Mangroves, Marine ecotourism