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บริเวณพื้นที่ทุ่งใหญ่-คลองท่อมทางภาคใต้ประเทศไทย



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**LITHOSTRATIGRAPHY OF NON-MARINE MESOZOIC ROCKS:
THUNG YAI-KHLONG THOM AREAS IN SOUTHERN PART OF
THAILAND**



Mr. Naramase Teerarungsigul

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

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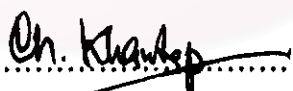
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Thesis Co-advisor Assistant Professor Somchai Nakapadungrat, Ph.D.

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Fulfillment of the Requirements for the Master's Degree.


.....Dean of Faculty of Science
(Associate Professor Wanchai Phothiphichitr, Ph.D.)

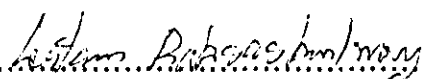
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..... Thesis Co-advisor
(Assistant Professor Somchai Nakapadungrat, Ph.D.)


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พื้นที่ศึกษาครอบคลุมพื้นที่ประมาณ 1,160 ตารางกิโลเมตร โดยศึกษาหินที่สะสมด้วยบนบกในมหาอุคมี
 โซโซอิกบริเวณพื้นที่ทุ่งใหญ่-คลองท่อม ทางภาคใต้ประเทศไทยซึ่งรู้จักดีในชื่อหินตะกอนเรดเบด โดยเน้นศึกษา
 ในพื้นที่อำเภอทุ่งใหญ่-อำเภอคลองท่อม เขตจังหวัดนครศรีธรรมราชและกระบี่ ในการศึกษาได้เสนอชื่อกลุ่มหิน
 ครั้ง จากลักษณะการเรียงลำดับชั้นและวิทยาหินสามารถแบ่งออกเป็น 4 หมวดหินคือ หมวดหินคลองมื่น หมวด
 หินลำทับ หมวดหินสามจอม และหมวดหินพุนหิน โดยเรียงตัวจากต่ำไปบนตามลำดับ กลุ่มหินตรงวางตัวไม่
 ต่อเนื่องบนหินยุคไทรแอสซิก(หมวดหินโสบอน) ความหนาแน่นทั้งสิ้น 65 ถึง 1,145 เมตร

หมวดหินคลองมื่นวางตัวอยู่ต่ำสุดประกอบด้วย 4 ลักษณะปรากฏวิทยาหินคือ หินโคลนสลับหินปูน
 ซากดึกดำบรรพ์ หินทรายแป้ง หินทรายเนื้อปูนผสม และหินปูนซากดึกดำบรรพ์แทรกสลับหินทรายเนื้อปูนผสม
 ตามลำดับ ซากดึกดำบรรพ์ที่พบในหมวดหินนี้มีทั้งสัตว์ที่มีกระดูกสันหลังและสัตว์ที่ไม่มีกระดูกสันหลัง ความ
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 บรรพ์ บ่งถึงการสะสมตัวในทะเลสาบที่มีการรุกเข้ามาของน้ำทะเลเป็นช่วงๆ ในส่วนล่าง และค่อยๆ เปลี่ยนเป็น
 การสะสมตัวในสภาพแวดล้อมบนบกโดยตะกอนน้ำพาในส่วนบนสุด และจากลักษณะปรากฏวิทยาหินบนสุด
 ของหมวดหินนี้ซึ่งพบหอยสองฝาและซากเศษไม้ทำให้เชื่อว่าการรุกเข้ามาของน้ำทะเลในช่วงยุคครีเทเชียส
 อดล่าง หมวดหินลำทับประกอบด้วย 2 ลักษณะปรากฏวิทยาหินคือ หินทรายแดงชั้นหนา และหินทรายแป้ง
 แทรกสลับหินดินดาน ซากดึกดำบรรพ์ที่พบเป็นพวกเศษใบไม้ ร่องรอยซากดึกดำบรรพ์ หอยสองฝาจ๋าพวก
Modiolus sp. และ *Unio* sp. ความหนา 30 ถึง 197 เมตร สภาพแวดล้อมการสะสมตัวเป็นแบบตะกอนน้ำพา และ
 เนินตะกอนน้ำพารูปพัด หมวดหินสามจอมประกอบด้วยหินกรวดมน หินทรายเนื้อกรวดมน และหินทรายเนื้อ
 หยาบที่มีวัตถุประสานไม้คี้ มีความหนา 8 ถึง 100 เมตร สภาพแวดล้อมการสะสมตัวเป็นแบบเนินตะกอนน้ำพา
 รูปพัด และหมวดหินพุนหินประกอบด้วย 2 ลักษณะปรากฏวิทยาหินคือหินทรายเนื้อละเอียด และหินกรวดมน
 หรือหินกรวดเหลี่ยม จะพบการวางชั้นเฉียงระดับทั้งแบบ Trough และ Planar บ่งถึงสภาพแวดล้อมการสะสมตัว
 เป็นแบบธารประสานสายและการไหลแบบปะปนกันของดินและหิน หมวดหินนี้มีความหนา 96 ถึง 775 เมตร

