การลำดับชั้นหินตามลักษณะของหินตะกอนเนื้อประสมบางส่วนยุคไทรแอสซิกในพื้นที่ตอนใต้ของอำเภอเมือง แม่ฮ่องสอน จังหวัดแม่ฮ่องสอน ตะวันตกเฉียงเหนือของประเทศไทย



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LITHOSTRATIGRAPHY OF SOME TRIASSIC CLASTIC ROCKS IN SOUTHERN PART OF AMPHOE MUANG MAE HONG SON, CHANGWAT MAE HONG SON, NORTHWESTERN THAILAND

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ณัฐพล ศรีนาค: การลำดับชั้นหินตามลักษณะของหินตะกอนเนื้อประสมบางส่วนยุคไทร แอสซิกในพื้นที่ตอนใต้ของอำเภอเมืองแม่ฮ่องสอน จังหวัดแม่ฮ่องสอน ตะวันตกเฉียงเหนือ ของประเทศไทย. (LITOSTRATIGRAPHY OF SOME TRIASSIC CLASTIC ROCKS IN SOUTHERN PART OF AMPHOE MUANG MAE HONG SON, CHANGWAT MAE HONG SON, NORTHWESTERN THAILAND) อ. ที่ปรึกษา ผศ. วิโรจน์ดาวฤกษ์, อ.ที่ ปรึกษาร่วม: รศ. ดร. ปัญญา จารุศิริ จำนวน 191 หน้า ISBN 974-17-2176-5

พื้นที่ศึกษาครอบคลุมพื้นที่ประมาณ 2,240 ดารางกิโลเมตร โดยศึกษาหินตะกอนที่สะสม ดัวในทะเลในยุคไทรแอสซิกบริเวณพื้นที่แม่ฮ่องสอน-แม่สะเรียง ทางตะวันตกเฉียงเหนือของ ประเทศไทยซึ่งรู้จักในชื่อของกลุ่มหินแม่สะเรียง จากลักษณะการเรียงลำดับชั้นและศิลาพรรณา สามารถแบ่งออกอย่างไม่เป็นทางการ 3 หมวดหินคือ หมวดหินกองสุม หมวดหินประตูเมือง และ หมวดหินแม่แลบ โดยเรียงจากล่างไปบนตามลำดับ กลุ่มหินแม่สะเรียงวางตัวบนหินยุคเพอร์เมียน ความหนารวมทั้งสิ้นมากกว่า 900 เมตร หมวดหินกองสุมมีการวางตัวล่างสุดประกอบด้วย 2 ลักษณะปรากฏคือ หินกรวดมนตอนล่าง และหินทรายประเภทลิธิค ความหนาของหมวดหินนี้ 150 ถึง 250 เมตร หมวดหินประตูเมืองประกอบด้วย 4 ลักษณะปรากฏคือ หินโคลนและหินทรายส เทาเข้ม หินเชิร์ตแทรกสลับหินโคลน หินกรวดมนแทรกสลับหินทราย และหินทรายและหินดินดาน ความหนา 200 ถึง 770 เมตร และหมวดหินแม่แลบประกอบด้วย 3 ลักษณะปรากฏคือ หินโคลน เนื้อปูนประสานแทรกสลับหินทราย หินดินดานเนื้อซิลิกาแทรกสลับหินโคลน และหินทรายขนาด กลาง ชากดึกดำบรรพ์ที่พบเป็นพวกหอยสองฝาจำพวก Halobia sp. ความหนา 80 ถึง 120 เมตร จากลักษณะศิลาพรรณา โครงสร้างภายในหินตะกอน รูปร่าง และชากดึกดำบรรพ์ บ่งถึงการสะสม ดัวในเนินตะกอนรูปพัดใต้ทะเลของทะเลล็ก

