

ISOLATION OF CRYPTOCORYNE
FROM THE SEEDS OF SIDA ACUTA,
L.

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Ecological study of Cryptocoryne Uenoi y. sasaki from Sabal
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ECOLOGICAL STUDY OF *CRYPTOCORYNE UENOI* Y. SASAKI FROM SABAL
KRUING RIVER, SARAWAK

By
Siti Suhana binti Sulaiman

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**JABATAN SAINS BIOLOGI
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**PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II**

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: **ECOLOGICAL STUDY OF *CRYPTOCORYNE UENOI* Y. SASAKI FROM SABAL KRUIING RIVER, SARAWAK** oleh Siti Suhana binti Sulaiman, no. matrik: UK7936 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperoleh ijazah Sarjana Muda Sains Gunaan (Pengurusan dan Pemuliharaan Biodiversiti), Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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LIST OF ABBREVIATIONS

Al	-	Aluminium
Cu	-	Copper
CR	-	Chromium
Mn	-	Manganese
Pb	-	Lead
Zn	-	Zinc
ETR	-	Electron transport rate
LWR	-	Leave weight ratio
PWR	-	Petiole weight ratio
RWR	-	Root weight ratio
PAR	-	Photosynthetic active radiation
RGR	-	Relative growth rate
mg	-	milligram
pH	-	potential of hydrogen
cm	-	centimeter

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ABSTRACT

A study was carried out to compare the growth pattern of *Cryptocoryne uenoi* of shallow water regime and deep water regime collected from Sabal Kruing River, Sarawak. Sample in 0.5m × 0.5m quadrat in triplicate were collected where the biomass allocation, leaf area and photosynthesis measurement was carried out. Total dry weight of plant was higher at deep water regime with 143.14 g while 63.09 g at shallow water regime. The total number of leaves at deep water regime was 1637 while 1112 for shallow water regime. Total leaves area also shown higher at deep water regime with 4347 cm² while 2599 cm² for shallow water regime. Deep water regime was shown higher in leaves biomass, petiole biomass, root biomass and individual leaf area with the average was 0.1549 ± 0.045 g, 0.1549 ± 0.058 g, 0.2032 ± 0.063 g and 48.3 ± 6.79 cm² respectively. Statistical analysis was shown significantly different of leaf weight ratio (LWR), petiole weight ratio (PWR), root weight ratio (RWR), specific leaf area (SLA) and leaf area ratio (LAR) between shallow water regime and deep water regime respectively. Plant under shallow water regime resulted higher maximum quantum yield and higher of electron transport rate (ETR) at photosynthetic active radiation (PAR) is 476 μmol quanta m⁻² s⁻¹.