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Cenomanian-Campanian (Late Cretaceous) mid-palaeolatitude sharks of *Cretalamna appendiculata* type

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The type species of the extinct lamniform genus *Cretalamna*, *C. appendiculata*, has been assigned a 50 Ma range (Albian–Ypresian) by a majority of previous authors. Analysis of a partly articulated dentition of a *Cretalamna* from the Smoky Hill Chalk, Kansas, USA (LACM 128126) and isolated teeth of the genus from Cenomanian to Campanian strata of Western Australia, France, Sweden, and the Western Interior of North America, indicates that the name of the type species, as applied to fossil material over the last 50 years, represents a large species complex. The middle Cenomanian part of the Gearle Siltstone, Western Australia, yielded *C. catoxodon* sp. nov. and "*Cretalamna*" *gunsoni*. The latter, reassigned to the new genus *Kenolamna*, shares several dental features with the Paleocene *Palaeocarcharodon*. Early Turonian strata in France produced the type species *C. appendiculata*, *C. deschutteri* sp. nov., and *C. gertericorum* sp. nov. *Cretalamna* teeth from the late Coniacian part of the Smoky Hill Chalk in Kansas are assigned to *C. ewelli* sp. nov., whereas LACM 128126, of latest Santonian or earliest Campanian age, is designated as holotype of *C. hattini* sp. nov. Early Campanian deposits in Sweden yielded *C. borealis* and *C. sarcoportheta* sp. nov. A previous reconstruction of the dentition of LACM 128126 includes a posteriorly situated upper lateroposterior tooth, with a distally curved cusp, demonstrably misplaced as a reduced upper "intermediate" tooth. As originally reconstructed, the dentition resembled that of cretoxyrhinids (sensu stricto) and lamnids. Tooth morphology, however, indicates an otodontid affinity for *Cretalamna*. The root is typically the most diagnostic feature on an isolated *Cretalamna* tooth. This porous structure is commonly abraded and/or corroded and, consequently, many collected *Cretalamna* teeth are indeterminable at species level.

Key words: Lamniformes, Otodontidae, Cretaceous, Australia, France, Sweden, USA.

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