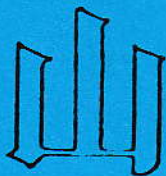


INTERNATIONAL SUBCOMMISSION ON JURASSIC STRATIGRAPHY

Newsletter No. 17

Jim

Copenhagen, June 1988



A SUBCOMMISSION OF THE INTERNATIONAL UNION OF GEOLOGICAL SCIENCES (IUGS)

NEWSLETTER NO. 17

The circular letter dated November 20th, 1987, concerning nomination of the new chairman and new secretary was answered by four voting members, who all agreed in the nomination of Enay (chairman) and Mangold (secretary). No alternative candidates were suggested. After consulting Remane (secretary of the commission) we have decided to regard Enay and Mangold as nominated by the subcommission, which means that the nomination will not be performed by postal ballot as described in newsletter No. 16 (p. 2). This note is preliminary as we were informed by Remane that we will get a final decision from Cowie (chairman of the commission).

Meetings

The Oxfordian Working Group Meeting will take place September 20th-23rd, 1988, in Zaragoza, Spain. - Please note the new date! The second circular has been mailed by Melendez. The deadline for submitting abstracts and for registration is May 31st, 1988.

The Bajocian Working Group Meeting will take place in July 2nd-8th, 1988, in Piobbico (central Italy) and Monti Lessini (northern Italy). - Please note the new date! The first circular was mailed in December, 1987, by Pavia.

During the International Geological Congress in Washington (July 9-19th, 1989) there will be joint scientific sessions by the subcommission and IGCP No. 171 on System and Stage Boundaries in North and South America, respectively. The subcommission session will be chaired by Taylor and Pessagno, and the IGCP session by Westermann.

The Triassic-Jurassic Boundary Working Group arranges an International Meeting on the Triassic-Jurassic Boundary in Lyon (France), November 28-29th, 1988. - Inquiries must be presented to:

Prof. Jean Guex
Department of Geology
UNIL-BFSH 2
CH-1015 Lausanne, Switzerland.

Enclosures

- 1) Report by P. Copestake
- 2) Report by K.O. Rostovtsev
- 3) Report by M. Elias and M. Rakus

Arnold Zeiss

Olaf Michelsen

REPORT OF THE JURASSIC MICROPALAEONTOLOGY WORKING GROUP

by

P. Copestake

About 15 micropalaeontologists attended the working group meeting, comprising a diverse assemblage of workers currently researching on Jurassic ostracods, foraminifera, calcareous nannoplankton, dinoflagellates, spores, pollen and calpionellids.

The meeting was opened by the Chairman, Emile Passagno, who welcomed the attendees and then introduced Philip Copestake, the Secretary, who reviewed the current status of the group.

The group was established at the Erlangen Meeting in 1984 when the current officers were elected. A newsletter had been circulated, including a questionnaire aimed to obtain more information regarding members specific research interests and lists of relevant publications. It was intended to then produce a second newsletter with information obtained from the questionnaire. This newsletter was in preparation.

In addition, the working group had been advertised in the following journals:-

Micropalaeontology
Revue de Micropalaeontologie
Journal of Foraminiferal Research
Revista Espanola de Micropalaeontologia
British Micropalaeontologist (newsletter of the British
Micropalaeontological Society)

As a result, many requests had been received from micropalaeontologists worldwide to join the group, the net effect being that the group now had 49 members.

The major aims of the group were reviewed as follows:-

- 1) to provide support to the working groups on Jurassic stages, particularly with respect to problems of boundary definition and correlation.

/...

- 2) to actively study Jurassic sequences for micropalaeontological content, ideally in association with ammonite workers, magnetostratigraphers and geochronologists. Those sections of potential stratotype value should receive particular attention.
- 3) to act as a forum for exchange of information and news of members activities, publications, meetings etc., by means of an annual newsletter.
- 4) to aim to organise workshop sessions at each future Jurassic symposium to enable fossil material to be compared between different areas of the world. This would hopefully address problems of varying taxonomic concepts and nomenclature.
- 5) to compare species ranges from region to region.

