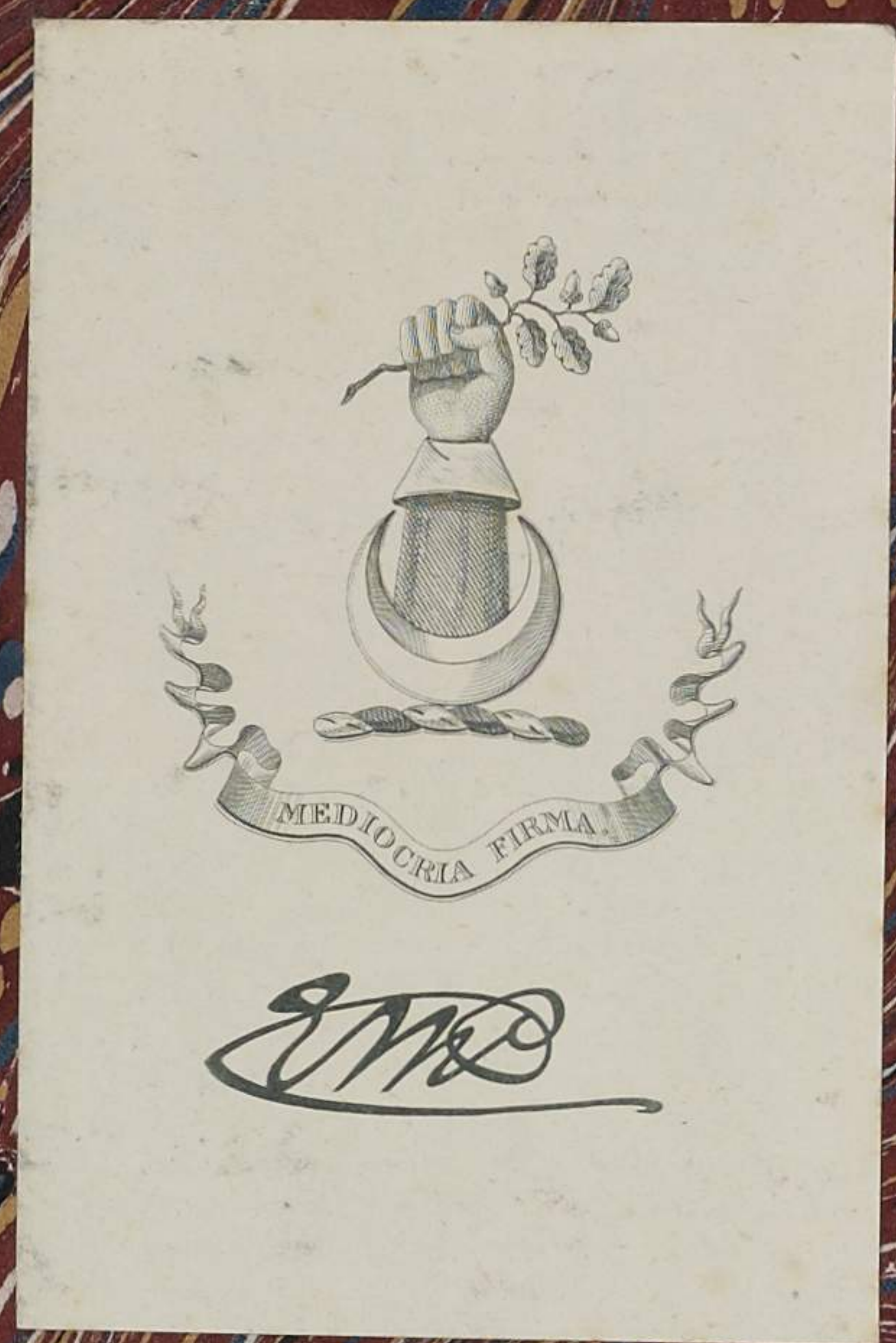


KANGAROO S.



GOULD.





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A

MONOGRAPH

OF

THE MACROPODIDÆ,

OR

FAMILY OF KANGAROOS.

BY

JOHN GOULD, F.L.S., F.Z.S., &c.

PART I.

