

PROCEEDINGS OF THE WORKSHOP ON
**STRATIGRAPHIC CORRELATION
OF THAILAND AND MALAYSIA**

Volume 1 Technical papers

Geological Society of Thailand
Geological Society of Malaysia

8 - 10 September, 1983

Head Yai, Thailand



PROCEEDINGS OF THE WORKSHOP ON

STRATIGRAPHIC CORRELATION OF THAILAND AND MALAYSIA

September 8-10, 1983



Geological Society of Thailand
Geological Society of Malaysia



The Workshop was organized by

Geological Society of Thailand

Geological Society of Malaysia

in cooperation with

Ministry of Science, Technology and Energy of Thailand

Department of Mineral Resources of Thailand

Geological Survey of Malaysia

Association of Geoscientists for International Development

Prince of Songkhla University

Chulalongkorn University

University of Malaya

Copyright © 1983 by Geological Society of Thailand and Geological Society of Malaysia

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publishers.

Published jointly by the Geological Society of Thailand and the Geological Society of Malaysia

ISBN 974-8614-83-2

FOREWORD

The onshore and offshore areas of the Thai-Malay Peninsula are well known for their mineral wealth. Their full potentials, however, have not been realized due largely to the lack of better understanding of the geology of the areas. This Workshop attempts to bring together geoscientists who either work or are interested in the areas in order that they can for the first time focus their attention on the stratigraphic and related problems of the border areas between the two countries. Specifically the objectives of this Workshop are:

1. To review current knowledge of the stratigraphy of the two countries.
2. To establish, as far as possible, the formal stratigraphic units, their regional aspects, and sequences in the border areas.
3. To attempt the correlation of stratigraphy of the two countries.
4. To acquaint geoscientists of the region with the stratigraphy of Thailand and Malaysia.
5. To provide a venue for geoscientists and interested persons to exchange ideas and experiences.
6. To define research needs in the regional stratigraphy.

Two volumes of the Proceedings are planned the first volume contains the technical papers presented at the Workshop and the second volume contains late papers and Workshop discussions. Editing of papers was kept to a minimum to make the papers conform to the general format and to correct typographical errors. Due to limited time available prior to publication it was not possible to send the galley proof to the authors.

The technical papers and abstracts in the first volume are arranged in chronological order to follow the presentation sessions, and followed by the papers on aspects of geology and mineral resources of the border areas.

Sincere appreciations are due to Miss Kwanjai Sodsee and Miss Kasama Narkthong who were always willing and ready to help in the preparation of the manuscripts. Drs. Theerapongs Thanasuthipitak, Sangad Bunopas, Chongpan Chonglakmani, Narong Thiramongkol, Nopadon Muangnoicharoen, and Visut Pisutha-Arnond proofread the manuscripts.

Khoo Teng Teong
President
Geological Society of Malaysia

Prinya Nutalaya
President
Geological Society of Thailand

September 1983.

ORGANIZING COMMITTEE

Thailand

S. Bunopas (Chairman)	P. Nutalaya (Coordinator)
T. Pungrassami (Vice Chairman)	W. Pongsapich (Vice Chairman)
C. Chonglakmani (Secretary General)	M. Polahan (Treasurer)
C. Khantaprab	N. Thiramongkol
N. Muangnoicharoen	V. Pisutha-Arnond

Malaysia

K.K. Khoo (Chairman)	B.K. Tan (Coordinator)
M.K. Choo	Ahmad Said

EDITORIAL BOARD

Theerapongs Thanasuthipitak	Noppadol Muangnoicharoen
Narong Thiramongkol	Sangad Bunopas
Chongpan Chonglakmani	Visuth Pisutha-Arnond
Sopit Sodsri	Prinya Nutalaya (Editor)

CONTENTS

The Palaeozoic sedimentary rocks of Peninsular Malaysia - Stratigraphy and correlation	Foo Khong Yee	1
Stratigraphy of the Tarutao and Machinchang Formations.....		20
Lee Chai Peng		
Palaeozoic succession in Thailand.....	Sangad Bunopas	39
The Ordovician system in southern Thailand and northern Malaysia	T. Wongwanich,	77
D. Wyatt, B. Stait and C. Burrett		
The Upper Palaeozoic pebbly rocks in southern Thailand		96
W. Tantiwanit, L. Raksaskulwong and N. Mantajit		
The marine Mesozoic stratigraphy of Thailand		105
C. Chonglakmani		
Review of the continental Mesozoic stratigraphy of Thailand		127
N. Sattayarak		
Cenozoic stratigraphy of Peninsular Malaysia		149
T. Suntharalingam		
A review of the Tertiary sedimentary rocks of Thailand.....		159
P. Chaodamrong, Y. Ukakimapan, S. Snansieng, S. Janmaha, S. Pradidtan and N. Sae Leow		
Quaternary stratigraphy of Thailand		188
N. Thiramongkol		
A short note on Quaternary geology of the Haad Yai - Songkhla area, Southern Thailand		204
H. Sawata, G. Trebuil, A. Tanchotikul and R. Darnsawasdi		
Review of the felsic plutonic rocks of Thailand		213
W. Pongsapich, V. Pisutha-Arnond and P. Charusiri		
Igneous rocks of Thailand: A review of plutonic rocks with intermediate - ultrabasic compositions and volcanic rocks....		233
Y. Panjasawatwong and W. Yaowanoyothin		
Reviews of metamorphic rocks of Thailand		244
W. Pongsapich, P. Charusiri and S. Vedchakanhana		
Geologic evolution of Peninsular Malaysia		253
T.T. Khoo and B.K. Tan		

Mineralization patterns of the north-west Peninsular Malaysia.....	E.B. Yeap	291
Facies and stratigraphy of the Lower - Lower Middle Permian strata of the Petchabun fold-belt in Central Thailand	R. Winkel, R. Ingavat, and D. Helmcke	293
Tectonic and geologic evolution of Thailand.....	S. Bunopas and P. Vella	307
Mineralogy and geochemistry of pegmatitic cassiterites from Gunung Jerai, Kedah.....	Wan Fuad Wad Hassan	323
The Wang Phar wolframite Mine (South Thailand)	Tan Say Biow	324
Geology and mineral resources of Songkhla Province, Thailand	T. Pungrassami	327
SIR-A - A shuttle imaging radar strip over south Thailand and northeast Peninsular Malaysia.....	B.N. Koopmans and S. Muenlek	344
Geoelectrical survey at the Phuket Mining Co., Ltd., Tumbon Lidon, Changwat Yala.....	D. Phongsamas	366
Hydrologic and hydrogeologic characteristics of North-western Peninsular Malaysis	Mohamad Ali Hasan	368
Geology of the Tarutau Islands	T. Pungrassami	369
Mesozoic Stratigraphy in Peninsula Malaysia.....	Khoo Han Peng	370