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Morphology and sand characteristics at five recreational beaches in pahang (Article)

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Abstract

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Pahang coastline stretched approximately 209 km long in the east coast Peninsular Malaysia and blessed with varying width. The coastal zone provides many recreational beaches, attracting an estimated of 600 thousand visitors per annum. These beaches had become familiar attraction for tourism and recreational activities. Despite that, tourism activities shed positive economic value to the locale, the ecological status of the recreational beaches are now in alarm. The attraction along the coastal zone will be negatively influenced should the beaches are harmed due to the ongoing anthropogenic activities. Following a preliminary visual survey of approximately 20 beaches located in the three regions alongside the coastline, namely north (Kuantan), middle (Pekan) and south (Rompin), 5 sites were selected for the study site. Beach profiles, sediment samples, and tide characteristics were collected at each site in two different periods; late northeast monsoon and inter-monsoon. The beach morphology analysis found that, the beach tends to be narrower in the centre and gradually becomes wider in the northern and southern stretches. The changes in width suggest that the effect of headland and pocket beach characteristics on the hydrodynamic movement and sediment transport activities. The variations of beach's slopes were also observed to be from a few degrees up to more than 45 degrees. Analysis of sediment grain size distribution was performed using GRADISTAT. The sediment samples were classified according to their mean, sorting, skewness and kurtosis values. Results indicated that most sites are classified as medium sand, poorly sorted, hold a negative skewness and dominated by mesokurtic and leptokurtic. Finally, results are compared to previous works done along Pahang coastline to validate the significant contributing factors that affect the sediment characteristics and beach width. © Penerbit UMT.

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