

MAPPING OF MANGROVE FOREST TYPE IN KUANTAN RIVER,
PAHANG USING REMOTE SENSING

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Mapping of mangrove forest type in Kuantan River, Pahang using remote sensing / Shabina Shah Mohd.



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Pengarang MOHD GHADALI		No. Panggilan LP 82 FST	
Judul Mapping of mangrove forest in Kuantan River, Pahang		c/n 1081	
Tarikh	Waktu Pemulangan	Nombor Ahli	Tanda tangan
18/1/04		UK 5775	ny
16/2/04	11/15	UK 5775	fa
13/06/05	3.15 pm	UK 8085	→
15/1/07	4.17	UK 10783	✓
11/2/09		UK 15486	
	2.00 pm	UK 15486	

18/2/10

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4
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**MAPPING OF MANGROVE FOREST TYPE IN KUANTAN RIVER, PAHANG
USING REMOTE SENSING**

BY

SHABINA BINTI SHAH MOHD

**This project report is submitted in partial fulfilment of the requirement for the
degree of Bachelor of Science (Marine Science)**

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DEDICATION

THIS THESIS IS DEDICATED TO MY PARENTS, HAJI SHAH MOHD BIN MEHARDIN AND BIBEE BINTI MENGA DIN AND MY BROTHERS HAFIZ, YASIN AND HALIM. THANK YOU FOR YOUR NEVER ENDING SUPPORT AND ENCOURAGEMENT.

PUSAT PEMBELAJARAN DIGITAL SULTANAH NUR

ABSTRACT

High resolution satellite image, Landsat TM 7 was used to map the mangrove forest type in Kuantan River. The total mangrove forest area is 1349.01 ha. The mangrove forest has been classified into six classes. They are *Sonneratia-Avicennia sp.* (class 1), covering 12.60 ha, about 0.93% of the total mangrove area. The *Rhizophora sp.* (class 2), covers 176.22 ha (13.07%), *Bruguiera-Rhizophora* (class 3), has a total area of 96.21 ha (7.13%), *Excoecaria-Nypa* (class 4), covers 38.61 ha (2.86%), the mix mangrove (class 5) covers a total area of 898.65 ha (66.62%) and the mix *Nypa* (class 6) covers an area of 126.72 ha which accounts for 9.39% of the total mangrove forest in Kuantan River. The accuracy for the supervised classification is 82.17%.

PUSAT PEMBELAJARAN DIGITAL SULTANAH NUR ZAHIRAH

ABSTRAK

Imej satelit beresolusi tinggi, Landsat TM 7, telah digunakan untuk tujuan pemetaan jenis hutan paya laut di Sungai Kuantan. Jumlah kawasan hutan paya laut ialah 1349.01 ha. Hutan paya laut ini telah diklasifikasikan kepada lima kelas. Kelas-kelas tersebut adalah *Sonneratia-Avicennia sp.* (kelas 1), yang meliputi 12.60 ha, kira-kira 0.93% daripada keseluruhan kawasan hutan paya laut. *Rhizophora sp.* (kelas 2), meliputi kawasan sebesar 176.22 ha (13.07%), *Bruguiera-Rhizophora* (kelas 3), mempunyai keseluruhan kawasan sebesar 96.21 ha (7.13%), *Excoecaria-Nypa* (kelas 4), meliputi 38.61 ha (2.86%), Hutan Paya Laut yang Bercampur (kelas 5) meliputi keseluruhan kawasan sebesar 898.65 ha (66.62%) dan *Nypa* Bercampur meliputi kawasan sebesar 126.72 ha iaitu sebanyak 9.39% daripada keseluruhan kawasan hutan paya laut di Sungai Kuantan. Ketepatan untuk klasifikasi berpenyelia ialah 82.17%.