

The caudal vertebral series in abelisaurid dinosaurs

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The caudal vertebrae of abelisaurid theropods show notable variations in the shape of the transverse process, among other characters, and these distinguish the two subclasses Brachyrostra and Carnosaurini. The vertebrae in the proximal third of the tail in abelisaurids, especially derived taxa, show adaptations that provide considerable rigidity, when compared to other theropod dinosaurs, especially Maniraptora, which have highly flexible tails. This continues the considerable rigidity in the neck, trunk, and sacral region in abelisaurids, and is consistent with the hypothesis that South American abelisaurids evolved in isolation from those that inhabited India and Madagascar.

Key words: Dinosauria, Theropoda, Abelisauridae, tail morphology, caudal vertebrae, functional morphology.

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