No. IV. of Part II.] [*Completion of* "*MAMMALIA.*"] [Price 10*s.*

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THE VOYAGE OF H.M.S. BEAGLE,

UNDER THE COMMAND OF CAPTAIN FITZROY, R.N.,

DURING THE YEARS

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CHARLES DARWIN, ESQ. M.A., F.R.S., Sec. G.S.

NATURALIST TO THE EXPEDITION.

MAMMALIA,

BY

GEORGE R. WATERHOUSE, ESQ.

CURATOR OF THE ZOOLOGICAL SOCIETY OF LONDON, ETC. ETC.

WITH A NOTICE OF THEIR HABITS AND RANGES,

BY CHARLES DARWIN, ESQ.

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X. *Sept.*

STEWART AND MURRAY, OLD BAILEY.

inner side are yellow at the apex and gray at the base; on the outer side they are of a brownish colour, and on the fore part blackish. The hairs of the moustaches are short and slender, and of a brownish colour. The head is large.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	4	3	Length of tarsus (claws included) . .	0	10
of tail	2	9	of ear	0	4½
from nose to ear . . .	1	0			

Habitat, Maldonado, La Plata, (*June.*)

This species is rather larger than the common mouse; its head is proportionately larger, the ears are smaller, the tail considerably shorter, and the fur longer, and in colouring it is a little darker. In size and colour it resembles *M. Magellanicus*, but the shorter tail and tarsi, and the smaller size of the ears will serve to distinguish it.

The skull of *Mus arenicola*, Plate 34. fig. 7, *a*, is rather larger than that of *Mus Musculus*, the nasal portion is broader, the interparietal bone is much smaller, especially in antero-posterior extent; the zygomatic arches are more slender, and the incisive foramina are broader. The horizontal ramus of the lower jaw (Pl. 34. fig. 7, *d.*) is rather less curved, the coronoid process is more elongated, and the condyloid is narrower and also larger. The length of the skull is 11 lines and a half; the width is 6½ lines. The molars of the upper jaw are figured in plate 34 fig. 7, *b.* and those of the under jaw, fig. 7, *c*.

"This specimen was caught on the open grassy plain, by a trap baited with a piece of bird; it is, however, very abundant in the sand hillocks near the coast of the Plata."—D.

13. Mus brachiotis.

Plate XIV.

Mus brachiotis, *Waterh.*, Proceedings of the Zoological Society of London for February 1837, p. 17.

M. suprà obscurè fuscus, subtùs obscurè griseo tinctus; pedibus griseo-fuscis; auribus parvulis; caudâ quoad longitudinem, corpus ferè æquante: vellere longo et molli.

Description.—Fur soft, very long, and dense; ears very small; general colour brown: the hairs of the upper parts, and sides of the head and body are of

a deep gray at the base, black at the apex, and narrowly annulated with deep yellow near the apex; on the throat and belly they are of a paler gray at the base, and grayish white at the apex. The ears are well clothed with brown hairs both within and without, and are for the most part hidden by the long fur of the head. The hairs covering the upper side of the feet are of a palish ashy-brown colour, and the fleshy portion appears to have been brown. The tail is well clothed with hairs, so that the scales are scarcely visible; on the upper side of the tail the hairs are brownish-black, and on the under side, they are dirty white. The incisors are very slender; those of the upper jaw are of a very pale yellow colour, and those of the lower are white, or nearly so. The muzzle is slender, and pointed.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	4	9	Length of tarsus (claws included) . .	0	11
of tail	2	8	of ear	0	3
from nose to base of ears . .	1	2			

Habitat, Chonos Archipelago, (*December.*)

This mouse is considerably larger than *Mus Musculus*, and the great length and density of its fur, causes it to appear much stouter in its proportions; its colouring is darker, the tips of the hairs being much more narrowly annulated with yellow than in that species. The very small size of the ears will serve to distinguish the present animal from its congeners—*Mus longipilis*, *M. Renggeri*, *M. arenicola*, &c.

The molar teeth of the upper jaw are figured in Plate 34. fig. 8, *a*; and fig. 8, *b*, represents the middle and last molars of the lower jaw.

"Inhabited a very small island, covered with thick forest, in the central part of the Chonos Archipelago."—D.

A mouse obtained on the islets adjoining the east coast of Chiloe (where Mr. Darwin says it was common) differs from the above in being a little smaller, the tail is rather longer, and the ears are a trifle larger. In the feet, claws, colouring and character of the fur it agrees, and likewise in the pale colour and slenderness of the incisors. Its dimensions are as follows:—

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	4	0	Length from nose to ear . . .	0	$10\frac{1}{2}$
of tail	3	0	of ear	0	4
of tarsus (claws included) . .	0	10			

I have not the means of satisfying myself whether this be a distinct species or not; but I think it is not.

"The nature of the country where this specimen was procured is nearly the same as in that part of the Chonos Archipelago, 150 miles to the south, where the first was obtained." D.

14. Mus Renggeri.

Plate XV.—Fig. 1.

Mus olivaceus, *Waterh.*, Proceedings of the Zoological Society of London, for February 1838, p. 16.

M. corpore suprà subolivaceo, subtùs cinerescente; auribus mediocribus, rotundatis, pilis parvulis fuscescentibus obsitis; caudâ corpore breviore, pilosâ, suprà fuscâ subtùs albescente; pedibus pilis fuscescentibus tectis.

Description.—Fur moderate; ears moderate; tail shorter than the body; general colour gray washed with yellow; under parts grayish white. On the upper parts and sides of the head and body the hairs are gray, broadly annulated with yellow near the apex, and dusky at the apex; the mixture producing a yellowish gray tint, approaching somewhat towards olive:—the hairs on the under parts of the body and throat are deep gray at the base, and white at the apex; the hairs of the feet are brownish white. The tail is tolerably well clothed with hairs; those on the upper surface are brown, and those on the under are dirty white. The ears are well clothed, both externally and internally, with hairs of the same colour as those on the upper parts of the body. The hairs of the moustaches are for the most part whitish, and black at the base. The upper incisors are pale yellow, and the lower incisors are yellowish white.

	In.	Lines.		In.	Lines.
Length from nose to the root of tail	5	1	Length of tarsus (claws included)	0	11
of tail	2	8	of ear	0	5
from nose to base of ears	1	2			

Habitat, Valparaiso (*August and September,*) Coquimbo (*May.*)

Subsequent to the description of this species, under the name of *M. olivaceus* in the Zoological Society's Proceedings, I have imagined that perhaps that name might mislead as regards the colouring of the animal;—it certainly has a slight olive hue, but it is not very evident. I have therefore changed the name, and substituted that of the author of the "Naturgeschichte der Säugethiere von Paraguay," &c.

In the collection there are three specimens of the present species; in one of these the hairs of the upper part and sides of the body are annulated with yellowish white, instead of yellow; hence the general hue of these parts is nearly gray.

Mus Renggeri is larger than *Mus Musculus*, and much stouter in its proportions; the fur is shorter, much less dense, and less soft than in *Mus brachiotis*.

"It inhabits dry stony places, where only a few thickets grow."—D.

15. Mus obscurus.

Plate XV.—Fig. 2.

Mus obscurus, *Waterh.*, Proceedings of the Zoological Society of London for February 1837, p. 16.

M. suprà fusco-nigrescens, subtùs flavescens; pedibus obscurè fuscis; unguibus longiusculis; auribus mediocribus; caudâ corpore breviore, suprà nigrescente, subtùs sordidè albâ; vellere mediocri, molli.

Description.—Head large; ears moderate; tail shorter than the body; fur rather long and glossy; the general hue of that of the upper parts and sides of the head and body is blackish brown, and that of the under parts is dirty yellowish white. The hairs on the upper parts are of a deep lead colour at the base, black at the apex, and narrowly annulated with dark yellow near the apex; those of the throat and belly are lead colour at the base and yellowish at the tip; the chin is white: around the eye, and on the lower part of the cheeks a deep yellow tint prevails. The ears are well clothed with hairs both externally and internally, and these are for the most part of a deep brown colour, as are also the hairs which cover the feet. The tail is well clothed with hairs, those on the upper surface are black, and those on the under are dirty white. Both upper and lower incisors are yellow, but the lower are paler than the upper.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	5	3	Length of tarsus (claws included) . .	0	11½
of tail	2	7	of ear	0	4
from nose to ears . . .	1	2½			

Habitat, Maldonado, La Plata, *(June.)*

The present species, like the foregoing, is much stouter than the common

mouse (*Mus Musculus*), its colour is much darker. In possessing a glossy fur it differs from most of its congeners; its head is also proportionately larger, and the incisors are much stronger.

The molars of the upper jaw are figured in plate 34, fig. 9, *a*,—and fig. 9, *b*, represents those of the under jaw.

"Very abundant in gardens and hedges, far from houses; and was easily caught in traps baited either with cheese or meat."—D.

16. Mus xanthorhinus.

Plate XVII.—Fig. 1.

Mus xanthorhinus, *Waterh.*, Proceedings of the Zoological Society of London, for January 1837, p. 17.

M. suprà fuscus flavo lavatus; subtùs albus; rhinario flavo; auribus parvulis, intùs pilis flavis obsitis; mystacibus longis, canis, ad basin nigrescentibus: caudâ corpore breviore, suprà fuscâ, ad latera flavescente, subtùs sordidè albâ: pedibus anticis, tarsisque flavis, digitis albis: vellere longo, molli.

Description.—Fur moderately long and loose; ears rather small; tail shorter than the body; general colour gray washed with yellow, the yellow colour prevailing, especially on the sides of the body; muzzle, inner side of ears, and tarsus, of a rich yellow colour; toes, chin, throat, under parts of body, and rump, white; all the fur deep gray at the base; the hairs on the upper parts and sides of the body broadly annulated near the apex with rich yellow, and at the apex dusky; on the under parts of the body the hairs are broadly tipped with white. Tail rather sparingly furnished with hair, that on the upper surface brown, on the sides yellow, and on the under surface whitish. The hairs of the moustaches are white—some of them dusky at the base. The incisor teeth are rather slender, and of a pale yellow colour.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	3	6	Length of tarsus (claws included) . .	0	9
of tail	1	$7\frac{1}{2}$	of ear	0	$3\frac{3}{4}$
from nose to ear . . .	0	10			

Habitat, Hardy Peninsula, Tierra del Fuego, (*February.*)

The white, which is usually confined to the under parts of the body, in this

species extends slightly on the sides of the body, and the lower portion of the cheeks.

"This species was caught on the mountains, thickly covered with peat, of Hardy Peninsula, which forms the extreme southern point of Tierra del Fuego."—D.

17. Mus canescens.

Mus canescens, *Waterh.*, Proceedings of the Zoological Society of London for February, 1837, p. 17.

M. suprà canescens, subtùs albus; oculis flavido cinctis; auribus parvulis, pilis pallidè flavis et plumbeis obsitis; mystacibus mediocribus, canis, ad basin nigricantibus; caudâ vix corpore breviore, suprà fusco-nigrâ, subtùs sordidè albâ; pedibus anticis tarsisque flavescentibus.

Description.—Fur moderately long and loose; ears small; tail nearly equal to the body in length: general colour gray, with a wash of very pale yellow; chin, throat, and under parts of the body, white. Tail tolerably well clothed with hairs, those on the upper surface brown, and those on the under, whitish; on the sides are some yellowish hairs. Ears with yellow hairs on the inner side; tarsi pale yellow, toes white; muzzle and around the eye yellowish.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	3	6*	Length of tarsus (claws included) . .	0	9½
of tail	2	1	of ear	0	4
from nose to ear . . .	1	1			

Habitat, Santa Cruz and Port Desire, (*December.*)

"Very common in long dry grass in the valleys of Port Desire."—D.

The skull is figured in Plate 33, fig. 5, *c*. Fig. 5, *a*. represents the molars of the upper jaw; fig. 5, *b*. those of the under jaw, and fig. 5, *d*. represents the posterior molar of the under jaw when more worn.

It was with some hesitation that I described this as a distinct species in the Society's Proceedings. I have now re-examined the specimens, and still am

* The dimensions given in the Proceedings of the Zoological Society were taken from a younger specimen than those here described, and there is an error in the length of the tail there given, which should be 1—10 instead of 2—10.

unable to satisfy myself whether they are varieties of *Mus xanthorhinus* or not. Both of *Mus canescens* and of *Mus xanthorhinus*, I have before me what I imagine to be an adult and a young specimen. The adult and the young of *M. xanthorhinus* agree in being of a *yellowish-brown* colour, and in having the muzzle and tarsi deep yellow; both specimens of *Mus canescens* are of a *gray* colour, with an indistinct yellow wash, the muzzle and tarsi being tinted with yellow, as in *M. xanthorhinus*. Besides this difference in tint, which, perhaps, is unimportant, *M. canescens* differs from *M. xanthorhinus* in having the head larger, the tail rather longer, and the fur less soft. The specimens of this animal are both from Patagonia; one of the specimens of *Mus xanthorhinus* was brought by Mr. Darwin from Terra del Fuego; and as the other formed part of Captain King's collection, it in all probability came from the same locality. As I only possess one skull, I cannot speak with certainty as regards the size of the head; the difference, however, in the stuffed specimens is considerable, and it is strange that each of the pairs should agree so perfectly, supposing the difference to be the work of the stuffer's hands.

18. Mus longipilis.

Plate XVI.

Mus longipilis, *Waterh.*, Proceedings of the Zoological Society of London for February 1837, p. 16.

M. suprà obscurè griseus, flavo lavatus; subtùs griseus; pedibus fuscis, unguibus longiusculis; auribus mediocribus; caudâ corpore breviore, suprà nigrescente, subtùs fuscescente; rhinario sub-producto: vellere longissimo, molli.

