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# XVI.—On small mammals collected by Sr. E. Budin in North-western Patagonia

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belonged to a very different group—the Opisthomi (cf. Regan \*)—and I think that Chaudhuria may be characterized simply as a Mastacembelus without spines and without rostral appendage. In other characters—form, scaling, structure and position of fins, nostrils, mouth, lips, dentition, gillopenings, branchiostegal rays, etc.—there seems to be no difference between the two genera. The few details given of the skeleton of the head of Chaudhuria are applicable to Mastacembelus, allowance being made for the præmaxillary, with the attached maxillary, being described by Dr. Annandale as the maxillary only. The peculiarities of the vertebræ, to which Dr. Annandale has called attention, are found in Mastacembelus also.

Dr. Annandale informs me that he has no time at present to make a further investigation in order to test the validity of my opinion as to the systematic position of *Chaudhuria*, and, as no specimens are available for examination in this country, it seems worth while to publish this note.

# XVI.—On small Mammals collected by Sr. E. Budin in North-western Patagonia. By OLDFIELD THOMAS.

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SENOR E. BUDIN, the collector of the Chumbicha mammals described in the last number of the 'Annals' †, helped by the kindness of Dr. O'Connor, Mr. Charles Lockwood, and the authorities of the Argentine Southern Land Company of Buenos Ayres, has also been enabled to make a collectingtrip to Lake Nahuel Huapi, in the mountainous part of North-western Patagonia, and to two other places in the same region, Pilcañeu on the Upper Rio Negro (41° S., 71° W.) and Maiten on the Upper Chubut (42° S., 71° W.).

At each of these places he made a collection of small mammals, mostly Muridæ and tuco-tucos, and all prove to be of the greatest interest.

Of the twenty forms obtained I have found it necessary to describe nine as new, while he has also collected an animal the *Reithrodon longicaudatus* of Philippi—which proves to represent a very distinct new genus, quite unlike anything previously known to me.

\* Regan, "The Osteology of the Teleostean Fishes of the Order Opisthomi," Ann. & Mag. Nat. Hist. (8) ix. 1912, pp. 217-219.

† *Suprà*, p. 115.

In addition, his material of the short-tailed mole-like burrowing rats has greatly advanced our knowledge of these interesting and little-known animals, which now prove to belong to two distinct genera, of which, again, one needs description as new.

Our thanks are due to the kind friends who gave Sr. Budin help and hospitality, and to Sr. Budin himself for the keen and successful manner in which he has carried out the mission entrusted to him.

#### 1. Lasiurus borealis, Müll.

#### 9. 60, 66. Beatriz, Nahuel Huapi. 800 m.

#### 2. Oryzomys magellanicus mizurus, Thos.

3. 195, 197, 200, 212, 215; 9. 175, 191, 192, 196, 198, 199, 220. Maiten, Upper Chubut R. 700 m.

(?) J. 58, 102, 105, 113, 118, 119. Beatriz, Nahuel Huapi. 800 m.

"The most common species at Maiten. Called 'Coludo.'" -E. B.

#### 3. Reithrodon cuniculoides, Waterh.

#### 9.173. Maiten. 700 m.

Being a single specimen only I am not able to satisfy myself as to what subspecies of R. cuniculoides this should be referred to. All the forms that have been named in this difficult group are distinguished by somewhat intangible and more or less variable characters.

# 4. Phyllotis xanthopygus, Waterh.

J. 128, 129, 132, 133, 134, 136, 147, 148, 151, 153;
Q. 130, 131, 137, 138, 140, 146, 149. Pilcañeu. 1400 m.

In these specimens the buffy wash on the under surface is far more marked than would be supposed from either Waterhouse's or Allen's description. But the type—no. 55.12.24.185 —shows clearly the same general buffy tone to the hairs of the belly, none of them being really tipped with white.

"Caught among the cactus-plants."—E. B.

# 5. Irenomys longicaudatus, Phil.

J (imm.). 73. Beatriz, Nahuel Huapi. 800 m.

This most interesting specimen represents the re-discovery of Fhilippi's *Reithrodon longicaudatus*, whose identity has ong been a mystery. It proves, as might be expected, to belong to an undescribed genus, which may be called

# IRENOMYS\*, gen. nov.

General facies as in *Oryzomys*. Upper incisors grooved. Molars hypsodont, laminate, the laminæ lozenge-shaped in section.

