INTERNATIONAL SUBCOMMISSION ON JURASSIC STRATIGRAPHY
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Secretary: Dr. Olaf Michelsen, Geological Survey of Denmark, Thoravej 31, DK-2400 Copenhagen NV,

March 1983

N E W S L E T T E R No. 9

Proposed meeting

This newsletter is delayed for a couple of months because we have been waiting for answers on an invitation to a subcommission meeting in Copenhagen in October 1983. During last autumn (October and November) more than two hundred copies of the invitation were sent out. It was planned to have a meeting on the following topics:

Topic 1: Correlation of the Lower Jurassic stages, primarily concentrated on northern and central Europe. In connection with the invitation people were asked to fill biozonations on a table for starting up a multidisciplinary correlation and subdivision of the Jurassic System.

Topic 2: Correlation problems of the Jurassic sequence in NW-Europe (incl. the North Sea).

We received answers for only a forth of the invitations. Less than ten persons expected to attend the meeting and 20 hoped to be able to attend the meeting. We have decided that a meeting with less than 20 participants (of which only a few are subcommission members) will have minor possibilities for scientific results, - e.g. only few of the people actual-ly working in the North Sea region were able to come. Therefore the meeting will be postponed to 1984, and it will probably be arranged together with the coordinates of the smaller working groups mentioned below.

We have received more answers on the above-mentioned tables. These will be submitted to the coordinators of the smaller working groups and they must be of great value for these. If you have further comments to this or to the material sent to us please write to the coordinators (concerning the names see below).

We have nothing new concerning the meeting in Poitiers in 1984, but we hope it will be arranged.

The smaller working groups

The chairman of the Subcommission has tried to find colleagues who are ready to act as coordinators of the smaller working groups. Now the following working groups are in the Status of establishment.

1) Working group on the Hettangian/Sinemurian (coordinator G. Bloos, Staatliches Museum für Naturkunde Stuttgart Arsenalplatz 3, D-7140 Ludwigsburg).

2) Working group on the Pliensbachian (Coordinator: R. Schlatter, Museum zu Allerheiligen, CH-8200 Schaffhausen).

3) Working group on the Toarcian (Coordinator: R. Fischer, Geologisches Institut TU Hannover, Callinstrasse 30, D-3000 Hannover 1).

All who are interested to participate in the work of these working groups and have not received a direct letter from the coordinators are requested to write to them.

In addition J. Delance agreed to coordinate work on brachiopod- and L. Beauvais on coral subdivision and correlation. Working groups are open to all colleagues (not only members) who are willing to cooperate actively.

It is hoped that it will be possible also to begin with the Organisation of Middle Jurassic working groups during 1983. Thus, Dietl, (Staatliches Museum für Naturkunde Stuttgart, Arsenalplatz 3, D-7140 Ludwigsburg) agreed to act as coordinator of the Bajocian Working Group.

The name of the uppermost Jurassic stage

Together with our newsletter No. 8 we circulated a questionary concerning the name of the uppermost Jurassic stage. We have received answers from 6 full members, 18 corresponding members, and from 25 colleagues outside the subcommission. Nearly all votes are in favour of the usage of the Tithonian. Despite of this voting which was planned äs an informal one we regret to have received answers from so few of the full members. If the voting shall make any sense all members have to participate. You are therefore asked to read carefully the newsletter No. 8 and to fill in the questionary.

We like to add that at present the Tithonian is used more or less world wide (see Imlay 1980, Krimholz et al. 1982, Wang & Sun 1982, Harland et al. 1982). It is therefore strongly recommended to use the Tithonian as far as possible as formal stage name of the uppermost Jurassic stage. The Volgian may provisionally be used as a regional stage name for the boreal realm. (see first report from the Jurassic/Cretaceous working group).

Report on Canada Meetings

The chairman and secretary followed an invitation by G. Westermann to participate in the Symposium on Jurassic and Cretaceous Biostratigraphy and Palaeogeography organized during the IIIrd Paleontological convention in Montreal. The report will be printed in a special volume of the Can. Ass. Petr. Geol. There was a good possibility to come in personal contact with many of the more important workers on the Jurassic System in America. - Also the board of the subcommission held there an organisational and business meeting. A week later the new IGCP Project No. 171, Circum Pacific Jurassic Research Group with WESTERMANN as chairman, had the first working meeting (a field meeting), August 9-14th 1982 in Calgary. Approximately 25 persons from 12 countries attended the meeting. The topics of the research group were redefined to: A. Geodynamics, - B. Physical Geochronology, - C. Ocean Currents and Climate, - D. Basin Analysis, - E. Microflora, - F. Macroflora, - G. Microfauna, - H. Invertebrates, - I. Vertebrates, - J. Biostratigraphy and Standard Zones, - K. Floral Biogeography, - L. Faunal Biogeography and Seaways.