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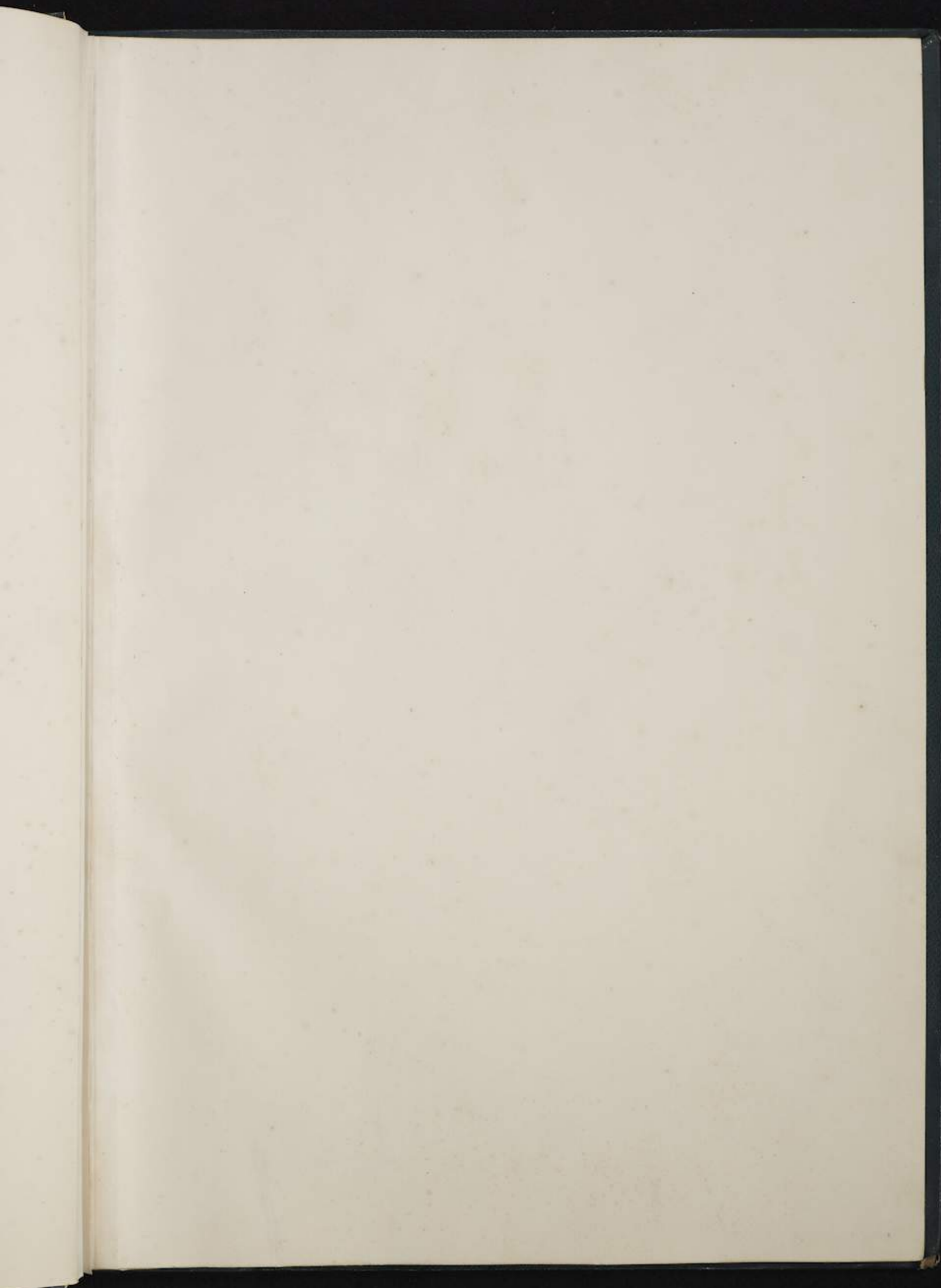
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MACROPS MAJOR, Shaw

C. H. Boscawen del.

H. C. Boscawen sculp.

MACROPUS MAJOR, Shaw.

Great Grey Kangaroo.

Spec. Char.—*Macropus vellere corporis, supernè, e cinereo fusco, apud antibrachios et abdomen canescenti-cinereo, antipedibus, pedibus posticis, caudæque apice nigris; lineâ albescente suprâ labium per genas excurrente.*

Deser.—All the fur on the upper surface uniform greyish brown above, passing into grisly grey on the arm and under surface; a faint line of greyish white above the upper lip and along the sides of the face; hands, feet, and tip of the tail black.

	Male.		Female.	
	feet.	inches.	feet.	inches.
Length from the nose to the extremity of the tail	7	10	5	11½
„ of tail	3	2	2	4½
„ „ tarsus and toes, including the nail	1	3	1	½
„ „ arm and hand, including the nails	1	6		10½
„ „ face from the tip of the nose to the base of the ear		9		8
„ „ ear		5½		5

Macropus giganteus, Shaw, Nat. Misc., pl. 33.

