

WOUND CLINIC SITE OF SHOTDOWN TRAINING
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SHOTDOWN AND CAMP MEDICAL ANALYSIS
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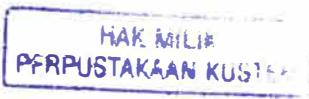


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**KOLEJ UNIVERSITI SAINS & TEKNOLOGI MALAYSIA
21030 KUALA TERENGGANU**

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**WOUND CLOSURE RATE OF SELECTED MANGROVE TREE IN KEMAMAN,
TERENGGANU AND TOK BALI, KELANTAN**

MOHD AZLAN SHAH BIN MD SANIP

**FAKULTI SAINS DAN TEKNOLOGI
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA
2006**

**WOUND CLOSURE RATE OF SELECTED MANGROVE TREE IN KEMAMAN,
TERENGGANU AND TOK BALI, KELANTAN**

By

Mohd Azlan Shah Bin Md Sanip

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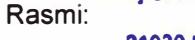
**JABATAN SAINS BIOLOGI
FAKULTI SAINS DAN TEKNOLOGI
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA**

PENGAKUAN DAN PENGESAHAN LAPORAN PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:

WOUND CLOSURE RATE OF SELECTED MANGROVE TREE IN KEMAMAN, TERENGGANU AND TOK BALI, KELANTAN oleh Mohd Azlan Shah Bin Md Sanip no. matrik: UK 8765 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda Sains Pemuliharaan dan Pengurusan Biodiversiti Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

Disahkan oleh:


..... JAMILAH MOHD SALIM @ HALIM
Penyelia Utama Pensyarah
Jabatan Sains Biologi
Nama: Jamilah Mohd Salim jms@kustem.edu.my <http://www.kustem.edu.my>
Cop Rasmii: Kolej Universiti Sains dan Teknologi Malaysia
(KUSTEM)
21030 Kuala Terengganu, Terengganu.

Tarikh: 08/05/06

Ketua Jabatan Sains Biologi

Nama: PROF. MADYA DR. NAKISAH BT. MAT AMIN
Ketua
Cop Rasmii: Jabatan Sains Biologi
Fakulti Sains dan Teknologi
Kolej Universiti Sains dan Teknologi Malaysia
(KUSTEM)
21030 Kuala Terengganu.

Tarikh: 10/05/06

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ABSTRACT

Artificial wound has been established on *Avicennia alba*, *Sonneratia alba* and *Rhizophora apiculata* in mangrove stand of Kemaman, Terengganu and Tok Bali, Kelantan. Two type mechanical wounds, a deep wound (exposing the xylem) and a scratch (removing the bark) were inflicted on the trunk at height of 2 meter and 0.3 meter from ground. The wound closure of the selected tree species consists of whether a compartmentalization process, formation of new periderm layer by phloem or of callus from wood cambium which are affected by time. Neither new periderm formation nor callus was recorded for *A. alba* and *R. apiculata* after 80 days post wounding. *S. alba* forming a wound periderm, closing wound at the rate of at upper stem is 0.8 ± 0.4 mm and at lower stem is 5.4 ± 1.3 mm in 80 days. Wound closure at upper stem was slower than wound at the lower part of the stem that exposed to tidal. New bark was form 20 days post wounding for bark scratch.

KADAR PENUTUPAN LUKA PADA POKOK PAYA LAUT TERPILIH DI KEMAMAN, TERENGGANU DAN TOK BALI, KELANTAN

ABSTRAK

Kecederaan buatan (luka) telah dibuat ke atas batang pokok *Avicennia alba*, *Sonneratia alba* dan *Rhizophora apiculata* di hutan paya bakau di Kemaman, Terengganu and Tok Bali, Kelantan Pantai. Dua jenis luka mekanikal iaitu luka dalam (mendedahkan tisu xilem) dan luka ringan (mengikis kulit luar) telah dibuat pada batang utama pada ketinggian 2 meter dan 0.3 meter dari tanah. Penutupan luka pada batang pokok terpilih adalah melalui samada proses kompartmen, pembentukan lapisan periderma baru oleh floem atau pembentukan kalus oleh kambium berkadar dengan masa. *A. alba* dan *R. apiculata* tidak menunjukkan pembentukan periderma atau kalus dalam masa 80 hari. *S. alba* menjalankan pembentukan periderma yang menutupi luka pada kadar 0.8 ± 0.4 mm pada luka bahagian atas dan 5.4 ± 1.3 mm pada luka di bahagian bawah dalam 80 hari. Bahagian luka di bahagian atas menunjukkan penutupan luka yang lambat berbanding bahagian luka yang ditenggelami air semasa air pasang. Luka ringan telah membentuk kulit baru dalam masa 20 hari.