The number of members is approximately 150. There is an increasing activity in the research group, and severa! new multidisiplinary research programs have arisen. The first annual report (edited by G. Westermann, Sept. 1982) is a compilation of reports by all subtopic-coordinators and contains much useful information on the present scientific activities on the Jurassic in the Circum-Pacific area and presents partly results of those, too. Of special interest is the report on the Jurassic of China.

The chairman and the secretary of the Subcommission attended the meeting and a Subcommission meeting was held (see also below). The chairman gave a short speach in the honour of ..

Ralph W. Imlay, one of the outstanding and most successful American Jurassic geologists and palaeontologists. Cooperation between the Circum-Pacific Jurassic Research Group and the Subcommission was discussed and it was proposed to strengthen it. An immediate program was designed: A worldwide chart of Jurassic Standard zones.

Of the topics treated during the meeting we will shortly refer a selected group below:

SARJEANT reviewed published records of palynomorphs from the Circum Pacific Region. The intensity in investigation of the different groups vary greatly from region to region. He emphasized that dinoflagelate cysts and acritarchs may be of considerable value for stratigraphical correlation.

VOLKHEIMER (Climate of the South America) reported on studies of the dinoflagelate, micro- and macrofloral evidences for Jurassic climates. From the dinoflagel ate register during the Middle and Upper Jurassic warm conditions are indicated, with cooling during the Callovian.

PESSAGNO (North American Microfauna). Radiolarian charts of Jurassic age are well represented in orogenic complexes throughout the Circum Pacific Region, but the faunas cannot be related accurately to Jurassic chronostratigraphic units. Therefore, it is decided to establish a detailed radiolarian zonation that can be integrated with bio- and chronostratigraphic data supplied by the ammonites. The Lower Jurassic is subdivided into at least 5 zonal units and the Middle Jurassic into 6 zonal units. An integrated research program on Upper Jurassic radiolarian, ammonites, calpionellids, nan-noconids, and planktonic foraminifera is expected to lead to a detailed radiolarian zonation.

BRAUN reported on the biostratigraphic studies of the foraminifera and ostracods at a number of localities in Canada and in the northern part of the US.

BEAUVAIS reported on the new findings of coralls in the Philippine's and Sumatra, previously considered to be of Palaeozoic or Cretaceous age. The universal distribution of Upper Jurassic coralls is thus once more documented. Middle and Lower Jurassic coralls need more detailed studies in the Pacific region.

TAYLOR reviewed the last papers on American Jurassic bivalves. The importance of this group as well as that of the ammonites, for the reconstruction of Jurassic seaways between the Mediterranean and Pacific seas was outlined by von HILLEBRANDT and WESTERMANN. A direct connection via a mid-Atlantic seaway is prooved since Pliensbachian time.

KRISHNA reported on his new research work on the Jurassic of the Himalayas, especially the Spiti Shales and New Guinea. The faunal succession begins in the Himalayas with a Schlotheimia assemblage and ends with a Blanfordiceras assemblage in the uppermost Jurassic.

Lower Jurassic biostratigraphy and ammonite subdivision was reviewed by SMITH for North America and Oceania and by von HILLEBRANDT for South America. In North America the zones of Hettangian to Pliensbachian and lowermost Toarcian have been well established (14 zones), while in the Toarcian detailed work is just in an early stage. In South America a more detailed subdivision (including the Toarcian) is possible (21 zones). Correlation with European Standards have been undertaken.

WESTERMANN prepared for the Middle Jurassic ammonites and subdivison three correlation tables, two for America (North and South), and one for world wide use. Reviews on Upper Jurassic ammonites, subdivision and correlation have been provided by von Hillebrandt (Oxfordian-Kimmeridgian), and Wiedmann and Zeiss (Tithonian).

