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OCCASIONAL PAPERS OF THE
MUSEUM OF NATURAL SCIENCE

LOUISIANA STATE UNIVERSITY
BATON ROUGE, LOUISIANA 70803

MAMMALOGICAL TYPE SPECIMENS IN THE MUSEUM OF NATURAL
SCIENCE, LOUISIANA STATE UNIVERSITY

By Mark S. Hafner

The research collection of mammals in the Museum of Natural Science at Louisiana State University (LSUMZ) was initiated in 1936 by Dr. George H. Lowery, Jr., founder of the Museum. Although Lowery's primary research interests were ornithological, he was also an accomplished mammalogist (trained under E. Raymond Hall). Lowery directed an intensive mammalogical survey of Louisiana during the late 1930's and early 1940's, and this work yielded many distributional records for the state of Louisiana and culminated in the description of five Louisiana mammals new to science (Lowery and Davis, 1942; Lowery, 1943).

The Museum's collection of mammals grew rapidly during the late 1940's and early 1950's in connection with the Museum's biological inventory of the Mexican state of San Luis Potosí. The Museum's mammalogical work in Mexico was coordinated by Lowery's student, Walter W. Dalquest, who described 10 mammalian taxa new to science (Dalquest, 1950, 1951a, 1951b) and later published a distributional and biogeographical account of the mammals of San Luis Potosí (Dalquest, 1953). Today, the LSUMZ collection of mammals from San Luis Potosí (total of 2,652 specimens) remains among the largest and most diverse from this region of Mexico.

Several of Lowery's students and associates conducted mammalogical research in Costa Rica during the late 1960's and early 1970's under the auspices of the LSU International Center for Medical Research and Training. These surveys concentrated on remote regions of the country and emphasized poorly known taxa, primarily rodents and bats. Among the many research reports emanating from this mammalogical survey work of Costa Rica were descriptions of three taxa new to science (Davis, 1969; McPherson, 1971; LaVal, 1973). At present, the LSUMZ mammal collection contains significant holdings from Costa Rica (total of 2,641 specimens).

In the early 1970's, the Museum's research emphasis shifted from Central America to South America, focusing on the vertebrate faunas (primarily birds and mammals) of Peru and Bolivia. Since 1970, numerous Museum expeditions to South America have discovered many vertebrate taxa new to science. Noteworthy among the LSU mammalogists who worked in South America is Dr. Alfred L. Gardner, who collected more than 1,300 of the 6,116 LSUMZ mammal specimens from Peru and described five Peruvian mammals new to science (Gardner and O'Neill, 1971; Gardner and Carter, 1972; Gardner and Patton, 1972; Musser and Gardner, 1974).

Professor Lowery curated the LSUMZ collection of mammals until his death in 1978. At that time, the mammal collection contained approximately 19,000 specimens, placing it among the largest university-affiliated collections of mammals in the nation. Recognizing the increasing importance of the mammal collection as a resource for biological research, Louisiana State University hired its first full-time curator of mammals (Mark S. Hafner) in 1979. Today, the LSU collection of mammals contains more than 34,000 specimens, a 79% increase in size over the past 14 years.

In the list that follows, I have attempted to include all mammalogical type material in the Museum of Natural Science. Although the list of holotypes is complete, paratypes have never been accorded special treatment in the collection and it is likely that some have been overlooked. The Museum of Natural Science would appreciate being notified of any LSUMZ type specimens that are not on this list.

The LSUMZ collection of mammals contains 23 holotypes and at least 70 paratypes. Holotypes of seven species and 16 subspecies are present, as are paratypes of three species and three subspecies. The collection also contains neoparatypes of one species. Ten of the holotypes are from Mexico, five are from Peru, five from Louisiana, and three are from Costa Rica. The majority of the paratype material is from Costa Rica (41 paratypes); 26 paratypes are from Peru, and three are from Louisiana.

Until recently, the research division of the Museum of Natural Science was referred to as the Museum of Zoology, hence the acronym LSUMZ. When the Museum of Zoology designation was discarded in 1988, the long-standing acronym was retained for the sake of continuity. Certain authors have used the acronym "LSU" for specimens in this collection, but this is incorrect and could be confused with the collection at Louisiana State University, Shreveport (correctly LSUS).

Information about each type specimen in the following list includes the LSUMZ number, collecting locality, collector, and date of collection. In the case of holotypes, the type locality is listed in quotes exactly as it appeared in the type description, and the age, sex, and original collector's number are included. Each of these specimen records has been checked against the LSUMZ catalogue and original specimen tag. Any discrepancies among these sources of information are described in the "comments" section of each entry.

