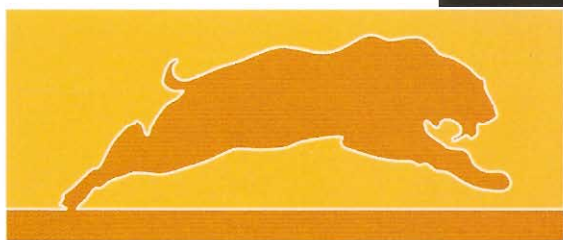
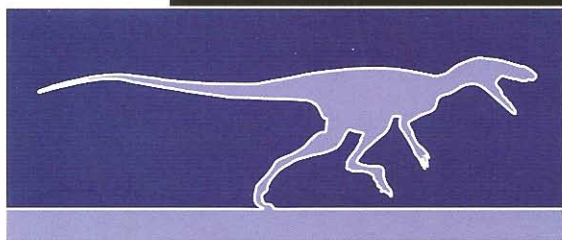
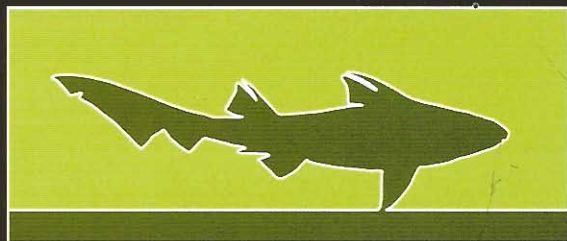




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***Montealtosuchus*: a Peirosauridae (Mesoeucrocodylia) from the Adamantina Formation (Bauru Basin, Brazil), geological context and chronostratigraphic importance**

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The crocodyliformes from Bauru Basin comprise at least five distinct groups of Mesoeucrocodylia: the notosuchids, sphagesaurids, baurusuchids, trematochampsids and peirosaurids. *Montealtosuchus arruda-camposi* Carvalho, Vasconcellos & Tavares, 2007 is a Peirosauridae (Crocodyliformes, Mesoeucrocodylia) from the Turonian-Santonian of the Bauru Basin, Brazil, found at the outskirts of Monte Alto County in sandstones of the Adamantina Formation. The specimen presents outstanding preservation with skull, mandible, postcranial and exoskeleton elements in full articulation. As other Peirosauridae it was a medium-sized terrestrial predator and opportunistic scavenger. *Montealtosuchus* presents a moderately narrow and tubular snout; skull triangular-shaped in dorsal view, anterior nasal process at the tip of snout hanging over the nares; a small slit-shaped notch for the 4th mandibular tooth at the contact between maxilla and premaxilla; five premaxillary conical teeth; wedge-

like maxillary process of the premaxilla; *foramen incisivum* with maxillary margin; fourteen maxillary teeth in sinuous outline, with moderate heterodonty; anterolateral external nares in vertical position; nasals participating in a non-septed nares; orbits subsquare; antorbital fenestrae present; two triangular supraorbitals bordering dorsally the orbit; postorbital bar ascending from the mesial border of the jugal; supratemporal fenestrae elliptical, smaller than orbits and bordered by the parietal, postorbital, squamosal and small contribution of the frontal; supratemporal with minimal participation on skull table; quadratojugal participate with the quadrate in skull-mandible articulation; deep, square choanae, evenly composed by palatines and pterygoids; palatine fenestrae elliptical, composed by maxillar, palatines, ectopterygoid and pterygoid; basioccipitals inclined toward the palatal surface; exoccipitals wide and bend anteriorly; eustachian *foramina* closely disposed in "v" pattern; splenials participating in 1/3 of the symphysis; symphysis extending up to the 10th tooth; mandible arched upward at anterior and posterior ends; articular presents deep concave articular surface, with contribution from the surangular; retroarticular process paddle-shaped inclined dorsally and mesially; mandibular fenestrae elliptical; eighteen dentary teeth, being the anterior ones conical and sharp, the 4th hypertrophied and the posteriors globular and laterally compressed; all premaxillary, except the first, maxillary and dentary teeth bears basal crown constriction and fine serrated carinae. The outcrop where *Montealtosuchus* was found is composed by decimetric fine to very fine reddish sandstones with tabular geometrics, with cross-stratifications, abundant clay intraclasts and rare, discontinuous, mudstone laminae. Invertebrate burrows are observed. The paleoenvironmental interpretation is a braided river channel deposits and peripheral ephemeral small ponds. The climate was hot with long arid periods punctuated by torrential rains and flash floods. The paleobiogeographical and geochronological context of Peirosauridae so far is restricted to Upper Cretaceous of South America. They range in the following ages: the Santonian of Argentina (Bajo de la Carpa Formation) and Maastrichtian of Brazil (Marília Formation). The occurrence of the Peirosauridae *Montealtosuchus arrudacamposi* in the Adamantina Formation (Turonian-Santonian) widens the chronostratigraphic range of this Mesoeucrocodylia family in Brazil. [Financial support for the development of this study was provided by Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq, grant n° 305780/2006–9), Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) and Instituto Virtual de Paleontologia/ Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro (IVP/FAPERJ, grant n° E–26/152.541/2006)].