

Report of the Callovian Stage Task Group, 2017

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The stratotype section of the Callovian Stage was chosen initially to be situated in a section in the Roschbachtal, 1 km west of the centre of Albstadt-Pfeffingen (Swabia, SW Germany). The level adopted is the base of a bed marking the *kepleri* I biohorizon, which defines the beginning of the Callovian Stage. The choice of Albstadt-Pfeffingen was ratified jointly by the Working Group in 1990. The next step would have been an official proposal. However, the Albstadt section was rejected by members of the ICS from the very beginning: “the proposed section is too thin and condensed. There must be a better one, somewhere”. Consequently, with the lack of acceptance, preparation of a proposal was pointless. However, nothing better has been proposed to date.

In the search for an alternative, one has to decide where exactly this boundary should be placed, which strata should be assigned to the Callovian and which would represent the Bathonian. In order to answer this question with the highest possible accuracy, the Callovian Working Group has recently re-examined the most important guide fossils (compiled by Mönnig, Dietl, 2017). By means of ammonite stratigraphy and the presence of certain taxa (*Keplerites*, *Cadoceras*) it is now possible to trace the base of the Callovian Stage from Central Europe across the Caucasus, the Russian platform, via Greenland and Canada to Alaska.

In discussions concerning the GSSP, Greenland was often mentioned. In Jameson Land these are mainly the sections 43 and 44 at the locality Fossilbjerget (Callomon, 1993, 2004; Callomon *et al.*, 2015), where the sequence appears to be almost complete. It can be now ascertained that the Callovian does not begin with horizon f26, as described by Callomon (1993), but with horizon f29. Unfortunately in this bed all fossils are crushed, and there are no ammonites above. If we trace our new correlation to as far as the Andean Province, it would mean that the Gottschei Zone is still Bathonian, and the Callovian would begin with the Bodenbenderi Zone. Concerning the Chacay Melehué section, also mentioned as a candidate for the GSSP, we are afraid that ammonite correlation is practically not possible there.

In some boreholes of Northern Germany, the Upper Bathonian and Lower Callovian deposits attain a thickness of 250 m. We are considering the possibility of a composite GSSP, consisting of the Albstadt section and the drilling Karstädt Ost II/3. The Albstadt outcrop provides a complete sequence of fossiliferous horizons with rich ammonite faunas, while the borehole section represents adequate thickness and continuity of sedimentation. The stratigraphic correlation could be supplemented by ostracods. Palynomorphs have also great potential, but they need to be studied in detail.

REFERENCES

- Mönnig E., Dietl G., 2017 – The systematics of the ammonite genus *Keplerites* (upper Bathonian and basal Callovian, Middle Jurassic) and the proposed basal boundary stratotype (GSSP) of the Callovian Stage. *Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen*, 53 pp., 32 figs., 8 tab.
All other literature therein.

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