

ห้องสมุดงานวิจัย สำนักงานคณะกรรมการวิจัยแห่งชาติ



E42139



TAXONOMY OF DISCOLOICHENS AT PHU LUANG WILDLIFE SANCTUARY,
LOEI PROVINCE

VARAPORN SRIPRANG

A THESIS PRESENTED TO RAMKHAMHAENG UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF SCIENCE
(BIOLOGY)

2010

600256271

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อนุกรมวิธานของไลเคนแบบแผ่นงาน ในเขตรักษาพันธุ์สัตว์ป่าภูหลวง จังหวัดเลย

วราภรณ์ ศรีปรามค์

วิทยานิพนธ์เสนอต่อมหาวิทยาลัยรามคำแหง
เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญา
วิทยาศาสตรมหาบัณฑิต (ชีววิทยา)
ปีการศึกษา 2553
ลิขสิทธิ์ของมหาวิทยาลัยรามคำแหง

Thesis Title Taxonomy of Discolichens at Phu Luang Wildlife
 Sanctuary, Loei Province

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Field of Study Biology

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ABSTRACT

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Academic Year 2010

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Seven hundred specimens of discolichen samples were collected from barks and rocks at Phu Luang Wildlife Sanctuary in Loei province between August 2005 and June 2010 at an elevation of 700 to 1,555 meters above sea level from seven forest types. These seven forest types were coniferous forest, dry dipterocarp forest, dry evergreen forest, lower montane rainforest, lower montane scrub, mixed deciduous forest, and tropical rainforest.

Taxonomic investigation involving systematic identification showed that there are eleven families, fifteen genera, fifty species, and eight taxa as follows: *Catillochroma melanotropa*, *Caloplaca* aff. *ferruginea*, *C. bassiae*,

Haematomma cf. *africanum*, *Lecidella carpathica*, *L. elaeochroma*, *Malmidea microspora*, and *Micarea melaena*, none of which has been previously found in the Kingdom of Thailand. An additional five species found—*Bellemeria* PL.1, *Caloplaca* PL.1, *Haematomma* PL.1, *Malmidea* PL.1, and *Ramboldia* PL.1—are expected to be lichen species new to science.

The greatest lichen species diversity was found in lower montane scrub (45 percent). The least lichen species diversity was found in coniferous forest and dry evergreen forest. The greatest diversity of genera and species was found to be in the Lecanoraceae family. The least genera and species diversity was found to be in the Brigantiaeaceae family, Lecideaceae family, Megalosporaceae family, and Pilocarpaceae family. However, three species of lichens—*Lecanora austrotropica*, *L. tropica*, and *Letrouitia transgressa*—were generally found in almost all forest types.

บทคัดย่อ

E 42139

ชื่อเรื่องวิทยานิพนธ์ อนุกรมวิธานของไลเคนแบบแผ่นจานในเขตรักษาพันธุ์
 สัตว์ป่าภูหลวง จังหวัดเลย
ชื่อผู้เขียน นางวราภรณ์ ศรีปรางค์
ชื่อปริญญา วิทยาศาสตร์มหาบัณฑิต
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ปีการศึกษา 2553

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| 4. Professor Dr. Klaus J. Kalb | |

ตัวอย่างไลเคนแบบแผ่นจานจากเปลือกไม้ และหินในเขตรักษาพันธุ์สัตว์ป่า
ภูหลวง จังหวัดเลย ระหว่างเดือนสิงหาคม 2548-มิถุนายน 2553 ที่ระดับความสูงตั้งแต่
700-1,555 เมตรเหนือระดับน้ำทะเล จาก 7 สภาพป่า คือ ป่าสนเขา ป่าเต็งรัง ป่าดิบแล้ง
ป่าดิบเขาต่ำ ป่าละเมาะเขาต่ำ ป่าเบญจพรรณ และป่าดิบชื้น ถูกรวบรวมได้ 700 ตัวอย่าง
เมื่อศึกษาอนุกรมวิธานจำแนกได้ 11 วงศ์ 15 สกุล 50 ชนิด 8 ชนิด คือ *Catillochroma*
melanotropa, *Caloplaca* aff. *ferruginea*, *C. bassiae*, *Haematomma* cf. *africanum*,
Lecidella carpathica, *L. elaeochroma*, *Malmidea microspora* และ *Micarea melaena*
จัดเป็นไลเคนชนิดใหม่ที่ไม่เคยพบในประเทศไทยมาก่อน ขณะที่ 5 ชนิดคือ *Bellemerea*
PL.1, *Caloplaca* PL.1, *Haematomma* PL.1, *Malmidea* PL.1 และ *Ramboldia* PL.1 มี
ความหวังว่าจะเป็นไลเคนชนิดใหม่ถูกค้นพบทางวิทยาศาสตร์ และความหลากหลายของ
ชนิดไลเคนถูกพบมากในป่าละเมาะเขาต่ำ (45%) ขณะที่ป่าสนเขา และป่าดิบเขาถูก

