

**THE STUDY OF THE BIODIVERSITY AND
COMPARATIVE ANATOMY OF PETRIFIED WOOD IN
THE AREA OF THE NORTHEASTERN RESEARCH
INSTITUTE OF PETRIFIED WOOD AND
MINERAL RESOURCES, THAILAND**

Nareerat Boonchai

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การศึกษาความหลากหลายทางชีวภาพและกายวิภาคศาสตร์เปรียบเทียบของ
ไม้กลายเป็นหิน ในพื้นที่สถาบันวิจัยไม้กลายเป็นหินและทรัพยากรธรณี
ภาคตะวันออกเฉียงเหนือ ประเทศไทย

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NORTHEASTERN RESEARCH INSTITUTE OF PETRIFIED
WOOD AND MINERAL RESOURCES, THAILAND**

Suranaree University of Technology has approved this thesis submitted in partial fulfillment of the requirements for a Master's Degree.

Thesis Examining Committee

Nathawut Thanee

(Asst. Prof. Dr. Nathawut Thanee)

Chairperson

Paul J. Grote

(Dr. Paul J. Grote)

Member (Thesis Advisor)

P. Jintasakul

(Asst. Prof. Dr. Pratueng Jintasakul)

Member

Chongpan Chonglakmani

(Dr. Chongpan Chonglakmani)

Member

P. Manyum

(Assoc. Prof. Dr. Prapan Manyum)

P. Sattayatham

(Prof. Dr. Pairote Sattayatham)

Vice Rector for Academic Affairs

Dean of Institute of Science

นาริรัตน์ บุญไชย : การศึกษาความหลากหลายทางชีวภาพและกายวิภาคศาสตร์เปรียบเทียบ
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ผลการศึกษาไม้กลายเป็นหิน 23 ชิ้น จากบริเวณชั้นกรวดมหายุคซีโนโซอิกตอนปลาย
ภายในพื้นที่สถาบันวิจัยไม้กลายเป็นหินและทรัพยากรธรณีภาคตะวันออกเฉียงเหนือ จังหวัด
นครราชสีมา จำแนกได้เป็นพืชใบเลี้ยงคู่อย่างน้อย 7 วงศ์ 10 สกุล 17 ชนิดรวมถึง
cf. *Mangiferoxylon* sp. 1 and sp. 2, *Anacardiaceae* gen. *indet.* (*Anacardiaceae*), *Canarium* sp.
(*Burseraceae*), *Terminalia* sp. vel *Combretum* sp., *Terminalia* sp. 1 and sp. 2 (*Combretaceae*),
Irvingia sp. (*Irvingiaceae*), *Cynometroxylon holdeni*, *Cynometroxylon* sp., cf. *Cynometroxylon* sp.
1 and sp. 2, cf. *Millettia* sp. 1 and sp. 2 (*Leguminosae*), *Careya* sp. 1 and sp. 2 (*Lecythidaceae*),
Azadirachta sp. (*Meliaceae*), and family *incertae sedis* พรรณไม้บรรพกาลที่หลากหลาย
มีความใกล้เคียงกับพรรณไม้ปัจจุบันที่พบอยู่ทั่วไปในป่าเบญจพรรณ ป่าเต็งรังและป่าดิบแล้ง
แสดงถึงสภาพภูมิอากาศที่ร้อนชื้นสลับแห้ง (Aw) และร้อนชื้นแบบมรสุม (Am) เช่นเดียวกับ
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NAREERAT BOONCHAI : THE STUDY OF THE BIODIVERSITY AND
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PETRIFIED WOOD/ BIODIVERSITY/ PALEOCLIMATE/ NAKHON RATCHASIMA/
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Twenty three specimens of petrified wood were collected from late Cenozoic gravel beds at the Northeastern Research Institute of Petrified Wood and Mineral Resources, Nakhon Ratchasima province, northeastern Thailand. They were assigned at least 17 species from 10 genera of 7 families of dicotyledons, including cf. *Mangiferoxylon* sp. 1 and sp. 2, Anacardiaceae *gen. indet.* (Anacardiaceae), *Canarium* sp. (Burseraceae), *Terminalia* sp. vel *Combretum* sp., *Terminalia* sp. 1 and sp. 2 (Combretaceae), *Irvingia* sp. (Irvingiaceae), *Cynometroxylon holdeni*, *Cynometroxylon* sp., cf. *Cynometroxylon* sp. 1 and sp. 2, cf. *Millettia* sp. 1 and sp. 2 (Leguminosae), *Careya* sp. 1 and sp. 2 (Lecythidaceae), *Azadirachta* sp. (Meliaceae), and family *incertae sedis*. The diverse paleoflora shows a close resemblance to the modern flora of mixed deciduous, dry dipterocarp, and dry evergreen forests, indicating that the paleoclimate was tropical wet and dry (Aw) and tropical monsoon (Am), corresponding to the present climate in the area but with higher humidity. The sediments show characters of a braided stream system, and the

logs were possibly transported by the strong water current and buried in an ancient river.

School of Biology

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Student's Signature _____

Advisor's Signature _____

Co-advisor's Signature _____

Co-advisor's Signature _____

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