Genotype. I. longicaudatus (Reithrodon longicaudatus, Phil.<sup>+</sup>).

The skull, judging by an immature example, is on the whole not unlike that of *Phyllotis*, and presents no very special peculiarities. The interparietal is of full size. The zygomatic plate is of average breadth, but little projected forward, not undercut. Palatine foramina long, penetrating between the molars. The internal pterygoids, however, are unusually thickened, flattened, and turned outwards above, though this may be partly due to immaturity. Bullæ of medium size.

Upper incisors with a sharply defined groove.

Molars very peculiar, hypsodont, laminate, with three laminæ to  $m^1$ , two to  $m^2$  and  $m^3$ , and the same numbers in the three molars below. The laminæ of the upper teeth are very much as if the re-entrant angles of each side in the teeth of *Phyllotis* penetrated further into the teeth, so as to cut connection between the dentine spaces of each lamina, while still leaving the laminæ lozenge-shaped and just touching each other at these median points. As a result, the shape in section of the laminæ in a young animal is almost precisely similar to that in the African elephant, as viewed vertically, though of course the spaces between the lamina are not filled up with cement. Such teeth as these would in old age wear down to a sufficient approximation to Philippi's figure to render it certain that the two animals are congeneric.

This new genus is undoubtedly quite distinct from any previously recognized, and it is not easy to be certain as to its relationship to others. Probably it is most nearly allied to *Phyllotis*, of which it may be looked upon as a relative with grooved incisors and simplified molars. But, in any case, the difference is very considerable, and the study of adult specimens may cause some modification of this opinion.

Sr. Budin noticed that the single specimen was distinct from the ordinary *Oryzomys*, to which it has so marked a resemblance, and did all in his power to get further examples, but without success.

"Caught among the roots of fallen trees, like all the other species of the Beatriz peninsula."—E. B.

\* So named as a memento that its recognition coincided with the arrival of a glorious peace.

† An. Mus. Nat. Chile, pt. 14, "Muridæ of Chile," p. 64 (1900).

#### 6. Euneomys micropus alsus, subsp. n.

3. 171, 177, 183, 188, 201, 202. Maiten, W. Chubut. 700 m.

Similar in all essentials to true E. micropus, as represented by series from Koslowsky (lat. 46° S.) and Rio Chico, but almost or quite without the strong buffy suffusion on the fur, the general tone being more slaty greyish. Under surface also clearer greyish, with but little buffy wash.

Dimensions of the type (measured in the flesh) :--

Head and body 123 mm.; tail 117; hind foot 27; ear 18.

Skull: greatest length 31.3; condylo-incisive length 28.7; zygomatic breadth 18; palatal foramina 7.8; upper molar series 5.7.

Hab. as above.

*Type.* Adult male. B.M. no. 18. 12. 2. 13. Original number 177. Collected 23rd April, 1918.

The series with which these specimens have been compared includes specimens killed in February, June, August, and December, so that the difference in the general colour is evidently not a seasonal one.

I may note here that my reference of Mus (Phyllotis) xanthopygus, Waterhouse, to the genus Euneomys—a reference probably induced by the noticeable resemblance it bears to E. micropus—now proves to be erroneous, as it is certainly a Phyllotis, the most southern member of that widely distributed genus. Its narrow incisors readily distinguish it from E. micropus, with which it is found.

The local modification in colour shown by this subspecies is exactly as in the *Abrothrix suffusus* of the same region.

#### 7. Eligmodontia morgani, All.

3. 142, 159, 165, 166; 2. 125, 154, 157, 160, 161, 163, 164. Pilcañeu, Upper Rio Negro.

"Common. Lives in holes at the foot of the bushes."-E. B.

# 8. Abrothrix suffusus modestior, subsp. n.

J. 176, 182, 193, 203, 204, 211, 214, 217; 9. 172. Maiten.

Like typical suffusus of the Koslowsky region, but rather darker and more slaty grey, the reddish or buffy of the back reduced both in extent and brightness. Face almost without buffy. Sides quite without buffy, so that there is a broad greyish slaty band, dividing the subdued buffy area of the back from the greyish white of the belly, while in *suffusus* the same lateral region is buffy brownish in continuation with the back. Ears with a fairly well-marked greyish-white spot at their notch and on the base of the metentote. Under surface clear greyish white, quite as in *suffusus*. Feet white. Tail definitely bicolor, blackish above, whitish below, as in *suffusus*.