Description.—Fur very soft and silky, and extremely long—the ordinary fur of the back measuring nearly three quarters of an inch, and the longer hairs one inch in length; ears moderate; tail nearly as long as the body; muzzle much pointed; general colour gray, washed with yellow, the under parts pale gray, or grayish white; feet brown; ears and tail well clothed; the hairs on the inner side of the ears are chiefly of a yellow colour, those on the upper surface of the tail are brown black, those on the under part are dirty white; the hairs of the back are deep gray at the base, broadly annulated with yellow near the apex, and dusky at the apex; the longer hairs are grayish black; the hairs of the moustaches are dusky at the base, and whitish beyond that part; the claws are long, and but slightly curved; the

incisors are slender; those on the upper jaw are yellow, and those of the under yellow-white.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	5	4	Length of tarsus (claws included) . .	1	$0\frac{1}{2}$
of tail	3	4	of ear	0	$6\frac{1}{2}$
from nose to ear . . .	1	2			

Habitat, Coquimbo, Chile, (*May.*)

This mouse is remarkable for the great length and softness of its fur, even among the species here described, most of which have very loose, long and soft fur.

The molars of the upper jaw are figured in Plate 33, fig. 6, *b*.—molars of the lower jaw, fig. 6, *a*.

"Inhabits dry stony places, which character of country is general in this part of Chile."—D.

19. Mus nasutus.

Plate XVII.—Fig. 2.

Mus nasutus, *Waterh.*, Proceedings of the Zoological Society of London for February 1837, p. 16.

M. suprà obscurè flavescenti-fuscus, ad latera fulvescens; subtùs obscurè fulvo tinctus: pedibus pilis obscurè fuscis tectis; unguibus longis; auribus mediocribus; caudâ corpore breviore, suprà fuscâ, subtùs sordidè albâ: rhinario producto.

Description.—Muzzle very long and pointed, ears small, tail shorter than the body, claws long and but slightly arched; inner, rudimentary toe of the fore foot furnished with a pointed claw; fur moderate, and slightly glossy: general colour yellowish brown, of the sides of the body yellow, of the under parts pale yellow; the chin, throat and chest whitish: feet brown; ears well clothed with hairs, those on the inner side are most of them yellow, but some are black. All the fur is of a deep lead colour at the base; the hairs on the upper parts and sides of the head and body are broadly annulated with deep golden yellow near the apex, and blackish at the apex; on the upper parts long brownish black hairs are thickly interspersed with the ordinary fur, but on the side of the body they are less numerous, hence on this part

the yellow tint prevails; on the under parts of the body the hairs are broadly tipped with pale yellow, and in parts with white: the tail is but sparingly clothed with hairs, those on the upper surface are of a dark brown colour, and those on the under are pale brown. The incisors are very slender and of a very pale yellow colour.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	5	2	Length of tarsus (claws included) . .	1	0½
of tail	2	8	of ear	0	5
from nose to ear . . .	1	3			

Habitat, Maldonado, La Plata, (*June.*)

The specific name *nasutus* has been applied to this mouse on account of its elongated and slender muzzle*, the tip of which extends nearly 4 lines beyond the upper pair of incisors: the rudimentary toe of the fore foot, instead of having the usual rounded nail, has a short pointed claw. Its fur is not so soft, nor yet so long as in many of the preceding species, and there is a greater admixture of yellow in its colouring. The claws appear to be adapted to burrowing.

The skull (which is not quite perfect) is figured in Plate 33, fig. 7, *a*, its length is 1 in. 3 lines. Fig. 7, *b*, represents the molars of the upper jaw, and fig. 7, *c*, those of the under jaw. The lower jaw, which is of a very slender and elongated form, is figured in Plate 34, fig. 10, *a*.

"Was caught in a small thicket on an open grassy plain, by a trap baited with a piece of bird. This mouse when alive possesses a marked character in the extreme acumination of its nose."—D.

20. Mus tumidus.

Plate XVIII.

Mus tumidus, *Waterh.*, Proceedings of the Zoological Society of London for February 1837, p. 15.

M. brunneus, nigro lavatus; rostro ad apicem, labiis, mento, guld, pectore, abdomineque albis; naso suprà nigrescente; auribus mediocribus rotundatis; corpore crasso; caudâ capite corporeque breviore, pilis nigricantibus, subtùs albescentibus prope basin, vestitâ; artubus pedibusque grisescentibus; vellere longo, molli; unguibus longis.

Description.—Body stout; head large; tail nearly as long as the head and body;

* In *Mus longipilis* and *M. brachiotis* may be perceived an approach to this elongated form of the muzzle.

inner toe of the fore foot with a distinct, pointed claw; claws rather large, those of the fore feet but slightly arched. Fur rather long, and moderately soft; general tint of the upper parts of the body, brown, of the sides of the head and body, grayish, but with a yellow wash; the lower part of the sides of the body and of the cheeks, the tip of the muzzle, and the whole of the under parts, white; feet dirty white; ears densely clothed with short hairs, those on the inner side chiefly of an ashy-brown colour, and those on the outer side dusky; the hairs of the back are of a deep lead colour at the base, black at the tip, and annulated with yellow near the tip; the longer hairs, which are thickly interspersed, are totally black; on the under parts of the body the hairs are gray at the base, and broadly tipped with white; the upper surface of the muzzle is blackish; the moustaches are black; the incisors are yellow.

	In.	Lines.		In.	Lines.
Length from nose to the root of tail .	6	9	Length of tarsus (claws included) . .	1	6
of tail	5	4	of ear	0	7
from nose to ears . . .	1	8			

Habitat, Maldonado, La Plata (*June.*)

This species is about the size of *Mus Rattus*, but is stouter in its proportions; as in *Mus nasutus*, the thumb is furnished with a pointed claw. The molars of the lower jaw are figured in Plate 34, fig. 11, *a*.

"This rat was caught in so wet a place amongst the flags bordering a lake, that it must certainly be partly aquatic in its habits."—D.

21. Mus Braziliensis.

Plate XIX.

Rat du Brézil, *Geoff.*

M. suprà fuscus fulvo lavatus; lateribus capitis corporisque æquè ac abdomine auratis; gulâ pectoreque albis; pedibus pilis sordidè flavis tectis; auribus parvulis; caudâ caput corpusque ferè æquante; vellere longo, molli.

Description.—Head somewhat arched, and rather short; ears small; tail about equal in length to the head and body, measured in a straight line; tarsi large. Fur long, and rather soft; general colour deep golden yellow: on the upper surface of the head and the back, long glossy black hairs are thickly interspersed, and produce, with the admixture of the deep golden

colour of the ordinary fur, a dark brown tint; chin, throat, chest, and rump, white; the hairs covering the upper surface of the feet are of a dirty yellowish-white colour, and on the toes nearly white: ears densely clothed with longish hairs, those on the inner side chiefly of a deep golden colour, and those on the outer side brownish; the ears are partially hidden by the long fur of the head; tail sparingly clothed with hairs, above brown, and beneath brownish-white: the fur of the back is of a deep gray colour at the base, annulated with deep golden yellow near the apex, and blackish at the apex; the longer hairs are black; the hairs of the belly are pale gray at the base, and broadly tipped with golden yellow colour; the white hairs on the throat, chest, and rump are of an uniform colour—not tinted with gray at the root;—the hairs of the moustaches are black: the incisors of the upper jaw are of a deep orange colour, and those of the lower jaw are yellow: the thumb nail is truncated.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	8	6	Length of tarsus	2	0
of tail	7	9	of ear	0	6½
from nose to ear . . .	1	8			

Habitat, Bahia Blanca, (*September*.)

This species is nearly equal in size to the common rat (*Mus decumanus*). Of its skull * I possess but the anterior portion (see Pl. 33. fig. 3, *a*. and 3, *b*.): it appears to have been about the same size as that of *M. decumanus*, its proportions, however, are different: the nasal portion is broader and shorter, the ant-orbital outlet is rather smaller; the plate, forming the anterior root of the zygomatic arch, and which protects this outlet, has its anterior edge distinctly emarginated, and not nearly straight as in *M. decumanus*,—the zygomatic arch is stouter, the space between the orbits is narrower, the palate is more contracted, the incisors are much broader, less deep from front to back, and have the anterior surface more convex; the molar teeth are larger; the lower jaw (see Plate 34. fig. 12, *a*.) when compared with that of *Mus decumanus* also offers many points of dissimilarity; the principal differences consist in its greater strength, the comparatively large size and breadth of the articular surface of the condyles, the upright position of the coronoid process—a perpendicular line dropt from the apex of which would touch the posterior part of the last molar—and the great

* I am sorry to say the artist has not drawn this skull with his usual fidelity, a circumstance which I did not perceive until it was too late to make any alteration: it is too large, and the incisors are represented as projecting forwards too much; they are in the original so nearly at right angles with the upper surface of the skull that but a very small portion of them is seen, when it is viewed, as represented at fig. 3, *a*.

extent of the *symphysis menti*. In the form of the incisors, the more contracted palate, the great extent of the *symphysis menti*, and in fact in most of the points of dissimilarity, between the skull of the present animal and that of *Mus decumanus*, here pointed out, it will be perceived, there is an approach made to the *Arvicolidæ*.

The dimensions of the skull (so far as an imperfect specimen will allow of their being taken) are as follows:—

	In	Lines.
Distance between front of incisors, (upper jaw) and the first molar tooth	0	8
Longitudinal extent of the three molars on either side, taken together	0	$4\frac{1}{2}$
Length of nasal bones	0	$7\frac{1}{2}$
—— of incisive *foramina*	0	$4\frac{1}{2}$
Width between orbits	0	$2\frac{3}{4}$
Length of *ramus* of lower jaw	1	$1\frac{1}{2}$

Fig. 3, *c*, Plate 33, represents the molar teeth of the upper jaw. Fig. 3, *d*, those of the upper jaw.

"This rat was caught at Bahia Blanca where the plains of Patagonia begin to blend into the more fertile region of the Pampas. It lived in holes amongst the tussocks of rushes, on the borders of a small, still, brook; in its manner of diving and aquatic habits it closely resembled the English water-rat, (*Arvicola amphibia.*)"—D.

When at Paris I examined what I believe to be the original *Mus Braziliensis*, since the specimen was labelled "*Rat de Brazil St. Hilaire*, 1818." It agrees perfectly with the present animal excepting in being rather smaller, the length from the nose to the tail being 7 inches and 4 lines—the length of the tail is 7 inches 9 lines, and that of the tarsus is 1 inch 11 lines; this difference in the length of the body may arise from difference of age, or even of sex. In the Paris Museum I saw what appeared to me to be a variety of the same species in which the under parts of the body are white.

I have been minute in my description of the *Mus Braziliensis*, since it is confounded by Desmarest, Fischer and Lesson with the *Rat troisieme* or *Rat Angouya* of Azara, which I believe to be a very different animal. The description given by the authors just mentioned are taken from Azara, who gives the following characters to distinguish the Rat Angouya: "Du museau à la queue, et sur les côtés du corps tout est brun-cannelle, parceque les poils ont une petite pointe cannelle; puis, ils sont obscurs et enfin blanc vers las peau. Toute la partie inférieure de l'animal est blanchâtre, plus claire sous la tête, et plus foncée entre les jambes de devant; le pelage est doux, très-serré, et le poil, qui est à la racine de l'oreille, cache le conduit de celle-ci."

	In.	Lines.		In.	Lines.
Length from nose to root of tail (English measure)	6	0	Length of ears	0	$9\frac{3}{4}$
of tail	6	$6\frac{1}{2}$	of tarsus (the claws included)	1	$3\frac{1}{4}$

It appears from this description that the *Mus Angouya* is a smaller animal, and differs both in colouring and proportions from the *Mus Braziliensis*. Brandt has figured and described a rat under the name of *Mus Angouya*, which in many respects agrees better with Azara's description; there are, however, discrepancies in the dimensions.

22. Mus micropus.

Plate XX.

Mus micropus, *Waterh.*, Proceedings of the Zoological Society of London for February 1837, p. 17.

M. suprà fuscus; subtùs cinerescenti-albus, pallidè flavo tinctus; pedibus pilis sordidè albis tectis, antipedibus parvulis; auribus parvulis; caudâ, quoad longitudinem, corpus ferè æquante, suprà fuscâ, subtùs sordidè albâ.

Description.—Form stout, ears rather small, tail nearly equal to the body in length, fur very long and moderately soft, general colour of the upper parts of head and body, brown; of the sides of the body grayish, faintly washed with yellow, of the under parts grayish white, faintly tinted with yellow; hair covering the upper surface of the feet dirty white; on the tarsus there is a very slight yellow tint; ears well clothed with hairs, those on the inner side chiefly of a yellow colour; tail above, dusky brown; beneath dirty white: hairs of moustaches black at the base and grayish at the apex; incisors pale yellow: hairs of the back deep gray at the base, annulated with brownish yellow near the apex, and dusky at the apex; longer hairs dusky black; hairs of the belly deep gray at the base and broadly tipped with yellowish white.

	In.	Lines.		In.	Lines.
Length from nose to root of tail	6	0	Length of tarsus (claws included)	1	$0\frac{3}{4}$
of tail	3	8	of ear	0	6
from nose to ear	1	4			

Habitat, Santa Cruz, Patagonia, (*April.*)

The molars of the upper jaw are figured in Plate 34, fig. 13, *a*, and those of the lower jaw, fig. 13, *b*.

"Caught in the interior plains of Patagonia in lat. 50°, near the banks of the Santa Cruz."—D.

23. Mus griseo-flavus.

Plate XXI.

Mus griseo-flavus, *Waterh.*, Proceedings of the Zoological Society of London for February 1837, p. 28.

