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**The Subspecific Status of Two Central  
American Sloths**

**BY**

**E. RAYMOND HALL and KEITH R. KELSON**

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## E. RAYMOND HALL and KEITH R. KELSON

New name combinations for two kinds of Central American sloths that heretofore have stood in the literature as nominal species are given below, along with the evidence supporting their relegation to subspecific rank. Research assistance has been provided from a contract (NR 161-791) between the Office of Naval Research, Department of the Navy, and the University of Kansas.

**Bradypus griseus ignavus** Goldman

Goldman (Smiths. Misc. Coll., 60(22):1, February 28, 1913) named the three-toed sloth from extreme eastern Panamá (Marraganti: 1 specimen, the type) and northwestern Colombia (Atrato River: 2 specimens) as *Bradypus ignavus*. He characterized the newly-named species as differing from *Bradypus griseus* (type locality Cordillera de Chucu, Veragua, Panamá) and *Bradypus castaneiceps* (type locality, Chontales, Nicaragua) in "nasals shorter, with anterior border concave or emarginate, the emargination deepest at median suture; squamosal arm of zygoma broader, more rounded, less acutely pointed anteriorly; palate less deeply grooved posteriorly; symphysis of mandible less produced anteriorly beyond plane of first molars." Later, Goldman (Smiths. Misc. Coll., 69(5):57-58, April 24, 1920) arranged *Bradypus castaneiceps* as a subspecies of *B. griseus*, reaffirmed the full specific identity of *Bradypus ignavus*, and identified specimens from Tapalisa, Cituro, and Real de Santa Maria, all in eastern Panamá, as belonging to *B. ignavus*.

In order to satisfy ourselves about the taxonomic relationship of *B. ignavus* to *B. griseus*, we have examined the following materials in the American Museum of Natural History: *ignavus*: Panamá: Cituro (No. 38191), Tapalisa (No. 38102), Real de Santa Maria (Nos. 37619-37621); *griseus*: Panamá: La Chorrera (No. 31427); Costa Rica: Juan Viñas (No. 2824), Palmar (No. 139313), Vijagual, San Carlos (No. 139833); *castaneiceps*: Nicaragua: Chontales (Nos. 28477 and 28478).

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The specimens from Real de Santa Maria, Tapalisa, and Cituro, average darker than all others, but this darkness is approached in certain specimens of *griseus* (for example, No. 139833, from Vijagual, San Carlos). The broader, more rounded and less acutely pointed squamosal arm of the zygoma supposedly characteristic of *ignavus* is matched in certain specimens of *griseus* (for example, in No. 2824 from Juan Viñas, Costa Rica) and the character is variable among specimens referred to *ignavus*; the shape of the squamosal arm is of doubtful taxonomic worth in the present connection. The depth of the grooving on the palate seems to vary with age and is of questionable value taxonomically. The emarginate nasals of *ignavus* are matched in *griseus* (No. 139833) from Vijagual, San Carlos, Costa Rica. The extension of the anterior symphyseal region of the mandible is short in *ignavus*; the specimen with the longest extension (No. 37621 from El Real), however, has the extension only barely shorter than does No. 139933 of *griseus* from Vijagual, San Carlos, Costa Rica. In brief, while we see the characters of *ignavus* as set forth by Goldman (*op. cit.*), we find them to be of only an average sort and not pronounced. Further, a specimen (No. 139833) from Vijagual, San Carlos, Costa Rica, provides a morphological intergrade between *griseus* and *ignavus*. Accordingly, we arrange *ignavus* as a subspecies of *griseus*; the name of the animal from extreme eastern Panamá should stand as *Bradypus griseus ignavus* Goldman, 1913.

**Cyclopes didactylus mexicanus** Hollister

Hollister (Proc. Biol. Soc. Washington, 127:210, October 31, 1914) named *Cyclopes mexicanus*, on the basis of light-golden upper parts and large, especially broad, auditory bullae, as specifically distinct from *Cyclopes dorsalis* Gray (= *Cyclopes tridactylus dorsalis* Gray). Our comparisons and examination of the specimens used by Hollister and a few other specimens acquired since 1914 convince us that *C. mexicanus* is taxonomically valid and that Hollister, in general, correctly indicated its diagnostic characters. Nevertheless, there is considerable evidence that *C. mexicanus* is only subspecifically distinct from *C. dorsalis*. In the first place, an adult *C. dorsalis*, not seen by Hollister, from El Banco, Chiriquí, Panamá (No. 248343 USBS), has more inflated, although narrower, auditory bullae than do specimens of *C. mexicanus*. In the second place, the two specimens mentioned by Hollister (*loc. cit.*) as from "Tabasco and southern Vera Cruz" actually are both from Tabasco (No. 100040 USBS from Teapa, and No. 100174 USBS from Montecristo). Each, as Hollister indicated, is darker on the upper parts than his other referred specimens (two others from Montecristo in Tabasco and another from El Salto in Chiapas). To us this suggests intergradation with *C. dorsalis*. Incidentally, the specimen that Hollister mentioned from Veracruz (No. 78111 USBS, from Minatitlan), and that he indicated as having dark upper parts, really has light upper parts. Third, a skin from Petén, Libertad, Guatemala (Harry Malleis field No. 504, immature ♀), that the late Major E. A. Goldman and one of us (Hall) once examined, has considerable dark brown on the chin, throat and midventral line, as well as a dark mid-dorsal stripe. The specimen is intermediate in color, as well as geographically, between *C. t. dorsalis* and *C. mexicanus*, although referable to the latter. Taken together, the above evidence indicates subspecific status for the northern, Mexican, animal and we conclude that it should stand as *Cyclopes tridactylus mexicanus* Hollister.

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