Skull as in suffusus.

Dimensions of the type :--

Head and body 97 mm.; tail 68; hind foot 23.5; ear 17. Skull: greatest length 29; condylo-incisive length 25.8; zygomatic breadth 14.2; interorbital breadth 4.8; breadth of brain-case 13; palatal foramina 6.6; upper molar series 4.1.

Hab. as above.

Type. Adult male. B.M. no. 18. 12. 2. 22. Original number 204. Collected 2nd May, 1918.

This form, by its more subdued colour as compared with true suffusus, forms a step towards the following subspecies.

#### 9. Abrothrix suffusus mærens, subsp. n.

δ. 62, 70, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 89, 90,93, 97, 99, 101, 107, 112, 115, 116; \$\$. 65, 67, 68, 69, 74,86, 104, 106, 110, 117.Beatriz, Nahuel Huapi.800 m.

Much darker than true *suffusus* or the previous subspecies, the back dark brown almost without buffy, and the bellywhich is practically white in *suffusus* and *modestior*—"deep dull grey," very much as in the Chilian *longipilis*. Ears almost without greyish patches at their bases. Hands and feet grey, near "pale neutral grey." Tail averaging a little shorter than in the other forms, and less markedly bicolor, blackish above, greyish below.

Skull as in suffusus.

Dimensions of the type :---

Head and body 110 mm.; tail 72; hind foot 22.5; ear 16.

Skull: greatest length 29; condylo-incisive length 26; zygomatic breadth 14; interorbital breadth 5; breadth of brain-case 12.4; palatal foraina 6.6; upper molar series 4.2.

Hab. as above.

Type. Old female. B.M. no. 19. 1. 1. 22. Original number 104. Collected 25th February, 1918.

This form of *Abrothrix*, from the lake-region of Nahuel Huapi, is, so far as colour is concerned, much more distinct from *A. suffusus* than is that of Maiten, and I have hesitated as to whether it ought not to be distinguished specifically. Besides its generally dark colour, its greyish belly, grey feet, and scarcely bicolor tail all help to distinguish it. But its skull is so precisely like that of *suffusus* and *modestior* that it evidently represents them in a more saturate area, and for the present, therefore, I retain it in connection with them. Perhaps, also, hereafter these forms will link up with the *A. hirtus* of San Rafael, Mendoza, still further to the northward.

To the list of the species belonging to *Abrothrix*, besides those mentioned in my paper on the grouping of the Akodont Muridæ\*, there should be added *Mus brachyotis*, Waterh., from the Chonos Archipelago.

All these forms of *Abrothrix* from the eastern slope of the Andes are readily distinguishable from *A. longipilis* of Chili by their far smaller skull.

"Trapped among the roots of fallen trees."—E. B.

#### 10. Akodon beatus, sp. n.

3. 61, 85, 87, 91, 100, 103, 108, 109; 2. 59, 63. Beatriz, Nahuel Huapi. 800 m.

A rather large species of the arenicola group.

Size decidedly greater than in *arenicola* of Uruguay and Buenos Ayres, the hind foot averaging  $1\frac{1}{2}$  or 2 mm. longer. Fur close and woolly. General colour above dark olivaceous, under surface greyish white (near "light neutral grey"), the hairs slaty at base, white or whitish terminally, practically without the drabby or buffy wash generally found in *arenicola*; as a consequence, the upper and under surfaces are more contrasted with each other than in the common species. Ears coloured like head. Hands silvery white, a little darkening on the metacarpus. Feet brownish, the digits lighter. Tail as usual longer than in the *xanthorhinuscanescens* group, rather prominently bicolor, blackish above, darkening terminally, whitish below.

Skull larger than that of *arenicola*, with large rounded brain-case and proportionally narrow interorbital region. Palatal foramina not extending so far back, their hinder edge hardly reaching the level of the middle of the second lamina of  $m^{1}$ .

Incisors of about normal set, the angle 69° in the type. Notch at front end of  $m^1$  not perceptible in any specimen, the youngest being, perhaps, three-fourths grown.

\* Ann. & Mag. Nat. Hist. (8) xviii. p. 340 (1916).

Dimensions of the type :---

Head and body 87 mm.; tail 79; hind foot 22; ear 15.