M. suprà griseus flavo-lavatus, ad latera flavus, subtùs albus ; pedibus albis ; auribus magnis et ferè nudis ; caudâ caput corpusque ferè æquante, suprà fusco-nigricante, subtùs albâ ; vellere longo, molli.

Description.—Ears large; tail rather shorter than the head and body taken together; tarsi slender, and moderately long; fur long and very soft; general tint of the upper parts of head and body grayish, washed with brownish yellow; on the sides of the body a palish yellow tint prevails; feet, chin, throat, and under parts of body pure white; tail rather sparingly clothed with hairs, those on the apical portion rather long, and forming a slight pencil at the tip; on the upper side and at the tip of the tail the hairs are brown, on the under side they are dirty white; the ears are very sparingly clothed with minute brownish yellow hairs internally; externally, on the fore part, the hairs are rather longer and of a brown colour; the upper incisors are orange, and the lower incisors are yellow; the hairs of the moustaches are long, and of a black colour; the hairs of the back are deep gray at the base, brownish at the tip, and annulated with pale brownish yellow near the tip; the longer hairs are brown; the hairs of the belly are white externally, and gray at the base; on the throat the hairs are white to the root.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	6	8	Length of tarsus (claws included) .	1	$2\frac{1}{4}$
of tail	5	6	of ear	0	8
from nose to ear . . .	1	$4\frac{1}{2}$			

Habitat, Northern Patagonia (*August.*)

The molars of the upper jaw are figured in Plate 34, fig. 15, *a*, and those of the lower jaw, fig. 15, *b*.

"Inhabits the dry gravelly plain, bordering the Rio Negro."—D.

24. Mus xanthopygus.

Plate XXII.

Mus xanthopygus, *Waterh.*, Proceedings of the Zoological Society of London for February 1837, p. 28.

M. suprà pallidè brunneus flavo-lavatus, ad latera flavescens, subtùs albus ; capite griscescente ; natibus flavis ; pedibus albis ; auribus majusculis pilis, albis et flavis intermixtis obsitis ; caudâ quoad longitudinem, corpus ferè æquante, suprà nigricante, subtùs albâ ; vellere longo et molli ; mystacibus perlongis albescentibus, ad basin nigris.

Description.—Ears rather large, tail rather longer than the body, tarsi moderately long and somewhat slender: fur long and very soft: prevailing tint pale yellow; on the back there is a brownish hue owing to the long hairs, which are thickly interspersed with ordinary fur, being of that colour: in the region of the tail the hairs are of a rich yellow colour; the tip of the muzzle is white, the feet, chin, throat and the whole under parts of the body are white; on the chest and belly a faint yellowish hue is observable: the tail is well clothed with tolerably long hairs, those on the apical portion are the longer, on the upper side of the tail they are of a brown colour, and on the under side they are pure white: the ears are well clothed with tolerably long hairs, those on the inner side are of a pale yellowish colour, externally on the fore part they are brown, and on the hinder part they are yellowish white: the hairs of the moustaches are numerous and very long; some of them are white, but the greater portion are brownish black at the base and whitish at the apex: the upper incisors are yellow, and the lower are yellow-white: the hairs of the ordinary fur on the back are gray at the base, brownish at the tip, and very pale yellow near the tip: the hairs on the belly are gray at the base and white externally.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	5	3	Length of tarsus (claws included) . .	1	1
of tail	3	10	of ear	0	7
from nose to ear . . .	1	3			

There are three specimens of the present species in Mr. Darwin's collection; two of them were caught when shedding their fur, and having lost the longer black hairs, have the upper parts of the body of a paler colour; their general tint is very pale, and may be described as gray, with a wash of pale yellow.

This species is closely allied to the last, but differs in being rather smaller, in having smaller ears which are well clothed with hair, and not sparingly furnished as in *Mus griseo-flavus*, and in having a shorter tail which, like the ears, is more densely clothed with hairs; in the structure of the molar teeth there also differences which will be better understood by comparing the drawings. Fig. 16, *a*, Plate 34, represents the molars of the upper jaw, and 16, *b*, those of the lower jaw.

"Extremely abundant in the coarse grass and thickets in the ravines at Port Desire and Santa Cruz: was caught in a trap baited with cheese."—D.

25. Mus Darwinii.

Plate XXIII.

Mus Darwinii, *Waterh.*, Proceedings of the Zoological Society of London for February 1837, p. 28.

M. suprà pilis pallidè cinnamomeis et nigrescentibus intermixtis; ante oculos cinerascentibus; genis, lateribus corporis, et caudâ prope basin, pallidè cinnamomeis; partibus inferioribus pedibusque albis; auribus permagnis; caudâ caput corpusque ferè æquante, suprà fusco-nigricante, subtùs albâ.

Description.—Form robust; ears immensely large; tail nearly equal in length to the head and body taken together; fore feet very small; tarsi moderate; fur very long and soft; general tint of the upper parts pale cinnamon yellow; on the rump a richer yellow hue prevails, and on the back there is a brownish tint, owing to the interspersed long hairs being of that colour; the upper surface of the head is grayish; the cheeks, like the sides of the body, are of a delicate yellow colour, faintly clouded with brown; the sides of the muzzle, lower part of the cheeks and sides of the body, and the whole under parts, are pure white; the feet and tail are also white, if we except the upper surface of the latter, which is dark brown; the yellow tint of the sides of the body is extended downwards on the outer side of the fore legs and on the back of the hinder legs; the ears are but sparingly furnished with hair, excepting on the fore part, externally, where they are of a brownish colour; the minute hairs which cover the remaining parts of the ear are very pale; the tail is well clothed with hairs; the hairs of the moustaches are numerous and very long; they are for the most part blackish at the base, and gray at the apex; the incisors are rather slender, the upper pair are an orange colour, and the lower, yellow; the hairs of the ordinary fur of the back are gray at

the base, broadly annulated with pale cinnamon yellow near the apex, and brownish at the apex; the hairs of the belly are deep-gray at the base, and white externally, those on the throat are pale gray at the base.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	6	0	Length of tarsus (claws included) . .	1	$1\frac{1}{2}$
of tail	4	9	of ear	0	$11\frac{3}{4}$
from nose to ear . . .	1	$4\frac{1}{6}$	Width of ear	1	$0\frac{1}{2}$*

Habitat, Coquimbo, Chile, (*May.*)

This species is evidently allied to the two preceding; and perhaps the "Rat quatrieme, ou Rat oreillard" of Azara, (*Mus auritus*, Desm.) will form one of this little group. The molar teeth of the upper jaw are figured in Plate 34, fig. 17, *a*—those of the lower jaw, fig. 17, *b*.

"Inhabits dry stony places."—D.

26. Mus Galapagoensis.

Plate XXIV.

M. suprà fuscus, flavo-lavatus, ad latera flavescens, subtùs albus: pedibus pilis sordidè albis tectis: auribus mediocribus; caudâ, quoad longitudinem, caput corpusque ferè æquante: vellere longo.

Description.—Ears moderate, slightly pointed; tarsi moderate; tail slender, nearly as long as the head and body; fur long, and not very soft; upper parts of the body of a brownish hue, a tint produced by the admixture of black and palish yellow hairs; on the sides of the body the longer black hairs are less abundant, and the prevailing colour is yellow; under parts of the body white, with a very faint yellow tint; feet furnished above with dirty white hairs; ears rather sparingly clothed with hairs, those on the inner side of a yellow colour, and those on the outer side dusky; tail above brown, and beneath whitish; the hairs of the moustaches black; the incisors deep yellow; the hairs on the back are deep gray at the base, broadly annulated with palish yellow near the apex, and blackish at the apex; the longer hairs black; on the belly the hairs are gray at the base, and broadly tipped with yellowish white.

* It is not easy to measure the *width* of the ears in these animals: upon measuring with a thread over the curve of the outer side I have found the width of the ears of the present animal to be as above given,—the dimension slightly exceeding that stated in the Proceedings of the Zool. Soc.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	6	0	Length of tarsus (claws included) . .	1	2
of tail	4	9	of ear	0	7
from nose to ear . . .	1	$3\frac{3}{4}$			

Habitat, Chatham Island, Galapagos Archipelago, Pacific Ocean, (*October.*)

This species is less than *Mus Rattus*. The upper parts of the body have a slightly variegated appearance.

The skull of *Mus Galapagoensis* (Plate 33, fig. 8, *a*,) is rather smaller than that of *M. Rattus*, the nasal portion is proportionately longer, the cranial shorter, and the interparietal bone is smaller, especially in antero-posterior extent; its length is 15 lines, and its breadth is $8\frac{1}{2}$ lines. The lower jaw is figured in Plate 34, fig. 14, *a*. Fig. 8, *b*, of Plate 33, represents the molars of the upper jaw, and fig. 8, *c*, those of the lower jaw.

"This mouse or rat is abundant in Chatham Island, one of the Galapagos Archipelago. I could not find it on any other island of the group. It frequents the bushes, which sparingly cover the rugged streams of basaltic lava, near the coast, where there is no fresh water, and where the land is extremely sterile."—D.

27. Mus Fuscipes.

Plate XXV.

M. suprà fusco-nigrescens, subtùs griseus; pedibus fuscis; auribus mediocribus, caudâ, quoad longitudinem, caput corpusque ferè æquante: vellere longissimo, molli.

Description.—Form stout; ears moderate; tail equal to the body in length; tarsi moderate; fur very long. General tint of the upper part and sides of the head and body blackish brown with an admixture of gray; of the under parts grayish white; feet brown, the hairs grayish at the tip: tail black and but sparingly clothed with short bristly hairs: ears rather sparingly clothed with hairs, which are for the most part of a brownish gray colour. The ordinary fur of the back is about $\frac{3}{8}$ of an inch in length and very soft—of a deep gray colour, broadly annulated with brownish yellow near the tip and blackish at the tip: the longer hairs which are black, measure upwards of $1\frac{1}{4}$ inches in length. The upper incisors are of an orange colour and the lower are black.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	6	6	Length of ear	0	$6\frac{1}{2}$
of tail	4	3	of tarsus (claws included) .	1	1
from nose to ear . . .	1	6			

Habitat, Australia, King George's Sound, (*March.*)

Mammalia not belonging to the order *Marsupiata* are rare in the Continent of Australia. Besides the Dog, we are acquainted with none excepting a few species of Rodents, and these all belong to the family *Muridæ*.

The present animal adds one to the limited number already known: in the Museum of the Zoological Society there is another species, the characters of which I will point out in the next description.

Mus fuscipes is remarkable for the great length and softness of its fur, and the brown colour of its feet: it is rather less than *Mus Rattus*, and of a stouter form. Not having had an opportunity of examining the molar teeth and the cranium of this animal, I cannot be positive that it is a species of the genus *Mus;* in external characters and the form of the incisor teeth, however, it agrees perfectly with the animals of that genus.

"This animal was caught in a trap baited with cheese, amongst the bushes at King George's Sound."—D.

28. Mus Gouldii.

M. vellere longo, molli, ochraceo, pilis nigricantibus adsperso, his ad latera rariori-bus: corpore subtùs, pedibusque albis: auribus majusculis: caudâ, capite corporeque paulo breviore.

Description.—Ears rather large and slightly pointed, tarsi slender and tolerably long; tail about equal in length to the body and half the head; fur long and soft; general colour pale ochreous yellow; on the back there are numerous long black hairs interspersed with the ordinary fur, which gives a darker hue and somewhat variegated appearance to that part; feet, chin, throat, and the whole under-parts of the body white; ears brown, sparingly clothed with minute yellow hairs, both externally (excepting on the forepart, where they are brownish) and internally; tail brownish above, and yellowish white beneath; the hairs of the moustaches long, and of a brown colour; upper incisors deep orange, lower incisors yellow; claws white. The hair of the back is of a deep lead colour at the base, pale ochre near the apex, and dusky at the apex; the longer hairs are black; the hairs of the belly are deep gray at the base and broadly tipped with white.

	In.	Lines.
Length from nose to root of tail	4	8
of tail	3	6
from nose to ear	1	0½
Length of tarsus (claws included)	1	0½
of ear	0	7

Var. β.—General colour of the fur pale ochreous yellow, the feet, under side of the tail and the whole of the under parts, as well as the lower portion of the

sides of the body, white; hairs of the back palish gray at the base, those of the belly indistinctly tinted with very pale gray at the roots; ears and moustaches pale brown.

Habitat, New South Wales.

This species is about half-way between *Mus Rattus* and *Mus musculus* in size, and is remarkable for its delicate colouring. The molar teeth are figured in Plate 34; fig. 18. *a*, represents the molars of the upper jaw, and fig. 18. *b*, those of the lower.

Genus—REITHRODON.*

Dentes primores $\frac{2}{2}$; *inferioribus acutis, gracilibus, et anticè lævibus; superioribus gracilibus, anticè longitudinalitèr sulcatis.*

Molares utrinque $\frac{3}{3}$ *radicati; primo maximo, ultimo minimo: primo superiore plicas vitreas duas externè et internè alternatim exhibente; secundo, et tertio, plicas duas externè, internè unam: primo inferiore plicas vitreas tres externè, duas internè; secundo, plicas duas externè, unam internè; tertio unam externè et internè, exhibentibus.*

Artus inæquales: antipedes 4-dactyli, cum pollice exiguo: pedes postici 5-dactyli, digitis externis et internis brevissimis.

Ungues parvuli et debiles. Tarsi subtùs pilosi.

Cauda mediocris, pilis brevibus adpressis instructa.

Caput magnum, fronte convexo: oculis magnis: auribus mediocribus.