These aims were discussed and agreed upon by those present. The working group was seen primarily as an organ of communication and information dissemination. Co-ordinated research was envisaged as operating on a national level, in collaboration with other non-micropalaeontological Jurassic workers.

The concept of workshop sessions at future symposia was received favourably, and this requirement has been requested of the officers of the Subcommittee by the JMWG Secretary.

The secretary then discussed his views on the operation of the group, and expressed his concern that more newsletters had not been issued since the Erlangen meeting. He felt that this was primarily due to insufficient available time on his part to dedicate to group organisation. He did emphasise, however, that micropalaeontologists have an essential role to play in Jurassic stratigraphy. This is attested by the numerous comments at the Erlangen and Lisbon meetings, both in presentations and informally, that more information on microfossil groups is urgently required to impact on diverse aspects of stratigraphy and correlation.

The question of new officers of the group was then discussed, with a request for nominations from those present at the meeting. It was agreed that as of immediate effect, the new officers would be as follows:-

/...

Chairman : Peter H. Roth
Dept. of Geology & Geophysics
University of Utah
Salt Lake City
Utah 84112
USA

Secretary : Dorothy Guy-Ohlson
Naturhistoriska Riksmuseet
Sectiones for paleobotanik
Koslagvagen 120
S-104 05
Stockholm
Sweden

Interest in the activity of the JMWG was considerable at Lisbon, and the group can now be regarded as an official working group of the Jurassic Subcommittee.

It was agreed by attendees that the palynologists, who formed a separate group at Erlangen, would now be included within the JMWG.

Here's hoping for the attendance of a larger number of micropalaeontologists at the next symposium (France, 1991), and that a higher profile can be attained in the formal sessions.

P. Copestake

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Report on the state of progress of
Jurassic research in the USSR (1984-1987).

K. O. Rostovtsev

O.Introduction. The aim of this Report is to outline the main aspects and the current state of progress of Jurassic research in the USSR. The Jurassic deposits on the territory of Russia were first recorded by L.von Buch (1840) almost 150 years ago. Later, the Jurassic system was studied by outstanding scientists, i.e. Ch.Rouiller, H.Trautschold, E.Eichwald, S.Nikitin, A.Pavlov, A.Borissiak, A.Krishtofovich, V.Prinada, V.Bodylevsky, V.Pcelincev, G.Krymgolz, V.Sacks, and many others. Major progress in the Jurassic studies was recorded in the 60's and 70's due to the works of the specialists from the Moscow, Leningrad, Kharkov, etc., universities, as well as different geological institutions of Ashkhabad, Baku, Dushanbe, Erevan, Essentuki, Kharkov, Kiev, Krasnodar, Leningrad, Lvov, Magadan, Moscow, Novosibirsk, Saratov, Tashkent, Tbilisi, Vilnius, Yaroslavl etc. Of utmost importance was the fact that in 1955 the Interdepartmental Stratigraphic Committee was set up, under which the Jurassic Commission was organized under the chairmanship of G.Krymgolz. The Interdepartmental Stratigraphic Committee sponsored the compilation, testing and publication of regional stratigraphic schemes for all the Phanerozoic and Precambrian systems of the USSR, including the Jurassic deposits. Besides, the Interdepartmental Stratigraphic Committee published the first Stratigraphic Code of the USSR, the monograph "Zones of the Jurassic system in the USSR", and published the Transactions, highlighting the most important results of investigations.

In the last four years (1984-1987), a considerable progress was achieved in the Jurassic research in the USSR. Different workers published about 20 monographs, over 200 papers in periodicals, and 11 theses.

These were two major trends in the Jurassic research: faunal and biostratigraphic studies, and studies on lithology, paleogeography and mineral deposits, associated with the Jurassic strata.

1. Members. Presently, some 40 specialists, belonging to the Jurassic Commission of the Interdepartmental Stratigraphic Committee, are studying the Jurassic stratigraphy and fauna. Besides, different fossil groups and the Jurassic stratigraphy are also studied by paleontologists, who are members of the All-Union Paleontological Society. 15 specialists study foraminifers; 2, radiolarians; 1, sponges; 1, coelenterates; 3, corals; 20, bivalves; 1, gastropods; 10, cephalopods; 4, brachiopods; 5, ostracods; 1, crinoids; 2, vertebrates; 4, algae; 16, flora, and 48, spores and pollen.

