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SMALL RODENTS FROM PERU AND BOLIVIA

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SUMARIO

PEQUEÑOS ROEDORES DEL PERU Y BOLIVIA, POR COLIN CAMPBELL SANBORN.—Revisión de los pequeños roedores existentes en las colecciones del Chicago Natural History Museum y del American Museum of Natural History, pertenecientes a los géneros *Oryzomys*, *Neacomys*, *Hesperomys*, *Phyllotis* (*Auliscomys*), *Punomys*, *Andinomys*, *Chinchillula*, *Akodon*, *Oxymycterus* y *Lenexus*, con la descripción de dos subespecies nuevas: *Hesperomys lepidus montanus* y *Lenoxus apicalis boliviae*. El subgénero *Phyllotis*, muy numeroso en el Perú, no está incluido en el presente trabajo.

The Chicago Natural History Museum sent two expeditions to southern Peru in 1939-40 and 1941-42 to make general collections of mammals and in particular to visit the localities where Perry O. Simons collected in the first years of the century. Four papers based on material from these collections have already appeared. *

* Osgood, Wilfred H., A New Genus of Rodents from Perú, *Journ. Mamm.*, 24, pp. 369-371, 1943. Osgood, Wilfred H., Nine New South American Rodents, *Field Mus. Nat. Hist., Zool. Ser.*, 29, pp. 191-204, 1944. Sanborn, C. C., The South American Rodents of the Genus *Neotomys*, *Fieldiana, Zool.*, 31, pp. 51-57, 1947. Sanborn, C. C., Geographical Races of the Rodent *Akodon jelskii* Thomas, *Fieldiana, Zool.*, 31, pp. 133-142, 1947.

A small collection of mammals was made for the Museum in the Mount Sajama region of Bolivia in 1941 by Jose Steinbach. Of especial interest in this collection was a topotype of *Galenomys garleppi* Thomas.

In 1926 Dr. G. H. H. Tate of the American Museum of Natural History, New York, made a large collection of mammals in the mountains north and east of La Paz, Bolivia. Through Dr. Tate's generosity I have been permitted to examine and to include this material in this report on the Peruvian rodents.

The specimens representing the subgenus *Phyllotis*, of which there are many from Peru, are not included in this paper. More material and time will be required before these can be properly worked out.

Oryzomys stolzmanni stolzmanni Thomas

Oryzomys stolzmanni Thomas, Ann. Mag. Nat. Hist., (6), 14, p. 357, 1894.

PERU.—Puno: Limbani, 15 males, 9 females; Oconeque, 2 females; Santo Domingo, 1 male.

BOLIVIA.—Pongo, 5 males, 1 female; Cocopunco, 1 female; Okara, 1 male, 1 female; Pitiguaya, 1 male, 2 females; Noquejahuira, 2 males, 1 female; Rio Acaramarca, 2 males, 1 female.

Oryzomys keaysi J. A. Allen

Oryzomys keaysi J. A. Allen, Bull. Amer. Mus. Nat. Hist., 13, p. 225, 1900.

PERU.—Puno: Oconeque, 8,000 feet, 3 males; Segrario, 6,000 feet, 3 females; Santo Domingo Mine, 2 males, 2 females (topotypes). Cusco: Machu Picchu, 1 male.

BOLIVIA.—Nequejahuira, 8,000 feet, 11 males, 10 females (AMNH); Okara, 7,500 feet, 4 males, 2 females (AMNH); Cochabamba: Yungas del Palmar, 1; Chapare, 2 males, 1 female (CNHM).

Neacomys spinosus spinosus Thomas

Hesperomys (Calomys) spinosus Thomas, Proc. Zool. Soc., p. 105, 1882.

Neacomys spinosus Thomas, Ann. Mag. Nat. Hist., (7), 5, p. 153, 1900.

PERU.—Puno: Segrario, 1 female; Santo Domingo, 2 males.

Hesperomys callosus boliviae Thomas

Eligmodontia callosa boliviae Thomas, Ann. Mag. Nat. Hist., (7), 8, p. 253, 1901.

Hesperomys callosus boliviae Thomas, Ann. Mag. Nat. Hist., (8), 17, p. 141, 1916.

BOLIVIA.—Pitiquaya, 1 male, 2 females.