The present genus according to my views belongs to the family *Muridæ*. The modifications of structure which have led me to separate it from the genus *Mus* are as follows:

External characters. — The most conspicuous points of distinction between the external characters of *Reithrodon* and *Mus* (if we regard *M. rattus*, *M. decumanus* or *M. musculus* as typical examples of that genus,) consist in the arched form of the head, the large size of the eyes, the stout form of the body, and the upper incisors being grooved. The ears, tail and feet are more densely

* Ῥειθρος, a channel; Ὀδων, a tooth.

clothed with hairs, and the tarsus is covered with hair beneath,—at least the hinder portion.

Cranium.—The skulls of the species of the present genus differ from those of the species of *Mus* in being proportionately shorter and broader, and more arched; the facial portion of the skull is larger, compared with the cranial, the space between the orbits is narrower, and the orbits are larger; the palate is narrower and the incisive foramina are more elongated and larger. The pterygoids approximate anteriorly, so that the posterior *nares* are greatly contracted. As in the genus *Mus* the anterior root of the zygomatic arch is directed upwards from the plane of the palate, and forwards in the form of a thin plate, protecting an opening behind, which leads into the nasal cavity, and also forming the outer boundary both of the ant-orbital foramen, and a second opening whose outlet is directed upwards. This thin plate, however, is narrower than is usually found in the genus *Mus*. The most striking differences observable in the lower jaw consist in the smaller size of the coronoid process, and its being curved outwards; the condyloid process is narrower, and the angle of the jaw, or descending ramus, approaches more nearly to a quadrate form—the posterior edge of the jaw is more deeply emarginated.

Dentition.—The incisors are narrow and compressed as in the genus *Mus*, but they are less deep from front to back; those of the upper jaw (Plate 33. fig 2. *b*.) have each a distinct longitudinal groove, which is situated nearer to the outer than to the inner edge of the tooth. Close to the inner edge of each of these teeth an indistinct second longitudinal groove may be seen by means of a lens. The lower incisors are nearly equal in width to the upper.

The crowns of the molar teeth in the young *Reithrodon* are higher than in *Mus*, and they are rootless; in the adult animal, however, they possess distinct roots. The folds of enamel form sigmoid flexures, are closely approximated to each other, and those of the opposite sides of the tooth meet.

1. Reithrodon cuniculoïdes.

Plate XXVI

Reithrodon cuniculoides, *Waterh*., Proceedings of the Zoological Society of London for February 1837, p. 30.

R. suprà griseus, flavo-lavatus, pilis nigris intermixtis; abdomine gulâque pallidè flavis; natibus albis; pedibus albis; auribus mediocribus, intùs pilis flavis, extùs pilis pallidè flavis, obsitis; pone aures, notâ magnâ albescenti-flavâ; caudâ corpore breviore, suprà pallidè fuscâ, subtùs albâ.

Description.—Head rather large and arched; ears moderate; tail nearly as long

as the body; tarsi rather long; fur long and very soft. General tint of the upper parts of the body grayish brown, with a considerable admixture of yellow; of the sides of the body grayish tinted with yellow; the lower portion of the cheeks, and the lower half of the sides of the body are of a delicate yellow colour; the under parts of the head and body are yellowish white; the fore part of the thighs is whitish; the rump, feet, and tail are white, excepting the upper surface of the latter, which is brown; behind each ear there is a patch of yellowish white hairs. The ears are tolerably well-clothed with hairs; those on the inner side are for the most part of a yellow colour, but towards the posterior margin they are brown; externally, the hairs are also yellow, excepting on the fore part, where they are dusky brown. The hairs of the moustaches are very long and numerous; black at the base, and grayish at the apex. The feet are well clothed with hairs which cover and nearly hide the claws; the under side of the tarsus is clothed with grayish brown hairs. The tail is well clothed with tolerably long hairs which completely hide the scales. The hairs on the back are of a deep gray colour at the base, broadly annulated with yellow near the apex, and dusky at the apex: the longer hairs are black: on the throat and belly the hairs are deep gray at the base, and broadly tipped with pale yellow—towards the cheeks and sides of the body with a deeper yellow. The incisors are yellow.

	In.	Lines.		In.	Lines
Length from nose to root of tail	6	5	Length of tarsus (claws included)	1	$4\frac{1}{2}$
of tail	3	$3\frac{1}{2}$	of ear	0	7
from nose to ear	1	4			

Habitat, Patagonia, (*April and January*).

In the arched form of the head this little animal bears considerable resemblance to a young rabbit, a resemblance which has struck almost all who have seen it, I have therefore applied to it the specific name *Cuniculoides*. The skull is figured in Plate 33, fig. 2. *a.*, its dimensions are as follows:—

	In.	Lines.
Total length	1	4
Width	0	10
Length of nasal bones	0	7
of incisive foramina	0	$4\frac{2}{3}$
Distance between the outer surface of the incisors and the front molar upper jaw	0	5
Longitudinal extent of the three molars of the upper jaw	0	$3\frac{2}{3}$
Length of a ramus of the lower jaw, without the incisor	0	$9\frac{2}{3}$

The molar teeth of the upper jaw are figured in Plate 33, fig. 2, *c.* and

2, *e*; of the lower jaw, fig. 2, *d*. Fig. 2, *b*, represents the incisors of the upper jaw magnified. Fig. 21, *a*, Plate 34, represents the skull, viewed from beneath, fig. 21, *b*, is the side view of the same, and fig. 21, *c*, is the lower jaw.

"Specimens were procured at Port Desire, St. Julian, and Santa Cruz; at this latter place they were caught in numbers, (in traps baited with cheese,) both near the coast and on the interior plains. A specimen from Santa Cruz weighed 1336 grains. In the early part of January, there were young individuals at Port St. Julian."—D.

2. Reithrodon typicus.

Reithrodon typicus, *Waterh.*, Proceedings of the Zoological Society of London for February 1837, p. 30.

R. vellere suprà pilis flavescenti-fuscis et nigrescentibus intermixtis composito; regione circa oculos, genis, lateribusque corporis auratis, pilis pallidè fuscis intermixtis; partibus inferioribus auratis; rhinario ad latera flavescenti-albo; auribus magnis, intùs pilis flavis, extùs flavis et fuscis, indutis; caudâ suprà pallidè fuscâ, subtùs sordidè albâ; pedibus albis.

Description.—Ears large; tarsi moderate; fur moderately long; general tint of the upper parts brown—of the upper surface of the head blackish; on the cheeks and flanks a rich yellow tint prevails; the under parts of the head and body are bright yellow; the feet are white; the tail is brownish above and dirty white beneath. The ears are tolerably well clothed with hairs, and these are of a yellowish colour, excepting on the fore part, externally, where they are brown; the tarsi are covered beneath with grayish brown hairs; the hairs of the moustaches are numerous and moderately long, black at the base and grayish at the apex. The hairs of the back are deep gray at the base, broadly annulated with yellow near the apex, and black at the apex; on the upper surface of the head the hairs are very narrowly annulated with yellow, hence a blackish hue prevails. The longer hairs on the back are black; the hairs of the throat and belly are gray at the base, and broadly tipped with yellow. The incisors are yellow.

	In.	Lines.		In.	Lines.
Length from nose to root of tail	6	0	Length of tarsus (claws included)	1	$2\frac{1}{2}$
of tail	? *		of ear	0	$8\frac{1}{2}$
from nose to ear	1	$4\frac{1}{2}$			

Habitat, Maldonado, La Plata, (*June*).

* The tail is imperfect.

This species is of a darker colour than the last, its ears are much larger and the tarsi are shorter. It has the same rabbit-like appearance. The molar teeth of the lower jaw are figured in Plate 33, fig. 4, *a*.

"This mouse, when alive, from its very large eyes and ears, had a singular appearance, somewhat resembling that of a little rabbit. It frequents small thickets in the open grassy savannahs near Maldonado, and was caught with facility by means of traps baited with cheese."—D.

3. Reithrodon chinchilloides.

Plate XXVII.

R. vellere longissimo et mollissimo; corpore suprâ et ad latera cinereo, flavescenti-fusco lavato, subtùs flavescenti-albo; caudâ corpore breviore, suprâ fuscâ, subtùs albâ: auribus parvulis: tarsis mediocribus.

Description.—Ears small; tail shorter than the body; tarsus moderate; fur long and extremely soft. General hue of the upper parts of the head and body ashy-brown; the lower part of the cheeks and sides of the body are of a delicate yellow colour; the under parts of the head and body and the rump are cream colour. The ears are blackish;* the tail is tolerably well clothed with longish hairs, which are, however, not so thickly set as to hide the scales—on the upper side they are blackish brown; on the sides and beneath they are white. The feet are white. All the fur is of a deep gray colour at the base; the hairs of the back are of a very pale yellow colour (almost white) near the tip, and brown at the tip; the longer hairs are black at the apex. The incisors are yellow; the hairs of the moustaches are numerous and very long—some of them are whitish, and others are black at the root, and gray at the apex.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	5	0	Length of tarsus (claws included) .	1	0
of tail	2	4	of ear	0	5½
from nose to ear . . .	1	2			

Habitat, South shore of the Strait of Magellan, near the Eastern entrance.

This little animal was preserved in spirit, and has since been mounted, it is

* They are naked, but I suspect the hair has been rubbed off.

probable, therefore, that the colours have been slightly changed. It is of a smaller size than either of the preceding species. Its fur is long, extremely soft, and somewhat resembles that of the Chinchilla. The ears are smaller, and the tail is shorter, and less densely clothed with hairs than in *Reithrodon cuniculoides*. The skull (see Plate 43, fig. 20, *a*, 20, *b*, and 20, *c*,) differs in many respects from that of the species last mentioned. It is of a smaller size, the nasal portion is proportionately shorter and narrower, the incisive foramina are shorter; the pterygoid processes do not approximate so nearly at their base, and the pterygoid fossæ are very shallow, whereas in *R. cuniculoides* they are deep. In the skull of the animal just mentioned there are two distinct longitudinal grooves on the palate, which extend backwards from the incisive foramina, and terminate in two rather large and deep excavations: these excavations are in the palatine bone, and situated between the last molar teeth; they are separated from each other by a narrow, longitudinal, elevated ridge; a narrow ridge also separates them from the pterygoid fossæ. At the bottom of each of these hollows are several minute foramina, and in front of them there are two larger longitudinal foramina. In *R. chinchilloides*, the longitudinal grooves on the palate and the posterior hollows are shallow, and consequently much less distinct; the pterygoid fossæ are very nearly on the same plane as the palate, and are indicated only by a very slight depression. The incisor teeth are broader than in *R. chinchilloides*, and the molar teeth are proportionately smaller. The thin plate which forms the anterior root of the zygomatic arch is deeply emarginated in front in *R. cuniculoides* (see Plate 34, fig. 21, *b*.); but in *R. chinchilloides*, the anterior margin of this plate is nearly straight, (see Plate 34, fig. 20, *c*.)

In the form of the lower jaw of the two animals under consideration there are differences which will be more clearly understood upon comparing the figures. I will therefore merely notice one remarkable character which is found in *R. cuniculoides*, and that is, that the condyloid process is rather deeply concave on the inner side, a character which does not exist in *R. chinchilloides*, nor do I recollect having observed it in any other Rodent.

The principal dimensions of the skull of *R. chinchilloides*, are as follows:—

	In.	Lines.
Total length	1	2
Width	0	$8\frac{1}{2}$
Length of nasal bones	0	$6\frac{1}{2}$
of incisive foramina	0	4
Distance between the outer surface of the incisors and the first molar tooth, upper jaw	0	$4\frac{1}{4}$
Longitudinal extent of the three molars of the upper jaw, taken together	0	$2\frac{3}{4}$
Length of a ramus of the lower jaw without the incisor	0	8

General Observations upon the foregoing Species of Muridæ.

In the foregoing descriptions I have endeavoured to convey an idea of the characters of the species of mice submitted to me for examination and description, by Mr. Darwin: there are, however, some points upon which I have been silent in my descriptions. I allude to the characters observable in the dentition. I have omitted to notice the various modifications in the structure of the molar teeth, because I found it would lengthen the descriptions to no good purpose, inasmuch as of almost all the species I have made outlines of the molars, which will convey a more clear idea than any verbal description can do.

Upon an inspection of the Plates, it will be seen, that by far the greater portion of the teeth figured, may be referred to one particular type of form or pattern, and that this pattern does not agree with that observed in the molars of *Mus Rattus*, *M. decumanus*, or *M. musculus*, whilst these three species agree essentially with each other.

In the young Black Rat (*Mus Rattus*), before the teeth are worn, the two anterior molar teeth, on either side of the upper jaw, present three longitudinal rows of tubercles, a central series of larger tubercles, and on each side of these, a row of smaller ones. The front molar has three of the larger tubercles arranged along the middle of the tooth; three smaller ones on the outer side, and two, on the inner side. The second molars have two central tubercles, two outer, and two inner ones. The posterior molar is nearly round, the body of the tooth consists of three principal tubercles, and one small tubercle, situated on the inner and anterior portion of the tooth.

The corresponding teeth in the young of *Mus bimaculatus* present a very different appearance; the molars, instead of having three longitudinal rows of tubercles, have only two. An idea of the appearance of these teeth may be formed by removing the inner row of tubercles from the molars of *Mus rattus*. We should then have, as in *Mus bimaculatus*, molars of a narrower form, the first tooth presenting six tubercles, the second, four; and the posterior tooth devoid of the small inner lobe; the opposing tubercles of each tooth, however, in *M. bimiculatus*, are of equal size.

The molars of the lower jaw of *Mus bimaculatus* agree with those of *M. Rattus* as to the number of tubercles which they possess; they are, however, proportionately longer and narrower, and, when a little worn, these teeth, as well as those of the upper jaw, differ considerably from those of *M. Rattus*. In the last named animal, when the molars are slightly worn, the ridges of enamel run completely across the tooth, as in Figs. 18 and 19, Plate 34. Such is not the case

in *M. bimaculatus* at any age. As soon as the molar teeth are worn, the folds of enamel penetrate the body of the tooth on each side, and those of one side alternate with those of the other,—in fact, they very nearly resemble those of the *Hamsters* (*Cricetus*).