2. Monographs. The scientific production of various teams of workers in the USSR is primarily represented by monographs. The most important among them are:

Вышемирский В.С. (ред.) (1986): Баженовский горизонт Западной Сибири; стратиграфия, палеогеография, экосистема, нефтеносности. Тр. инст. геол. и геофиз. СО АН СССР, вып. 649, Новосибирск, "Наука".
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Григалис А.А. (1985): Зональная стратиграфия балтийской юры по фораминиферам. (Методы анализа фораминиферовых зон), "Недра".
(Grigelis, A.A. (1985): Zonal Jurassic stratigraphy of the Baltic area based on foraminiferas. (Methods of analysis of foraminiferal zones), "Nedra").

Григалис А.А. (1985). Фораминиферы юрских отложений юго-за-

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Меледина С.В. (1987): Аммониты и зональная стратиграфия келловей суббореальных районов СССР. Тр. инст. геол. и геофиз. СО АН СССР, вып. 691, "Наука". (Meledina, S.V. (1987)): Callovian ammonites and zonal stratigraphy of subboreal areas of the USSR. Trans. Inst. Geol. and Geoph. SB Acad. Sci., issue 691, "Nauka").

Меннер В.В. (ред) (1984): Пограничные ярусы юрской и меловой систем. Тр. инст. геол. АН СССР, вып. 644, "Наука". (Menner, V.V. (ed.) (1984)): Jurassic /Cretaceous boundary stages. Trans. Inst. Geol. Acad. Sci., issue 644, "Nauka").

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Романов Л.Ф. (1985): Юрские пектениды Юга СССР, Кишинев, "Штиинца". (Romanov, L.F. (1985)): Jurassic pectinoids of the south USSR, Kishinev, "Shtiintsa").

Ростовцев К.О., Прозоровская Е.Л. и др. (1985): Юрские отложения южной части Закавказья, "Наука" (Rostovtsev, K.O., Prozorovskaja, E.L. et al. (1985): Jurassic deposits of the south part of the Transcaucasus, "Nauka").

Санин В.Я., Захаров В.А., Шурыгин Б.Н. (1984): Позднеюрские и раннемеловые Arcaea (Bivalvia) севера Сибири. Тр. инст. геол. и геофиз. СО АН СССР, вып. 585, Новосибирск, "Наука". (Sanin, V.Ya., Zakharov, V.A., and Schurygin, B.N. (1984): Late Jurassic and Early Cretaceous Arcaea (Bivalvia) of northern Siberia. Trans. Inst. Geol. and Geoph. SB Acad. Sci., issue 585, Novosibirsk, "Nauka").

Шульгина Н.И. (1985): Бореальные бассейны на рубеже юры и мела, "Недра". (Schulgina, N.I. (1985): Boreal basins at the Jurassic/Cretaceous boundary, "Nedra").

3. Activities. Major activities, related with the Jurassic studies in the USSR, were carried out under the auspices of the international bodies, Interdepartmental Stratigraphic Committee, and the All-Union Paleontological Society.

1984. XXVII IGC Session with excursions to different regions of the USSR. Moscow (publications: proceedings of the Congress and excursion guides).

1984. XXX Session of the All-Union Paleontological Society (VPO) on the topic "Traces of life and environmental dynamics in ancient biotas". Lvov (publications: abstracts of papers).

1985. XXXI VPO Session on the topic "Formation and evolution of continental biotas". Leningrad (publications: abstracts of papers).

1986. III Kazakhstan Stratigraphic Meeting on all the Phanerozoic and Precambrian Systems. Alma-Ata (documents: regional stratigraphic schemes).

1986. XXXII VPO Session on the topic "Most important biotic events in the Earth's history". Tallin (publications: abstracts of papers).

1987. XXXIII VPO Session on the topic "Theoretical and applied aspects of modern paleontology". Leningrad (publications: abstracts of papers).

4. Research projects. Specialists on the Jurassic stratigraphy participate in the work on the following international

research projects.

