

Notes on the original description of the maned three-toed sloth, *Bradypus torquatus* (Mammalia, Pilosa, Bradypodidae), by Johann Karl Wilhelm Illiger in 1811

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The maned three-toed sloth, *Bradypus torquatus* (Mammalia, Pilosa, Bradypodidae), is an endemic species inhabiting the Mata Atlântica in southeastern Brazil (Hayssen 2009) and according to the International Union for Conservation of Nature is classified as vulnerable (Chiarello & Moares-Barros 2011). This species was described in the classic early account of mammalian classification (Illiger 1811) by Johann Karl Wilhelm Illiger (1775–1813), who mainly is well known rather for his entomological contributions (Heß 1881). However, this was not accepted by all subsequent authors, because it was claimed that the putative description of *B. torquatus* by Illiger represents a *nomen nudum* (see discussions in Gardner 2005, 2007). The first one who questioned the validity of this nomenclatural act was Thomas (1917: 352), who in turn rather attributed it to Desmarest (1816) (*ex errore* as “1817”). The main reason for this conception was that the original publication of this *nomen* by Illiger apparently was not accompanied by a diagnosis (Figure 1A), which according to Article 12.1 of the *International Code of Zoological Nomenclature* (“the Code”, Anonymous 1999) is one of the obligatory criteria for the availability of scientific names. Gardner (2007: 160) on the contrary argued that the “N.” following the potential description of “*Br.[adypus] torquatus*” in Illiger (1811: p. 109, compare Figure 1A) probably refers to the note (“*Nota*”) at the end of the same page containing the actual description rather than to something like “*novum*”. The note, which also extends on page 110, indeed contains a brief diagnosis for this species (Figure 1B), validating it certainly as the formal description.

Reviewing the original publication by Illiger (1811) revealed that both authors, Thomas (1917) and Gardner (2007), in fact are correct to some degree with their analysis of the nomenclatural identity of the scientific name for the maned three-toed sloth. The scientific name *Bradypus torquatus* Illiger, 1811 indeed is a *nomen nudum*, because of the lack of a formal description, whereas Illiger nevertheless has to be accredited with authorship for this species. On page 109 Illiger used “*Br. torquatus*” only to list one of the two species he attributed to the new genus *Choloepus* Illiger, 1811, which was introduced on page 108 (Figure 1A), but he did not describe this species there. The note mentioned above then follows on page 109 after the account of another newly erected genus, *Prochilus* Illiger, 1811. In the final part of this note, on page 110, Illiger finally provided the formal species description for the maned three-toed sloth (Figure 1B). However, he did not provide a description for *Bradypus torquatus*, but did so for *Ch.[oloepus] torquatus*, as in fact already stated by Gardner (2007)! This makes absolutely sense, because he had just erected that genus on the preceding pages and assigned only two species to it and one of them was the maned three-toed sloth. Why he has chosen to use the name “*Br. torquatus*” in that first list of contents for *Choloepus* remains unresolved and enigmatic. Nevertheless, the maned three-toed sloth formally and unequivocally was described as *Choloepus torquatus*, not *B. torquatus*. The resulting nomenclatural consequence is that *B. torquatus* Illiger, 1811 indeed is a *nomen nudum* and cannot be accepted as an available scientific name, whereas the authorship for the maned three-