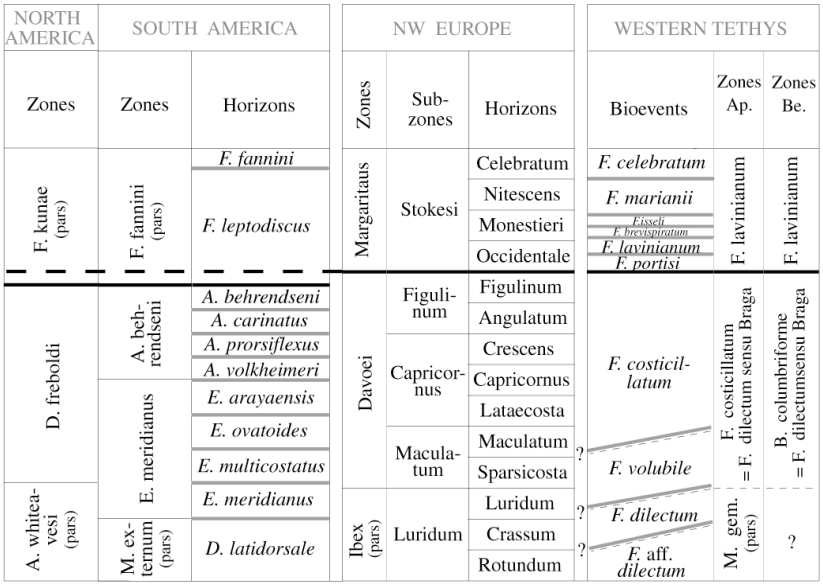
Fig. 8. Proposed correlation between the NW Europe standard zonation and western Tethyan and American zonations at the Lower-Upper Pliensbachian boundary. The dotted line suggests the correlation between the Lower and Upper Pliensbachian between Europe and America.



BATHONIAN WORKING GROUP

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The Working Group meeting during the 7th International Jurassic Congress in Krakow agreed to submission of the proposal of the Ravin du Bès section as GSSP for vote in the Working Group by April 2007 and to the Jurassic Subcommission later. New multidisciplinary investigations of the candidate section, however, have been finished during April and May. The formal ballot on the proposal of the Ravin du Bès section as GSSP for the Bathonian Stage, by post or email, to all members of the BtWG is responsibility of the convenor and the International Subcommission on Jurassic Stratigraphy Executive, and is expected by September 2007.

References. New literature relevant to the Bathonian Working Group are listed below:

AIT ADDI, A. 2006. The dogger reef horizons of the Moroccan central High Atlas: new data on their development. *Journal of African Earth Sciences,* **45 (2),** 162-172.

ALMÉRAS, Y., FAURÉ, P., ELMI, S., ENAY, R. & MANGOLD, C. 2007. Zonation des brachiopodes du Jurassique moyen sur la marge sud de la Téthys occidentale (Maroc, Algérie occidentale). Comparaison avec la marge nord-téthysienne française. *Geobios,* **40**: 1–19.

BARALE, G. 2007. Southern Tunisia: A privileged area to characterize Mesozoic plant taphofacies. *Comptes Rendus Palevol*_, **6 (1-2),** 115–124.

CAI, H.-W., LI, J.-G. & ZHANG, B.-G. 2006. Early Nyalam regions of southern Tibet, China. *Acta Palaeontologica Sinica* **45 (4),** 437–452.

CHIARI, M., COBIANCHI, M. & PICOTTI, V. 2007. Integrated stratigraphy (radiolarians and calcareous nannofossils) of the Middle to Upper Jurassic Alpine radiolarites (Lombardian Basin, Italy): Constraints to their genetic interpretation. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **249**, 233–270.

DIETZE V. & DIETL G. 2006. Feinstratigraphy und Ammoniten – Faunen – horizonte im Ober – Bajocium und Bathonium des Ipf – Gebietes (Schwäbische Alb, Südwestdeutschland). *Stuttgarter Beiträge zur Naturkunde*, **360**, 1–51.

FERNÁNDEZ-LÓPEZ, S.R., HENRIQUES, M.H. & MONGOLD, C. 2006. Ammonite succession at the Bajocian/Bathonian boundary in the Cabo Mondego region (Portugal). *Lethaia*, **39 (3),** 253–264.

GASPARINI, Z. & FERNANDEZ, M. 2006. Middle and Late Jurassic marine reptile faunas of the southeastern Pacific, based on discoveries in Argentina and Chile. *Paludicola* **5 (4),** 230–241.

GEIGER, M. & SCHWEIGERT, G. 2006. Toarcian-Kimmeridgian depositional cycles of the south-western Morondava Basin along the rifted continental margin of Madagascar. *Facies*, **52 (1**), 85–112.

GELY, J.P. & LORENZ, J. 2006. Lias and Dogger series of the Paris Basin (France): syn-sedimentary tectonic and palaeogeographic reconstructions for each ammonite biozonation level. *Geobios*, **39 (5),** 631–649.

HIKUROA, D.C.H. & KAIMZ, A. 2007. New gastropods from the Jurassic of Orville Coast, Eastern Ellsworth Land, Antarctica. *Antarctic Science*, **19 (1),** 115–124.

JANA, B.N. & HILTON, J. 2007. Resolving the age of the Mesozoic Kuar Bet Beds (Kachchh, Gujarat, India): A reinvestigation of palaeobotanical and palynological assemblages. *Journal of Asian Earth Sciences*, **30**, 457–463.

LEONIDE, P., FLOQUET, M. & VILLIER, L. 2007. Interaction of tectonics, eustasy, climate and carbonate production on the sedimentary evolution of an early/middle Jurassic extensional basin (Southern Provence Sub-basin, SE France). *Basin Research*, **19 (1),** 125–152.