1986-1990. The Soviet-Hungarian Project No.1 on comparative studies and correlation of Mesozoic and Cenozoic stratigraphic units of the Alpine Belt (Alps, Crimea, Caucasus) (Leaders: K.O. Rostovtsev, R.Hetenyi).

1981-1987. Circum-Pacific Jurassic Project No. 171. UNESCO (Leader:G.Westermann).

1984-1990. Evolution of the Northern Margin of the Tethys. Project No. 198. UNESCO.

1984-1990. The Soviet-Canadian Project N 4 "Geological Science and Arctic oil" (Leader: I. Gramberg).

K.O.Rostovtsev



Report on the activity of the Jurassic Working Group in

Č S S R (1980 - 1987)

Mojmir Eliáš - Miloš Rakús

Research on the Jurassic stratigraphy, paleontology and sedimentology are focused on the Bohemian Massif and the West Carpathians.

Bohemian Massif

In the last twenty years about 40 deep wells encountered over 1000 m thick sequence of the Jurassic in the SE part of the Bohemian Massif in the underground of the Carpathian Molasse and the Outer Carpathian flysch belt. Eliáš (1981) described the lithostratigraphy, microfacies and paleogeography of these deposits in the connection with other Jurassic sediments of the Bohemian Massif (North Bohemia, Brno area and Moravian Karst). Vašíček (1980) gave the biostratigraphic foundation for it. These deposits of the Callovian - Tithonian belong to the facies of the European shelf of Tethys.

West Carpathians

The Jurassic in the West Carpathians was in the centre of interest from the beginnings of geological investigations in this region. It was mainly because this formation is characterized by great variety of facies and fossils plentiful for Carpathian conditions.

After a transitional "ebb", from the beginning of the 80-ies the Jurassic formation comes again to the foreground of interest. It is mainly for the reason that new localities of fossils were discovered as well as micropaleontological methods started to be applied to a greater extent (nannoflora, radiolarians and calpionels).

Lower Jurassic:

In the last time attention was paid to the strata between the Rhaetian and Hettangian stage. As it results from the investigations, a discontinuity exists between the above mentioned stages. If there was somewhere a continuous transition, so this could be found in the sedimentation area of the Krížna nappe (Sýkora, 1986).

The newly discovered localities of Hettangian ammonites in the Malá Fatra and Západné Tatry Mts. have made possible to extend our knowledge on representation of the individual taxa in the West Carpathians essentially (Rakús, in print). So far ammonites characterizing the planorbis and liassic zones have been established, the richest assemblages are derived from the liassic Zone.

The Sinemurian to Toarcian ammonite assemblages were already known relatively enough in the past. At present a revision of older collections is prepared (Rakús, in preparation). The investigation of calcareous nannoflora (Gašpariková, 1982) from the Allgäu Formation also began.

Middle Jurassic:

When compared with the Liassic, the Middle Jurassic is much less investigated in the West Carpathians. This results mainly from the fact that no sufficient attention has been devoted to it so far and further, that it is mostly represented by radiolarites and cherty limestones.

In the last years systematic study of radiolarites (Ožvoldová, Ondrejčíková) and condensed facies (Rakús) and their ammonite assemblage began.

New investigations of the basal parts of the formation of Czorsztyn limestone clearly confirm that the stratigraphic range

of this important Carpathian formation is greater than supposed previously. This begins in the Lower Bathonian, zigzag Zone.

Upper Jurassic:

In the Upper Jurassic the investigations are concentrated in the first place to the area of Štramperk and the region of the Central West Carpathians.

In the Štramperk limestone calpionel associations were studied (Houša). In the individual bodies calpionel zones with *Chitinoidella*, *Crassicollaria* and *Calpionella* were established. The first two biozones are represented in the whole extent, from the *Calpionella* Zone a part is represented only. Sedimentation of the Štramperk limestone was probably terminated at the boundary of the subzones with *Remaniella* and *Calpionella eliptica*.

The individual calpionel zones and subzones are arranged in regular superposition in all bodies, as proved by compactness of the individual bodies.