These specimens are subadult and are tentatively referred to this race, no topotypical material being available for comparison. The type locality is Rio Solocame (67° W. 16° S.), Bolivia and specimens are recorded from Yungas and Astillero.

Hesperomys lepidus lepidus Thomas

Hesperomys (Calomys) bimaculatus lepidus Thomas, Proc. Zool. Soc. London, p. 454, June 17, 1884. - Junin, Peru.

Eligmodontia lepida Thomas, Ann. Mag. Nat. Hist., (7), 6, p. 298, 1900.

Hesperomys lepidus Thomas, Ann. Mag. Nat. Hist., (8), 17, p. 141, 1916.

PERU.—Junin: Carhuamayo, 3 females.

These topotypes were caught under boulders forming the edges of small potato patches on the sides of a narrow canyon a little south of Carhuamayo.

Measurements.—Total length 139-149 mm.; tail 41-57; hind foot 18-20. Skull: greatest length 23-23.1; condylo-basal length 20.6-21.5; palatal length 10.9-12; interorbital width 3.6-3.9; zygomatic width 12.2-12.7; mastoid width 11-11; width of brain case 10.5-10.7; upper tooth row 3.4-3.8; width across molars 4.9-5.2.

***Hesperomys lepidus ducillus* Thomas**

Eligmodontia ducilla Thomas, Ann. Mag. Nat. Hist., (7), 7, p. 182, 1901 - San Anton, Puno, Peru.

Hesperomys ducilla Thomas, Ann. Mag. Nat. Hist., (8), 17, p. 141, 1916.

PERU.—Puno: Hacienda Posoconi (near type locality), 4 males, 1 female; Hacienda Picotani, 1 male; Chucuito, 1 female; Hacienda Collacachi, 5 males, 3 females; Santa Lucía, 1 male; Yunguyo, 1 male, 2 females; Huacullani, 2 males, 1 female. Arequipa: Salinas, 5 males; Sumbay, 1 female. Total 28.

Specimens taken in August to October are lighter in color than May specimens. Most of the above series are larger externally than the measurements given for the type, and those from Yunguyo very large.

Measurements.—Total length 113-140 mm.; tail 35-55; hind foot 17-19; ear 17-17.5. Skull (six adults): greatest length 21.1-23.7; condylo-basal length 19.5-21.5; palatal length 10.1-11.7; interorbital width 3.5-3.7; zygomatic width 11.4-13; mastoid width 10.4-11.1; width of brain case 10-11; upper tooth row 3.4-3.7; width across molars 4.5-5.1.

***Hesperomys lepidus montanus* subsp. nov.**

Type.—Amer. Mus. Nat. Hist., 72683, male sub-adult, skin and skull. El Cumbre, Bolivia. Altitude 15,200 feet. Collected February 12, 1926 by G. H. H. Tate. Original number 3638.

Diagnosis.—Similar in size to *H. l. ducilla* from Titicaca Lake region of southern Peru, but much darker. General color of back near Clove Brown, lighter on head and sides. A narrow line, close to Ochraceous Buff, extends from below the eye to the rump and separates color of upper parts from the dark grayish-white under parts. All hairs with long slaty bases. Skull as in *ducilla*.

Measurements.—Type: greatest length 127 mm.; tail 42; hind foot 18. Skull: greatest length 20.8; condylo-basal length 19.3; palatal length 10.2; zygomatic width 11.4; mastoid width 10.2; interorbital width 3.4; upper tooth row 3.7; width across molars 4.5.

Specimens examined.—Type and 7 topotypes. Compared with a large series of *Hesperomys lepidus ducilla* from southern Peru.

Remarks.—This dark race is closely related to *ducilla* on the north and on the south probably to *H. carillus* from northwest of Cochabamba, from which it differs by its darker color, shorter tail, and lack of a prominent post-auricular patch.

Phyllotis phaeus Osgood

Phyllotis phaeus Osgood, Field Mus. Nat. Hist., Zool. Ser., 29, p. 193, July 12, 1944.

PERU.—Puno: Limbani, 6 males (inc. Type), 2 females.

BOLIVIA.—Pongo, 22 males, 19 females; Alaska Mine, 3 males, 2 females; Rio Aceramarca, 1 male, 1 female. Total 56.

This large series from Bolivia agrees with the lighter color phase of this species, represented by three of the paratypes. The tails have less black on the underside and few show the faint black median line. There is no difference in size.

