

Late Paleozoic and Early Mesozoic circum-Pacific events: Biostratigraphy, tectonic and ore deposits of Primorye (Far East Russia)

Baud A., Popova I., Dickins J.M., Lucas S. & Zakharov Y.

Foreword:

The International Field Conference on Permian-Triassic Biostratigraphy and Tectonics of the IGCP Project 272 was held in Vladivostok, September 6-12, 1992. It was the first opening of the Vladivostok area for foreign geologists. Thirty three specialists were interested, but only thirteen were able to attend this Conference and the field trip afterwards. The participants came from Australia, China, Italy, Japan, Switzerland and Vietnam. From the Russian side, there were more than thirty scientists participating at the Conference sessions and seven at the field trip. This Meeting was sponsored by UNESCO, IGCP Project 272 «Late Paleozoic and Early Mesozoic Circum-Pacific Bio-Geological Events» and by the Russian Academy of Sciences, Far East Branch (Far Eastern Geological Institute). The Organizing Committee comprised Prof. Y. Zakharov (Chairman), Dr. A. Baud, (Vice Chairman) and Dr. G.V. Kotlyar (Vice Chairman). The Local Committee, including Profs. Y. Zakharov, A. I. Khanchuk and I.V. Panchenko, had been congratulated for the excellent organization of the Field Conference, despite difficulties associated with bad weather (hurricane with a serious consequences). The unforgettable Field trip gave to the participants a unique opportunity to visit Upper Permian and Triassic sections of the Russian Island, the Ussurian Gulf and the Vladivostok area, those of the Partizansk and Nachodka areas and the famous Dalnegorsk Cretaceous olistostrome with Permian and Triassic blocks of fossiliferous limestones and radiolarites.

Twenty nine abstracts were published in the Abstract book and seven were added during the Conference sessions. The organizing committee has taken the decision to publish the materials of the presentations made during this meeting.

From September 1992 to the end of 1994 we received more than twenty nine manuscripts. The review process took about three years. Dr. J. M. Dickins (Canberra) and Dr. S. Lucas (Albuquerque) were in charge of the English edition of the texts and some reviews. Dr. I. Popova together with Prof. Y. Zakharov worked on the corrections of all articles and some graphics. The edition of the first model of this issue of the «Mémoires de Géologie» and corrections of the last one was made by Dr. I. Popova. The final model of the volume was made by Mr. K. Konig.

The articles of this volume are presenting data on Tectonics, Biostratigraphy, Paleogeography, Sedimentology, Magmatism and Ore deposits of the Russian Far East territory. The first two papers of this volume give an overview on tectonics and magmatism of Primorye. The next papers comment on the Permian and Triassic paleogeography and biostratigraphy of the Primorye based on ammonoids, conodonts, radiolaria, flora, ostracods, sphinctozoans and corals data. The ore-bearing deposits and the sedimentology of a heavy minerals of the Sikhote-Alin Mountains are the subject of the last two papers.

We warmly acknowledge the reviewers, their advices was of great help to the editorial board for choosing among submitted papers and for improvements of the manuscripts. They are (except the editing board): Prof. P. Baumgartner (Lausanne), Prof. J. Broutin (Paris 6), Prof.

H. Bucher (Lyon), Dr. E. Carter (Vancouver), Dr. S. Crasquin (Paris 6), Dr. P. Dumitrica (Berne), Prof. J. Guex (Lausanne), Dr. F. Hirsch (Jerusalem), Prof. H. Kerp (Münster), Dr. H. Kozur (Budapest), N. Meisser (Lausanne), Dr. B. Senowbary-Daryan (Erlangen) and Prof. P. Thélin (Lausanne). Thanks to the Geological Museum and to the Institute of Geology and Paleontology, Lausanne University, for supporting part of the cost of the editing works and publication. We are grateful to the Swiss Academy of Sciences for the generous publishing financial support.

Contents:

In Memoriam Mendel N. Gramm

Foreword

1. Khanchuk, A.I. and Panchenko, I.V. Permian and Triassic Rocks in Terranes of the Southern Far East Russia
2. Sakhno, V. G. Early Mesozoic Magmatism of Tectonic Process Activation in Eastern Asia
3. Nechaev, U.P., Philippov, A.N., Panasenko, E.S., Khanchuk, A.L. and Vysotskiy, S.V. Heavy Clastic Minerals in Upper Paleozoic-Lower Mesozoic bedded Cherts of the Sikhote-Alin Terranes, Russian Far East
4. Buriy, I.V. Paleogeography of Triassic Sedimentation in South Primorye
5. Buriy, G.I. Early Triassic Conodont Biofacies of Primorye
6. Buriy, G.I. Triassic Conodont Biostratigraphy of the Sikhote-Alin
7. Gramm, M.N. Ostracodes of the Chandalaz Horizon (Upper Permian) of South Primorye
8. Rudenko, V.S., Panasenko, E.S. Biostratigraphy of Permian Deposits of Sikhote-Alin based on Radiolarians
9. Smirnova, O. Upper Pliensbachian Radiolaria from the South Primorye (Russian Far East)
10. Zimina, V. G. Late Paleozoic Flora of South Primorye and some Problems of Phytogeography
11. Shorokhova, S.A. Late Triassic Floras in the Primorye Region, Russia
12. Zakharov, Y. D. Ammonoid Evolution and the Problem of the Stage and Substage Division of the Lower Triassic
13. Zakharov, Y. D. The Carnian and Norian Sirenitid Ammonoids of the North-Western Circum-Pacific and their Role in the Late Triassic Faunal Successions
14. Belyaeva, G.V. Sphinctozoans of Primorye
15. Belyaeva, G.V., Kiseleva, A.V. and Nikitina, A.P. Stages of Late Permian Biogenic Buildups in the Southern Primorye
16. Punina, T.A. Stratigraphic Levels of Triassic Limestones of the South Sikhote-Alin (on the Basis of Coral Study)
17. Punina, T.A. Stages of Development of Triassic Biogenic Constructions in South Sikhote-Alin
18. Khomich, V.G., Ivanov, U.U., Zinkov, A.V. and Zenin, A.L. Epithermal Gold-Silver Mineralization of Late Paleozoic Volcano-Plutonic Complexes of the South-West Primorye (Far East Russia)
19. Parnjakov, U.P. Tectono-Sedimentary Complexes of the Dalnegorsk Ore Region (Primorye)
20. Izosov, L.A. and Levashov, G.B. Late Mesozoic Ore-Bearing Olistromes of Sikhote-Alin and its Formation Equivalents in Japan Sea Region
21. Shkolnik, E.L., Zaghhallo, E.A. and Eganov, E.A. Phosphate Grains (Pellets) of Phosphorites from the Phosphoria Formation, USA