But the discussion on the stratigraphy and origin of Štramperk limestone is not finished. According to the results of sedimentological and microfacies study (Eliáš 1983), the Štramperk limestone does not form compact tectonic klippen. It represents clasts (blocks) in the Uppermost Jurassic - Cretaceous base-of-slope conglomerate and breccia of the Silesian unit, which are a normal lithostratigraphic member of this unit.

The source area of these clasts was carbonate platform and/or reef complex on one of the elevations in the flysch sea. A facies model of the Tithonian Štramperk reef complex was constructed by Eliášová (1981). The basis of this model were the microfacial analysis and the ecological evaluation of the corals

and the algae. The study of stable isotopes (Bladíková - Eliášová - Eliáš, 1987) confirm this model from the temperature point of view, but did not confirm the supposed fossil karstification on the Jurassic - Cretaceous boundary.

Considerable attention was also paid to other groups: algae (Eliášová 1981, Soták et al. 1988), foraminifers (Soták 1987), corals (Eliášová), brachiopods (Nekvasilová) and crinoids (Žitt in preparation). Houša - Nekvasilová (1987) described occurrences of cryptic epifauna on the lower side of coral bunches.

Eliáš - Eliášová (1984) synthesised the paleogeography of the Flysch Carpathians in the Jurassic. They defined the micro- and/or macrofacial distinctions between the main sedimentary environments of this north passive margin of the Tethys. Special attention was given to the comparison of the elevation facies of the Malm and to the distinction of reef complexes and carbonate platforms (Eliáš - Eliášová 1985).

It was also proved, that the Ernstbrunn limestone represent base-of-slope conglomerates and breccias of the Waschberg Zone, which partly belong to the Lowermost Cretaceous (Eliáš - Eliášová 1984, 1985, 1986).

In the region of the Central West Carpathians detailed microfacial investigation was carried out, which has brought interesting results. This positive trend was, unfortunately, stopped by sudden decease of Dr K. Borza.

It is considered to organise an "International Field Meeting of the Working Group on the Jurassic-Cretaceous Boundary" in autumn of the year 1990 in Štramberk.

To this date finishing of the revision of the Štramberk ammonites (Houša-Oláriz-Tavera) as well as comprehensive evaluation of other important groups (various authors) is planned.

April 1988

Mojmír Eliáš - Miloš Rakús

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LIST OF RESEARCHES DEALING WITH THE JURASSIC IN THE WEST CARPATHIANS

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Dr. Viera GAŠPARIKOVÁ	Dionýz Štúr Institute of Geology Mlynská dolina 1 CS-817 04 BRATISLAVA Czechoslovakia	Jurassic calcareous nanoflora
Dr. Anna KULLMANOVÁ	- " -	Jurassic microfacies
Dr. Anna ONDREJČIKOVÁ	- " -	Jurassic - lower cretaceous radiolarians
Dr. Jozef PEVNÝ	- " -	Jurassic Brachiopods
Dr. Miloš RAKÚS	- " -	Lower-Middle Jurassic Ammonites, Paleocology and Paleobiogeography
Prof. Milan MIŠŤK	Comenius University, chair of Geology and Paleontol- ogy Mlynská dolina CS-842 15 BRATISLAVA	Jurassic microfacies
Dr. Ladislava OŽVOLDOVÁ	- " -	Jurassic-Lower Cretaceous radiolarians
Dr. Milan SÍKORA	- " -	Sedimentological studies of Lower Jurassic
Dr. Emília ČINČUROVÁ	Slovak National Museum Vajanského nábr. 2 CS-814 36 BRATISLAVA	Jurassic Bellemnites

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Dr. Václav HOUŠA	Czechoslovak Academy of Sciences Institute of Geology and Geotechnics V Hodkovičkách 41 CS-180 00 PRAHA 8	Tithonian Ammonites and Tintinides, Paleocology
Dr. Olga NEKVASILOVÁ	- " -	Tithonian Brachiopods, Paleocology
Dr. Jiří ŽITTT	- " -	Jurassic Crinoids
Dr. Mojmír ELIÁŠ	Geological Survey Malostranské nám. 19 CS-118 21 PRAHA 1	Upper Jurassic microfacies and Sedimentology
Dr. Helena ELIÁŠOVÁ	- " -	Upper Jurassic microfacies and Corals, Paleocology
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