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A NEW SPINY MOUSE OF THE GENUS *NEACOMYS*
FROM EASTERN ECUADOR

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Neacomys spinosus carceleni,¹ new subspecies

HOLOTYPE.—Adult male, skin with skull, U.M.M.Z.² No. 80171; collected October 5, 1936, by Philip Hershkovitz; original No. M618. Paratypes: 5 females, 4 males, skins with skulls, all adults, U.M.M.Z. Nos. 80166–70, 80172–75.

TYPE LOCALITY.—Llunchi, an island on the northern side of the Río Napo, west of the mouth of the Río Jivino, latitude and longitude approximately 0° 37' S., 76° 46' W.; parish of La Coca, Napo-Pastaza Province, Ecuador; altitude about 250 meters.

DISTRIBUTION.—Three of the paratypes were taken at the site "San Francisco," on the left bank of the Río Napo about 50 kilometers east of the type locality. The skull of the specimen of "*Neacomys spinosus spinosus*" from "eastern Ecuador, Archidona," recorded and figured by Gyldenstolpe (1932: Pl. III, Figs. 1 and 1a) corresponds to that of *N. s. carceleni*, to which it is now referred. Thus, it appears that *carceleni* ranges over the whole of the tropical region drained

¹ Named in honor of Señor Alberto Rafael Carcelén, of Quito, in acknowledgment of the many kindnesses received from him during my stay in Ecuador.

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by the upper Río Napo and may extend southward as far as Peru.

COMPARISONS.—*Neacomys spinosus carceleni* is distinguished from the Peruvian *spinosus* by the following: tawny rather than ochraceous color of the dorsal surface; color of the hairs of the ventral surface usually white to the roots; tail relatively shorter; skull larger and heavier; supraorbital beading more strongly developed; rostrum broader; molar row longer. In *spinosus* the upper molar rows lie nearly parallel to each other, whereas in *carceleni* they converge more or less posteriorly (compare Gyldenstolpe 1932: Pl. III, Fig. 1a, with Thomas, 1884: Pl. XLIV, Fig. 18). *N. s. carceleni* more nearly resembles the Colombian *tenuipes*, but differs from it chiefly by paler coloration and longer palatine foramina. No specimens of the Brazilian *amoenus*, the only other known race of *spinosus*, were available for comparison. Skull measurements of *amoenus*, as given by Thomas (1903: 239), more nearly agree with those of *carceleni* than do those of the other races, especially with respect to the "longer palatine foramina." However, the supraorbital ridges of the skull of *amoenus* are described as being less developed than are those of *spinosus*, whereas the supraorbital ridges of *carceleni* are heavier than those of *spinosus*. Comparison of the external measurements given for *amoenus* with those of *carceleni* show that in *amoenus* the hind foot is larger and the tail is both actually and relatively longer.

COLORATION OF HOLOTYPE (capitalized color terms from Ridgway, 1912).—Dorsal surface, Tawny, heavily lined with black; hairs and spines slaty at bases; each spine terminates in a fine black hair; hairs banded subterminally with Tawny, tipped with black. Sides and cheeks, Ochraceous-Tawny; hairs of lateral line, stiff, slaty at bases with terminal one-fourth Ochraceous-Orange; true spines absent. Under parts, white with light wash of Ochraceous-Buff. Inner sides of hind legs, grizzled whitish and Ochraceous-Buff, basal portions of hairs, Hair Brown. Upper surface of forearms and forefeet to digits, Hair Brown; digits, white; palms, flesh-colored. Upper surface of hind feet, pale brown with dark

metapodial patches; soles, dark brown. Tail with relatively large scales, minutely pencilled, dark brown above, paler below on proximal inch of basal portion; terminally the color merges with that of upper surface.

PELAGE AND COLORATION OF TYPE SERIES.—The pelages of seven of the nine paratypes are considerably worn. The spines of these mice are lost quite freely in molting and during the operation of skinning and preparation. The dorsal surface of the series ranges from Tawny to Ochraceous Orange and is lined with the black of the terminal parts of the spines; this black becomes progressively more pronounced as the pelage becomes more worn. The range in coloration of the tail is from sharply, almost completely, bicolor in one specimen to uniformly dark, except for the paler basal half-inch of the under side, in another specimen. The color of the under parts is white, but with a faint wash of buffy in some individuals; the basal portions of the individual hairs are white to the roots in all but one specimen. In this specimen there are patches of belly hairs near the sides which are pale gray basally.

SKULL.—The most notable of the variations is in the dorsal contour of the rostrum. In some specimens this contour lies on a plane with the frontals; in others it curves steeply downward. The width of the nasals and of the interorbital region varies considerably.

MEASUREMENTS.—The first measurement given is of the holotype. This is followed by the means and extremes of the type series, including the holotype (5 males, 5 females). External (taken from the freshly killed animal): total length, 183, 186.1 (173–96); head and body, 91, 94.2 (84–102); tail, 92, 94.2 (85–101, 9 specimens); hind foot (*s. u.*), 20, 20.4 (19–22); ear, from notch, 17, 16 (14–17). Skull: greatest length, 24.5 (23.5–25.4, 6 specimens); condylobasal length, 21.6, 21.8 (21.2–22.6); zygomatic breadth, 12.2, 12.9 (12.2–13.7, 6 specimens); length of nasals, —, 9.28 (8.5–9.7, 5 specimens); least interorbital breadth, 4.6, 4.5 (4.1–4.9); brain case (greatest width between parietal ridges), 11.1, 11.1 (10.7–11.6); length of palatal bridge, 4.3, 4.3 (4.1–4.5, 9 speci-

mens); palatine foramina, 3.9 by 1.7, 4.0 by 1.81 (3.7–4.4 by 1.4–2.0); diastema 6.9, 6.7 (6.4–6.9); length of upper molar row, 3.0, 3.2 (3.0–3.4).

REMARKS.—In the majority of the Peruvian specimens of *spinosus* examined, the basal parts of the belly hairs are gray; in *tenuipes*, *amoenus*, and *carceleni*, the basal color is usually white. The number of mammae in *Neacomys*, as in all other Oryzomyine rodents, is eight. These are represented by two pairs in the pectoral region and two pairs in the inguinal region. In the prepared specimen the anteriormost pair of mammae lies in the region of the neck, but in life they are probably just posterior to the clavicle.

I wish to thank the authorities of the American Museum of Natural History (A.M.N.H.) for permitting me to examine the specimens of *N. spinosus* in their charge, and the authorities of the Field Museum of Natural History (F.M.N.H.) for the loan of Peruvian specimens of *spinosus*. These specimens, with the institutions indicated by abbreviations, are included in the following list.

SPECIMENS EXAMINED.—*Neacomys spinosus carceleni*, Ecuador: Llunchi, 7 (U.M.M.Z.); San Francisco, 3 (U.M.M.Z.). *N. s. spinosus*, Peru: Moyobamba, 1 (F.M.N.H.), Poco Tambo, 2 (F.M.N.H.), Inca Mines, 16 (A.M.N.H.). *N. s. tenuipes*, Colombia: Paime, Cundinamarca, 4 (A.M.N.H.). *N. s.* subsp., Colombia: La Murelia, Río Bodequera, Caquetá, 3 (A.M.N.H.).

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