I have selected the molar teeth of *Mus Rattus* and *M. bimaculatus* for comparison, since I happened to possess specimens displaying both the young and adult states of each. But had I selected, on the one hand, almost any of the species brought from South America by Mr. Darwin, and, on the other hand, the *Mus musculus* or *M. decumanus*, I should have had to point out the same distinctions—the former agreeing in dentition with *M. bimaculatus*, and the latter with *M. Rattus*.

The differences pointed out, between the molar teeth of *Mus Rattus* and those of *M. bimaculatus*, I cannot but consider as important, since all the Old World species of *Mus* which I have yet had an opportunity of examining (and they are numerous) agree essentially with the former, whilst the only *Mus* from S. America (excepting *M. Musculus* and *M. decumanus*, which are carried in ships to all parts of the world) in which I have as yet found molar teeth like those of *M. Rattus*, is the *Mus Maurus*, and this it has been stated is possibly a variety of *M. decumanus*.

Although as yet I have not met with species in the Old World possessing the characters of the South American *Muridæ*, among those of North America, several have come under my observation. The *Mus leucopus*, *Symidon hispidum*, and the species of *Neotoma* certainly belong to the same group,* as does also the species of the Galapago Islands, described in this work under the name *Galapagoensis*.

These considerations have induced me to separate the South American mice from those of the Old World,—or rather from that group of which *M. decumanus* may be regarded as the type,—and to place them, together with such North American species as agree with them in dentition, in a new genus bearing the name *Hesperomys*.†

Whether this group be confined to the Western hemisphere or not, I will not venture to say, but I think I may safely affirm that that portion of the globe is their chief metropolis.

The species of the genus *Hesperomys*, which depart most from the type—whose dentition is least like figs. 5, *a*, and 5, *b*, Plate 33. or 6, *a*, and 6, *b*, of the

* I am acquainted with seven North American Species of *Muridæ*, all of which possess the dentition of *Hesperomys*.

† Ἑσπερος, West, and Μυς.

same Plate—recede still farther from the genus *Mus*, and approach more nearly (as regards the dentition) to the *Arvicolidæ*. Among the species here described I may mention as examples, *M. griseoflavus*, *M. xanthopygus*, and *M. Darwinii*; —see the molar teeth figured in Plate 34. figs. 15, 16, and 17, —and among the North American species, those constituting the genus *Neotoma*. The latter make by far the nearest approach to the *Arvicolidæ* of any which have yet come under my observation, not only in the dentition, but in the form of the skull and the large size of the coronoid process of the lower jaw; there is, nevertheless, a tolerably well marked line of distinction between the crania of the *Arvicolidæ* and *Neotoma*.

The skulls of the animals belonging to the genera *Castor*, *Ondatra*, *Arvicola*, *Spalax*, and *Geomys*, which constitute the principal groups of the family *Arvicolidæ*, when compared with those of the family *Muridæ*, present, among others, the following distinctive characters.

The temporal *fossæ* are always much contracted posteriorly, by the great anterior and lateral development of the temporal bones; the plane of the intermolar portion of the palate is below the level of the anterior portion; the coronoid process of the lower jaw is very large, the articular portion of the condyloid process is proportionately broad; the descending ramus, or posterior coronoid process, is so situated that its upper portion terminates considerably above the level of the crowns of the molars; this same process is generally * directed outwards from the plane of the horizontal ramus. The incisor teeth of the *Arvicolidæ* differ from those of the *Muridæ* in being proportionately broader and less deep from front to back—they are not laterally compressed as in *Mus*. The molar teeth are rootless,† and the folds of enamel are the same throughout the whole length of the tooth; whereas in *Mus* they enter less and less deeply into the body of the tooth as we recede from the crown, and towards the base of the visible portion (the tooth being in its socket) the indentations of the enamel are obliterated.

Now in the species of *Hesperomys*, the molar teeth are always rooted, and in the form of the skull and the lower jaw they agree with the *Muridæ*, and do not

* I am acquainted with only one exception, and that is in the genus *Castor*. In the genus *Ondatra*, the descending ramus is but slightly twisted outwards, but in all the other *Arvicolidæ*, whose crania I have examined, it is remarkably so, and in the genera *Spalax* and *Geomys*, where this character is carried to the extreme, the descending ramus projects from the alveolus of the long inferior incisors, in the form of a rounded and almost horizontal plate.

† In aged individuals of some of the species of *Arvicolidæ*, the molar teeth possess short roots. In a skull of *Ondatra* now before me I find all the molars divided at the base into two portions, which in all probability would have formed solid roots had the animal lived longer.

present the characters above pointed out as distinguishing the *Arvicolidæ*, and as regards the cranium and lower jaw, it is only in the genus *Neotoma* that any approach is evinced.

Of the various groups of the order *Rodentia* found in South America, the *Sciuridæ*, so far as I am aware, are chiefly confined to the more northern parts, and do not occur in the most southern; the *Myoxidæ*, *Gerboidæ*, and *Arvicolidæ* are wanting. The species of the family *Muridæ* belong to different sections to those of the Old World. Of the *Leporidæ* I am acquainted only with one well established species—the *Lepus Braziliensis*, which however is not found "in tota America Australi," as Fischer says, there being no Hare yet found in the more southern parts, where the *Cavies* and *Chinchillas* appear to take their place. The remaining South American Rodents—certain species of *Hystricidæ*, the genera, *Echimys*, *Dasyprocta*, *Cœlogenys* and *Myopotamus*, together with the *Octodontidæ* and *Chinchillidæ*, all possess a peculiar form of skull and of the lower jaw, (more or less approaching to figs. 1, Plate 33, and figs. 23, Plate 34.) which I have described in the "Magazine of Natural History," for February 1839, and which is rarely found in the North American, or Old World Rodents. In enumerating the above groups, I omitted the *Caviidæ*, because in the form of the lower jaw they differ somewhat from the rest—they possess, in fact, a form of lower-jaw peculiar to themselves; but in the Chinchillas* the transitions between one form and the other are found.

The South American *Muridæ*, which form the chief part of Mr. Darwin's collection, were none of them procured further north than latitude 30°, with the exception of those from the Galapagos Archipelago. The species occur at the following localities.

WEST COAST OF SOUTH AMERICA.	EAST COAST OF SOUTH AMERICA.
GALAPAGOS ARCHIPELAGO.	MALDONADO.
Mus Jacobiæ.	Mus *decumanus*.
—— Galapagoensis.	—— maurus.
	—— *Musculus*.
COQUIMBO.	—— tumidus.
Mus longipilis.	—— nasutus.
—— Renggeri.	—— obscurus.
—— Darwinii.	—— arenicola.
	—— bimaculatus.
	—— flavescens.
	Reithrodon typicus.

* See Proceedings of the Zoological Society for April 9th, 1839, p. 61.

WEST COAST.	EAST COAST.
Valparaiso.	Buenos Ayres.
Mus Renggeri.	—— Mus *decumanus*.
—— *decumanus*.	Bahia Blanca.
	Mus Braziliensis.
Concepcion.	—— elegans.
Mus longicaudatus.	—— gracilipes.
	Rio Negro.
Chiloe and Chonos Archipelago.	Mus grisco-flavus.
Mus brachiotis.	Port Desire.
	Mus canescens.
	St. Julian.
	Reithrodon cuniculoides.
	—— xanthopygus.
	Reithrodon cuniculoides.
	Santa Cruz.
	Mus canescens.
	—— micropus.
	—— xanthopygus.
	Reithrodon cuniculoides.
	Falkland Islands.
	Mus *decumanus*.
	—— *Musculus*.

Straits of Magellan.
Mus xanthorhinus.
—— Magellanicus.
Reithrodon chinchilloides.

Section—HYSTRICINA.

Family— ——?

Myopotamus Coypus.

Myopotamus Coypus, *Auct.*

"This animal, in Chile, is known by the name of "Coypu;" at Buenos Ayres, where an extensive trade is carried on with their skins, they are improperly called 'nutrias,' or otters. In Paraguay, according to Azara, their Indian name is 'guiya.' On the east side of the continent they range from Lat. 24° (Azara)

to the Rio Chupat in 43° 20′;—distance of 1160 miles. This latter river is 170 miles south of the Rio Negro, and the intervening space consists of level, extremely arid, and almost desert plains, with no water, or at most one or two small wells. As the Coypu is supposed never to leave the banks of the rivers, and being, from its web-feet and general form of body, badly adapted for travelling on land, its occurrence in this river is a case, like so many others in the geographical distribution of animals, of very difficult explanation. The same remark is indeed applicable, but with less force, to its existence in the Rio Negro. On the west coast, it is found from the valleys of central Chile (Lat. 33°) to 48° S., or perhaps even somewhat farther, but not in Tierra del Fuego. So that, on the Atlantic side of the continent, the plains of Patagonia check its range southward, as, on the Pacific side, the deserts of Chile do to the north. Its range, including both sides, is from 24° to 48°, or 1440 miles. In the Chonos Archipelago these animals, instead of inhabiting fresh water, live exclusively in the bays and channels which extend between the innumerable small islets of that group. They make their burrows within the forest, a little way above the rocky beaches. I believe it is far from being a common occurrence, that the same species of any animal should haunt indifferently fresh water, and that of the open sea. We shall see that the Capybara is sometimes found on the islands near the mouth of the Plata; but these cannot be considered as their habitual station in the same manner as the channels in the Chonos Archipelago are to the Coypu. The inhabitants of Chiloe, who sometimes visit this Archipelago for the purpose of fishing, state that these animals do not live solely on vegetable matter, as is the case with those inhabiting rivers, but that they sometimes eat shell-fish. The Coypu is said to be a bold animal, and to fight fiercely with the dogs employed in chasing it. Its flesh when cooked is white and good to eat. An old female procured (January) amongst these islands, weighed between ten and eleven pounds." D.

Family—OCTODONTIDÆ.

Ctenomys Braziliensis.

Ctenomys Braziliensis, *De Blainville*, Bulletin de la Société Philomatique, June 1826, p. 62.

Maldonado, La Plata, (*June.*)

"This animal is known by the name of Tucutuco. I have given an account of its habits in my journal, but I shall here repeat it for the sake of keeping

together my observations on the less known animals. The Tucutuco is exceedingly abundant in the neighbourhood of Maldonado, but it is difficult to be procured, and still more difficult to be seen, when at liberty. Azara,* who has given an account of its habits, with which every thing I saw perfectly agrees, states that he never was able to catch more than one, although they are so extremely common. The Tucutuco lives almost entirely under ground, and prefers a sandy soil with a gentle inclination; but it sometimes frequents damp places, even on the borders of lakes. The burrows are said not to be deep, but of great length. They are seldom open; the earth being thrown up at the mouth into hillocks not quite so large as those made by the mole. Considerable tracts of country are completely undermined by these animals. They appear, to a certain degree, to be gregarious; for the man who procured my specimens had caught six together, and he said this was a common occurrence. They are nocturnal in their habits: and their principal food is afforded by the roots of plants, which is the object of their extensive and superficial burrows. In the stomach of one which I opened I could only distinguish, amidst a yellowish green soft mass, a few vegetable fibres. Azara states that they lay up magazines of food within their burrows.

"The Tucutuco is universally known by a very peculiar noise, which it makes when beneath the ground. A person, the first time he hears it, is much surprised; for it is not easy to tell whence it comes, nor is it possible to guess what kind of creature utters it. The noise consists in a short, but not rough, nasal grunt, which is repeated about four times in quick succession; the first grunt is not so loud, but a little longer, and more distinct than the three following: the musical time of the whole is constant, as often as it is uttered. The name Tucutuco is given in imitation of the sound. In all times of the day, where this animal is abundant, the noise may be heard, and sometimes directly beneath one's feet. When kept in a room, the Tucutucos move both slowly and clumsily, which appears owing to the outward action of their hind legs; and they are likewise quite incapable of jumping even the smallest vertical height. Mr. Reid, who dissected a specimen which I brought home in spirits, informs me that the socket of the thigh-bone is not attached by a ligamentum teres; and this explains, in a satisfactory manner, the awkward movements of their hinder extremities. Their teeth are of a bright wax yellow, and are never covered by the lips: they are not adapted to gnaw holes or cut wood. When eating any thing, for instance biscuit, they rested on their hind legs and held the piece in their fore paws; they appeared also to wish to drag it into some corner. They were very stupid in making any attempt to escape; when angry or frightened, they uttered

* Azara's Voyages dans l'Amerique Meridionale, vol. i. p. 324.

the Tucutuco. Of those I kept alive, several, even the first day, were quite tame, not attempting to bite or to run away; others were a little wilder. The man who caught them asserted that very many are invariably found blind. A specimen which I preserved in spirits was in this state; Mr. Reid considers it to be the effect of inflammation in the nictitating membrane. When the animal was alive, I placed my finger within half an inch of its head, but not the slightest notice was taken of it: it made its way, however, about the room nearly as well as the others. Considering the subterranean habits of the Tucutuco, the blindness, though so frequent, cannot be a very serious evil; yet it appears strange that any animal should possess an organ constantly subject to injury. The mole, whose habits in nearly every respect, excepting in the kind of food, are so similar, has an extremely small and protected eye, which, although possessing a limited vision, at once seems adapted to its manner of life.