พบว่ามีความหลากหลายของชนิดไลเคนน้อยที่สุด วงศ์เลคาโนลาซีอิ พบจำนวน
สกุล-ชนิดมากที่สุด ขณะที่ไลเคนวงศ์บริแกเนเทียซีอิ เลซีเดียซีอิ เมกาโลสปอราซีอิ
และพิโลคาร์พาซีอิ พบจำนวนสกุล-ชนิดน้อย อย่างไรก็ตามพบไลเคน 3 ชนิด คือ
Lecanora austrotropica, *L. tropica* และ *Letrouitia transgressa* จัดเป็นไลเคนที่พบ
ทั่วไปเกือบทุกสภาพป่า

ACKNOWLEDGEMENTS

I particularly wish to thank my supervisor, Assoc. Prof. Pachara Mongkolsuk for his endless guidance, intensive and continuous kindness help and giving me an opportunity to carry out this research under the project on “Biodiversity of Lichens in Phu Luang Wildlife Sanctuary, (PLWS) Loei Provinces as” a part of “Molecular Genetics Biodiversity and Ecology of Lichens Project” in Thailand.

I am very much appreciated and indebted Prof. Dr. Klaus Kalb from Lichenologisches Institute Neumarkt, Regensburg, for his precious implication, encouragement, training and specimens confirmation. I also offer my deepest gratitude to Assoc. Prof. Dr. Kansri Boonpragob of Biology Department Ramkhamhaeng University; Assoc. Prof. Dr. Leka Manoch of the Department of Kasetsart University; Dr. Khwanruan Papong of Biology Department, Mahasarakarm University, for the suggestions and comments to improve this thesis

This thesis is not accomplished without the collaboration from a lecturer Kawinnat Buaruang, I would like to extend my sincere thank.

I am grateful to the Department of Biology, Faculty of Science, Ramkhamhaeng University for providing equipment and facilities in laboratory. I am grateful to the officers and staff of PLWS for their kind cooperations. It is my pleasure to thank our colleagues in “The Biodiversity of Lichens in PLWS, Loei Provinces Project.”

I wish to acknowledge the financial support from Thai Government for the project “Molecular Genetics Biodiversity and Ecology of Lichens in Thailand”

Finally, I would like to express my deep gratitude to my parents and lover family for encouragement and support to study.

Varaporn Sriprang

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ABBREVIATIONS

μm	= micrometer
°C	= degree Celsius
'E	= minutes East longitude
'N	= minutes North latitude
aff.	= affinity
c.	= <i>circa</i> (about)
C	= calcium hypochlorite
cf.	= confer
CF	= Coniferous Forest
CH	= Chonnikarn Tanyagun
cm	= centimeter
CP	= Chutamat Phraphuchamnong
DEF	= Dry Evergreen Forest
DDF	= Dry Dipterocarp Forest
diam.	= diameter
DS	= Dan Sai District
E	= East
e.g.	= <i>exempli gratia</i> (for example)
etc	= <i>et cetera</i>
et al.	= <i>et alii</i> ; and others
I	= iodine
i.e.	= <i>id est</i> (that is)
ibid.	= <i>ibidem</i>
ined.	= <i>inedition</i>

Km	= Kilometers
K; KOH	= potassium hydroxide
LMRF	= Lower Montane Rain Forest
LMS	= Lower Montane Scrub
MDF	= Mixed Deciduous Forest
MS	= Sanya Meesim
mm	= millimeter
N	= North
NE	= Northeast
p. (pp.)	= page (pages)
P or Pd	= <i>Para</i> -phenelenediamine
PEN	= Peninsula
PL	= Phu Luang District
PLWS	= Phu Luang Wildlife Sanctuary
PR	= Phu Ruea District
RAMK	= Ramkhamhaeng University Lichen Herbarium, Bangkok
RU	= Ramkhamhaeng University
SE	= Southeast
SM	= Mattika Sodamuk
SW	= Southwest
sp. nov.	= species nova (new species)
sp.	= species
TLC	= Thin Layer Chromatography
TRF	= Tropical RainForest
UV	= ultraviolet
var.	= varietas/variety

- VC = Varaporn Sriprang
- WS = Wang Saphung
- (±) = present in some species but not detected in others