Province, Costa Rica, ca. 4500 ft. elev., collected by A. L. Gardner on 8 February 1967.

COMMENTS: The specimen tag on the holotype includes "Fila la Máquina" in the locality description and indicates the elevation as "ca. 8700 ft." LSUMZ 12877 and 12878 were transferred to the Texas Cooperative Wildlife Collection, Texas A&M University. LSUMZ 12869 was transferred to the National Museum of Australia.

Mimon koepckeae Gardner and Patton, 1972, Occas. Pap. Mus. Zool. Louisiana State Univ. (43):7. [= *Mimon crenulatum* Geoffroy St.-Hilaire]

HOLOTYPE: LSUMZ 16447; "Huanhuachayo (12° 44' S, 73° 47' W), elevation ca. 1,660 meters, Departamento de Ayacucho, Perú." Adult female. Collected by Alfred L. Gardner on 9 May 1971. Original number ALG 11705. Specimen consists of skin and skull.

PARATYPES: LSUMZ 15675, type locality, collected by J. P. O'Neill on 18 July 1970; LSUMZ 15676, Estera Ruana, Departamento de Ayacucho, Peru, ca. 1810 m elev., collected by J. P. O'Neill on 18 July 1970.

COMMENTS: Koopman (1978:5) and Jones and Carter (1979:8) recognized *Mimon koepckeae* as a junior synonym of *Mimon crenulatum* (Geoffroy St.-Hilaire, 1810:193).

Sturnira nana Gardner and O'Neill, 1971, Occas. Pap. Mus. Zool. Louisiana State Univ. (42):1.

HOLOTYPE: LSUMZ 15683; "Huanhuachayo (12° 44' S, 73° 47' W), ca. 1,660 meters, Departamento de Ayacucho, Perú." Adult female. Collected by John P. O'Neill on 14 July 1970. Original number JPO 3628. Specimen consists of skin and skull.

COMMENTS: The ISIS number for *Sturnira nana* is 5301405008042008001.

Vampyrops infuscus Peters, 1881, Monatsber. preuss. Akad. Wiss. Berlin, p. 259 (for 1880).

NEOPARATYPES: LSUMZ 14224, 16401, Balta (10° 08' S, 71° 31' W), Río Curanja, Departamento de Loreto, Peru, ca. 300 m elev.; LSUMZ 16402-16403, San José (12° 44' S, 73° 46' W), Río Santa Rosa, Departamento de Ayacucho, Peru, ca. 3300 ft. elev.

COMMENTS: The neotype of *Vampyrops infuscus* was designated by Gardner and Carter (1972:72).

Vampyrops nigellus Gardner and Carter, 1972, Occas. Pap. Mus. Texas Tech Univ. (2):1. [= *Vampyrops lineatus* Geoffroy St. Hillaire]

HOLOTYPE: LSUMZ 16415; "Huanhuachayo (12° 44' S, 73° 47' W), about 1660 m, Departamento de Ayacucho, Peru." Adult male. Collected by Alfred L. Gardner on 6 May 1971. Original number ALG 11684. Specimen consists of skin and skull.

MAMMALIA
MARSUPIALIA
FAMILY DIDELPHIDAE

Philander mcilhennyi Gardner and Patton, 1972, Occas. Pap. Mus. Zool. Louisiana State Univ. (43):2.

HOLOTYPE: LSUMZ 16395; "Balta (10° 08' S, 17° 13' W), Río Curanja, elevation ca. 300 meters, Departamento de Loreto, Perú." Adult female. Collected by Alfred L. Gardner on 10 April 1971. Original number ALG 11541. Specimen consists of skin and skull.

PARATYPES: LSUMZ 14013-14014, type locality, collected by A. L. Gardner on 29 June 1968; LSUMZ 14015, type locality, collected by A. L. Gardner on 16 July 1968; LSUMZ 16393, type locality, collected by R. Thomas on 13 March 1971; LSUMZ 13394, type locality, collected by A. L. Gardner on 27 March 1971.

COMMENTS: Known only from the type locality. The correct longitude of the type locality is 71° 13' W. LSUMZ 14013 was transferred to the Texas Cooperative Wildlife Collection, Texas A&M University. The ISIS number for *Philander mcilhennyi* is 5301402001012001001.