"Several species probably will be found to exist south of the Plata. At Bahia Blanca (Lat. 39°) an animal burrows under ground in the same manner as the *C. Braziliensis*, and its noise is of the same general character, but instead of being double and repeated twice at short intervals, it is single and is uttered either at equal intervals, or in an accelerating order. I was assured by the inhabitants that these animals are of various colours, and, therefore, I presume that the two kinds of noises proceeded from two species. However this may be, they are extraordinarily numerous: many square leagues of country between the Sierras Ventana and Guetru-heigue are so completely undermined by their burrows, that horses in passing over the plain, sink, almost every step, fetlock deep. At the Rio Negro (Lat. 41°) some closely allied (or same?) species utters a noise, which is repeated only twice, instead of three or four times as with the La Plata kind. The sound is, moreover, louder and more sonorous; and so closely resembles that made in cutting down a small tree with an axe, that I have occasionally remained in doubt for some time to which cause to attribute it. Where the plains of Patagonia are very gravelly (as at Port Desire and St. Julian) the Ctenomys, I believe, does not occur; but at Cape Negro, in the Strait of Magellan, where the soil is damper and more sandy, the whole plain is studded with the little hillocks, thrown up by this destructive animal. It occurs likewise south of the Strait, on the eastern side of Tierra del Fuego, where the land is level. Captain King brought home a specimen from the northern side of the Strait, which Mr. Bennett* has called *C. Magellanicus:* it is of a different colour from the *C. Braziliensis*. I unfortunately did not make any note regarding the noise of this southern species: but the circumstance of its existence rather corroborates my belief in there being several other kinds in the neighbourhood of the Rio

* Transactions of the Zoological Society, vol. ii. p. 84.

Negro and Bahia Blanca. Otherwise we must believe that the same animal utters different kinds of noises, in different districts; a fact which I should feel much inclined to doubt.

"Azara* says that the Tucutuco may be 'found every where; provided that the soil be pure sand, and the situation not subject to be overflowed. As these conditions are fulfilled only in certain spots, their warrens are far separated from each other, even sometimes more than twenty-five leagues, without it being possible to conceive how these animals have been able to pass from one place to another.' The difficulty, I think, is much overstated; for, as I have said, the burrows of the Tucutuco are sometimes made in very damp places, near lakes; so that they certainly might pass over almost any kind of country. But if the *C. Braziliensis* and *C. Magellanicus* be considered as one species, as some French authors are inclined to do, then the difficulty will be increased in a very remarkable manner, as we shall be obliged to transport the Tucutuco over wide plains of shingle, and across many great rivers, and an arm of the sea."—D.

Poephagomys ater.

Poephagomys ater, *F. Cuvier*, Annales des Sciences Naturelles, 2d series, Zoologie, tom. 1. p. 321. June, 1834.

Chile, (*September.*)

"This animal is generally scarce, but in certain districts, I believe, of an alpine character, it is abundant. It excavates very extensive superficial burrows, no doubt, for the purpose of feeding on the roots of plants, as in the case of the *Ctenomys Braziliensis*, the habits of which have just been described. Horses passing over districts frequented by these animals, sink fetlock deep through the turf. I procured my specimen from Valparaiso, where the country-people called it 'Cururo.'"—D.

Octodon Cumingii.

Octodon Cumingii, *Bennett*, Proc. of Committee of Science and Correspondence of the Zool. Soc. for 1832, p. 46.

———— Transactions of the Zoological Society of London, vol. ii. p. 81. Pl. 16.

Dendrobius Degus, *Meyen*. Acta Academiæ, c. l. c. Naturæ Curiosorum, xvi. p. 610. Pl. 44, 1833.

Valparaiso, Chile, (*October.*)

* Azara Voyage dans l'Amerique Meridionale, vol. i. p. 324.

These little animals are exceedingly numerous in the central parts of Chile. They frequent by hundreds the hedge-rows and thickets, where they make burrows close together, leading one into another. They feed by day in a fearless manner; and are very destructive to fields of young corn; when disturbed, they all run together towards their burrows in the same manner that rabbits in England do when feeding outside a covert. When running they carry their tails high up, more like squirrels than rats; and they often remain seated on their haunches, like the former animals. According to Molina* they lay up a store of food for the winter, but do not become dormant. The Octodon is the "degu" of that author: he says that the Indians in past times used to eat them with much relish. These animals appear to be very subject to be piebald and albinos; as if partly under the influence of domestication.

Genus—ABROCOMA.†

Dentes primores $\frac{4}{4}$ *acuti, eradicati, anticè læves: molares utrinque* $\frac{4}{4}$ *subæquales, illis maxillæ superioris in areas duas transversales ob plicas vitreas acutè indentatus divisis; plicis utriusque lateris vix æquè profundis; illis mandibulæ inferioris in tres partes divisis, plicis vitreis his internè, semel externè indentatis, areâ primâ sagittæ cuspidem fingente, cæteris acutè triangularibus.*

Artus subæquales.

Antipedes 4-dactyli, externo brevissimo, intermediis longissimis et ferè æqualibus.

Pedes postici 5-dactyli; digito interno brevissimo. Ungues breves et debiles, illo digiti secundi lato et lamellari; omnibus setis rigidis obtectis.

Caput mediocre, auribus magnis, membranaceis; oculis mediocribus.

Cauda brevisucula.

Vellus perlongum, et molle.

The genus *Abrocoma* is evidently allied on the one hand to the genera *Octodon*, *Poephagomys*, and *Ctenomys*, and on the other to the family *Chinchillidæ*. The four genera just mentioned possess so many characters in common, that it would be well to unite them, and the name *Octodontidæ* may be used to designate the group.

The *Octodontidæ* appear to bear the same relations to *Echimys*, as the *Arvicolæ* do to the *Muridæ*.

* Compendio de la Hist. Nat. del Reyno de Chile, vol. i. p. 343.

† Ἁβρος, soft; Κομη, hair.

In the *Octodontidæ* the skull is rather short, the inter-orbital space is broad; the ant-orbital passage is large; the zygomatic arch is thrown out horizontally from the plane of the palate; the malar bone is broad and somewhat compressed, and throws up a small post-orbital process; the glenoid cavity of the temporal bone is narrow; the palate is contracted, and deeply notched posteriorly, the portion which lies between the molar teeth descends below the level of the anterior portion; the incisive foramina are wide: the body of the anterior and posterior sphenoids is very narrow, and the foramina on either side of them are large: the occipital condyles are very narrow, widely separated, and the articular surface is nearly vertical.* The descending *ramus* of the lower jaw springs from the outer side of the alveolar portion, and terminates in a point, more or less acute.

The incisors of the upper and lower jaws are of the same width: the molars are $\frac{4}{4}$, rootless.

In external characters the species of the present group vary considerably. The toes are 5|5 or 4|5. The claws of the hind feet are covered by strong, curved bristly hairs.

The principal points of distinction in the external characters of the four genera under consideration, may be thus expressed.

† TOES 5|5.

A. Fore feet formed for burrowing—strong and armed with large claws; tail short.

a. Ears minute, incisors very broad . . . . . *Ctenomys.*

b. Ears small, incisors broad . . . . . *Poephagomys.*

B. Fore feet weak; claws small; incisors narrow; ears large.

a. Tail with the apical portion furnished with long hair . . . . *Octodon.*

†† TOES 4|5.

b. Tail furnished throughout with short adpressed hairs . . . . *Abrocoma.*

It is not only in the comparatively small size and weakness of the fore feet that *Abrocoma* approaches more nearly to *Octodon;* but it agrees in having the soles, both of the fore and hind feet (which are devoid of hair), covered with minute round fleshy tubercles (see the under side of the tarsus figured in Plate 23.)

In *Octodon*, however, the toes have on their under side transverse incisions, as the *Muridæ*, and many other Rodents; a character not found in *Abrocoma.*

* There is a wide difference between the present animals and the *Arvicolidæ* in the form of the occipital condyles: the same difference is also observable between *Echimys* and *Mus.* The *Octodontidæ* in fact have the same form of condyles as the Chinchillas and Cavies. In this and many other characters the last mentioned animals evince an affinity to the *Leporidæ.*

Here the under-side of the toes, like the sole of the foot, is covered with minute tubercles.

Though in the form of the skull *Abrocoma Cuvieri** agrees most nearly with that of *Octodon;* it differs in having the anterior portion narrower and rather larger, compared to the part devoted to the protection of the brain; the zygomatic arch is shorter, the incisive foramina are longer, the body of the anterior sphenoid is narrower, and the auditory bullæ are larger. The principal differences observable in the form of the lower jaw of *Abrocoma*, when compared with that of *Octodon*, consists in the coronoid process being smaller, the condyloid narrower from front to back; the descending *ramus* more deeply emarginated posteriorly, and the angle longer and more attenuated.

In those characters in which the skull of *Abrocoma* departs from that of *Octodon*, it approaches nearer to *Chinchilla*. In the peculiar form and large size of the ears, in the extreme softness of the fur, in the greater development of the pads on the under side of the toes, and in the possession of only four toes to the fore feet, there are other points of resemblance between *Abrocoma* and *Chinchilla*. In the Chinchilla as well as in *Octodon* and *Abrocoma*, we find the toe corresponding to the second (counting from the inner side) furnished with a broad hollow nail;† there are also stiff bristly hairs covering this nail as in the *Octodontidæ*.

The extreme softness of the fur of the animals about to be described, suggested for them the generic name of *Abrocoma*. The fur consists of hairs of two lengths, and the longer hairs are so extremely slender that they might almost be compared to the web of the spider. The specific names applied are those of the distinguished naturalists who first made us acquainted with the two genera, *Octodon* and *Poephagomys*.

1. Abrocoma Bennettii.

Plate XVIII.

Abrocoma Bennettii, *Waterh.*, Proceedings of the Zoological Society of London, for February 1837, p. 31.

A. corpore suprà griseo, ad latera pallidiore et pallidè cervino lavato, subtùs albescenti-cervino; gulâ albescenti-griseâ; pedibus sordidè albis: auribus amplis, ad marginem posticum rectis, extùs ad bases vellere, sicùt in corpore, obsitis: caudâ corpore breviore, ad basin crassiusculâ, pilis brevibus incumbentibus vestitâ.

Description.—Form stout; ears large, with the posterior margin straight; fore

* I have not had an opportunity of examining the skull of *Abrocoma Bennettii*.

† This nail no doubt is used to cleanse the fur, and the bristly hairs may also assist in the operation; the two small toes of the Kangaroo's hind foot are used for the same purpose.

feet rather small, tarsus short; tail rather shorter than the body, thick at the base; fur long and extremely soft, and silk-like. General colour pale grayish brown, with a slight yellow wash; the upper part of the head and the back dusky brown; under parts of the body very pale yellowish brown, inclining to white; chin and throat whitish; feet dirty white; tail well clothed with hairs, which are closely adpressed, brown above, and of a very pale brown beneath at the base, darker towards the apex. The hairs of the moustaches are numerous, long, rather slender, and of a brownish colour. The ears are brown, furnished externally at the base with fur resembling that of the body; the remaining parts (both external and internal) are beset with long and extremely slender brown hairs, which project considerably beyond the margin of the ear. The ordinary fur on the back is about ten lines in length, but thickly interspersed with this fur, are longer hairs which are so delicate that they may almost be compared to the spiders' thread. Both on the upper and under side of the body the fur is deep gray at the base. The incisors are yellow.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	9	9	Length of tarsus (claws included) . .	1	4
of tail	5	0	of ear	0	10
from nose to ear . . .	1	11	Width of ear	1	0½

Habitat, Chile, (*August.*)

"This animal was caught amongst some thickets in a valley on the flanks of the Cordillera, near Aconcagua. On the elevated plain, near the town of Santa Rosa, in front of the same part of the Andes, I saw two others, which were crawling up an acacia tree, with so much facility, that this practice must be, I should think, habitual with them."—D.

2. Abrocoma Cuvieri.

Plate XXIX.

Abrocoma Cuvieri, *Waterh.*, Proceedings of the Zoological Society of London for February 1837, p. 32.

Ab. suprà grisea, levitèr ochraceo lavata; abdomine gulâque albescenti-griseis; pedibus sordidè albis; auribus amplis, ad marginem posticum distinctè emarginatis; caudâ corpore multò breviore, et nigrescente.

Description.—Ears large; tail considerably shorter than the body; fur extremely

soft; general colour gray faintly washed with yellow; under parts of the body grayish white; feet dirty white; tail dusky, paler beneath at the base: the ears are large, distinctly emarginated behind, and appear to be almost naked, but, upon close examination, long and extremely fine hairs may be observed. All the fur is gray at the base; the hairs of the moustaches are numerous and very long, those nearest the mouth are white, the others are black at the base and grayish beyond. The incisors are of a palish yellow colour.

	In.	Lines.		In.	Lines.
Length from nose to the root of tail .	6	6	Length of tarsi (claws included) . .	1	1
of tail	2	10	of ear	0	7
from nose to ear . . .	1	4	Width of ear	0	$7\frac{1}{2}$

Habitat, Chile, (*September.*)

This species is about one-third the size of the last, it differs moreover in being gray instead of brown, and in having the posterior margin of the ear emarginated; the tail is also rather shorter in proportion.

The skull* is figured in Plate 33, fig. 1, *a*, and 1, *b*; and fig. 23, *a*, Plate 34. Its length is 1 inch, $4\frac{1}{2}$ lines; width $9\frac{1}{2}$ lines; length of nasal bones 6 lines; distance between fore part of incisors and the front molar (upper jaw) 5 lines; longitudinal extent of the three molars of upper jaw 3 lines; length of auditory bullæ $5\frac{3}{4}$ lines; length of *ramus* of lower jaw (see Plate 33, fig. 1, *c*,), without incisors, $11\frac{1}{2}$ lines. Fig. 23, *c*, Plate 34, represents the inner side of a *ramus* of the lower jaw: fig. 1, *d*, Plate 33, is the lower jaw seen from above: fig. 23, *b*, Plate 34, is the same seen from beneath. This view is given to show the position of the descending ramus of the lower jaw—that it springs from the outer side of the alveolar portion, as in a great portion of the South American Rodents, such as *Dasyprocta*, *Myopotamus*, *Echimys*, *Chinchilla*, and also in that genus found in the West Indian islands, *Capromys*. Fig. 1, *e*, Plate 33, represents the molar teeth of the upper jaw, and fig. 1, *f*, those of the lower.