***Punomys lemminus* Osgood**

Punomys lemminus Osgood, Journ. Mamm., 24, p. 369, 1943.

PERU.—Puno: San Antonio de Esquilache, 1 male (type) (CNHM).

***Phyllotis (Auliscomys) pictus* Thomas**

Reithrodon pictus Thomas, Proc. Zool. Soc. London, p. 457, 1884 - Junin, Department of Junin, Peru.

E[uneomys] pictus Thomas, Ann. Mag. Nat. Hist., (7), 8, p. 254, 1901.

P[hyllotis (Auliscomys)] pictus Osgood, Field Mus. Nat. Hist., Zool. Ser., 10, p. 191, 1915.

Euneomys (Auliscomys) pictus Thomas, Proc. U. S. Nat. Mus., 58, p. 232, 1920.

Auliscomys pictus Thomas, Ann. Mag. Nat. Hist., (9), 17, p. 317, 1926.

Phyllotis [(Auliscomys)] pictus Ellerman, Fam. Gen. Liv. Rodents, p. 455, 1941.

Phyllotis (Auliscomys) decoloratus Osgood, Field Mus. Nat. Hist., 10, p. 191, 1915 - Tirapata, Department of Puno, Peru.

PERU.—Junin: Junin, 6 males, 4 females; Carhuamayo, 7 males, 2 females; Pachacayo, 1 female. Huancavelica; Lachocc, 2 males. Cusco: Ollantaytambo, 1 male, 1 female; Huaracundo, 1 female. Puno: Limbani, 1 male; Puerto Arturo, 2 males, 1 female; Picotani, 5 males, 5 females; Posoconi, 3 males, 9 females; Chiquito, 1 male; Collacachi, 6 males (1 skeleton), 1 female; Occomani, 1 male, 3 females; Santa Lucía, 1 male; Yunguyo, 3 males, 3 females; Huacullani, 1 male, 1 female. Arequipa: Cailloma, 12 males (1 alcohol, 1 skeleton), 9 females.

BOLIVIA.—Pongo, 1 female. Total 92.

A common semi-diurnal rodent of the highlands. It lives in the loose rock walls and under boulders. At Carhuamayo it was the only rodent caught in the walls in the lowest part of the valley while *Akodon jelskii*, *Phyl-*

lotis d. posticalis and *Eligmodontia lepidus* were all taken higher up on the sides of the valley.

It has a wide range from central Peru to northern Bolivia usually on the higher and dryer plateau but one specimen was taken at Limbani, a relatively wet locality.

This large series does not show the characters ascribed to *decoloratus* named at a time when but few specimens were available. The twelve specimens from Posoconi, which are practically topotypes of *decoloratus* do not differ in size or color from topotypes of *pictus* from Junin.

There is a great difference in size between adult individuals and very old ones with well worn teeth. There have been no measurements published, except for two specimens on which *decoloratus* was based, since 1884. The following measurements are of seven adults and very old individuals from Junin and Puno.

Measurements.—Total length 211-247 mm.; tail 86-118; hind foot 27-29. Skull: greatest length 29.6-32.9; condylo-basal length 27.6-31.8; palatal length 15.2-17.5; interorbital width 3.9-4.2; zygomatic width 16-18.8; mastoid width 13.2-15.5; width of brain case 12.8-14.5; upper tooth row 4.9-5.3; width across molars 6-7; width of nasals 4.4-4.9.

Phyllotis (Auliscomys) sublimis sublimis Thomas

Phyllotis sublimis Thomas, Ann. Mag. Nat. Hist., (7), 6, p. 467, 1900 - Rinconada Malo Paso, above Cailoma on the Sumbay Road, Department of Arequipa Peru, 18,000 feet.

PERU.—Arequipa: Salinas, 5 males, 3 females; Sumbay, 3 males, 4 females. Puno: Santa Lucía, 1 male; San Antonio de Esquilache, 1 male, 2 females; Huacullani, 4 males, 1 female; Yunguyo, 1 male. Total 25.

This mouse was fairly common at high altitudes in northern Puno but not found at localities north of Lake

Titicaca. It was taken under boulders and in rock walls. The specimens from Yunguyo and Huacullani are slightly darker than specimens from Cailloma, which are regarded as typical.