INSECTIVORA
FAMILY SORICIDAE

Blarina brevicauda minima Lowery, 1943, Occas. Pap. Mus. Zool. Louisiana State Univ. (13):218.

HOLOTYPE: LSUMZ 2196; "Comite River, 13 mi. NE Baton Rouge, East Baton Rouge Parish, Louisiana." Adult male. Collected by Ira D. George on 28 December 1942 and prepared by Thomas R. Howell. Original number TRH 4. Specimen consists of skin and skull.

COMMENTS: The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

CHIROPTERA
FAMILY PHYLLOSTOMIDAE

Artibeus aztecus major Davis, 1969, The Southwestern Naturalist 14:22.

HOLOTYPE: LSUMZ 12876; "7.5 km E Canaán, elevation ca. 8,000 feet, Province of San José, Costa Rica." Adult male. Collected by Alfred L. Gardner on 9 May 1967. Original number ALG 10354. Specimen consists of skin and skull.

PARATYPES: LSUMZ 12864-12875, 12877-12879, type locality, collected by A. L. Gardner between 5 February and 11 May 1967; LSUMZ 12880, ca. 3 km E Canaán, San José Province, Costa Rica, 6000 ft. elev., collected by A. L. Gardner on 29 July 1967; LSUMZ 12881, San Gerardo, San José

PARATYPES: LSUMZ 15686-15687, type locality, collected by J. P. O'Neill on 18 July 1970; LSUMZ 16415-16420, type locality, collected by A. L. Gardner on 6 May 1971; LSUMZ 16421-16422, type locality, collected by A. L. Gardner on 8 May 1971; LSUMZ 16423, type locality, collected by A. L. Gardner on 10 May 1971; LSUMZ 12559-12560, Divisoria, Cordillera Azul, Departamento de Huánuco, Peru, 1600 m elev., collected by J. P. O'Neill on 17 August 1967; LSUMZ 14226, Carretera Central, eastern slope Cordillera Carpish, Departamento de Huánuco, Peru, 2400 m elev., collected by A. L. Gardner on 15 August 1968; LSUMZ 16414, San José (12° 44' S, 73° 46' W), Río Santa Rosa, Departamento de Ayacucho, Peru, ca. 3300 ft. elev., collected by A. L. Gardner on 5 May 1971.

COMMENTS: Jones and Carter (1979:8) recognized *Vampyrops nigellus* as a junior synonym of *Vampyrops lineatus* (Geoffroy St.-Hilaire, 1810:180).

FAMILY VESPERTILIONIDAE

Myotis austroriparius gatesi Lowery, 1943, Occas. Pap. Mus. Zool. Louisiana State Univ. (13):219.

HOLOTYPE: LSUMZ 2074; "University Campus near Baton Rouge, East Baton Rouge Parish, Louisiana." Adult male. Collected by Roland Abegg on 12 November 1941 and prepared by George H. Lowery, Jr. Original number GHL 1104. Specimen consists of skin and skull.

PARATYPES: LSUMZ 1813, type locality, collected by G. H. Lowery, Jr. on 22 September 1940; LSUMZ 1986, type locality, collected by G. H. Lowery, Jr. on 12 October 1941; LSUMZ 2101, type locality, collected by A. W. Burdick on 26 October 1942; LSUMZ 1110, Vowells Mill, Natchitoches Parish, Louisiana, collected by H. A. Hays on 23 November 1938.

COMMENTS: LSUMZ 1986 was transferred to the U. S. National Museum.

Myotis oxyotus gardneri LaVal, 1973, Bull. Nat. Hist. Mus. Los Angeles Co., (15):42.

HOLOTYPE: LSUMZ 12924; "Fila la Máquina, ca. 7.5 km E Canaan, San José, Costa Rica, 2610 m." Adult male. Collected by Alfred L. Gardner on 8 May 1967. Original number ALG 10347. Specimen consists of skin, skull, and baculum.

PARATYPES: LSUMZ 12916-12923, 12925-12927, type locality, collected by A. L. Gardner between 5 February and 18 July 1967; LSUMZ 14695, Varablanca, Heredia Province, Costa Rica, 1800 m elev., collected by S. McGuire on 21 March 1968; LSUMZ 12929, 1 km NW Villa Mills, Cartago Province, Costa Rica, 3060 m elev., collected by A. L. Gardner on 6 April 1967; LSUMZ 12906-12915, La Piedra, ca. 4 km SW Cerro

Chirripó, San José Province, Costa Rica, 3150 m elev., collected by A. L. Gardner between 13 December 1966 and 28 July 1967.