MARTIRE, L., CLARI, P., LOZAR, F. & PAVIA, G. 2006. The Rosso Ammonitico Veronese (middle-upper Jurassic of the Trento Plateau): A proposal of lithostratigraphic ordering and formalization. *Rivista Italiana di Paleontologia e Stratigrafia*, **112 (2)**, 227–250.

MOYNE, S. & NEIGE, P. 2007. The space-time relationship of taxonomic diversity and morphological disparity in the Middle Jurassic ammonite radiation. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **248**, 82–95.

MUKHERJEE, D. 2007. A taxonomic and phylogenetic study of *Kutchithyris* – A Jurassic terebratulide from Kutch, India. *Journal of Asian Earth Sciences*, **30**, 213–237.

O'DOGHERTY L., SANDOVAL J., BARTOLINI A., BRUCHEZ S., BILL M. & GUEX J. 2006. Carbon–isotope stratigraphy and ammonite faunal turnover for the Middle Jurassic in the Southern Iberian palaeomargin. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **239**, 311–333.

PRASAD, S., JAIN, R.L. & SRIVASTAVA, M.S. 2007. Record of Middle Jurassic (Bathonian) Ammonite Genus *Clydoniceras* BLAKE from Jaisalmer Basin, Western Rajasthan. *Journal of the Geological Society of India*, **69 (1),** 53–56.

RUBAN, D.A. 2006. Taxonomic diversity dynamics of the Jurassic bivalves in the Caucasus: Regional trends and recognition of global patterns. *Palaeogeography, Palaeoclimatology, Palaeo-ecology*, **239 (1-2),** 63–74.

VAEZ-JAVADI, F. & MIRZAEI-ATAABADI, M. 2006. Jurassic plant macrofossils from the Hojedk Formation, Kerman area, east-central Iran. *Alcheringa*, **30 (1),** 63-96.

ZATON, M. 2007. *Tulites cadus* Buckman, 1921 (Ammonoidea) from the Middle Bathonian of the Polish Jura and its biostratigraphic significance. *Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen*, **243**, 191–199.

Callovian Working Group

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It is our firm resolve formally to complete the proposal and procedures for ratification by the ICS of the GSSP for the base of the Callovian Stage this year. It is a matter of regret that it should have taken so long, but some of the reasons (and excuses) may become apparent from what follows.

Historical. In short, the scientific arguments were completed in 1990 and a unanimous decision was reached by a properly constituted Working Group at a meeting called for this purpose in Stuttgart. This was in the days of the *ICS Guidelines* Version I (1986) and to satisfy their requirements in full would have called for considerable extra time and effort, for little apparent scientific gain - at least, in the eyes of the Working Group. There seemed to be no great problems elsewhere awaiting a formal declaration of a Callovian Stage GSSP, no uncertainties dependent on it clamouring for a decision. The reason was simple. The chronostratigraphical level chosen for the base of the Callovian was little changed from where it had been since Oppel's time over a century before and where everyone had always taken it to be. We in the Jurassic seemed to be getting along very well without Stage GSSPs as conceived and demanded by the ICS, again for reasons well understood in the Jurassic community but, it seems, less so by the members of the ICS. There tended hence to be always other things more urgently in need of attention. The history of events was as follows.

(1) *Stuttgart 1990.* - The deliberations and decisions reached at the meeting of the Callovian Working-Group held at Stuttgart and the proposed type section across the Bathonian-Callovian Boundary near Albstatt-Pfeffingen in the Swabian Alb were described quite fully in a Report circulated among the members of the WG and available on request. A summary of the meeting, its proceedings and the decision reached was published in *ISJS Newsletter* 20 (Callomon 1991, p.5). The stratotype section was chosen to lie in a section near Albstadt-Pfeffingen. The boundary was chosen on the basis of the biostratigraphy of the ammonite family Kosmoceratidae, whose widespread distribution and rapid evolution makes possible geological time-correlations at this level over distances with a precision having no rivals. Such correlation-potential was taken to be the factor of dominant importance. Additional constraints required the boundary to lie at the base of the standard chronostratigraphical hierarchy of subdivisions, that of the lowest Subzone of the lowest Zone of the Stage - a concept also traditional in the Jurassic since Oppel (and finding no mention in the *Guidelines*). The level finally adopted was the base of a thin bed marking the biohorizon of *Kepplerites keppleri* at the base of the Keppleri Subzone of the Herveyi Zone of the Callovian Stage. The scientific basis for these choices had been presented in some detail in the Proceedings of the 2nd Colloquium on the Jurassic held in Lisbon in 1987 (Callomon, Dietl & Page 1989). All the scientific evidence was therefore publicly available.

These principles were well understood by all 18 members of the Working-Group, representatives of 11 countries. They also understood ammonites and their biostratigraphy as well as the correlation-potentials of other guide-fossils often used for time-correlations. No alternatives of comparable correlation-potential could be discerned and no alternative sections of comparable merit for the GSSP were proposed. The vote to adopt the proposals put forward at Stuttgart was unanimous, with no abstentions. No challenge on scientific grounds has ever been raised, either then or at any time since.

An objection was however raised on doctrinal grounds by a colleague (not a member of the Callovian WG) who protested that the proposal did not meet one of the critical requirements of the *Guidelines* (of 1986), namely that the stratotype should be chosen in a section that was "complete" and not "condensed". Neither he nor the *Guidelines* explained what is meant by these terms, nor

INTERNATIONAL SUBCOMMISSION ON JURASSIC STRATIGRAPHY

ISJS Website at http://www.es.ucl.ac.uk/people/bown/ISJSwebsite.htm

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