The function of the subcommission

During autumn 1982 the chairman sent out Standard letters to all members to encourage activity and cooperation, e.g. circulating newsletters to non-members, answering questionaries etc. Until now the chairman has received seven informative answers, - five of these are from members already belonging to the group of active members, and two from members who have decided to retire because of lack of time or illness respectively. We ask members not really interested in the work of the subcommission or not more able to collaborate to retire or to change full membership to correspondent membership.

A membership of a subcommission implies activity as emphasized above and contact with the chairman, to discuss with him the matters of the subcommission, especially to make proposals leading to a more effective and prolific work of the subcommission.

The discussion during the subcommission meeting in Calgary (mentioned above) made it clear that the subcommission had not been effective enough in communication of news, decisions, and discussions to non-members. This was especially the case in North America, but also in Great Britian. We have discussed this problem and decided to enlarge the group of corresponding members. The following persons have been proposed and all have accepted:

Beauvais, Bloos, Calloman, Cope, Delance, Dietl, Fischer, Hall, von Hillebrandt, Krishna, Morton, Poulton, Sarjeant, Schlatter, Smith, Torrens.

Furthermore, Sato and Westermann have accepted to be full members New proposals for correspondent membership: Cariou, Mangold.

Last but not least we regret to mention that our friend and well-known colleague, Dan Patrulius, died in November 1982. He was an outstanding scientist of Jurassic palaeontology and geology in Romania after the second world war. Those who knew his kind and helpful nature will honour his memory.

Arnold Zeiss
chairman

Olaf Michelsen
secretary

NB All news, notes, reports, ect., which should be published in the next newsletter should reach us before 15th Sept. 1983.

Enclosure 1: List of addresses of chairman, secretary, members and correspondents.
Enclosure 2: Report by MELÉNDEZ (Spain)
Enclosure 3: Report by BENPEI, JINGSHAN & SHOUREN (China)
Enclosure 4: Extraction from Newsletter 1 of the International Working Group on the Jurassic-Cretaceous Boundary

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ENCLOSURE 1

for Newsletter No. 8

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Please report to the Secretary any corrections to the adresses and any changes

STAY OF DR.W.BROCHWICZ-LEWINSKI IN SPAIN (DPT. PALEONTOLOGIA, FAC,CIENCIAS, UNIV. ZARAGOZA, SPAIN)

Dr. W.Brochwicz-Lewinski (Dpt. of Subsurface Gology, Inst. Geologiczny, Warsaw, Poland), has been recently in Spain for a stay of six weeks long, during the months of November and December, to keep carrying on with the research work on Oxfordian Ammonites with Prof. L. Sequeiros and Dr. G.Melendez (Dpto. Paleontologiae , Zaragoza, Spain).

During this time, studies on lower Oxfordian Ammonites of Iberian Cordillera, Spain, a paper on which was recently sent to press (Melendez, Sequeiros & Br.-Lewinski 1982, Bull. Polish Acad. Sei., in press.), were continued with new results which will soon be published. It is worth to note anyway the finding of a quite rich lower Oxfordian Perisphinstid Fauna (Cordatum Zone); the virtual absence of Cardioceratidae (but not Kosmoceratidae!) in the studied materials, and the existence of a succession of generalised stratigraphic gaps in the Callovian-Oxfordian Junction beds, which may be correlated with similar phenomena in France, Switzerland, and Poland (Gygi 1981; Marchand & Br.-Lewinski 1980; Br.-Lewinski 1981; Marchand & Gygi 1977, 1982, ect.), and in Spain (Bulard, 1972, 1974; Fdez-Löpez, Melendez, Suárez-Vega 1978; Meléndez 1978; Sequeiros & Meléndez 1979 ect.)

Studies on the Spanish representatives of the genus Passendorferia Br.-Lewinski 1973 (Sequeiros 1977) were also carried on; the study of spanish representative of middle Oxfordian Perisphinctinae (=Perisphinctes and its allies), as well as mesogean and submesogean genera Orthosphinctes Schaw and Subnebrodites Spath (=Idoceras Burckhardt p.p), has also been faced. This material constitutes the main subject of the Doctoral thesis of G. Melendez, actually in elaboration.