Measurements.—Maximum-minimum of all adults: total length 152-178 mm.; tail 50-62; hind foot 21-23; ear 21-23. Skull (six adults): greatest length 26.1-28.6; condylo-basal length 24.4-27.2; palatal length 13.8-15; interorbital width 3.9-4, zygomatic width 14.6-15.9; mastoid width 12.5-13.5; width of brain case 12-12.7; upper tooth row 4.4-5.3; width across molars 5.9-6.8; greatest width of nasals 3.6-4.1.

Phyllotis (*Auliscomys*) *sublimis leucurus* Thomas

Euneomys (Auliscomys) leucurus Thomas, *Ann. Mag. Nat. Hist.*, (9), 4, p. 265 (footnote), 1919.

Phyllotis (Auliscomys) leucurus Ellerman, *Fam. Gen. Living Rodents*, 2, p. 455, 1941.

BOLIVIA.—El Cumbre, 15,200 feet, 7 males, 4 females (AMNH)

This series is like *sublimis* in everything but color. The light brown or fawn of *sublimis* is replaced by dark brown above with a heavy admixture of black hairs. The under parts are slightly darker, not such a clear white. The skull is as in *sublimis*.

The type locality of *leucurus* is La Lagunita, Maimara, Jujuy, Argentina, which Thomas gave in 1913 (*Ann. Mag. Nat. Hist.*, (8), 11, p. 137) as "Cerro de Lagunita, E. of Maimara, 4,500 m." This is some 450 to 500 miles southeast of El Cumbre but in 1913, Thomas, writing on a collection from Jujuy, noted the similarity to the east Bolivian plateau fauna.

The description of *leucurus* is inadequate, the specimens being in alcohol but it comes so close to the Bolivian series that it seems best to refer it to *leucurus* which

it now appears should be considered a subspecies of *sublimis*.

***Phyllotis (Auliscomys) boliviensis* Waterhouse**

Hesperomys boliviensis Waterhouse, Proc. Zool. Soc. London, pp. 9-10, 1846 - "A few leagues south of Potosi", Bolivia.

P[hyllotis (Auliscomys)] boliviensis Osgood, Field Mus. Nat. Hist., Zool. Ser., 10, p. 191, 1915.

Euneomys (Auliscomys) boliviensis Thomas, Ann. Mag. Nat. Hist., (8), 17, p. 143, 1916.

BOLIVIA.—La Paz: Esperanza, 10 males, 12 females.

CHILE.—Tacna: Choquelimpie, 1 male, 6 females.

These specimens are not typical but agree more closely with the description of *boliviensis* than with that of *flavidior*. One hundred years ago the collector of the type, Thomas Bridges, said that the natives called the mouse "Achohalla", and Steinbach, who collected the series from Esperanza in 1941, gives the native name "Achulla" on the labels.

***Phyllotis (Auliscomys) boliviensis flavidior* Thomas**

Phyllotis boliviensis flavidior Thomas, Ann. Mag. Nat. Hist., (7), 10, p. 248, 1902 - Bateas, Cailloma, Department of Arequipa, Peru.

PERU.—Arequipa: Cailloma, 14,500 feet, 21 males (7 skeletons), 12 females (1 skeleton); Salinas, 14,100 feet, 1 female. Puno: San Antonio de Esquilache, 15,000 feet, 4 males, 6 females. Total 44.

To what degree this race differs from *boliviensis* can not be ascertained at this time as topotypical material from Bolivia is not available. These specimens show the yellow patches on the metatarsals not found in the Bolivian or Chilean series. The tails are lighter and tend to be more unicolor, but are no longer than in *boliviensis*.

This mouse was almost wholly diurnal, being seen about and always caught in the traps during the day but seldom at night. It was abundant both at Cailloma and San Antonio de Esquilache, regions of rugged, rocky mountains above 14,000 feet.

Measurements.—Total length 210-231 mm.; tail 90-100; hind foot 30-31; ear 26-30. Skull (four adults, teeth well worn or very worn): greatest length 31.6-32.6; condylo-basal length 30-30.8; palatal length 15.5-17; interorbital width 3.9-4.1; zygomatic width 17.8-19; mastoid width 15.5-16.3; width of brain case 13.9-14.5; upper tooth row 5.5-5.7; width across molars 7.2-7.7; greatest width of nasals 4.6-5.8.

