

## **Radiolarian evolution and paleoenvironments on the boundaries of Cretaceous Period**

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The onset of the Circum Antarctic Current affected also the evolution of siliceous microorganisms - radiolarians. While new genera and species (about 30) of clathrocyclides, acropyrarnides, lampromithrides, spongurides and others appeared even in the late Campanian, more than 50 Cretaceous species became extinct. The latest Maastrichtian-early Paleocene is noted for the appearance of numerous new spumellarians: *Stilosphaera* (*S. goruna*, *S. minor*), *Amphisphaera* (*A. spinulosa*), *Spongurus* (*S. bilobatus*, *S. mollis*), *Spongotrochus*, as well as new nassellarians: *Buryella*, *Dyplocyclas*, *Clathrocycloma*, whereas *Bekoma* appears in the late Paleocene. At the Early/Late Cretaceous boundary the evolutionary changes in radiolarian fauna are also pronounced, revealing mainly at the species level - more than 200 species have vanished. Just at that time the equatorial current encircling the globe and connecting the Pacific Ocean with Tethys and the spreading North Atlantic developed. Such genera of Nassellaria as *Parvicingula*, *Crolanium*, *Podobursa*, *Dibolachras*, *Eucyrtis*, *Mirifusus*, *Ultranapora*, *Mita* have died out by the end of the Early Cretaceous. Substantial changes in the fauna of planktonic foraminifers happened at the same time. For example, *Favusellidae* vanished in the early Cenomanian. Major reorganization seems to occur in the ocean at the Jurassic/Cretaceous boundary. It is marked by extinction of the Jurassic key Family *Hsuidae*, and genera *Napora*, *Saitoum*, as well as by appearance of new Cretaceous genera *Pseudodictyomitra*, *Thanarla*. Like at the Mesozoic/Cenozoic boundary, it was not abrupt or instantaneous. The ammonites confirm it conclusion.