หินทรายในพื้นที่ได้นำไปหาโครเมี่ยนสปิเนลซึ่งพบ 12 เม็ด นำไปวิเคราะห์ด้วยเครื่อง อิเล็กตรอนไมโครโพรบ เมื่อทำการบันทึกหาความสัมพันธ์อัตราส่วนระหว่างอะตอมของโครเมียม กับอะลูมิเนียม และอัตราส่วนระหว่างอะตอมของแมกนีเซียมกับธาตุเหล็ก และค่าความสัมพันธ์ ระหว่างไอออนที่มีประจุบวกสาม ของเศษชิ้นตะกอนของแร่โครเมี่ยนสปิเนลซึ่งชี้ถึงการมีอยู่จริงของ หินเมฟิกและหินอุลตราเมฟิกในช่วงที่มีการสะสมตะกอนยุคไทรแอสซิกบริเวณพื้นที่ศึกษา ผลลัพธ์ ที่ได้พบว่าเศษชิ้นตะกอนของแร่โครเมี่ยนสปิเนลที่พบในหินทรายอายุไทรแอสซิกเป็นประเภทแอล ไพและมีความสัมพันธ์กับหินบะซอลด์ที่ประทุจากสันกลางสมุทรและที่ประทุขึ้นมาบนพื้นท้องทะเล

จากการลำดับชั้นหินและซากดึกดำบรรพ์ กลุ่มหินแม่สะเรียงมีอายุระหว่างไทรแอสซิกตอน กลางถึงตอนปลาย

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KEYWORD: Mae Hong Son/ Mae Sariang/ Detrital Chromian Spinels/ Sandstone/ Pra Trumuang NATTAPOL SRINAK: LITHOSTRARIGRAPHY OF SOME TRIASSIC CLASTIC ROCKS IN SOUTHERN PART OF AMPHOE MUANG MAE HONG SON, CHANGWAT MAE HONG SON, NORHTHERN THAILAND. THESIS ADVISOR:

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The marine Triassic rocks in the Mae Hong Son-Mae Sariang area in northwestern Thailand have long been known as Mae Sariang Group. The study area of approximately 2,240 square kilometers is located in Mae Hong Son Provinces. In this study, the Mae Sariang Group is proposed and lithostratigraphically subdivided into 3 formations, namely, Kong Sum, Pra Trumuang, and Mae Leab formations, respectively, in ascending order. The Mae Sariang Group overlies the marine Permian rocks. The total thickness above 900 meters.

The Kong Sum formation consists of 2 lithofacies; the lower conglomerate and the lithic sandstone. The total thickness varies 150 to 250 meters. The Pra Trumuang formation consists mainly of 4 lithofacies; the dark gray mudstone and sandstone, the chert interbedded mudstone, the conglomerate interbedded sandstone, and the sandstone and shale, respectively. The total thickness varies from 200 to 770 meters. The Mae Leab Pong formation predominantly consists of the calcareous mudstone and sandstone, the siliceous shale interbedded mudstone, and the medium sandstone in ascending order. The calcareous mudstone with abundant *Halobia* sp. indicaties in the Triassic age. The total thickness varies from 80 to 120 meters. The lithology, sedimentary structures, geometry, and fossil assemblages reflect deep-water submarine fan environment.

Stratigraphically and paleontologically, the age of the Mae Sariang Group should be assigned as Middle to Upper Triassic.

Detrital chromian spinels probably indicate the provenance from ultramafic and basaltic volcanics for the Mae Sariang Group spinels. Evidences from geochemical as well as petrographical investigations reveal that the detrital chromian spinels of the Mae Sariang Group occurred in response to mid-ocean ridge and intraplate basalt.

DepartmentGeology	Student's signature
Field of studyGeology	Advisor's signature Dant
Academic year2002	Co-advisor's signature

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EXPLANATION OF SYMBOLS AND ABBREVIATIONS

Explanation of physiography terms.

Ban	Village
Amphoe	District
Changwat	Province
Doi	A prominent peak of a mountain
Huai	Stream
Khao	Mountain
Khuan	Hill (southern of Thailand only)
Khlong	Stream
Ko	Island
Mae Nam	River