***Andinomys edax edax* Thomas**

Andinomys edax Thomas, Proc. Zool. Soc. London, 1, p. 116, 1902.

PERU.—Puno: Yunguyo, altitude 13,000 feet, Prov. Chiquito, 4 males, 1 female.

The type locality is El Cabrado, between Potosi and Sucre, Central Bolivia. The species is known from southern Bolivia, Jujuy, Argentina and a race *lineicaudatus* from Tucuman, Argentina. The series from Yunguyo constitute the first record for Peru but the specimens are all too young to determine if they vary from typical *edax*.

***Chinchillula sahamae* Thomas**

Chinchillula sahamae Thomas, Ann. Mag. Nat. Hist., (7), 1, p. 280, 1898.

PERU.—Arequipa: Sumbay, 3 females; Cailloma, 10 males (1 alc.), 6 females (1 skeleton). Puno: Hacienda Collacachi, 2 males, 2 females; Puerto Arturo, 1 juv. female; Hacienda Posoconi, near Asillo, 2 females; Hacienda Picotani, 3 males, 6 females. Total 37.

The type was collected at Esperanza, a town about

50 kilometers from Mount Sahama, Bolivia. Thomas later recorded it from Cailloma, Department of Arequipa, Peru. Recently, Mann (Biologica, Fas. 2, p. 87, July, 1945) reported taking specimens near Parinacota, Province of Tarapaca, Chile. They were found in Peru between 13,000 and 15,000 feet, living in broken rock slides where there were runs and hollows under the rocks and boulders.

The only measurements that have been published are for the type, a subadult male. The following are from the four largest specimens in the series.

Total length 269-300 mm.; tail 99-118; hind foot 33.5-36; ear 35-38. Skull: greatest length 37.4-39.9; condylo-basal length 36.2-38.4; palatal length 20.6-21.7; interorbital width 4.7-5.3; zygomatic width 19.9-21.5; mastoid width 16.3-17.4; width of brain case 15.3-16.6; upper tooth row 6.3-7; width across molars 7.7-8.2; diastema 10.8-11.9; nasals 15.9×5.9 - 16.2×5.2 .

Akodon boliviensis boliviensis Meyen

Akodon boliviense Meyen, Nova Acta Acad. Leop.-Car., 16, p. 600, 1833.

PERU.—Puno: Huacullani, 8 males, 3 females; Yunguyo, 2 males, 8 females; Chucuito, 1 male, 1 female; Hac. Collacachi, 4 males, 2 females; Chuquibambilla, 2 males, 2 females. Cusco: Huaracõdo, 3 males, 2 females; Cusco, 2 males, 2 females; Hac. Urco, near Calca, 4 males, 5 females. Apurimac: Quebrada Matara, 1 male, 2 females. Total 54.

In the original description Meyen gave the type locality as the Indian village Pichupichun. This has been assumed by some authors to be on Mt. Pichu-Pichu, the mountain southeast of Mt. Misti above Arequipa in southern Peru. Meyen, however, crossed from Arica, Chile, to Lake Titicaca.

In 1941 special inquiry was made for a place called Pichu-Pichun while in Huacullani. I was told that it was now a small hacienda near Huacullani which I passed later on the way to Pisacoma. In the Diccionario Geografico del Peru, by German Stiglich, published in 1922,

it is described as Pishu-pichuni, (the sh a probable error for ch as it is lited with the ch's and is the only sh) a hacienda in the Province of Chucuito, District of Huacullani, Department of Puno. Habitants 267. All the evidence points to this being the exact type locality, and specimens from Huacullani are to be considered topotypical.

Dr. Osgood has discussed these in the Field Mus. Nat. Hist., Zool. Ser., 29, p. 196, 1944.

Akodon boliviensis subfuscus Osgood

Akodon boliviensis subfuscus Osgood, Field Mus Nat. Hist., Zool. Ser., 29, p. 195, 1944 - Limbani, Department of Puno, Peru.

PERU.—Puno: Limbani, 6 males, 8 females.

BOLIVIA.—Cochabamba: Yungas del Palmar, 2 females (CNHM); Alaska mine, 2 males, 1 female (AMNH); Rio Aceramarca 1 male, 2 females (AMNH).

They agree in all characters with the series from Limbani.

Akodon (Bolomys) amoenus Thomas

Akodon amoenus Thomas, Ann. Mag. Nat. Hist., (7), 6, p. 468, 1900.