Skull: greatest length 25.7; condylo-incisive length 23; zygomatic breadth 12.6; nasals 9.8; interorbital breadth 4.1; breadth of brain-case 12; palatilar length 10; palatal foramina 6; post-foraminal palate 3.2; upper molar series 3.7. Hab. as above.

Type. Young adult male. B.M. no. 19. 1. 1. 34. Original number 108. Collected 26th February, 1918.

This appears to be the most southern of the widely spread olivaceus-arenicola group, which ranges from here northwards to Ecuador, and the members of which are the most common field-mice in almost every locality, taking the place in nature of our common voles. The other species obtained by Sr. Budin are of the more southern *xanthorhinus-canescens* group, distinguished among other things by the much shorter tail.

# [Akodon iniscatus, sp. n.

Size and proportions as in *A. xanthorhinus*, but skull more bowed and thickly built, with shorter muzzle. First molar with a deep and distinct anterior notch, which only wears off in old age. A white patch on the chin.

Colour of typical race coarsely lined brown, near Ridgway's "buffy brown."

Dimensions of the type :---

Head and body 92 mm.; tail 53; hind foot 19; ear 11.

Skull: greatest length 23.7; condylo-incisive length 21.7; zygomatic breadth 12.4; interorbital breadth 4; breadth of brain-case 11; palatal foramina 5.4; upper molar series 3.5.

Hab. Southern Buenos Ayres Province southwards into Patagonia. Type from the Valle de Lago Blanco, Koslowsky region, Patagonia, 46° S. Other specimens from Peru Station, N.W. of Bahia Blanca, Chubut, and Port Desire, besides the Budin examples referred to below.

Type. Adult female. B.M. no. 3. 7. 9. 64. Original number XXX. Collected 26th April, 1900, by J. Koslowsky. Ten specimens examined.

Our knowledge of the small Akodons of Patagonia has been in a very confused condition, though an improvement was made by Dr. Allen, who corrected certain mistakes that had been made in the labelling of the Darwin specimens, on which their nomenclature hangs. He rightly fixed on B.M. no. 55. 12. 24. 157 as the primary type of A. canescens, Waterh., and 55. 12. 24. 156 of A. xanthorhinus, Waterh. these specimens therefore, whatever other co-types were mixed up with them, being able to be taken as lectotypes of their respective names.

Now over most of the area concerned we seem to have two quite distinct forms of Akodon—A, with a short, normalshaped, rather bowed skull, on whose  $m^1$  a very distinct and fairly persistent anterior median notch is present, an animal externally lined greyish brown, with a contrasted white chinspot, and B, with a flattened long-nosed skull, the  $m^1$  practically without a notch, this only being perceptible in an aborted form in specimens with quite unworn teeth. Externally this animal is greyish or yellowish, with the feet more distinctly yellow, and the chin-spot not contrasted.

Returning to the type-specimens, it is quite clear, as shown by their skulls and teeth, that both 55. 12. 24. 156 and 157belong to B, and that therefore A is without a name. Young and supplementary specimens obtained by Darwin on the Rio Negro and at Port Dosire are referable to A, but these do not affect the determinations, and I propose to give to the latter form the name of A. *iniscatus*. A local form of it, obtained by Sr. Budin, I now describe.]

## 11. Akodon iniscatus collinus, subsp. n.

J. 205, 208, 209, 210; Q. 206, 207, 218. Maiten, W. Chubut. 700 m.

A more blackish race of A. iniscatus. A full description is given here instead of to the typical iniscatus, as quite fresh specimens are available of it, while those of that animal are less perfect.

Size small, about as in *xanthorhinus* and *canescens*, the tail short as in those southern species, not as in the *arenicola* group. General colour above dark grizzled olivaceous brown (more greyish olivaceous and less brown than Ridgway's "olive-brown"), the hairs ticked with black and dull buffy; sides rather more buffy. Under surface soiled greyish buffy, the hairs dark slaty at base, their ends drabby or buffy—a patch in the inguinal region more definitely buffy. Chin, or rather interramia, with a conspicuous patch of wholly white hairs, contrasting markedly with the general dark colour. Ears short, their proectote blackish, their metentote buffy. Hands and feet brownish white. Tail short, well haired, strongly bicolor, black along the top, whitish or buffy whitish on sides and below.

