

Detailed stratigraphy around the Jurassic–Cretaceous boundary in the Bosso Valley section, central Italy and international correlation based on radiolarian biostratigraphy

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The Global Boundary Stratotype Section and Point (GSSP) of the Jurassic–Cretaceous boundary (JKB) is the last among the GSSPs in the Phanerozoic. The formal definition was decided in 2016 to use the base of the *Calpionella alpina* Subzone as the primary marker by the Berriasian Working Group of the International Subcommittee on Cretaceous Stratigraphy.

We carried out detailed field observations and careful sample collections in a 10-m interval around the calpionellid-based JKB in the Bosso Valley section (northern Apennines, central Italy), which is one of potential candidates for GSSP of the JKB. The Maiolica Formation, which includes the JKB, is characterized by white to light gray, well-bedded micritic limestones with abundant light gray to black chert layers and nodules. The best preserved radiolarian tests are included in micritic limestone near chert layer or nodules.

Careful and systematic sampling enables us to get enough material to establish phylogenetic analysis on radiolarians. The calpionellid-based JKB in the section is located within the *Pseudodictyomitra carpatica* radiolarian zone. We discuss worldwide correlation of the JKB based on radiolarian biostratigraphy.

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