Didelphis gigantea, Linn. Syst. Nat. Gmel., p. 109.—Schreb., t. 154.

Kangaroo, Cook's Voy., vol. iii. p. 577. pl. 20.—Phill. Voy., pl. in p. 106.—White's Voy., pl. in p. 272.

Macropus major, Shaw, Gen. Zool., vol. i. p. 305. pl. 115.—Cook's First Voy., vol. iv. p. 45. pl. 2.—Desm. Nouv. Dict. d'Hist. Nat., tom. xvii. p. 33.

Kangurus labiatus, Geoff. Encycl., pl. 21. fig. 4.—Desm. Ency. Méth. Mamm., p. 273.

Boomer, Forester, Old Man Kangaroo of the Colonists, Bundaary of the Aborigines of the Liverpool range.

THERE can be little doubt of the present species being that noticed by our celebrated navigator Cook, in his voyage round the world in 1770; and as I conceive all information connected with this early-known species will be interesting, I shall commence my account of its history with a quotation from the above-mentioned work.

“On Friday, June the twenty-second, while stationed for a short time on the south-east coast of Australia,” says Captain Cook, “a party, who were engaged in shooting pigeons for the use of the sick of the ship, saw an animal, which they described to be ‘as large as a greyhound, of a slender make, of a mouse-colour, and extremely swift.’ The following day the same kind of animal was again seen by a great many other people. On the twenty-fourth it was seen by Captain Cook himself, who, walking at a little distance from the shore, observed a quadruped, which he thought bore some resemblance to a greyhound, and was of a light mouse-colour, with a long tail, and which he should have taken for a kind of wild dog, had not its extraordinary manner of leaping, instead of running, convinced him of the contrary. Mr. Banks also obtained a transient view of it, and immediately concluded it to be an animal perfectly new and undescribed.

“The sight of a creature so extraordinary could not fail to excite, in the mind of a philosophic observer, the most ardent wishes for a complete examination. These were at length gratified; Mr. Gore, one of the associates in the expedition of Captain Cook, having been so fortunate as to shoot one in the course of a few days.”

Such is the earliest notice to be found relative to this fine species, of which living examples were a few years afterwards brought to Europe, and have from time to time formed an interesting addition to our menageries. It is however remarkable, that though it has now been introduced for so long a period, all attempts at naturalizing it have hitherto proved futile; still, from my own observations of the animal in a state of nature, I am led to believe that a small degree of perseverance is alone requisite to effect so desirable an object. Should I be so fortunate as to interest any who have the means, as well as the inclination, in the furtherance of this object, we may yet hope to see our large parks and forests graced with the presence of this highly ornamental and singular animal. That it would bear the severities of our winters is almost beyond a doubt, since in Van Diemen's Land, among other places, it resorts to the bleak, wet, and frequently snow-capped summit of Mount Wellington. The kind of country which appears most suitable to its nature, consists of low grassy hills and plains, skirted by thin open forests of brushwood, to the latter of which, especially on the continent of Australia, it resorts for shelter from the oppressive heat of the mid-day sun. Although the numbers of this large species are becoming greatly reduced in consequence of the intrusion of civilized man, and though it has disappeared from those localities where he has taken up his abode, accompanied by his vast flocks and herds, still the immense tracts of sterile unwatered country which characterize Australia, and present physical obstacles to cultivation, will, in my opinion, for a long period afford a sufficient asylum for the preservation of the race.

It enjoys a wide range of habitat, being spread over the colony of New South Wales, the interior to the northward as far as it has yet been penetrated, as well as the whole of the intermediate country between New South Wales and South Australia, where I observed it tolerably abundant; but I am induced to believe this latter district is almost the boundary of its range westward, although, on this point, I may be in error.

I should consider it as not, strictly speaking, a gregarious animal, as I have never seen more than six or eight together, and have more frequently met with it singly or in pairs. Its senses of smelling and hearing are so exquisite that it is extremely difficult of approach without detection, and to effect this it is always necessary to advance against the wind. It browses upon various kinds of grasses, herbs and low shrubs, a kind of food which renders its flesh well-tasted and nutritive. The early dawn and evening are the periods at which it feeds, and at which it is most certain to be met with.

