

The endocranial anatomy of the stem turtle *Naomichelys speciosa* from the Early Cretaceous of North America

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Fossil turtles are one of the least studied clades in regard to endocranial anatomy. Recently, the use of non-invasive technologies, such as radiographic computed tomography (CT), increased the knowledge of the neuroanatomy of several extinct and extant taxa. Here, we provide the description of the nasal cavity, cranial endocast, and inner ear of the stem turtle *Naomichelys speciosa* based on digital 3D reconstructions. This terrestrial form is characterized by a nasal cavity with anteroposteriorly elongated vestibulum and a large cavum nasi proprium, traits typically related to terrestrial habits. The large olfactory region of the cavum nasi proprium suggests that olfaction was probably the most important sense for this species. Our description of *N. speciosa* adds novel information to the knowledge of endocranial anatomy in early turtle evolution and provides an important foundation for future analyses and comparisons.

Key words: Reptilia, Helochelydridae, cranial endocast, paleoneurology, Mesozoic, North America.

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