

## First spalacotheriid and dryolestid mammals from the Cretaceous of Germany

Thomas Martin, Alexander O. Averianov, Julia A. Schultz, Rico Schellhorn, and Achim H. Schwermann *Acta Palaeontologica Polonica* 67 (1), 2022: 155-175 doi:https://doi.org/10.4202/app.00914.2021

The new spalacotheriid "symmetrodontan" Cifellitherium suderlandicum gen. et sp. nov. from the Barremian-Aptian of the Balve locality in northwestern Germany is the first record of spalacotheriids in Central Europe. The new taxon is based on one lower and two upper molars. Cifellitherium is similar to Spalacotherium, but differs by smaller stylocone and larger paraststyle on the upper molars, and a labially interrupted cingulid on the lower molar. The new dryolestid Minutolestes submersus gen. et sp. nov. is based on one lower and two upper molars of small size. Phylogenetic analysis revealed it as sister taxon of the clade comprising Laolestes, Krebsotherium, Dryolestes, and Guimarotodus. A dryolestid mandible with unevenly rooted molars and extremely worn down teeth cannot be attributed to Minutolestes submersus gen. et sp. nov. due to possessing molars twice as large in size. The mandible is assigned to a new dryolestid taxon, Beckumia sinemeckelia gen. et sp. nov., and has the dental formula 3i, 1c, 4p, 8m and a fully reduced Meckel's groove. The mandible lacks any trace of a coronoid or splenial. In the phylogenetic analysis, it appears as sister taxon of a clade comprising Achyrodon, Phascolestes, Crusafontia, and Hercynodon. The new mammals are the stratigraphically youngest European representatives of their clades. The late survival of Beckumia sinemeckelia gen. et sp. nov. and Minutolestes submersus gen. et sp. nov. is possibly the result of isolated evolution in an Early Cretaceous island environment. This finding of new spalacotheriid and dryolestid mammals from Central Europe adds to an emerging paleobiogeographic pattern that Europe was distinct from Asia in the constituents of mammalian faunas during the Barremian-Aptian.

**Key words:** Mammalia, Spalacotheriidae, *Cifellitherium, Crusafontia*, Dryolestidae, *Beckumia, Minutolestes*, Balve, Cretaceous.

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