Yogyakarta Beaches Mapping Based on Sea Turtle Nesting Beach Characteristics

Khaitami, Aden (School: SMA Negeri 1 Yogyakarta)
Hasanah, Fadlilah (School: SMA Negeri 1 Yogyakarta)

Sea turtles are vulnerable species based on IUCN Red List. Several areas in Yogyakarta were noted as nesting ground for the sea turtle. Sea turtle nesting beach have certain characteristics including the sand characteristics, wave height, wind speed, light and sound disturbance, and the human activities. The goal of this research is to map Yogyakarta beaches based on those characteristics. The sand characteristics including the sand permeability, sand grain size, open sand area, salinity, temperature, and pH value. The data were measured in 15 beaches along Yogyakarta. This is a quantitative research uses a descriptive approach. Open sand area and vegetation area was collected using the map tracing method. Sand permeability and sand grain size were measured in the laboratory. The wave height and the wind speed were collected from BMKG (Indonesian Agency for Meteorology, Climatology and Geophysics). Human activities were analysed by qualitative approach. The research shows that beaches in Yogyakarta have mean value 64,37 % mass of medium until very fine sand grain size (1/64-1/256 mm), 83.643 of permeability, and 1,823 meter of wave height. Between those 15 beaches, only 4 beaches that have been visited by sea turtles. Those beaches are Trisik Beach, Pandansimo Beach, Goa Cemara Beach, and Pelangi Beach. The other 11 beaches have not been recorded of sea turtle appearance. In general, the visited beaches and not-visited beaches have different characteristics. Those data are accommodated in the map.

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