Although hunted and frequently killed by the Dingo, its most formidable antagonist has hitherto been the Aborigine, who employs several modes of obtaining it; sometimes stealing upon it with the utmost caution under covert of the trees and bushes, until it is within the range of his spear, which is generally thrown with unerring aim; at other times, having discovered their retreat, the natives unite in a party, and, forming a large circle gradually, close in upon them

with shouts and yells, by which the animals are so terrified and confused, that they easily become victims to the bommerengs, clubs and spears which are directed against them from all sides.

Still, however formidable an enemy the Aborigine may have been, the Great Grey Kangaroo finds, at the present time, a far greater one in the white man, whose superior knowledge enables him to employ, for its destruction, much more efficient weapons and assailants than those of the more simple son of nature. Independently of the gun, he brings to his aid dogs of superior breed, and of so savage a nature, that the timid kangaroo has but little chance when opposed to them. These dogs, which run entirely by sight, partake of the nature of the greyhound and deerhound, and from their great strength and fleetness are so well adapted for the duties to which they are trained, that its escape, when this occurs, is owing to peculiar and favourable circumstances, as, for example, the oppressive heat of the day, or the nature of the ground; the former incapacitating the dogs for a severe chase, and the hard ridges which the kangaroo invariably endeavours to gain giving him a great advantage over his pursuers. On such grounds the females in particular will frequently outstrip the fleetest greyhound, while, on the contrary, heavy old males, on soft ground, are easily overtaken. Many of these fine kangaroo-dogs are kept at the stock-stations of the interior for the sole purpose of running the kangaroo and the emu, the latter being killed solely for the supply of oil which it yields, and the former for mere sport, or for food for the dogs. Although I have killed the largest males with a single dog, it is not generally advisable to attempt this, as they possess great power, and frequently rip up the dogs, and sometimes even cut them to the heart with a single stroke of the hind leg. Three or four dogs are more generally laid on, one of superior fleetness to "pull" the kangaroo, while the others rush in upon and kill it. It sometimes adopts a singular mode of defending itself by clasping its short powerful fore-limbs around its antagonist, leaping away with it to the nearest water-hole, and there keeping it beneath the surface until drowned; with dogs the old males will do this whenever they have an opportunity, and it is said that they will also attempt to do the same with man. In Van Diemen's Land the *Macropus major* forms an object of chase, and like the deer and fox in England, is hunted with hounds; and twice a week, during the season, the Nimrods of this distant land may be seen, mounted on their fleet steeds, crossing the ferry of the Derwent, at Hobart Town, on their way to the hunting-ground, where they seldom meet without "finding." The following particulars of the "hunt" have been obligingly forwarded to me by the Honourable Henry Elliot, late aide-de-camp to His Excellency Sir John Franklin, and one of its chief patrons.

"I have much pleasure in telling you all I know of the kangaroo-hunting in Van Diemen's Land. The hounds are kept by Mr. Gregson, and have been bred by him from foxhounds imported from England; and though not so fast as most hounds here now are, they are quite as fast as it is possible to ride to in that country.

"The 'Boomer' is the only kangaroo which shows good sport, for the strongest 'Brush Kangaroo' cannot live above twenty minutes before the hounds; but as the two kinds are always found in perfectly different situations, we never were at a loss to find a Boomer, and I must say that they seldom failed to show us good sport. We generally 'found' in a high cover of young wattles; but sometimes we 'found' in the open forest, and then it was really pretty to see the style in which a good kangaroo would go away. I recollect one day in particular, when a very fine Boomer jumped up in the very middle of the hounds, in the 'open'; he at first took a few high jumps with his head up, looking about him to see on which side the coast was clearest, and then, without a moment's hesitation, he stooped forward and shot away from the hounds, apparently without an effort, and gave us the longest run I ever saw after a kangaroo. He ran fourteen miles by the map from point to point, and if he had had fair play, I have very little doubt but that he would then have beat us; but he had taken along a tongue of land which ran into the sea, so that, on being pressed, he was forced to try to swim across the arm of the sea, which, at the place where he took the water, cannot have been less than two miles broad; in spite of a fresh breeze and a head sea against him, he got fully half-way over, but he could not make head against the waves any further, and was obliged to turn back, when, being quite exhausted, he was soon killed.

"The distance he ran, taking in the different bends in the line, cannot have been less than eighteen miles, and he certainly swam more than two. I can give no idea of the length of time it took him to run this distance, but it took us something more than two hours; and it was evident, from the way in which the hounds were running, that he was a long way before us; and it was also plain that he was still fresh, as, quite at the end of the run, he went over the top of a very high hill, which a tired kangaroo never will attempt to do, as dogs gain so much on them in going up hill. His hind quarters weighed within a pound or two of seventy pounds, which is large for the Van Diemen's Land Kangaroo, though I have seen larger.