Pipistrellus hesperus potosinus Dalquest, 1951, Proc. Biol. Soc. Wash. 64:105.
HOLOTYPE: LSUMZ 4019; "Presa de Guadalupe, San Luis Potosí, México." Adult male. Collected by Walter W. Dalquest on 24 July 1950. Original number WWD 14318. Specimen consists of skin and skull.

COMMENTS: Skin torn down middle of abdomen; both wing membranes and tail membrane torn. The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

RODENTIA
FAMILY CRICETIDAE

Daptomys peruviansis Musser and Gardner, 1974, Amer. Mus. Novitates, (2537):7.

HOLOTYPE: LSUMZ 14407; "Balta (10° 08' S, 17° 13' W), at the point where the streams known to the local Cashinahua Indians as the Inuya and the Xumuya enter the Río Curanja, elevation 300 meters, Departamento de Loreto, Perú." Adult male. Collected by Alfred L. Gardner on 28 July 1968. Original number 10994. Specimen consists of skin, skull, and excised phallus.

COMMENTS: Known only from the holotype.

Neotoma ferruginea griseoventer Dalquest, 1951, J. Wash. Acad. Sci. 41:363.
[= *Neotoma mexicana ferruginea* Tomes]

HOLOTYPE: LSUMZ 3194; "Xilitla, San Luis Potosí, México." Adult female. Collected by Marcella Newman on 27 June 1947. Original number M29. Specimen consists of skin and skull.

COMMENTS: Hall (1955:330) recognized *Neotoma ferruginea* as a junior synonym of *Neotoma mexicana* Baird (1855:333). The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

Oryzomys alfaroi huastecae Dalquest, 1951, J. Wash. Acad. Sci. 41:363.

HOLOTYPE: LSUMZ 5436; "10 km east Platanito, San Luis Potosí, México." Adult male. Collected by Walter W. Dalquest on 13 November 1950. Original number 15643. Specimen consists of skin and skull.

COMMENTS: The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

Peromyscus latirostris Dalquest, 1950, Occas. Pap. Mus. Zool. Louisiana State Univ. (23):8. [= *Peromyscus furvus* Allen and Chapman]

HOLOTYPE: LSUMZ 3051; "Apetsco, near Xilitla, elevation 2700 feet, San Luis Potosí, México." Adult male. Collected by Marcella Newman on 3 July 1947. Original number M40. Specimen consists of skin and skull.

COMMENTS: Hall (1971:154) recognized *Peromyscus nigellus* as a junior synonym of *Peromyscus furvus* (Allen and Chapman, 1897:2). The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description. The ISIS number for *Peromyscus latirostris* is 5301410008039028001.

FAMILY GEOMYIDAE

Thomomys umbrinus arriagensis Dalquest, 1951, J. Wash. Acad. Sci. 41:361.

HOLOTYPE: LSUMZ 5075; "1 km south of Arriaga, San Luis Potosí, México." Adult male. Collected by Walter W. Dalquest on 22 September 1950. Original number WWD 14780. Specimen consists of skin and skull.

COMMENTS: The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

Thomomys umbrinus newmani Dalquest, 1951, J. Wash. Acad. Sci. 41:361.

HOLOTYPE: LSUMZ 4193; "7 km northwest of Palma (village 12 km northwest of Salinas), San Luis Potosí, México." Adult female. Collected by Walter W. Dalquest on 8 August 1950. Original number WWD 14537. Specimen consists of skin and skull.

COMMENTS: The specimen tag on the holotype indicates an elevation of 7800 ft. for the type locality. The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

FAMILY HETEROMYIDAE

Perognathus lineatus Dalquest, 1951, J. Wash. Acad. Sci. 41:362. [= *Chaetodipus lineatus* (Dalquest)]

HOLOTYPE: LSUMZ 5253; "1 km south of Arriaga, San Luis Potosí, México." Adult male. Collected by Walter W. Dalquest on 21 September 1950. Original number WWD 14734. Specimen consists of skin and skull.

COMMENTS: This species was transferred to the genus *Chaetodipus* by Hafner and Hafner (1983:25). The collection contains additional specimens from the type series, but none of these was specified by

LSUMZ number in the type description. The ISIS number for *Perognathus* (= *Chaetodipus*) *lineatus* is 5301410004005018001.