PERU.—Puno: Hacienda Collacachi, Prov. and District of Puno, 13,500 feet, 2 males, 6 females.

The type came from the Rio Colca, near Sumbay, Department of Arequipa and Thomas has recorded specimens from Azangaro and San Anton, Department of Puno, and farther north from Huaracundo, Department of Cusco.

The present series appears to be a little darker than the color given in the original description. The skull of the type was described as much damaged, which probably explains why the strongly pro-odont incisors were not mentioned.

Measurements.—5 specimens. Total length 155-170 mm.; tail 61-68; hind foot 21-22. Skull: greatest length 23.3-25.1; condylo-basal length 22.7-24.0; palatal length 12-12.5; interorbital width 4.1-4.6; zygomatic width 13.1-14.3; mastoid width 11-11.7; width of brain case 10.6-11.7; upper tooth row 3.9-4.3; across molars 4.9-5.1; length of palatine slits 5.4-5.8.

Akodon (Bolomys) berlepschii Thomas

Akodon Berlepschii Thomas, *Ann. Mag. Nat. Hist.*, (7), 1, p. 281, 1898.

PERU.—Puno: Yunguyo, altitude 13,000 feet, Prov. Chuquito, 1 female; Huacullani, 2 males, 1 female.

BOLIVIA.—La Paz: Esperanza, Prov. Pacajes, 1 female; Est. Pérez, Prov. Pacajes, 1 female. Oruro: Mount Sahama region, Prov. Carangas, 1 male, 2 females (CNHM).

The Bolivian series may be considered to be topotypes, Esperanza being the type locality. The Peruvian specimens are slightly lighter above than the Bolivian. The skull of *berlepschii* differs from that of *amoenus* by its lesser zygomatic width and by its incisors not being pro-odont.

The measurements of the Bolivian series are: total length 150-175 mm.; tail 60-80; hind foot 20. Skull: greatest length 22.9-25.6; condylo-basal length 21.5-24.3; palatal length 10.8-12; interorbital breadth 4.4-4.7; zygomatic width 11.9-13.1; mastoid width 11.4-12.3; width of brain case 11-11.4; upper tooth row 3.8-4; across molars 5.3-5.5; palatine slits 5.4-6.

Akodon aerosus aerosus Thomas

Akodon aerosus Thomas, *Ann. Mag. Nat. Hist.*, (8), 11, p. 406, 1913 - Mirador, Baños, Ecuador.

Akodon aerosus baliolus Osgood, *Field Mus. Nat. Hist.*, 10, p. 192, 1915 - Inca Mines, Inambari River, Peru.

ECUADOR.—Oriente, Río Pindo, 3 males, 2 females; Río Bonazo, Montalvo, 1 male, 1 female.

PERU.—San Martín: Moyobamba, 4 males, 4 females; Rioja, 1 male, 2 females. Huánuco: Hac. San Antonio, Río Chinchao, 8 males, 8 females; Hac. Buena Vista, Río Chinchao, 7 males, 6 females; Hac. Exito, Río Cayumba, 6 males, 3 females; Tingo María, Río Huallaga, 1 male, 3 females; Pozuzo, Río Pachitea, 2 males, 1 female. Puno: Oconeque, 6 males, 2 females; Segrario, 2 males, 1 female; Santo Domingo, 4 males, 7 females.

BOLIVIA.—Cochabamba: Chapare, 1 male, 3 females; Pitiguaya, 5,800 feet, 9 males (AMNH); Nequejahuira, 8,000 feet, 1 male, 8 females (AMNH); Okara, 7,500 feet, 3 males, 5 females (AMNH); Ticunhuaya, 4,800 feet, 1 male, 3 females (AMNH).

Also recorded by J. A. Allen as *A. caliginosus* from Santo Domingo. Thomas listed specimens as *aerosus* without comment from Yurac Yacu, San Martín, Perú and from Tingo María, Huánuco, Perú. One specimen from Callanga, Cusco, Perú, he referred to *baliolus*.

The type locality, Mount Mirador, is on the Río Pindo, and the five Río Pindo specimens may be considered to be topotypical. The color is given in the original description as "General colour above dark bistrebrown, little paler below. Ears, hands, feet, and tail blackish brown". The race *baliolus* was described as "General color above blackish bister or mummy brown, the rump rather more blackish than the anterior parts". It was compared with a series from Moyobamba, northern Peru. Since then much more material has become available for examination.

