

Peromyscus stirtoni. By J. Knox Jones, Jr.

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Peromyscus stirtoni Dickey, 1928

Stirton's Mouse

Peromyscus stirtoni Dickey, 1928:5. Type locality "Rio Goascoran, 13°30'N., Dept. La Union, El Salvador, C. A.; altitude 100 feet; base of rocky cliff."

CONTEXT AND CONTENT. Order Rodentia, Suborder Sciurognathi, Infraorder Myomorpha, Superfamily Muroidea, Family Muridae, Subfamily Sigmodontinae, Genus *Peromyscus* (Carleton and Musser, 1983). The New World genus *Peromyscus* contains about 49 species. *Peromyscus stirtoni*, a member of the *P. mexicanus* species group (Carleton, 1980; Huckaby, 1980), is monotypic.

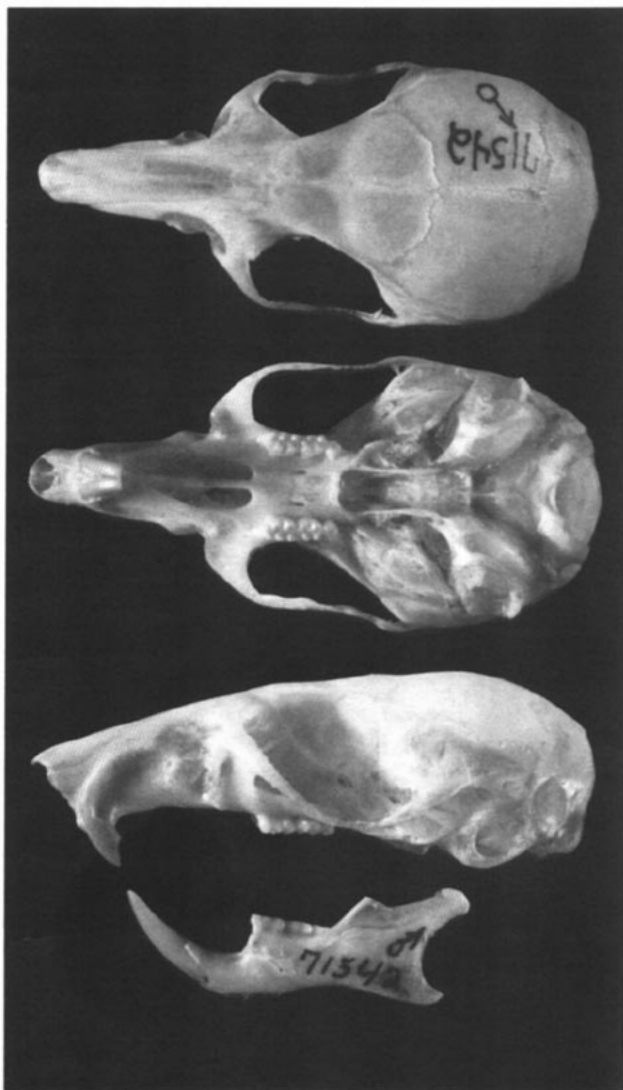


FIG. 1. Dorsal, ventral, and lateral views of cranium and lateral view of lower jaw of a male *Peromyscus stirtoni* (Museum of Natural History, The University of Kansas 71542) from 11 mi. SE Dario, Nicaragua. Greatest length of skull is 29.4 mm.

DIAGNOSIS. One of the smallest members of the *P. mexicanus* group (total length rarely exceeding 210 mm, greatest length of skull rarely exceeding 30.3 mm). Supraorbital ridges strongly beaded; molars relatively simple; tail hairy and bicolored, about same length as head and body; no pectoral mammae (Huckaby, 1980).

Peromyscus stirtoni is sympatric only with *P. gymnotis* and *P. mexicanus* of the *P. mexicanus* group, and only *P. mexicanus* overlaps *P. stirtoni* to any great degree ecologically. From these species, it can be distinguished by its small size, hairy and bicolored tail, and beaded supraorbital ridges (Huckaby, 1980).

GENERAL CHARACTERS. Dorsal pelage is moderately short and somewhat harsh, ochraceous buff to ochraceous tawny, admixed with dusky hairs; flanks are buffy; orbital rings are narrow and inconspicuous; venter is whitish, sometimes with buffy pectoral spot; tail is dark brownish to blackish above, yellowish white below, unblotched, and with annulations nearly concealed by hair; feet are mostly or entirely whitish, thinly haired, soles naked, claws short and sharply curved (Burt and Stirton, 1961; Dickey, 1928; Goodwin, 1942). Skull (Fig. 1) with smoothly rounded contours; nasals are relatively broad and generally somewhat truncate posteriorly; braincase is rounded, neither flattened nor abruptly elevated; palatine foramina are moderately long; shelf of bony palate is short; auditory bullae are small; accessory cusps are present on molars, but poorly developed (Dickey, 1928). The dental formula, as in most other members of the subfamily Sigmodontinae, is 1/1, 0/0, 0/0, 3/3, total 16.

