

## **TROPICAL SANDY BEACH COMMUNITIES OF PHUKET ISLAND, THAILAND**

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### **ABSTRACT**

Sandy beaches are the major intertidal habitat along the west coast of Phuket Island and all beaches were surveyed to determine their general faunal composition. The protected sand flat at Nai Yang, and the open coastal beaches at Kata, Patong, and Nai Harn were sampled for 11 months to characterize community structure including zonation patterns, seasonality, density, and diversity; Nai Harn was sampled over a shorter period. Many of the abundant species, as well as some rarer species, are undescribed. Species composition varied with exposure to wave action as the fauna at Nai Yang was very different from the other sites. There were striking differences in community structure, composition, density, and diversity. The beaches at Nai Yang, Patong, and Kata had greater diversity during the northeast monsoon or dry season, and intertidal density was higher at Nai Yang. In contrast, the more exposed beaches at Patong and Kata experienced higher densities during the southwest monsoon season. Diversity and density increased across the intertidal area with lowest values in the uppermost levels and highest values at or near the lowest tidal levels for all beaches. Comparison of community structure with other temperate and tropical beaches sampled intensively over several months, suggests that tropical sand beaches of Thailand have greater faunal diversity than most temperate beaches.