Skull rather bowed above, its surface smooth and unridged. Interorbital edges square, not ridged. Palatal foramina long, reaching to the level of the second internal re-entrant notch of  $m^{1}$ .

Incisors about normal, their angle in the type  $72^{\circ}$ . Molars larger than in *xanthorhinus*;  $m^1$  with an unusually wellmarked anterior median notch.

Dimensions of the type :---

Head and body 85 mm.; tail 56; hind foot 18; ear 12.

Skull: greatest length 24.5; condylo-incisive length 22; zygomatic breadth 12.6; nasals 9; interorbital breadth 4; breadth of brain-case 11.3; palatilar length 10; palatal foramina 5.8; postforaminal palate 3.6; upper molar series 4.0.

Hab. as above.

Type. Young adult female. B.M. no. 18. 12. 2. 31. Original number 206. Collected 4th May, 1918.

"Caught among furze-bushes ('retamos')."-E. B.

#### 12. Akodon canescens, Waterh.

S. 124, 127, 135, 145, 156, 158, 168, 169, 170; \$. 121,
122, 141, 143, 167. Pilcañeu, Upper Rio Negro. 1400 m.
\$. 216, 221. Maiten, W. Chubut. 700 m.

Although I provisionally use canescens for these greyish mice of the "B" group—since they correspond with the type of that name,—I strongly suspect that they are merely the grey seasonal phase of the yellowish xanthorhinus, the latter name having priority. But, though not inconsiderable, our material does not suffice to settle the question with certainty, and until such certainty is arrived at it is better not to assume so great a seasonal change as the absolute identification of canescens with xanthorhinus involves. A somewhat similar change is recorded by Dr. Allen, though his remarks are difficult to utilize fully, owing to a doubt as to how far specimens referable to A. iniscatus are included in what he calls canescens.

#### 13. Chelemys vestitus, Thos.

**2.** 72. Beatriz, Nahuel Huapi.

This single specimen is young, and therefore does not furnish any information as to the relationship of *Ch. vestitus* to the more northern *Ch. macronyx* of San Rafael, Mendoza.

#### 14. Geoxus (gen. nov.) valdivianus, Phil.

3. 92, 94, 98, 114; 2. 88, 94, 95, 96. Beatriz, Nahuel Huapi. 800 m.

These specimens agree sufficiently closely with Philippi's figure and description of *Oxymycterus valdivianus* to render it fairly certain on geographical grounds that they should be referred to that animal. The question of its generic name is dealt with below.

"Live among the roots of fallen trees. Make burrows in the earth like tuco-tucos."—E. B.

# 15. Geoxus fossor, sp. n.

3. 178, 194. Maiten, W. Chubut. 700 m.

"Found under bushes ('retamos'), where they make holes with small hillocks over them, just like tuco-tucos. The similar mice from Nahuel Huapi do not make such hillocks." -E. B.

The six long-clawed Murines placed under these two headings have enabled me to make a fresh examination of the relationship they bear to my *Notiomys edwardsi*, to the genus *Oxymycterus*, and to the far southern species that have been referred to the latter.

I have to confess that Dr. Allen's assertion that his Oxymycterus microtis (to which these specimens are closely allied) had nothing to do with Notiomys proves to be entirely correct, my supposition to the contrary being wrong. Thanks to the kindness of Prof. Trouessart, I have been privileged to re-examine the type-skull of Notiomys edwardsi, and so am able to base my opinion on a firm foundation.

Of pertinent specimens we had previously only the two examples, adult and young, from Koslowsky mentioned in 1903\*, which, without sufficient reason, I assumed to be both of the same species. The young one (whose skull was crushed) being certainly *Notiomys*, and the other closely agreeing with "Oxymycterus" microtis, Allen, the generic identity of the two seemed to follow.

But study of the present valuable accession shows that the two Koslowsky animals are really different—the young one being *Notiomys edwardsi*, Thos., and the adult the species described by Dr. Allen.

On comparing now the good skulls of the mole-like animals related to "Oxymycterus" microtis in Sr. Budin's collection with the type-skull of Notiomys, I can confirm all that Dr. Allen † has said as to their essential distinctness. In the former the skull is long and narrow, with long muzzle, smooth

† Mamm. S. Pat. pp. 81-85, illustrated by figures of skulls, pl. ix. (1905).

