## Accepted Manuscript

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

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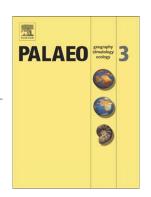
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## CCEPTED MANU

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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

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