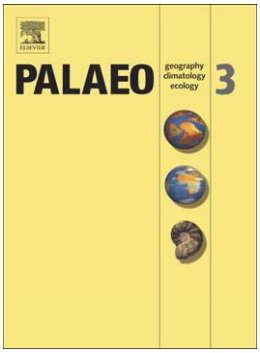

Stable isotope data (δ^{18}O, δ^{13}C) of the ammonite genus *Simbirskites* – implications for habitat reconstructions of extinct cephalopods

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Running header: Stable isotope data ($\delta^{18}O$, $\delta^{13}C$) of *Simbirskites* ammonites

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Abstract

The accurate habitats of the extinct ammonites and belemnites are largely unknown. Most ammonites are thought to have had a pelagic lifestyle, while belemnites are often considered to have dwelled in deeper, colder waters. Stable isotope analysis ($\delta^{18}O$, $\delta^{13}C$) provides a useful method to reconstruct the habitats of these two groups of extinct cephalopods, but is at the same time limited by various unknowns, including the isotopic composition of the past seawater, 'vital'-effects and diagenesis.

In this paper, stable isotope data from 12 ammonite shells (*Simbirskites* spp.) from the upper Hauterivian of the Lower Saxony Basin (northwest Germany) are presented. Ontogenetic isotope