

## Body mass estimation and locomotion of the Miocene pelecaniform bird *Macranhinga*

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The fossil darter *Macranhinga paranensis* (Aves: Pelecaniformes) from the late Miocene of Argentina is the largest of all known extinct or living Anhingidae. Its body mass is estimated at a mean value of 5.4 kg by using a scaling model derived from the logarithmic relationship between measurements of the least shaft circumference of the femur/ tibiotarsus and body masses. Predictions of body mass, as well as the analysis of anatomical evidence, are used to infer that *Macranhinga paranensis* would have probably had a powered flapping flight and an aquatic locomotion similar to that of cormorants. The morphology of the pelvis and the hind-limb would have allowed *Macranhinga paranensis* to catch fishes by means of pursuit-diving rather than stalking them in an anhinga-like manner. As determined by adaptations mainly of tarsometatarsal morphology, the species had well developed perching and climbing abilities.

**Key words:** Aves, Anhingidae, *Macranhinga*, Paleobiology, Miocene, Argentina.

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