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BULLETIN VAN HET KONINKLIJK BELGISCH INSTITUUT VOOR NATUURWETENSCHAPPEN

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AARDWETENSCHAPPEN
VOL. 66 – SUPPLEMENT

Proceedings
"Second International Symposium on Cretaceous Stage Boundaries"
Brussels 8 - 16 September 1995

edited by P. F. Rawson, A. V. Dhondt, J. M. Hancock and W. J. Kennedy

REGALE BELGICUM INSTITUTUM SCIENTIARUM NATURALIUM

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Dedicated to the memory of TOVE BIRKELUND (1928-1986), chairperson of the Cretaceous Subcommission 1975-1984.

Preface

The Cretaceous Subcommission held its *First International Symposium on Cretaceous Stage Boundaries* at Copenhagen in October 1983, under the Chairmanship of Tove Birkelund, with Finn Surlyk as Secretary. The proceedings were published the following year as volume 33 of the *Bulletin of the Geological Society of Denmark*. The preliminary proposals published in that volume have provided the starting point for all subsequent discussion.

Since 1983 interest in the Cretaceous has developed enormously, aided by several international projects such as the *mid-Cretaceous events programme* (IGCP 67) and more recently Tethyan Cretaceous Correlation (IGCP 262) and the current Tethyan-Boreal Correlation (IGCP 362). It became apparent that our original three working groups (pre Albian Stages, Albian-Turonian Stages and Coniacian-Maastrichtian Stages) were too large in scope to deal effectively with all the new research, so in 1992 the subcommission's structure was reorganised to form a working group for each stage. All active Cretaceous specialists were encouraged to join appropriate groups and over 80 have now done so. We even managed to find volunteers to chair them!

The working groups were strongly encouraged to follow certain guiding principles:

- the selected boundaries should be recognisable over as wide an area as possible and ideally in both Tethyan and Boreal (Temperate) Realms.
- selection should rely on accurate correlation using all available tools, including biostratigraphy, magnetostratigraphy, sequence stratigraphy and isotope stratigraphy.
- the stratigraphic level of the recommended boundary should conform as closely as feasible with current practice.
- the choice of the Global Stratotype Section and Point (GSSP) depends primarily on the chosen boundary marker(s). Although historical precedence should be considered when choosing a stratotype section it should not override the importance of choosing a widely-correlatable boundary in the most appropriate section, in whatever part of the world that may be.

A target of 3 years was set for the production of clear recommendations, to be presented to a second international conference scheduled for 1995. We are immensely grateful to the groups and, in particular, to the group chairmen, for having achieved so much in such a short time. Their conclusions and recommendations were presented to the *Second International Symposium on Cretaceous Stage Boundaries* held in Brussels, Belgium from 8 to 16 September 1995. Over 180 scientists attended the meeting and the working groups' workshops provoked a lively debate.

Inevitably, while this concentrated effort has resolved many problems others have been highlighted. Thus it becomes apparent in the 12 summary papers presented here that although several working groups can now start preparing formal proposals for GSSPs, to be presented to the Commission on Stratigraphy for formal ratification, others have to pursue further research. We intend to complete all this during the next 4 years so that by the time of the International Geological Congress of 2000 our tasks will be completed. In the meantime, readers of this volume who have further information to offer should contact the appropriate Working Group chairmen as soon as possible.

Peter Rawson
Chairman of the Subcommission on Cretaceous Stratigraphy

Annie V. Dhondt
Vice-Chairwoman of the Subcommission on Cretaceous Stratigraphy

Acknowledgements

Between the 1983 and 1995 conferences the Subcommission was chaired by Jake Hancock (1984 - 1989) and Walter Kegel Christensen (1989 - 1994), whose enthusiasm did so much to keep our Subcommission working.

The meeting in Brussels was organised by our Secretary, Annie V. Dhondt, who coped magnificently with everything. The facilities of the Museum were provided by Daniel Cahen, Director of the Institut Royal des Sciences naturelles de Belgique/ Koninklijk Belgisch Instituut voor Natuurwetenschappen. Financial help is gratefully acknowledged from the "Services Fédéraux des Affaires Scientifiques, Techniques et Culturelles/ Federale Diensten voor Wetenschappelijke, Technische en Culturele Aangelegenheden" (Brussels), "Exekutive der Deutschsprachige Gemeinschaft" (Eupen) and "Nationaal Fonds voor Wetenschappelijk Onderzoek" (Brussels).

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The Subcommission is also grateful to the editors of the Bulletin de l'Institut royal des Sciences naturelles de Belgique - Série Sciences de la Terre for allowing us to publish our results as Vol. 66 - Supplement, and to Jake Hancock and Jim Kennedy for their unstinting help with the scientific preparation of the symposium and at the editorial stage. Special thanks go to Alexandra Egorova (Brussels) and Anatoly M. Nikishin (Moscow) for the translation of the abstracts into Russian.

Finally, we would like to thank Jürgen Remane, Chairman of the Stratigraphy Commission, for his continuing support and advice.

Peter Rawson
Chairman, Cretaceous Subcommission.