

founded on individual variations. Thus Gray laid great weight on certain cranial characters, especially on the form of the angle of the mandible, which he found to be deep and truncated in some specimens, and slender and produced in others\*. This he regarded as a constant character of specific value, observing that he had never seen any lower jaws which seemed to him to pass by intermediate gradations from one of these forms to another. A comparison of Gray's types and of other specimens leads me to a very different conclusion. As was well remarked by the late Mr. H. J. Turner, "the skulls of the Three-toed Sloths vary greatly, and all present a coarse, rough-hewn appearance which must detract from our confidence in little differences in detail"†. The form of the mandibular angle, instead of being constant, differs in almost every specimen examined; and the lower jaws of the types of Gray's *Arctopithecus marmoratus*, *A. boliviensis*, *A. problematicus*, and *A. blainvillei* appear to me to form an intergrading series in which it is impossible to find any tangible characters.

In 1871 Gray described two new species of Sloths from Central America, under the names of *Arctopithecus castaneiceps* and *A. griseus*. The former is still only known by the type specimen, not in very good condition, in the British Museum; and I am led provisionally to accept its specific distinction on account of the peculiar character of the hair of its face, which rather resembles that of the very distinct *Bradypus torquatus* than that of any of the more nearly allied forms. As far as can be judged from the stuffed skin, the facial fur of *B. castaneiceps* is nowhere fine and closely lying as in *B. tridactylus* and its allies, or erect and velvety as in *B. cuculliger*, but is crisp and recurved like that of the remainder of the body. In the skull the mandibular angle is considerably produced.

*Arctopithecus griseus*, on the other hand, I cannot distinguish from the well-known *Bradypus infuscatus* of Wagler, if, indeed, the latter is any thing more than a northern race of *B. tridactylus*‡. Thus I would provisionally recognize two species of Central-American Three-toed Sloths, which may be thus characterized:—

1. *B. infuscatus*. Fur of face fine, silky, and close-lying. Colour grey, varying in depth, and more or less mottled with white. Saddle-mark of male orange, mottled with black. Length of head and body eighteen to twenty inches.
2. *B. castaneiceps*. Fur of face crisp, coarse, and recurved, like that of the rest of the body. Colour grey, strongly tinged with rufous about the head. Saddle-mark orange, mottled with black. Length about eighteen inches.

\* P. Z. S. 1849, pp. 65–73, pls. Mamm. x. & xi.; P. Z. S. 1871, pp. 428–449, pls. xxxv.–xxxvii.

† P. Z. S. 1851, p. 209.

‡ On this point I have not the materials for any certain conclusion. I may observe, however, that the only constant difference which I have been able to find between the two forms is that the saddle-mark of the male is black and white in *B. tridactylus*, and black and orange in *B. infuscatus*. All the other characters which have been described appear to be variable; and I may further remark that of two specimens from Pará in the Berlin Museum one has the saddle-mark very pale, while it is deep orange in the other.