

Radiolarian phylogeny around the Jurassic–Cretaceous boundary

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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. It is defined as the base of the Berriasian Stage.

Radiolarians are good candidates for defining the JKB because they are wide spread and can be found both pelagic and neritic marine environments. Pelagic sequences across the JKB have been reported in ODP/IODP sites in the western Pacific and land sections in Japan, the Philippines, southern Tibet, Iran and others. Evolutionary lineages of several radiolarian taxa across the JKB are reviewed and suitable bioevents, which are approximate to the JKB, are presented. These lineages include the radiolarian genera: *Alievium*, *Archaeodictyomitra*, *Cinguloturris*, *Complexapora*, *Crococapsa*, *Doliocapsa*, *Emiluvia*, *Eucyrtidiellum*, *Hemicryptocapsa*, *Hsuum*, *Loopus*, *Mirifusus*, *Mesovallupus*, *Neorelumbra*, *Pantanellium*, *Protovallupus*, *Protunuma*, *Pseudodictyomitra*, *Ristola*, *Spinocapsa*, *Tethysetta*, *Thanarla*, *Vallupus*, *Xitus*, and *Zhamoidellum*. Among them the *Loopus*–*Pseudodictyomitra* lineage, the *Protovallupus*–*Mesovallupus*–*Vallupus* lineage, and *Complexapora* lineage are important phylogeny for defining the JKB.

Keywords: Jurassic–Cretaceous boundary , radiolarians, phylogeny