Average external measurements (in mm) of eight specimens from El Salvador (Huckaby, 1980), followed by extremes in parentheses, are: length of head and body, 101 (93-110); length of tail, 95 (92-108); length of hind foot, 23.4 (22-24). Average external measurements of six adults, three males and three females, from Nicaragua (Jones and Yates, 1983) are: total length, 198.7 (191-207); length of tail, 95.5 (86-107); length of hind foot, 22.8 (22-24); length of ear (five specimens), 19.2 (18-21). Two males and a nonpregnant female weighed 31.3, 28.1, and 28.2 g, respectively.

Average cranial measurements (in mm), ranges in parentheses, for eight El Salvadorian specimens follow (Huckaby, 1980): greatest length, 28.9 (27.4-29.9); interorbital breadth, 4.9 (4.8-5.0); breadth of braincase, 13.0 (12.7-13.3); length of molar (maxillary) row,

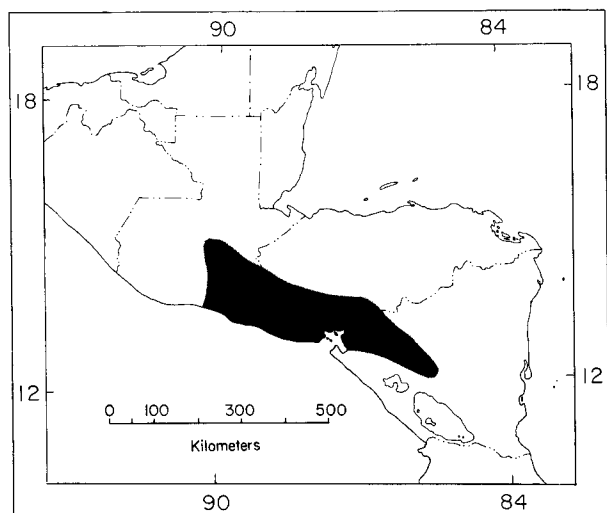


FIG. 2. Distribution of *Peromyscus stirtoni* in Middle America.

4.0 (3.8–4.1); intermolar width, 3.2 (3.1–3.3). Average (and extremes) of somewhat different cranial measurements for seven specimens (three males, four females) from Nicaragua (Jones and Yates, 1983) are: greatest length, 29.5 (28.5–30.3); zygomatic breadth, 13.9 (12.9–14.3); interorbital breadth, 4.9 (4.7–5.2); breadth of braincase, 13.1 (12.6–13.7); depth of braincase, 10.0 (9.3–10.5); length of rostrum, 11.6 (11.0–12.1); length of palate, 4.5 (4.3–4.6); length of maxillary toothrow, 4.2 (3.9–4.3); length of incisive foramen, 5.5 (4.9–5.9); breadth of rostrum, 5.0 (4.6–5.4); breadth of zygomatic plate, 2.5 (2.3–2.7).

DISTRIBUTION. *Peromyscus stirtoni* occupies a restricted geographic region in the Pacific versant of Middle America (Fig. 2). It occurs in arid and semiarid lowlands and valleys from southeastern Guatemala eastward through El Salvador and southern Honduras to west-central Nicaragua (Huckaby, 1980; Jones and Yates, 1983).

FOSSIL RECORD. Remains of Stirton's mouse have been reported as subfossils from Caverna Ojos Verdes in Barra Hondo National Park, Guanacaste Prov., Costa Rica. This site is approximately 300 km south of the presently known southern limit of distribution in Nicaragua. Age of the near-surface sediments from which *P. stirtoni* was recovered is not known "but tiny fragments of pottery in some levels suggest middle to late Holocene" (Woodman, 1988:247).

ONTOGENY AND REPRODUCTION. Few data are available on reproduction in *P. stirtoni* and there are no reports on growth and development. Two April-taken males from Nicaragua had enlarged testes that measured 18 and 20 mm in length. A female taken on 4 April in Nicaragua carried three large fetuses that measured 24 mm in crown–rump length. Adult females obtained there in March and August evinced no gross reproductive activity (Jones and Yates, 1983).

ECOLOGY. Little is known of the ecology of this species, which, on the basis of published reports, is represented in museum collections by fewer than 50 specimens as follows: El Salvador, 18; Guatemala, 2; Honduras, 20; Nicaragua, 7 (Dickey, 1928; Huckaby, 1980; Jones and Yates, 1983). It evidently occurs only in relatively dry habitats in interior valleys of the Pacific drainage from Guatemala to Nicaragua. In Nicaragua, specimens have been taken in dry forest and brush adjacent to a rocky river bed, and along a small, rocky

ledge above a steep slope that supported a weedy cornfield (Jones and Yates, 1983).

REMARKS. There are no published data on form, function, or genetics for this species. The specific epithet honors Ruben A. Stirton (1901–1966), noted paleontologist, who collected the holotype and other specimens upon which the name originally was based.

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