Perognathus penicillatus atrodorsalis Dalquest, 1951, J. Wash. Acad. Sci. 41:362. [= *Chaetodipus penicillatus atrodorsalis* (Dalquest)]

HOLOTYPE: LSUMZ 5226; "7 km west of Presa de Guadalupe, San Luis Potosí, México." Adult male. Collected by Walter W. Dalquest on 12 October 1950. Original number WWD 15109. Specimen consists of skin and skull.

COMMENTS: This species was transferred to the genus *Chaetodipus* by Hafner and Hafner (1983:25). The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

FAMILY SCIURIDAE

Citellus spilosoma cabrerai Dalquest, 1951, Proc. Biol. Soc. Wash. 64:106.

[= *Spermophilus spilosoma cabrerai* (Dalquest)]

HOLOTYPE: LSUMZ 4131; "10 kilometers north-north-east of Nuñez, San Luis Potosí, México." Adult female. Collected by Walter W. Dalquest on 5 July 1950. Original number WWD 14102. Specimen consists of skin and skull.

COMMENTS: The generic name *Spermophilus* has priority over *Citellus* (Hall, 1981:381). The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

Sciurus niger bachmani Lowery and Davis, 1942, Occas. Pap. Mus. Zool. Louisiana State Univ. (9):156.

HOLOTYPE: LSUMZ 1565; "10 mi. NW Enon, Washington Parish, Louisiana." Adult male. Collected by Ted O'Neil on 28 December 1939. Original number 48. Specimen consists of skin and skull.

COMMENTS: The specimen tag on the holotype indicates the type locality as "10 mi. N Enon." The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

Sciurus oculatus shawi Dalquest, 1950, Occas. Pap. Mus. Zool. Louisiana State Univ. (23):4.

HOLOTYPE: LSUMZ 2842; "Rancho San Francisco, 38 kilometers east-southeast of the City of San Luis Potosí, San Luis Potosí, México." Adult female. Collected by Charles Shaw on 30 March 1947. Original number M219. Specimen consists of skin and skull.

COMMENTS: The specimen tag on the holotype indicates that the type locality is in the "Alvarez region." The collection contains

additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

- Sciurus variegatoides loweryi* McPherson, 1971, Rev. Biol. Trop. 19(1,2):191.
HOLOTYPE: LSUMZ 10204; "1 rd mi S Paso Real, Río Escuadra, Province of Puntarenas, Costa Rica, at an altitude of 150 meters." Adult female. Collected by Keith A. Arnold on 28 July 1965. Original number KAA 2452. Specimen consists of skin and skull.
PARATYPE: LSUMZ 10202, ca. 1 km WNW Buenos Aires, Puntarenas Province, Costa Rica, 365 m elev., collected by K. A. Arnold on 20 May 1965.
COMMENTS: The specimen tag on the holotype indicates the date of collection as 25 July 1965.

- Tamias striatus pipilans* Lowery, 1943, Occas. Pap. Mus. Zool. Louisiana State Univ. (13):235.
HOLOTYPE: LSUMZ 1377; "5 mi. S Tunica, West Feliciana Parish, Louisiana." Adult male. Collected by George H. Lowery, Jr. on 13 September 1939. Original number GH 1069. Specimen consists of skin and skull.
COMMENTS: The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

CARNIVORA
FAMILY PROCYONIDAE

- Procyon lotor megalodous* Lowery, 1943, Occas. Pap. Mus. Zool. Louisiana State Univ. (13):225.
HOLOTYPE: LSUMZ 2321; "Marsh Island, Iberia Parish, Louisiana." Adult male. Collected by Ted O'Neil on 24 October 1943 and prepared by George H. Lowery, Jr. Original number GH 1152. Specimen consists of skin, skull, and baculum.
COMMENTS: Right forelimb, distal half of tail, and upper left PM 1 of holotype are missing. The collection contains additional specimens from the type series, but none of these was specified by LSUMZ number in the type description.

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THE OCCASIONAL PAPERS OF THE MUSEUM OF NATURAL SCIENCE (formerly THE MUSEUM OF ZOOLOGY), LOUISIANA STATE UNIVERSITY, begun in 1938, is intended for shorter papers dealing with any aspect of animal ecology, systematics, and zoogeography. All manuscripts are subject to critical review by the Museum's editorial staff and by no fewer than two extramural specialists. Final acceptance is at the discretion of the Museum Director, or his agent, who serves as Editor.

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