"This species is abundant on the dry hills, partly covered with bushes, near Valparaiso."—D.

* The skull is, unfortunately, imperfect, the hinder portion is injured, and the arches which enclosed the ant-orbital openings are broken.

Family—CHINCHILLIDÆ.

Lagostomus trichodactylus.

Lagostomus trichodactylus, *Brookes*, Transactions of the Linnean Society, vol. xvi. p. 95, Pl. 9.
La Vizcache, *Azara*, Essais sur l'Histoire Naturelle des Quadrupedes de la Province du Paraguay, vol. ii. p. 41. Trad. Franc.
Vischacha, *Meyen*, Acta Academiæ, *c. l. c.* Naturæ Curiosorum, Tom. xvi. pars 2, p. 584.

Habitat, La Plata.

"I will not repeat what I have said about the habits of this animal in my Journal, as it is merely a corroboration of Azara's account. According to that author, the Bizcacha is not found north of 30°; and its southern limit occurs in the neighbourhood of the Rio Negro in 41°. Where the plains are gravelly, it is not abundant, but (differently from the *Cavia Patagonica,*) it prefers an argillaceous and sandy formation, such as that near Buenos Ayres. The Bizcacha abounds over the whole Pampas, even to the neighbourhood of Mendoza, and there it is replaced in the Cordillera by an Alpine species. Of the latter animal, I saw one seated on a pinnacle at a great height, but I could not obtain a specimen of it. Azara* has remarked that the Bizcacha, fortunately for the inhabitants of Banda Oriental, is not found to the eastward of the Rio Uruguay; and what makes the case more remarkable is, that although thus bounded by one river, it has crossed the broader barrier of the Parana, and is numerous in the province of Entre Rios. I was assured by a man, whose veracity I can perfectly trust, that these animals, quasi canes, post coitum adnexi sunt."—D.

Family—CAVIIDÆ.

Kerodon Kingii.

Kerodon Kingii, *Bennett*, Proceedings of the Zoological Society of London for 1835, p. 190.

Habitat, Patagonia.

"The Kerodon is common at intervals along the coast of Patagonia, from the

* Azara 'Voyages dans l'Amerique Meridionale,' vol. i. p. 316.

Rio Negro (Lat. 41°) to the Strait of Magellan. It is very tame, and commonly feeds by day: it is said to bring forth two young ones at a birth. At the Rio Negro it frequents in great numbers the bottoms of old hedges: at Port Desire it lives beneath the ruins of the old Spanish buildings. One old male killed there weighed 3530 grains. At the Strait of Magellan, I have seen amongst the Patagonian Indians, cloaks for small children made with the skins of this little animal; and the Jesuit Falkner says, that the people of one of the southern tribes, take their name from the number of these animals which inhabit their country. The Spaniards and half-civilized Indians, call the Kerodon, 'conejos,' or rabbit; and thus the mistake has arisen, that rabbits are found in the neighbourhood of the Strait of Magellan."—D.

1. Cavia Cobaia.

Cavia Cobaia, *Auct.*

Habitat, Maldonado, La Plata, (*June.*)

"This animal, known by the name of Aperea, is exceedingly common in the neighbourhood of the several towns which stand on the banks of the Rio Plata. It frequents different kinds of stations,—such as hedge-rows made of the Agave and Opuntia, or sand-hillocks, or again, marshy places covered with aquatic plants;—the latter appearing to be its favourite haunt. Where the soil is dry, it makes a burrow; but where otherwise, it lives concealed amidst the herbage. These animals generally come out to feed in the evening, and are then tame; but if the day be gloomy, they make their appearance in the morning. They are said to be very injurious to young trees. An old male killed at Maldonado, weighed 1 lb. 3 oz. In all the specimens I saw there, (during June, or winter,) I observed, that the hair was attached to the skin less firmly than in any other animal I remember to have seen."—D.

2. Cavia Patachonica.

Cavia Patachonica, *Shaw*, General Zoology, vol. ii., part 1, p. 226.
Dasyprocta Patachonica, *Desmarest*, Mamm. p. 358, Sp. 574.
Dolichotis———————————— in Note, p. 359-360
Chloromys Patachonicus, *Lesson*, Manuel de Mammalogie, p. 301.
Lièvre Pampa, *Azara*, Essais sur l'Histoire Naturelle des Quad. de la Province du Paraguay. French Translation, vol. ii. p. 51.

In the form of the cranium, and in the structure of the teeth, this animal possesses all the characters of the Cavies *(Caviidæ)*.*

Habitat, Patagonia.

* See Proceedings of the Zoological Society for April, 1839, p. 61.

"This animal is found only where the country has rather a desert character. It is a common feature in the landscape of Patagonia, to see in the distance two or three of these Cavies hopping one after another in a straight line over the gravelly plains, thinly clothed by a few thorny bushes and a withered herbage. Near the coast of the Atlantic, the northern limit of this species is formed by the Sierra Tapalguen, in latitude 37° 30′, where the plains rather suddenly become greener and more humid. The limit certainly depends on this change, since near Mendoza, (33° 30′.) four degrees further northward, where the country is very sterile, this animal again occurs. Azara erroneously supposed that its northern range was only 35°.* It is not clear on what circumstances its limit southward between Ports Desire and St. Julian (about 48° 30′.) depends; for there is in that part no change in the features of the country. It is, moreover, a singular circumstance, that although the Cavy was not seen at Port St. Julian during our voyage, yet Capt. Wood, in 1670, speaks of them as being numerous there. What cause can have altered, in a wide, uninhabited, and rarely visited country, the range of an animal like this?

"Azara states,† that the Cavy never excavates its own burrow, but uses that of the Bizcacha. Wherever this animal is present, without doubt this is true; but on the sandy plains of Bahia Blanca, where the Bizcacha is not found, the Spaniards maintain that the Cavy is its own workman. The same thing occurs with the little owls of the Pampas (*Noctua cunicularia*), which have been described by travellers as standing like sentinels at the mouths of almost every burrow; for in Banda Oriental, owing to the absence of the Bizcacha, these birds are obliged to hollow out their own habitations. Azara says, also, that this Cavy, except when pressed by danger, does not enter its burrow; on this point I must again differ from that high authority. At Bahia Blanca I have repeatedly seen two or three of these animals sitting on their haunches by the mouths of their holes, which they quietly entered as I passed by at a distance. Daily, in the neighbourhood of these spots, the Cavies were abundant: but differently from most burrowing animals, they wander, commonly two or three together, to miles or leagues from their home; nor do I know whether they return at night. The Cavy feeds and roams about by day; is shy and watchful; seldom squats after the manner of a hare; cannot run very fast, and, therefore, is frequently caught by a couple of dogs, even of mixed breed. Its manner of running more resembles that of a rabbit than of a hare. The Cavy generally produces two young ones at a birth, which are brought forth within the burrow. The flesh, when cooked, is

* Azara, Voyage dans l' Amérique Méridionale, vol. i. p. 318.

† Azara, Quadrupeds of Paraguay.

very white; it is, however, rather tasteless and dry. Full grown animals weigh between twenty and twenty-six pounds.'—D.

Hydrochœrus Capybara.

Hydrochœrus Capybara, *Auct.*

"These animals are common wherever there are large rivers or lakes, over that part of the South American Continent which lies between the Orinoco and the Plata, a distance of nearly 1400 miles. They are not generally supposed to extend south of the Plata; but as there is a Laguna Carpincho (the latter being the provincial name of the Capybara) high up the Salado, I presume they have sometimes been seen there. Azara does not believe they ever frequent salt water; but I shot one in the Bay of Monte Video; and several were seen by the officers of the Beagle on the Island of Guritti, off Maldonado, where the water is very nearly as salt as in the sea. The one I shot, at Monte Video, was an old female; it measured from tip of snout to end of stump-like tail, 3 feet 8½ inches, and in girth 3 feet 2 inches. She weighed 98 pounds. I opened the stomachs of a couple, which I killed near a lake at Maldonado, and found them distended with a thin yellowish-green fluid, in which not more than a trace of a vegetable fibre could be distinguished: it is in accordance with this fact, that a part of the œsophagus is so narrow, as I am informed by Mr. Owen, that scarcely anything larger than a crow-quill can be passed down it. The shape of the dung of these animals is a short straight cylinder, rounded at the extremities; when dried and burnt, it affords a pleasant smell like that from cedar wood. These animals do not burrow holes, but live amongst the thickets, or beds of rushes near rivers and lakes. At Maldonado they often may be seen during the day, seated on the grassy plain in small groups of three and four, at the distance of a few yards from the border of the lake, which they frequent. I must refer the reader for a few more details respecting their habits, to my Journal of Researches.—D."

Section — LEPORINA.

Family—LEPORIDÆ.

Lepus Magellanicus.

Lepus Magellanicus, *Lesson et Garnot*, Zoologie du Voyage autour du Monde de la Corvette, La Coquille.

"A black variety of the domesticated species, which was turned out on these islands by the earlier colonists, has been considered, but with some hesitation, by M. Lesson, as a distinct species. He has called it *Lepus Magellanicus*, and has given the following specific character,—'*Pilis omnino atro-violaceis, albis passim sparsis: auriculis fuscis, capite brevioribus; maculâ albâ naso, interstitio narium, menti, gulæ, frontique.*'* In the specimens preserved on board the Beagle, the form and position of the white marks neither agree with M. Lesson's description, nor with each other. In one there is a broad white patch on one side of the head, and another on one of the hinder thighs. The Spaniards employed in hunting wild cattle, (who are all excellent practical observers) assured me, that the black rabbits were only varieties of the common gray kind, and they gave the following reasons for thinking so;—namely, that the two sorts did not live apart; that the black one had not a different range from the other; that the two bred freely together, and that they produced pie-bald offspring. As the rabbits extend their range very slowly, (not having yet crossed the central range,) the Spaniards have sometimes carried a few and turned them out in different parts of the island, and thus they have ascertained that the black and gray kinds breed together freely. Bougainville, moreover, who visited the part of the island, where the black variety is now most common, distinctly states, in his voyage round the world, that no animal, excepting the great wolf-like fox inhabited these islands. M. Lesson supposes that the *Lepus Magellanicus* is found near the Strait of Magellan; but I inquired of the Indians, who live there, and they knew of no other 'conejos' or rabbits, except the *Kerodon Kingii*, which no doubt is the animal alluded to by the early voyagers."—D.

1. Dasypus hybridus.

Dasypus hybridus, *Auct.*

"This species seems to prefer rocky and slightly undulating ground, and

* Voyage de La Coquille. Partie Zoologique, vol. i. p. 168.

hence is common in Banda Oriental and Entre Rios. Azara says it is found from 26° 30′, to at least 41° south; but, I was assured, perhaps incorrectly, that the Sierra Tapalguen (37° 30′), where the nature of the country becomes slightly different, is its southern limit. The *D. villosus*, *minutus*, and *mataco*, are found at Bahia Blanca, in latitude 39°. I was also assured that these three species, together with the *D. hybridus*, frequent the plains near Mendoza, in latitude 33° to 34°."—D.

2. Dasypus minutus.

Dasypus minutus, *Auct.*

"The northern limit of this species on the Atlantic side of the continent, is (as I was told by the inhabitants) near the southern one of the *D. hybridus*, namely, 37° 30′. It is extremely abundant on the arid plains near the Sierra Ventana, and likewise in the neighbourhood of the Rio Negro. This species has a range considerably further southward than any other: I obtained specimens at Port Desire, where, however, it is far from common, and at Santa Cruz (in latitude 50°) I saw its tesselated covering lying on the ground. At Bahia Blanca, I found in the stomach of this armadillo, coleoptera, larvæ, roots of plants, and even a small snake of the genus Amphisbæna. All the species, excepting one, wander about by day. At Bahia Blanca, during a morning's ride, three or four of the *D. minutus* generally were met with; but, in order to secure them, it was necessary to jump off one's horse as quickly as possible, otherwise, they would have disappeared by burrowing in the sandy soil. This species often endeavours to escape detection by squatting close to the ground, and remaining motionless."—D.

1. Didelphis Azaræ.

Didelphis Azaræ, *Auct.*

"This species is said to inhabit burrows: it is nocturnal, and is very destructive to poultry. The body after death possesses a very offensive odour. My specimen was procured at Maldonado."—D.

2. Didelphis crassicaudata.

Plate XXX.

Didelphis crassicaudata, *Desmarest*, Nouv. Dict. d'Hist. Nat. 2d Ed. ix. p. 425.
——— ——— Mammalogie, p. 257, Species 393.
Microuré troisième, ou Macrouré à grosse queue, *Azara*, Essais sur l'Histoire Nat. des Quad. de la Province de Paraguay, vol. i. p. 284.

D. capite brevi; auribus parvis; colore corporis fuscescenti-flavo subtùs pallidiore; infra oculos flavescente; caudâ crassâ, caput corpusque, quoad longitudinem, ferè æquante; ad basin corporis colore tinctâ, dein nigra, ad apicem albâ.