"We did not measure the length of the hop of this kangaroo; but on another occasion, when the Boomer had taken along the beach, and left his prints in the sand, the length of each jump was found to be just fifteen feet, and as regular as if they had been stepped by a serjeant. When a Boomer is pressed, he is very apt to take the water, and then it requires several good dogs to kill him; for he stands waiting for them, and as soon as they swim up to the attack, he takes hold of them with his fore-feet, and holds them under water. The buck is altogether very bold, and will generally make a stout resistance; for if he cannot get to the water, he will place his back against a tree, so that he cannot be attacked from behind, and then the best dog will find in him a formidable antagonist.

"The doe, on the contrary, is a very timid creature; and I have even seen one die of fear. It was in a place where we wished to preserve them, and as soon as we found that we were running a doe, we stopped the hounds just at the moment they were running into her. She had not received the slightest injury, but she lay down and died in about ten minutes. When a doe is beat she generally makes several sharp doubles, and then gets among the branches, or close to the trunk of a fallen tree, and remains so perfectly still, that she will allow you almost to ride over her without moving, and in this way she often escapes. A tolerably good kangaroo will generally give a run of from six to ten miles; but in general they do not run that distance in a straight line, but make one large ring back to the place where they were found, though the larger ones often go straight away."

An extraordinary difference is observable in the size of the sexes of this species, the female being not more than half the size of the male: she brings forth one young at a time, which as soon as it is clothed with hair assumes the colouring of the adult.

The specimens from which my drawings and descriptions are taken were killed in the neighbourhood of the Liverpool range in the middle of summer, and are both adults; I have, however, seen larger examples of the male. A slight variation is found to exist in specimens from different localities, some being much darker than those represented in the Plate, and others of a foxy-red. Albinos are occasionally, but very rarely, to be met with. As might reasonably be expected also, the fur is much thicker and more woolly in winter than in summer.

The Plate represents an adult male and female.

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MACROPUS LANIGER: Quoy & Gaim

H. C. Richardson del et lith.

C. H. Mammals, 1830



MACROPUS LANIGER.

Great Red Kangaroo.

Spec. Char.—MAS. *Macropus vellere brevi, molli, et quasi gossipino; colore arenaceo-rufo; capite humerisque cinereis, et arenaceo-rufo leviter tinctis; corpore subtus exalbescente arenaceo-cinereo; artubus caudâque albidis; digitis nigris; rostri lateribus albis nigro variegatis.*

FEM. *Colore corporis superioris cæruleo-cinereo; inferioris, et artuum albo; faciei lateribus strigâ albâ distinctè notatis.*

Descr.—MALE. General colour sandy red slightly tinged with orange, especially on the flanks and rump; neck, back and shoulders washed with ashy grey; the same tint, but somewhat paler, is also observable on the outer side of the thigh; head deep ashy grey, tinged in parts with sandy red; sides of the muzzle as far as the angle of the mouth and the chin pure white; intermingled with the white of the muzzle are some bristly black hairs, forming two interrupted black lines; ears grey on the exterior, with a few black hairs near the tip, and white on the interior; throat, chest and all the under surface tawny white tinged with grey; arms and legs tawny white; hands and toes blackish brown; tail tawny white tinged with grey.

FEMALE. General tint rather paler; the sandy red on the sides of the body less distinct; head and shoulders of a paler grey, and as well as the haunches tinged vinous: differs also from the male in having a distinct broad white mark extending from the angle of the mouth backwards under the eye, and in having the under parts of the body and limbs pure white.

YOUNG. The upper parts of the body of nearly a uniform pale slate-grey.

	Male.		Female.	
	feet.	inches.	feet.	inches.
Length from the nose to the extremity of the tail	8	2	7	0
„ of tail	3	0	2	9½
„ „ tarsus and toes, including the nail	1	2	1	0
„ „ arm and hand, including the nails	1	6½	1	0
„ „ face from the tip of the nose to the base of the ear	8		8	
„ „ ear	5½		4½	

Kangurus rufus, Desm. Mamm. Suppl. p. 541.

Kangurus laniger, Quoy et Gaim. Voy. de l'Uranie, p. 65, pl. 9.

