

ISOLATION AND IDENTIFICATION OF FUNGI
ASSOCIATED WITH NITRA-FRUITIGANS IN
SEMI-WETLANDS

ROS AZIAN BT MOHD AZMAN

FAKULTI SAINS DAN TEKNOLOGI
UNIVERSITI MALAYSIA TERENGGANU

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PERPUSTAKAAN SULTANAH NUR ZAHIRAH
UNIVERSITI MALAYSIA TERENGGANU (UMT)
21030 KUALA TERENGGANU

1100057854		

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PERPUSTAKAAN SULTANAH NUR ZAHIRAH UMT

**ISOLATION AND IDENTIFICATION OF FUNGI ASSOCIATED WITH
NYPA FRUTICANS IN SETIU WETLANDS, TERENGGANU**

By
Ros Azian binti Mohd Azman

Research report submitted in partial fulfillment of
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**Department of Biological Sciences
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FAKULTI SAINS DAN TEKNOLOGI
UNIVERSITI MALAYSIA TERENGGANU**

**PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II
RESEARCH REPORT VERIFICATION**

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: Isolation and Identification of fungi associated with *Nypa fruticans* in Setiu Wetlands oleh Ros Azian Bt Mohd Azman, no. matrik: UK12484 telah diperiksa dan semua pembetulan yang disarankan oleh Dr. Mariam bt Taib telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperoleh Ijazah Sarjana Muda Sains (Sains Biologi), Fakulti Sains dan Teknologi, Universiti Terengganu Malaysia.

Disahkan oleh:

Penyelia Utama

DR. MARIAM TAIB

Pensyarah

Nama:

Jabatan Sains Biologi

Cop Rasmi:

Fakulti Sains dan Teknologi
Universiti Malaysia Terengganu
21030 Kuala Terengganu.

Tarikh:

14/5/08

Ketua Jabatan Sains Biologi

Nama:

PROF. MADYA DR. AZIZ BIN AHMAD

Ketua

Cop Rasmi:


Jabatan Sains Biologi
Fakulti Sains dan Teknologi
Universiti Malaysia Terengganu
21030 Kuala Terengganu

Tarikh:

14 MAY 2008

DECLARATION

I hereby declare that this thesis entitled Isolation and Identification of fungi associated with *Nypa fruticans* at Setiu Wetlands, Terengganu is the result of my own research except as cited in the references.

Signature : 
Name : Ros Azian bt Mohd Azman
Matric No : UK 12484
Date : 14/05/08

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ABSTRACT

Fungi are the most diverse organisms where marine fungi have been proven to produce bioactive compounds. This study was carried out to isolate and identify the fungi associated with *Nypa fruticans* at Setiu Wetlands, Terengganu. Two techniques were used which were Direct Plating Technique and Damp Incubation Technique. Fragments of leaves, stems, roots and fruits were cultured on PDA and identification was done using the slide culture technique. The results showed that more fungi appeared using the Direct Plating technique where there are 15 different isolates compared to six species isolated from Damp Incubation Technique. The fungi identified include four Ascomycetes and one each for Hypomycetes, Protosteliomycetes, Coelomycetes, Zygomycetes and Deuteromycetes, with 12 isolates unidentified. Out of 21 total of isolated fungi, only nine of them were able to be identified. These fungal isolates can be used further in the investigation of possible bioactive compound(s) produced by these fungi.

PEMENCILAN DAN IDENTIFIKASI KULAT YANG BERASOSIASI DENGAN POKOK NYPA FRUTICANS DI SETIU WETLANDS, TERENGGANU

ABSTRAK

Fungi merupakan organisma yang mempunyai diversiti yang tinggi di mana fungi marin telah terbukti dapat menghasilkan sebatian bioaktif. Kajian di Setiu Wetlands, Terengganu ini bertujuan untuk memencil dan mengenalpasti fungi yang berasosiasi dengan *Nypa fruticans*. Dua teknik yang terlibat adalah “Direct Plating Technique” dan “Damp Incubation Technique”. Bahagian seperti daun, batang, akar dan buah dikulturkan di atas PDA dan dikenalpasti melalui teknik kultur slaid. Keputusan menunjukkan lebih banyak fungi didapati dari “Direct Plating Technique” di mana 15 fungi telah dipencilkan berbanding hanya enam dari “Damp Incubation Technique”. Fungi yang telah dikenalpasti termasuklah empat spesis dari Ascomycetes, dan hanya satu dari setiap Hypomycetes, Protosteliumycetes, Coelomycetes, Zygomycetes, dan Deuteromycetes manakala 12 spesis tidak dikenalpasti. Daripada 21 spesis fungi yang dipencilkan, hanya sembilan daripadanya telah dikenalpasti. Pencilan fungi ini boleh digunakan seterusnya dalam kajian penghasilan sebatian bioaktif yang mungkin dihasilkan oleh fungi-fungi ini.