= Paratheria (mammals) =

Paratheria is an obsolete term for a taxonomic group including the xenarthran mammals (sloths , anteaters , and armadillos) and various groups thought to be related to them . It was proposed by Oldfield Thomas in 1887 to set apart the sloths , anteaters , armadillos , and pangolins , usually classified as placentals , from both marsupial and placental mammals , an arrangement that received little support from other workers . When teeth of the extinct gondwanathere mammals were first discovered in Argentina in the 1980s , they were thought to be related to xenarthrans , leading to renewed attention for the hypothesis that xenarthrans are not placentals . However , by the early 1990s , gondwanatheres were shown to be unrelated to xenarthrans , and xenarthrans are still considered to be placentals .

= = History = =

The term " Paratheria " was coined by British mammalogist Oldfield Thomas in 1887 in a review of tooth development in mammals . He found that the " Edentata " were especially distinctive . In this group , he included the sloths , anteaters , and armadillos , which are still placed together as Xenarthra , as well as the pangolins and the aardvark . According to Thomas , edentate teeth would be derived from the very earliest stage of mammalian dental evolution . Consequently , he suggested that they should be given a grouping separate from the other major groupings of mammals , for which terms had been introduced by Thomas Huxley : Eutheria (placentals) and Metatheria (marsupials) . For this new grouping , he suggested the name Paratheria " to indicate their position by the side of , but separate from , the other Mammals " (the Greek ???? para means " beside ") . Thomas had included one other mammal among the edentates , the aardvark ; however , he was unable to provide a satisfactory scenario for the origin of its wholly unique dentition , which he could only compare with that of some fish . Thomas 's arrangement was foreshadowed by Henri Marie Ducrotay de Blainville 's 1839 classification ; he placed edentates (except the sloth Bradypus , which he considered to be a primate) as a major division , the Maldentés (" poorly toothed ") . This group was considered to be distinct from the other monodelphes (placentals) , the Bien dentés (" well @-@ toothed ") . Similarly , Paul Gervais proposed in 1855 that edentates should be placed in a separate subclass of mammals .

Thomas 's hypothesis received little support , or even attention , in subsequent years . In 1893 , Henry Fairfield Osborn remarked that new studies of edentate teeth indicated that they were not as distinct as Thomas thought . William Berryman Scott did , however , place Paratheria as a separate subclass in 1904 , although he apparently did not follow Thomas 's theories about the origins of edentate teeth . In 1910 , William King Gregory reviewed the interrelationships of mammals and placed edentates among other placentals , though he gave " Paratheria " as an alternative name for his superorder Edentata , which included Xenarthra and tentatively Pholidota (pangolins) , Tubulidentata (aardvarks) , and the fossil Taeniodonta . In 1976 , Eli Minkoff also used " Paratheria " for a placental superorder that included Edentata (for the sloths , armadillos , and anteaters) and Pholidota .

The Paratheria hypothesis enjoyed a brief renaissance when unusual , high @-@ crowned teeth began turning up in the Cretaceous and Paleocene fossil record of Argentina . In 1984 , Sudamerica ameghinoi , from the Paleocene of Argentina , was assigned to Xenarthra within Paratheria , ranked as a cohort (a taxonomic rank between infraclass and superorder) . Two years later , José Bonaparte named Gondwanatherium patagonicum from the Late Cretaceous of Argentina , which he thought to be related to Sudamerica , and tentatively assigned it to Paratheria , now ranked as an infraclass . Bonaparte described an additional related animal , Vucetichia gracilis , from the Argentinean Late Cretaceous in 1990 ; by then he classified it in the order Gondwanatheria , which was tentatively assigned to the infraclass Paratheria . Bonaparte argued against George Gaylord Simpson 's 1931 view that xenarthrans derive from the Tertiary Palaeanodonta of North America , and instead suggested that xenarthrans , and perhaps pangolins , split from eutherians (placentals and their extinct relatives) as early as the Early Cretaceous and derived from some early "

pantothere " (a now @-@ abandoned grouping of early mammals , including dryolestoids among others) .

However , Bonaparte himself had abandoned the proposed relationship between xenarthrans and gondwanatherians by 1993 . Instead , gondwanatherians were shown to be related to another Late Cretaceous Argentinean animal , Ferugliotherium (which turned out to be undistinguishable from Vucetichia) , and through it to multituberculates . The relation between multituberculates and gondwanatheres later became controversial , but they are no longer thought to be related to xenarthrans . By 1996 , " few if any systematists would ... doubt the eutherian affinities of xenarthrans " and molecular data have also supported the placement of Xenarthra within placentals as one of four major clades . The name " Paratheria " is no longer in use .