

A new description of a *Cearachelys placidoi* skull (Pleurodira : Bothremydidae) under the light of high-resolution X-ray computed tomography

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For the purpose of the following study, the skull of the late Early Cretaceous Gondwana softshell turtle *Cearachelys placidoi* (Gaffney) specimen BSPG 1976 I 160 was scanned using high-resolution X-ray computed tomography and a three-dimensional numerical model was produced. Provided with this model, we performed a new description of the specimen, referring the observations of Gaffney et al. for the external structures. We could confirm most of Gaffney's observations, correct some for certain features which are difficult to assess through direct observation, and bring novel insights of the inner parts of the skull of this species, comprising the braincase, internal bone sutures, inner ear, blood vessels and nerve canals, thus highlighting the big interest of X-ray computed tomography for the description of fossils. This new description, together with a future scanning and description of the mandible and postcranials of this specimen, will allow a new phylogenetic assessment of *Cearachelys placidoi* and deliver a finer-tuned positioning of this species within pleurodires.

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