International Subcommission on Jurassic Stratigraphy

Newsletter 34 (1)

Edited by Paul Bown, Nicol Morton, Jackie Lees
July, 2007
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Nicol Morton
Le Chardon, Quartier Brugière, 07200 Vogüé, France; NICOL.MORTON@wanadoo.fr

This issue of the ISJS Newsletter is devoted entirely to the Triassic/Jurassic (T/J) boundary and the definition of the base of the Jurassic, and of the Hettangian Stage, at a Global Stratotype Section and Point (GSSP). There will be a further issue of the Newsletter later in the year that will deal with the ‘normal’ range of topics.

The Jurassic Subcommission established a Working Group on the T/J boundary in 1988, led by René Mouterde (until 2000), then by Geoff Warrington. Efforts to find a suitable section have continued since then, but without success in identifying one of the four main sections studied (in SW England, USA, Canada and Peru) to be proposed as meeting the requirements identified by the International Commission on Stratigraphy (ICS). During the period 2001-2005, the activities of International Geological Correlation Program Project 458, ‘Triassic/Jurassic Boundary Events’, led by Joszef Palfy, Stephen Hesselbo and Chris McRoberts, resulted in a great amount of new data and information on this poorly understood interval. Although definition of the boundary was not an objective of the project, new research was stimulated that has resulted, during the last two years or so, in the present situation of several options being available to the T/J Boundary Working (or Task) Group and the Subcommission.

Although ammonites have traditionally been regarded as the primary means of correlation, and so for definition of chronostratigraphic boundaries, in the Jurassic, the new research has identified two possible alternatives – radiolarians and a distinctive, negative C-isotope excursion. Even more surprising was the discovery of two new candidate sections, in Austria (in 2005) and in Northern Ireland (2006). During the 7th International Congress on the Jurassic System in Krakow, Poland (September, 2006), new data and proposals were presented and discussed. Only preliminary details of the two new sections could be given, but it was agreed that fully detailed proposals should be submitted by about the end of 2006. During the Working Group discussions, the candidature of the Peru section was withdrawn.

The idea for this newsletter of the Jurassic Subcommission was hatched in Poland on 15th September, 2006, during the post-congress Fieldtrip B1. After a visit to an old quarry with an overhanging face that threatened to create some vacancies in the ‘Jurassic research establishment’, Axel von Hillebrandt discussed with me how a fully documented proposal for the new candidate section in Austria could be published quickly enough for it to be assessed, together with the other sections, by the members of the T/J Working Group in the Spring of 2007. The best solution we could find was to arrange for the (electronic) publication of an ISJS Newsletter as soon as possible in the Spring of 2007. This would contain the up-to-date documentation of the new section in Austria. Inclusion of a proposal, as complete as possible in the limited time available, for the Northern Ireland section was arranged later, though it was clear that the research was at a much earlier stage. Finally, it was suggested that authors of the three remaining ‘old’ candidate sections should have the opportunity to present updated proposals. The updated proposal for St. Audries’ Bay is not yet available, but will be distributed as soon as possible.

In the meantime, it was no longer clear who were the members of the T/J Boundary Working Group who would have the responsibility of selection, presumably by voting, of the preferred candidate section to be proposed to the Subcommission. The published list was some years old and in the meantime many new individuals had become involved in relevant research. Clearly, they also should have the right to be involved. Finally, there was no obviously favoured candidate section that demonstrably fulfilled all the requirements of the ICS Guidelines, so that the selection would have to be of the ‘least bad’ alternative (by no means an unusual situation for GSSP proposals to the ICS!). Inevitably, the result would be somewhat controversial. Therefore, the membership list of voting members of the Working Group has been expanded to make it as widely representative as possible of a broad spectrum of interests and ensure that the result will be more generally acceptable.

This issue of the ISJS Newsletter is being distributed in the usual way by e-mail to all Voting, Corresponding and Honorary Members of the Jurassic Subcommission, who are requested, as usual, to forward it to other colleagues. It will also be distributed to all the members of the T/J Boundary Working Group.

Please study very carefully the proposals contained in this Newsletter and, if you are a member of the Working Group or, at a later stage, a Voting Member of the Subcommission, exercise your objective professional judgement. The result will be with us for many years!