<sup>\*</sup> Ann. & Mag. Nat. Hist. (7) xii. p. 243 (1903).

brain-case, and rounded interorbital region. In Notiomys, on the other hand, the skull is short and broad, with short conical muzzle, very broad and square-edged interorbital region, and strongly built brain-case. Both have equally the remarkably small molars, by which they may be distinguished from any other known forms.

Nearly related to Allen's Oxymycterus microtis are two earlier-described species—Hesperomys (Acodon) michaelseni, Matschie, and Oxymycterus valdivianus, Philippi—and my present material includes specimens referable to the latter, as well as the 1903 example of microtis.

But I cannot agree that these forms should be put actually into *Oxymycterus*, and now propose to make of them a new genus, which may be described as follows :---

#### GEOXUS, gen. nov.

Allied to Oxymycterus, but form more highly modified for burrowing, with velvety fur and very short tail.

Skull with no trace of squared edges to the interorbital space. Zygomatic plate narrow, more vertical than in *Oxymycterus*, its front edge scarcely projecting.

Incisors more slender and molars proportionally very much smaller than in the allied genus. The latter character also present in *Notiomys*.

Genotype. Notoxus fossor, sp. n. (This selection is made to avoid any complications due to wrong identification of the other forms known—though I have really no doubt about any of them.)

Other species : . michaelseni, Matsch., valdivianus, Phil., and microtis, All.

The excellent description and figures given by Dr. Allen of *N. microtis* will readily show the characters of this new genus. Matschie has also given figures of *N. michaelseni*.

With regard to the species *N. fossor*, it may be defined as follows :---

Essential characters as in *N. microtis*, but the fur even more thick and velvety and the general colour dark smoky greyish ("deep mouse-grey"), with none or scarcely any of the yellowish or drabby ticking which is described by Allen and is markedly present in our Koslowsky specimen of *microtis*. Under surface rather lighter grey, with a slight drabby suffusion; the hairs all broadly slaty at base, grey terminally, those on the chin alone greyish white to their bases.

Skull, as in N. microtis, with the palatal foramina only

just reaching the level of the front edge of  $m^1$ , while in N. valdivianus they extend to the level of the back of the first lamina of that tooth.

Dimensions of the type (measured in the flesh) :---

Head and body 104 mm.; tail 44; hind foot 20; ear 12.

Skull: greatest length 28; condylo-incisive length 25.5; zygomatic breadth 13.7; nasals 10; interorbital breadth 5.2; breadth of brain-case 12.8; palatilar length 11.4; palatal foramina 6; postforaminal palate 4.1; upper molar series 3.5. *Hab.* as above.

Type. Old male. B.M. no. 18. 12. 2. 37. Original number 194. Collected 30th April, 1918.

This series of the long-clawed mole-like Murines of the south is perhaps the most interesting part of Sr. Budin's collection, and forms a very valuable accession to the National Museum.

# 16. Ctenomys haigi, sp. n.

♂. 179, 180, 181, 184, 189; ♀. 174, 185, 186, 187, 190. Maiten, W. Chubut. 700 m.

Allied to C. colburni, All., but smaller, with smaller bullæ.

Size medium. Fur soft, fine and silky, hairs of back about 11-12 mm. in length. General colour of upper surface finely ticked greyish brown, near "drab," without median darker marking on rump or crown, the top of the nose only dark brown. Sides clearer grey, and the lower flanks rather abruptly and prominently buffy ("light buff") in continuation with the buffy wash on the hairs of the under surface. Forearms also prominently pale buffy both externally and internally; hind feet dull whitish. Tail grey on sides, blackish above and terminally below, but this, as usual, is variable in extent.

Skull, as compared with that of *C. colburni* as figured by Allen \*, similar in shape, but smaller and with decidedly smaller bullæ, which do not project backwards beyond the level of the supraoccipital. Interparietal quite united with parietals in all the specimens, the line of junction generally marked by some discoloration. Bullæ of average size, markedly less swollen than those figured in the male *C. colburni*.

Dimensions of the type:--

Head and body 165 mm.; tail 70; hind foot 28.

Skull: greatest length in middle line 40.2; condyloincisive length 38.7; zygomatic breadth 23.5; nasals 14.7;

\* Mamm. S. Pat. pl. viii, fig. 4.

interorbital breadth 7.1; least breadth across brain-case 16.5; meatal breadth 24.5; breadth across bullæ exclusive of meatus 22.5; palatilar length 16.5; horizontal diagonal length of bullæ 15.2; upper molar series, crowns 8.2, alveoli 9.

