

CROCODYLOMORPH TEETH FROM THE LOURINHÃ FORMATION, PORTUGAL (LATE JURASSIC)

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The Upper Jurassic outcrops of Portugal have yielded five crocodylomorph species: the marine *Machimosaurus hugii*; the generalist *Goniopholis baryglyphaeus*; and the insectivorous/carnivorous *Knoetschkesuchus guimarotae*, *Lisboasaurus estesi* and *Lusitanisuchus mitracostatus*. Additionally, two crocodylomorph ootaxa have been described: *Suchoolithus portucalensis* and *Krokoolithes dinophilus*.

Here we describe 125 teeth recovered by screen washing of sediments from Valmitão (Ribamar, Lourinhã), a microfossil site in the Lourinhã Fm. (Late Kimmeridgian — Tithonian) of the Lusitanian Basin, located 65 km north of Lisbon (Portugal).

Conical teeth are the most common in the sample, as often observed in other localities, and are related to generalist taxa. The most abundant generalist crocodylomorphs during this temporal and geographical range belonged to the Goniopholididae. Ziphodont teeth are present in several clades and can be related to highly predatory crocodylomorphs. Molariform teeth are very similar to those observed in bernissartiids, being related to durophagous diets. Lanceolate to leaf-shaped teeth are characteristic of atoposaurids, being usually related to an insectivorous diet that may also include small vertebrates. The absence of large robust durophagous forms, such as *Machimosaurus*, present in other Portuguese localities, may be either the result of a sampling bias related to specimen size, or because the Valmitão microfossil site represents a freshwater environment deposit. This is supported by the relatively high number of lanceolate and leaf-shaped teeth, often related to continental crocodylomorphs.

This association is taxonomically similar to other contemporaneous west-central European localities, with a diverse and disparate fauna, where different crocodylomorphs lived together, avoiding direct ecological competition through niche partitioning.