

INTRASPECIFIC FIGHTING BEHAVIOR INFERRED FROM TOOTHMARK  
TRAUMA ON SKULLS AND TEETH OF LARGE CARNOSAURS (DINOSAURIA)

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Cranial paleopathology of the type specimen of Upper Jurassic Sinraptor dongi and specimens of Upper Cretaceous Albertosaurus sp. consists of healing or healed toothmarks. These pathological lesions closely resemble alterations seen in classic toothmarked dinosaur bone, but preserve smoothed edges and new reactive bone tissue in the floor of the lesion. Different bone coloration of uncertain etiology is closely associated with the lesions. Cranial elements of Sinraptor preserve a variety of gently curving tooth drags or gouges, shallow, circular punctures and one fully penetrating lesion. Albertosaurus wounds are preserved primarily on the dentigerous elements. Injuries are usually only in the early stages of repair upon death of the affected individual. Isolated teeth of Judithian-aged tyrannosaurids (cf. Albertosaurus) occasionally show toothmarks in the form of transverse cuts, parallel striations (preserving the serration pattern of the marking tooth), or both. Pathology expressed on these specimens could be the result of intraspecific biting behaviors related to territoriality, courtship, defense, feeding, or dominance determination within a grouping.