Some studies on Oxfordian Ammonite fauna, namely on sexual Dimorphism in Ochetoceratinae, and the revision of Chilean Oxfordian Ammonite fauna (mainly Perisphinctidae, Oppelidae, Peltoceratidae), were also commenced. Results of these studies are thought to be published during the current year 1983, and in 1984.

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ENCLOSURE 3
Report by BENPEI; JINGSHAN & SHOUREN (China)

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Discovery of bivalved fauna from the Mentougou Formation in Western Hills, Beijing with notes on the age of Early Mesozoic coal-bearing stage in North China

Liu Benpei, Yu Jingshan and Yang Shouren

(Abstract)

The fossil fresh water bivalves first reported here were collected from the Mentougou Formation in Western Hills, Beijing. They occur in three horizons as follows in ascending order:

1 , The lowest part of the Lower Yaopou Member. Particularly noticeable is the abundance of Naiadites? cf. krasnolarskiensis Lebedev, N.? mentougouensis Liu(sp. nov.), Sibireconcha anodontoides(Chern.), S. jenissejensis Lebedev, they associated with Tutuella rotunda Ragozin, T. rotunda postilonga Liu(subsp. nov.), T. chachlovi Ragozin, Shaanxiconcha cf. clinovata Liu, Sh. aff. longa (Hua), Sh. triangulata Liu, Pseudocardinia? cf. carinata Martinson, P. sp. and a specimen of insect wing (Blattidae).

2, The lower part of the Lower Yaopou Member. This horizon is characterized by the widespread presence of Shaanxiconcha clinovata Liu, Sh. shijiayingensis Yang (sp. nov.) accompanied by Sibireconcha cf. jenissejensis Lebedev, Ferganoconcha sibirica Chern., F. elongata Ragozin and Unio sp.

3, The Upper Yaopou Member. Only one specimen of Pseudocardinia? cf. angulata Kolesnikov was found from this horizon.

The bivalve Naiadites? cf. krasnojarskiensis Lebedev from Lower Yaopou Member is recorded from early Jurassic in Zulim-Yenisei Basin of North Asia. The occurrence of Shaanxiconcha is of special interest, because it appears to have the late Triassic aspect. The typical middle Jurassic forms such as the species-group of Margaritifera, Unio Yananoconcha. Ferganoconcha are not known in the Lower Yaopou Member. As regards those species of Tutuella, Sibireconcha,and Pseudocardinia? found, they range from early to middle Jurassic. The Lower Yaopou Member, therefore, may be considered equivalent to the lower Jurassic in age and the Upper yaopou Member temporarily to the middle Jurassic.

According to the correlation of bivalve assemblage the so-called " Mentougou Formation " of the Zhouyingzi area in Luanping County, Hebei Province must belong apparently to the middle Jurassic and is higher in horizon than in the typical locality. Based on the study of bivalve assemblage in the Western Hills of Beijing, North Hebei, South- East Shanxi, North Shaanxi and so on, we all think that the Early Mesozoic coal-bearing stage in North China ranges from the late Triassic to middle Jurassic. The main coal-bearing horizons in different districts are diachronous. Moreover, the biogeography of fresh water bivalves between North and South China may have existed from early Jurassic. Henceforth it is also significant to call attention to the existence of a transitional bivalve assemblage between late Triassic to early Jurassic.

ENCLOSURE 4
Extracted from Newsletter 1 of the International Working Group on the Jurassic-Cretaceous Boundary.
December 14th, 1982 Jürgen Remane

P. Rawson was so kind as to provide an account of the meeting which you will find enclosed herein. Some additional comments on the votes under points 3. and 4. seem, however, necessary:

(1) The adoption of the Tithonian-Berriasian and the Volgian-Ryazanian boundaries as provisional Jurassic-Cretaceous boundaries for the Tethyan and Boreal realm respectively has to be understood in the sense of the circular of 25.5.1981.

We were convinced that the understanding of our problem will be considerably facilitated for non-mesozoic stratigraphers, if the proposed provisional boundaries are the only ones to be used in figures and stratigraphic tables and if dissenting comments are expressed separately in the text. Otherwise the non-informed reader would get the impression of a definite, generally agreed change of the boundary (like attribution of parts or the whole of the Berriasian to the Jurassic, etc.). Until such an agreement is attained, the most current usage should be followed.

(2) As the two boundaries do not coincide, one or both of them will of course have to be abandoned. But this should only be done on the base of a formal decision within IUGS.