Description.—Head short; ears small, the posterior edge emarginated near the base, distinctly furnished with hairs; tail slightly exceeding the body in length, very thick at the base; tarsi small; fur moderately long, slightly harsh, and somewhat adpressed (much less woolly than in most Opossums): general tint brownish yellow, under parts paler; anterior angle of the eye and muzzle brown, the tip of the chin, and also the tip of the muzzle on either side whitish; on the cheeks, a little below the eyes, is a patch of yellow which extends round the angle of the mouth: about one-third of the tail is covered with fur of the same colour and character as that on the body; beyond this the tail is black, excepting a small portion, about one inch in length, at the apex, which is white; and the hairs are short, closely adpressed, and scarcely hide the scales which are beneath: the fore portion of each foot is brown: the hairs covering the ears on the outer side are brownish, and those on the inner side of the ear are yellow, but towards the outer margin they are brown. The hairs of the back have the basal half gray, and the apical half ochreous, terminating in yellowish brown; on the belly and underside of neck, the hairs are ochreous, faintly tinted with gray at the base.

	In.	Lines.		In.	Lines.
Length from nose to root of tail . .	1	3	Length of tarsus	1	5½
of tail	10	3	of ear	0	6
from nose to ear . . .	2	1½			

Habitat, Maldonado, La Plata, (*June*).

The species described by Azara, under the name *Macrouré à grosse queue*, agrees so perfectly with the present animal, that I have no hesitation in referring

it to the *Didelphis crassicaudata* of Desmarest, which is founded upon Azara's description.

The head of the *Didelphis crassicaudata* is shorter and less pointed than in most other Opossums; the ears are unusually small, and the tail is very thick. In the character of the fur also, this species differs from most others, the hairs being rather short and somewhat adpressed; and the soft under-fur being very scanty. Upon separating the fur on the back and sides of the body, numerous young hairs were visible in the specimen from which the above description is taken, and these were of a bright rusty red tint; the colouring of the animal therefore would, in all probability, have been very different after a short time, had it not been killed. Those observed by Azara varied considerably in their colouring. The skull is figured in Plate 34. figs. 25. Fig. *d* represents a *ramus* of the lower jaw.

	In.	Lines.
Length of the skull	2	4
Width	1	3
Length of nasal bones	0	$9\frac{1}{2}$
——— of palate	1	$2\frac{3}{4}$
Width of palate between the posterior molars	0	5
Distance between forepart of front incisors and forepart of canine	2	$0\frac{3}{4}$
Distance between forepart of canine and hinder part of last molar	1	0
Length of *ramus* of lower jaw (incisors not included)	1	$10\frac{1}{2}$

"This specimen was caught at Maldonado: it weighed $14\frac{1}{2}$ oz."—D.

3. Didelphis elegans.

Plate XXXI.

D. vellere longo et molli, corpore suprà cinereo-fuscescente lavato; pedibus corporeque subtùs albis, oculis nigro circumdatis, interspatio cinerescente; auribus magnis fuscescentibus; caudâ, capite et corpore, paulo breviore.

Description.—Muzzle slender and pointed; ears large; tail rather shorter than the head and body taken together; fur long and very soft: general tint of the upper parts of the head and body ashy-gray washed with brown; on the sides of the body, especially near the shoulders, a faint yellowish tint is observable; the lower part of the cheeks, the throat, under parts of the body and the feet, are white, with an indistinct yellowish tint; the eyes are encircled with brownish-black, which tint is extended forwards on to the sides of the muzzle; the upper surface of the muzzle and the inter-orbital space is

pale. The tail is furnished throughout with minute decumbent hairs, excepting a small naked space at the tip beneath, of about one line in length; on the upper surface they are brown, and on the under, they are whitish. The fur of the upper and under parts of the body is deep gray at the base; on the lower part of the cheeks, chin, and on the mesial line of the throat and chest, the hairs are uniform—not gray at the base. The ears are brown, and to the naked eye, appear naked.

	In.	Lines.
Length from nose to root of tail	4	6
of tail	4	4
of tarsus (claws included)	0	$7\frac{1}{2}$

	In.	Lines.
Length from nose to ear	1	$1\frac{1}{2}$
of ear	0	$7\frac{1}{4}$
width of ear	0	$7\frac{1}{2}$

Habitat, Valparaiso, Chile, (*October.*)

This little Opossum, which is the only species I am acquainted with from the west side of the Cordillera, was exhibited at one of the scientific meetings of the Zoological Society, and its characters were pointed out by Mr. James Reid, who proposed for it the specific name of *hortensis*,* a name which was given from the circumstance that in Mr. Darwin's notes it is stated that a small Opossum was found in a garden at Maldonado. These notes however refer to the *Didelphis brachyura*. The skull of this animal is figured in Plate 35. Fig. 5, *a*, represents the upper side; 5, *b*, the under side; and 5, *c*, is the side view. Fig. 5, *d*, is the lower jaw, and 5, *e*, is the same magnified. The length of the skull is $14\frac{1}{2}$ lines; width, 8 lines; length of palate, $7\frac{1}{2}$ lines; inter-orbital space, $2\frac{1}{2}$ lines; length of *ramus* of lower jaw, $10\frac{1}{2}$ lines. In the palate are two long openings which commence opposite the posterior false molar, and terminate opposite the hinder portion of the penultimate true molar: the incisive foramina are nearly one line in length. On the posterior portion of the palate there are four other foramina, one on each side near the posterior molar, and one on either side the mesial line, behind the large palatine openings above mentioned.

"These little animals frequent the thickets growing on the rocky hills, near Valparaiso. They are exceedingly numerous, and are easily caught in traps baited either with cheese or meat. The tail appeared to be scarcely at all used as a prehensile organ; they are able to run up trees, with some degree of facility. I could distinguish in their stomachs the larvæ of beetles."—D.

* See Proceedings of the Zoological Society of London for January, 1837, p. 4.; its characters were not published.

4. Didelphis brachyura.

Plate XXII.

Didelphis brachyura, *Auct.*

D. vellere brevi, corporis suprà cinereo, flavo lavato; lateribus capitis, corporisque, et partibus inferioribus rufescenti-flavis, gulâ et abdomine pallidioribus; caudâ brevi.

Description.—Head large; canine teeth very large; ears rather small; tail short, rather more than half the length of the body; fur short and crisp; the back and upper surface of the head ashy gray, grizzled with yellowish white; the sides of the head and body, and under parts rusty yellow, rather paler on the belly than on other parts, and of a deeper hue on the rump and cheeks; the eye is encircled with rusty yellow; feet yellowish; tail clothed with short stiff hairs, and exhibiting scales, brownish above, and dirty yellowish white beneath—a small naked space beneath, at the tip, of about two lines in length. Fur of the back grayish at the base, that on the belly uniform; ears clothed with minute yellowish white hairs.

	In.	Lines.		In.	Lines
Length from nose to the root of tail .	6	0	Length of tarsus (claws included) .	0	$8\frac{3}{4}$
from nose to ears . . .	1	6	of ear	0	$3\frac{1}{4}$
of tail	2	8			

Habitat, Maldonado, La Plata, (*June.*)

Never having seen a good figure of this animal, I have thought it desirable to introduce it in the plates of this work.

The *Didelphis brachyura* is closely allied to the *D. tricolor* of authors, but in that species the upper parts of the body are nearly black; the sides of the head and body are of a deep rusty red tint, and the under parts are almost white.

"Was caught by some boys digging in a garden. Its intestines were full of the remains of insects, chiefly ants and others of the Hemipterous order."—D.

Mus fuscipes.

Reithrodon Cuniculoides.

Rattus rufescens Chinchillaides

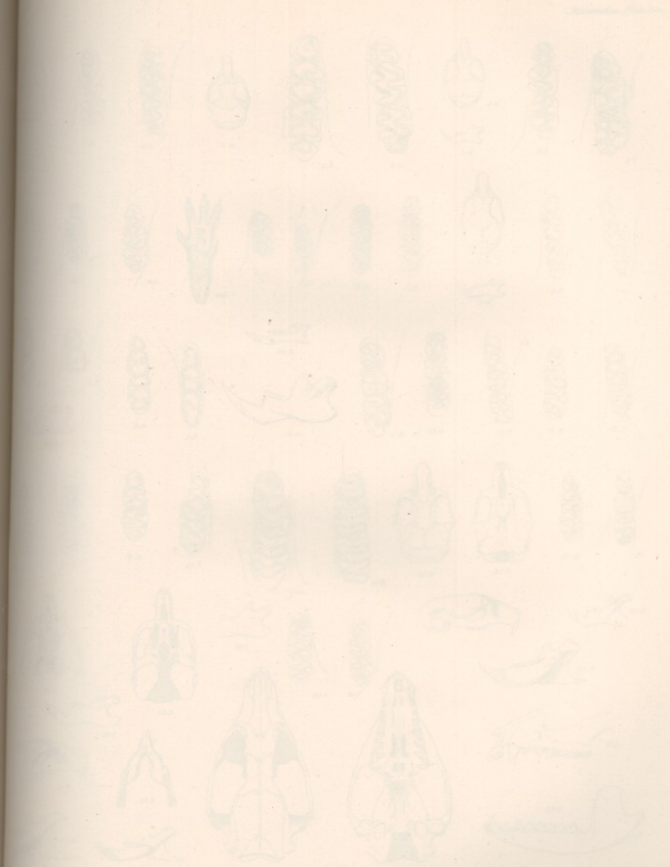
Abrocoma Bennettii.

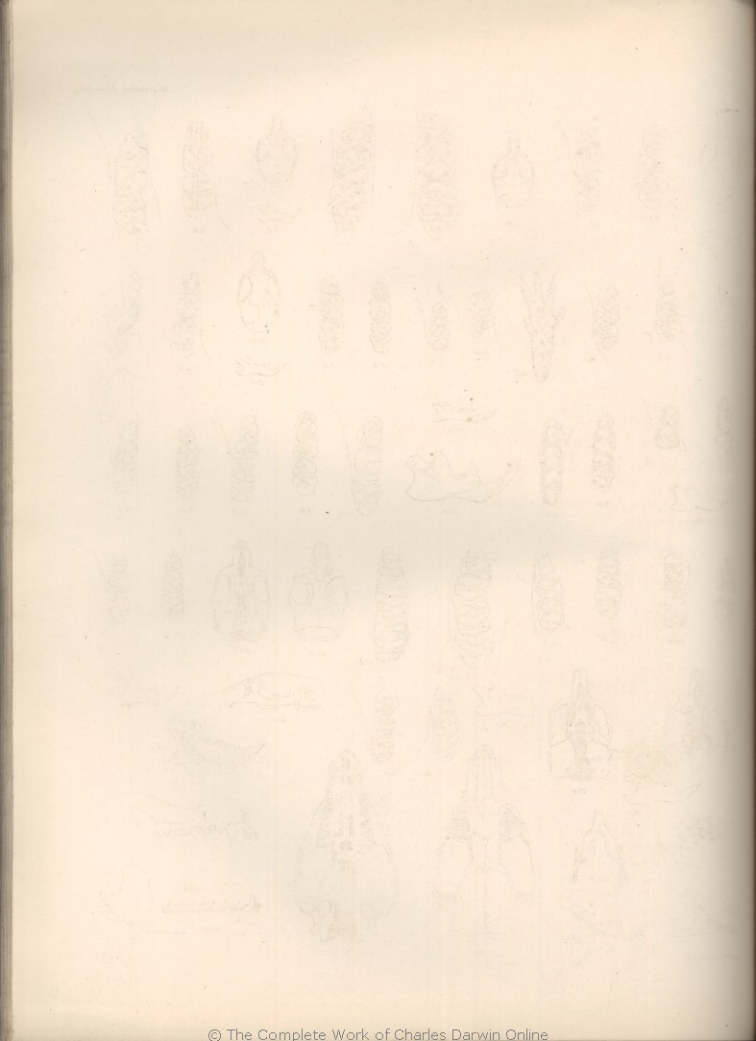
Abrocoma Cuvieri

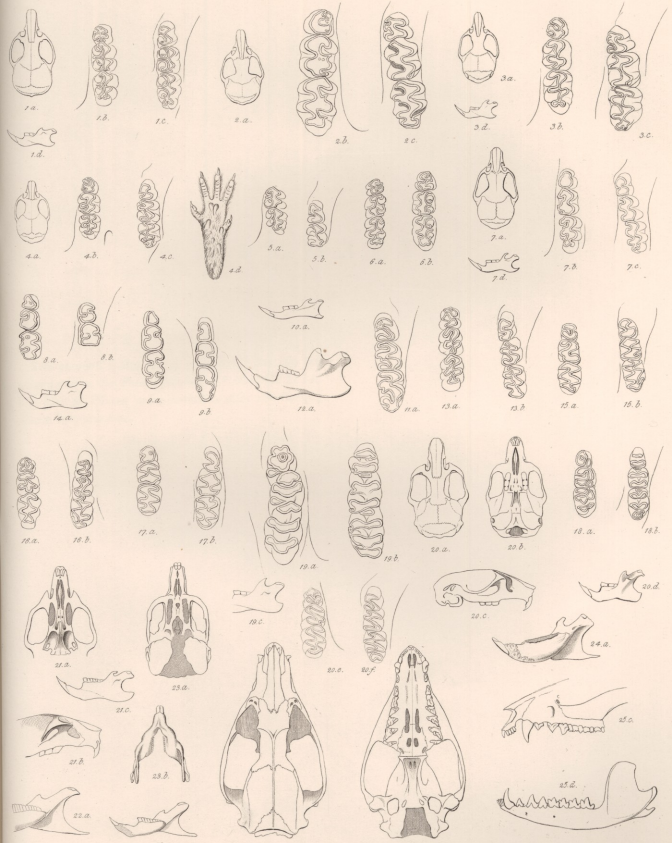
Thylacis crassicaudata

Didelphis elegans.

Didelphis brachyura







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DURING THE YEARS

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* The palatine foramina are accidentally omitted—see description.

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