Hab. as above.

Type. Adult male. B.M. no. 18. 12. 2. 39. Original number 180. Collected 24th April, 1918.

This species differs from *C. colburni* by its smaller size, less swollen bullæ, and less fulvous coloration.

Named in honour of General Sir Douglas Haig, Commander-in-Chief of the British armies.

#### 17. Ctenomys haigi lentulus, subsp. n.

J. 144, 155, 162; Q. 152. Pilcañeu, Upper Rio Negro. 1400 m.

Like true *haigi*, but the general colour browner and less grey-ticked, the dull patch on the muzzle more inclined to extend up on to the crown, the lower flanks more greyish brown, without the strongly marked buffy wash contrasting with the dorsal colour which is found in every specimen of *haigi*, and with the forearms also brownish, not buffy.

Dimensions of the type :---

Head and body 155 mm.; tail 70; hind foot 30; ear 6.

Skull: greatest median length 40; condylo-incisive length 38.5; zygomatic breadth 23.5; nasals 15; interorbital breadth 7.7; meatal breadth 25; breadth across bullæ (exclusive of meatus) 25; upper molar series, crowns 8, alveoli 8.8.

Hab. as above.

Type. Adult male. B.M. no. 18. 12. 1. 23. Original number 162. Collected 4th April, 1918.

Most readily distinguished from the Maiten tuco-tuco by the absence of the light buffy wash on flanks and forearms.

# 18. Galea negrensis, sp. n.

Q. 139. Pilcañeu, Upper Rio Negro. 1400 m. Collected 23rd March, 1918. B.M. no. 18. 12. 1. 25. Type.

General external characters of *G. boliviensis*. Uolour of back mixed blackish and buffy. Under surface whitish, the belly-hairs broadly slaty basally, but with completely white areas in the axillary and inguinal regions. Eyelids whitish as usual, and a buffy-whitish patch at the base of the procedute of the ear. Fore limbs with their whole inner and upper surfaces buffy white; hands more strongly buffy. Inner side of hind limbs also whitish; the feet dull buffy.

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Skull, as compared with specimens from Cordova taken provisionally to represent G. *leucoblephara*, more heavily built, though with narrower interorbital region. Palatal foramina short. Mesopterygoid fossa broadly rounded anteriorly, the palatine level with the main inner re-entrant angle on  $m^3$ . In the Cordova specimens the fossa is continued further forward, and is narrowly pointed anteriorly. Bullæ comparatively small, scarcely larger than in the otherwise much smaller G. b. *littoralis*.

Dimensions of the type :---

Head and body 215 mm.; hind foot 38; ear 24.

Skull: greatest length 55; condylo-incisive length 48.5; zygomatic breadth 32; nasals 20; interorbital breadth 9.5; palatilar length 25; palatal foramina 4.2; greatest horizontal diameter of bulla 14; upper molar series 12.

Hab. and type as above.

The present is the furthest southern record for the genus Galea, the next northwards being that of G. boliviensis littoralis from Bahia Blanca. The present animal is larger than littoralis, and its more widely open choanæ distinguish it from leucoblephara. It has smaller bullæ than the still more northern forms of Bolivia.

19. Caviella australis, Geoff. & d'Orb.

 $\Im$ . 126, 143. Pilcañeu. 1400 m. "Caught among burrows out on the fields."—*E. B.* 

#### 20. Dromiciops australis, Phil.

3. 71; 2. 111. Beatriz, Nahuel Huapi. 800 m.

The type-locality of Philippi's *Didelphys australis* appears to have been in the neighbourhood of Union, Valdivia, some 150 kilometres north-west of Nahuel Huapi, on the Chilian side of the Cordilleras. But, as already mentioned, the mountains in this region do not form an unbroken barrier, and Nahuel Huapi itself makes a gap in them, so that the identity of Sr. Budin's specimens with Philippi's species is quite natural.

Of this genus the Museum previously possessed the type of *Dromiciops gliroides* from Chiloe and an individual from Temuco presented in 1908 by Mr. R. M. Middleton.

"I was much pleased to obtain this striking little animal, which seems to be very rare. It was, like other things, caught among the roots of fallen trees."—E. B.

A nost acceptable addition to the Museum collections.