จากการเรียงลำดับชั้นหินและซากดึกดำบรรพ์ กลุ่มหินตรงมีอายุระหว่างยุคจูแรสซิกตอนกลางถึงยุค
 ครีเทเชียสตอนบน

ภาควิชา.....ธรณีวิทยา.....
 สาขาวิชา.....ธรณีวิทยา.....
 ปีการศึกษา.....2542.....

ลายมือชื่อนิติศ.....
 ลายมือชื่อ อาจารย์ที่ปรึกษา.....
 ลายมือชื่อ อาจารย์ที่ปรึกษา.....

NARAMASE TEERARUNGSIGUL : LITHOSTRATIGRAPHY OF NON-MARINE MESOZOIC ROCKS: THUNG YAI-KHLONG THOM AREAS IN SOUTHERN PART OF THAILAND. THESIS ADVISOR : ASSOC. PROF. CHAIYUDH KHANTAPRAB, Ph. D. AND ASST. PROF. SOMCHAI NAKAPADUNGRAT, Ph.D. 190 pp. ISBN 974-333-434-3

The non-marine Mesozoic rocks in the Thung Yai-Khlong Thom area in peninsular Thailand have long been known as continental red beds. The study area of approximately 1,160 square kilometres is located in Nakhon Si Thammarat and Krabi provinces, with particular emphasis on Thung Yai and Khlong Thom area. In this study, the Trang group is proposed and lithostratigraphically subdivided into 4 formations, namely, Khlong Min, Lam Thap, Sam Chom and Phun Phin formations, respectively, in ascending order. The Trang group unconformably overlies the marine Triassic rocks (Sai Bon formation). The total thickness varies from 65 to 1,145 metres.

The Khlong Min formation consists of 4 lithofacies; the mudstone intercalated with fossiliferous limestone, siltstone, calcareous sandstone and fossiliferous limestone with abundant vertebrate and invertebrate fossils. The total thickness varies from 58 to 116 metres. The lithology, sedimentary structures, geometry and fossil assemblages reflect transitional to fluvial environment of deposition with occasional marine influxes of lagoonal environment during lower Middle Jurassic, with gradually change to fluvial environment of deposition in the uppermost part. The fossiliferous limestone with abundant *Modiolus* sp. and wood fragments indicating marine incursion into the continent in Lower Cretaceous. The Lam Thap formation consists mainly of 2 lithofacies; the thick-bedded arkosic sandstone, and siltstone interbedded with shale with fern-like leaves, trace fossils, bivalves of *Modiolus* sp. and *Unio* sp. indicating Upper Jurassic to Lower Cretaceous. The total thickness varies from 30 to 197 metres. The rocks were deposited in floodplain and alluvial fan environments. The Sam Chom formation predominantly consists of conglomerate, conglomeratic sandstone and poorly cemented coarse-grained sandstone of alluvial fan origins. The total thickness varies from 8 to 100 metres. The Phun Phin formation consists of 2 lithofacies; the fine-grained sandstone and conglomerate with trough and planar cross-beddings reflecting braided stream and debris flow origins with total thickness varies from 96 to 775 metres.

Stratigraphically and paleontologically, the age of the Trang group should be assigned as lower Middle Jurassic to Upper Cretaceous.

ภาควิชา.....ธรณีวิทยา.....
 สาขาวิชา.....ธรณีวิทยา.....
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 ลายมือชื่อ อาจารย์ที่ปรึกษา..... *Ch. Khantaprab*.....
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