

OCCASIONAL PAPERS OF THE MUSEUM OF
ZOOLOGY

UNIVERSITY OF MICHIGAN

ANN ARBOR, MICHIGAN

PUBLISHED BY THE UNIVERSITY

A NEW SQUIRREL OF THE *SCIURUS HOFFMANNI*
GROUP FROM COSTA RICA

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Sciurus miravallensis, new species

TYPE. Adult male (skin and skull), No. 59882, Museum of Zoology, University of Michigan. Collected January 23, 1930, by Austin Smith on the Volcan de Miravalles at an altitude of 1500 feet. The Volcan de Miravalles is in the Cordellera de Guanacaste of northwestern Costa Rica. Beside the type there is a paratype, No. 59881, and also one specimen, No. 62692, from eight miles north of Volcan Orosi at the Hacienda Alemania.

Diagnosis. Underparts gray, sometimes slightly washed with Ochraceous Orange¹ in lower midventral section. Tail is black above with dorsal hairs black, tipped with white and with a white border.

Color of Type. Upper parts, including legs and feet, dark grizzled yellowish brown, slightly darker along the middle of the back and top of the head. Sides of head, body, and legs more yellowish. Flanks washed with Ochraceous Orange. Eye with ring of Ochraceous Orange and postauricular patches of same color, but not very prominent. Hairs of

¹ Capitalized names of colors refer to R. Ridgway, *Color standards and color nomenclature*. Washington. Pp. i-iii, 1-43. 1912.

back and sides, black from the base for about three-fourths of the hair length; then a narrow band of Ochraceous Orange, followed by black tip. Some of the hairs in the mid-dorsal region are wholly black. Under parts, including legs, gray with slight wash of Ochraceous Orange in lower ventral region. The tail above has a general effect of hoary and is provided with a distinct white border. Hairs of tail on dorsal side black with short white tip. Hairs of ventral side of tail have four black bands and three Ochraceous Orange bands, alternating, and beginning at the base with black. Hairs of the tip of tail have at the base a short black band followed by two short Ochraceous Orange bands which are separated by a short black band; these are followed by a long black band; the hair is tipped with white.

The color of the paratype and the specimen from the Volcan Orosi are the same as the type except that there is no trace of Ochraceous Orange on the belly.

Measurements. Type: total length 396 mm.; tail, 182 mm.; hind foot to end of claw, 51 mm. Skull: condylo-premaxillary length, 48.8 mm.; zygomatic breadth 31.5 mm.; inter-orbital breadth 16.7 mm.; anterior end of premaxillary to palatal notch 32.5 mm.

Remarks. *Sciurus miravallensis* is distinguished from both *hoffmanni* and *richmondi* in having the underparts gray in color instead of ferruginous or buff. It differs in having the hairs of the sides of the tail tipped with white instead of ferruginous as in *hoffmanni* or dull yellow as in *richmondi*. The range of *miravallensis*, so far as known from the specimens at hand, extends from eight miles north of the Volcan Orosi to the Volcan Miravalles. This range is separated from the known range of *hoffmanni* by a considerable distance. The nearest locality where specimens of *hoffmanni* have been taken is Buena Vista.

The type locality of *Sciurus hoffmanni hoffmanni* has been designated by Allen² as San José. Specimens from Turrialba, San José, Volcan Poas, Irazu, and Esecazu are typical. The

² Allen, J. A. *Bull. Amer. Mus. Nat. Hist.*, 34: 218. 1915.

extreme development of *hoffmanni* is to be found in the region of heavy rainfall on the northeastern side of the Volcan Turrialba as evidenced by specimens from Santa Clara, Coliblanco, Buena Vista, and Carrillo, which are darker and richer colored, both above and below, than specimens from San José. Specimens from the west side of Turrialba and Irazu seem to tend slightly toward *chiriquensis*.

Sciurus hoffmanni chiriquensis is a rather poorly marked form differing from typical *hoffmanni* in having rather thinner pelage and averaging slightly more rufous on the underparts. More material is necessary to determine adequately the range of this form. The type locality of *chiriquensis* is Divalá on the west coast of Panama. From the specimens at hand it would seem that this form is found in southern Costa Rica and northern Panama on both the Atlantic and Pacific sides. The Costa Rican specimens are from Point Jimenez and Boruca on the Pacific side and Limon on the Atlantic side. Those from Panama are from Divalá, Boquete, and Bogaba, on the Pacific side, and Almirante and Chanquinola on the Atlantic side. The great difference in altitude and climatic conditions between these localities has seemingly no appreciable effect on the color or other characters of the animals.

ACKNOWLEDGMENTS

The author wishes to express his thanks for the loan of specimens from the United States National Museum, the American Museum of Natural History, the United States Biological Survey, and the Harvard Museum of Comparative Zoology.

