

The Triassic eucynodont *Candelariodon barberenai* revisited and the early diversity of stem prozostrodonians

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Acta Palaeontologica Polonica 62 (3), 2017: 527-542 doi:<https://doi.org/10.4202/app.00344.2017>

The dental anatomy of *Candelariodon barberenai* from the *Dinodontosaurus* Assemblage Zone (Pinheiros-Chiniquá Sequence, Santa Maria Supersequence, late Ladinian–early Carnian) of south Brazil, is redescribed. *Candelariodon* was originally classified as *Eucynodontia* incertae sedis and our analysis recovered this taxon deeply nested within Probainognathia, as the sister taxon of *Potheriodon* plus Prozostrodonia. The lower postcanine dentition of *Candelariodon* has several apomorphies shared with *Prozostrodon*, *Santacruzognathus*, *Brasilodon/Brasilitherium*, and some basal mammaliaforms (*Morganucodon*, *Megazostrodon*), such as a lingual cingulum with discrete cusps e and g and two distinct morphologies in the tooth row. The reinterpretation of *Candelariodon* as a probainognathian cynodont more derived than *Probainognathus* and the rich Brazilian fossil record document an important adaptive radiation of non-mammaliaform prozostrodonians and closely related forms prior to the origin of the mammaliaform clade.

Key words: Cynodontia, Probainognathia, Prozostrodonia, *Dinodontosaurus* Assemblage Zone, South America, Brazil.

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