The color in this series varies from one locality to the next. As Tate has suggested (Bull. Amer. Mus. Nat. Hist., 76, p. 187, 1939), "The factor controlling the degree of color saturation probably is humidity rather than altitude".

Specimens from Río Pindo, Ecuador and Tingo María, east central Peru are Light Seal Brown (Ridgway 1912) above and Clove Brown below. Three others from Montalvo, Ecuador, Santo Domingo, southern Peru, and Chapare, Bolivia are Mummy Brown above and Dusky Neutral Gray below. Two from San Antonio, east central Peru and Santo Domingo, southeast Peru are Seal

Brown above and Fuscous below. Another color phase is shown in specimens from Moyobamba, northern Peru, Oconeque, southeast Peru, and Okara, northeast Bolivia, which are between Mummy Brown and Bone Brown above and between Buffy and Olive Brown below. It is clear that this species can not be divided into subspecies on the basis of color.

Akodon (*Abrothrix*) *mimus* Thomas

Oxymycterus mimus Thomas, Ann. Mag. Nat. Hist., (7), 7, p. 183, 1901.

Microxus mimus Thomas, Ann. Mag. Nat. Hist., (8), 4, p. 237, 1909.

Akodon (Abrothrix) mimus Osgood, Field Mus. Nat. Hist., Zool. Ser., 30, pp. 195-196, 1943.

BOLIVIA.—Pongo, 12,000 feet, 1 male, 6 females; Río Acera-marca, 4 males, 5 females; Cocopunco, 10 males, 5 females (all AMNH).

The type locality, Limbani, Peru, was visited twice and while other rodents were plentiful, this species was not collected. The Bolivian series agrees well with the original description but the breadth of the brain case does not reach 13 mm. as given for the type.

***Oxymycterus paramensis nigrifrons* Osgood**

Oxymycterus paramensis nigrifrons Osgood, Field Mus. Nat. Hist., 29, p. 197, July 12, 1944 - Limbani, Department of Puno, Peru.

PERU.—Puno: Limbani, 17 males (1 skel., 1 alc.), 5 females.

BOLIVIA.—Nequejahuira, 2 males, 3 females; Río Acaramarca, 4 males, 6 females; Cocopunco, 1 male; Okara, 1 female; Tacacoma, 1 male, Total 35.

***Lenoxus apicalis apicalis* J. A. Allen**

Oxymycterus apicalis J. A. Allen, Bull. Amer. Mus.

Nat. Hist., 13, p. 224, 1900 - Santo Domingo Mine, Puno, Peru.

Lenoxus apicalis Thomas, Ann. Mag. Nat. Hist., (8), 4, p. 236, 1909.

PERU.—Puno: Santo Domingo Mine, 6,000 feet, 1 male, 2 females.

***Lenoxus apicalis boliviae* subsp. nov.**

Type.—Amer. Mus. Nat. Hist., 72623, female adult, skin and skull. Nequejahuira, Unduavi River, Bolivia. Altitude 8,000 feet. Collected by G. H. H. Tate, May 21, 1926. Original number 4151.

Diagnosis.—Externally like typical *apicalis* but dark grayish white below instead of brownish gray. Skull in general like that of *apicalis* but anterior border of zygomatic plate less arched and so slightly narrower, and with interpterygoid region wider.

Measurements.—Total length 309 mm.; tail 157; hind foot 34. Skull: greatest length 36.6; condylo-basal length 32.5; palatal length 17.6; zygomatic breadth 17.1; mastoid breadth 14.7; interorbital width 7.7; length of nasals 16.5; upper tooth row 5.5; width across molars 7.5; greatest interpterygoid width 2.9.

Specimens examined.—Type and 22 topotypes; Okara, Bolivia 4. All A. M. N. H.

6 topotypes of *L. apicalis* (3 C.N.H.M., 3 A.M.N.H.).

Remarks.—Nequejahuira and Okara are localities with less rainfall and are not so heavily forested as the type locality of *apicalis*, Santo Domingo Mine (Inca Mines) above the Inambari River, Department of Puno, Peru.

In skulls of some very old individuals of *boliviae*, the incisors are marked by a broad but shallow groove, a character that has not been noticed before. This does not appear in *apicalis*.