Growth and habitat of the Jurassic ammonoids, Quenstedtoceras, inferred from stable isotopic compositions

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Oxygen and carbon isotopic compositions of the exquisitely well-preserved Jurassic ammonoid Quenstedtoceras were analysed for understanding habitat and growth of well diversified Mesozoic ammonitids. Thermal structure of the Jurassic epicontinental sea estimated from oxygen isotopic temperatures of benthic foraminifers and nektonic vertebrate remains represents 10°C and 24°C for bottom and surface temperatures, respectively. Oxygen isotopic temperatures of 15 and 17 °C for Quenstedtoceras indicate that these ammonoids analysed were nektonic swimmer within the Jurassic epicontinental water column.

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