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Braincase anatomy of the titanosaurian sauropod *Lirainosaurus astibiae* from the Late Cretaceous of the Iberian Peninsula

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Lirainosaurus is the only titanosaurian sauropod described to date from the Late Cretaceous of the Iberian Peninsula. The type of *Lirainosaurus astibiae* consists of both cranial and postcranial remains that were found as disarticulated elements in the Laño quarry (Treviño, northern Spain). This taxon was diagnosed originally on the basis of vertebral and appendicular autapomorphic traits. The study of a paratypic skull fragment and a second referred specimen provides information about its braincase morphology. *Lirainosaurus* is regarded as a derived titanosaur on the basis of the complete fusion between the prootic and the exoccipital–opisthotic complex, the position of the cranial foramina, and the shape and orientation of the occipital condyle. The braincase of *L. astibiae* appears to be diagnostic in the presence of a foramen distally on each basal tubera. The absence of median subcondylar foramina in the basioccipital may be an autopomorphic trait or be due to ontogenetic growth. A comparison with other partial skulls known in Europe suggests a high diversity during the Campanian/Maastrichtian, with at least three different titanosaurian species living in the Ibero–Armorican Island.

Key words: Sauropoda, Titanosauria, *Lirainosaurus*, braincase, Upper Cretaceous, Europe.

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