THIS noble species of Kangaroo, the largest and one of the most elegant of its race yet discovered, has hitherto been so little known, that, with the exception of my own specimens, a single skin, and that in the most imperfect condition, is all that has ever reached Europe. The specimen referred to is the original of the figure and description in the zoology of the "Voyage de l'Uranie" as quoted above. The specific term of *laniger* appeared so inapplicable to my specimens, as, together with the inaccuracy of the plate and description, to induce me to question their identity; and in order to clear up this doubt satisfactorily I visited the Parisian museum and examined the original, when I found, to my great astonishment, that the deficiencies of natural hair on many parts of the skin had been replaced by finely cut sheep's wool, whereby the appellation of Woolly Kangaroo was rendered more correct than I had anticipated: it would have been better for science had this circumstance been stated. The sides and upper surface of the body of those I brought to Europe are the only parts of the animal that have any tendency to the woolly character, and the hair on these parts entirely wants that crispness mentioned by Messrs. Quoy and Gaimard. The specimen in the museum of the Jardin des Plantes was presented to the officers of the expedition by Fraser the botanist, during their stay at Sydney, and was said to be from Port Macquarrie; but I am led to believe that some mistake must have arisen on this point, and that the Macquarrie river was the locality intended, since it is an animal entirely confined to the interior.

Two of my specimens were obtained in South Australia, and the others on the plains bordering the Namoi; from the works of Oxley and Sturt we find that it frequents the banks of the Morumbidgee and Darling; we may consequently infer that it is very generally dispersed over the great basin of the interior of Australia, as it certainly is over the eastern portions of that continent. I regret that these authors should have given such slight notices of this interesting animal, which they must have frequently encountered in their expeditions. Capt. Sturt merely states, that while encamped on the Morumbidgee "we saw several red kangaroos, and succeeded in killing one. It certainly is a beautiful animal, ranging the wilds in its native freedom. The female and kid are of a light mouse-colour." Having, like Capt. Sturt, had the pleasure of seeing this species in its native wilds, I fully concur in his opinion as to its beauty; it is, in fact, the finest of the Australian Mammalia: and the female is particularly attractive, from her graceful, slender, and elegant form, and from the snowy whiteness of her legs and under surface contrasted with the blue-grey tint of her sides and back. The male, especially when adult, has the red and white more blended into each other; the blue-grey which distinguishes the female, being rarely if ever perceptible; hence has arisen the trivial names of red buck and blue doe for the two sexes respectively: the female is also called the flying doe, from her extreme fleetness, for which her whole structure is so admirably adapted, that I have little hesitation in saying, that under favourable circumstances she would outstrip the fastest dogs: occasionally, however, both sexes are run successfully, either from the chase being over soft mouldy soil, or from the female being encumbered by a large and heavy young one, which she has not been able to

disengage from the pouch, and which she will always do, if possible, when hardly pressed. The beautiful female represented in the accompanying Plate was captured under these circumstances. Having observed a pair sheltering themselves from the heat of the sun under a small group of Myalls (*Acacia pendula*) on the plains near the Namoi, I succeeded in leading a fine dog to within seventy yards of them without being perceived. The dog was so quickly at the heels of the one he took after, and which was carrying a large young one, that her escape was impossible.

The male figured by her side was also procured by a single dog, which after a short chase "pulled" and kept him at bay until I came up and assisted in despatching him, but not before he had made a fearful resistance.

Although the Great Grey and Great Red Kangaroos frequently inhabit the same portions of the country, still they affect localities of a different description; the former resorting to grassy valleys and "brush growing on the dark mouldy soil," whilst the latter confines itself to the hard red stony ridges clothed with box, and open plains, in the midst of which it may frequently be seen in the daytime basking in the sun. The large male (the weight of which I judge to be above two hundred pounds) was killed while we were making a forced march between the Murray and Adelaide, at a time when all our provisions were exhausted, and I can therefore speak with a lasting recollection of the goodness of its flesh, which sustained me and my party for four days.

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MACROPIUS FRANKIATIS, Gould

C. H. B. Gould del.

H. C. Beckler sculp.



MACROPUS FRÆNATUS, Gould.

Bridled Kangaroo.

Spec. Char.—*Macropus vellere molli brevi, colore e fusco cinereo; corpore subtus albo; ab occipite utrinque super humeros lineâ angustâ albâ; interspatio occipiteque nigrescente; caudâ tuberculo parvo corneo pilis nigrescentibus abscondito ad apicem instructâ; tarsi artubusque anticis ferè albis, digitis pilis obscuris paucis adspersis.*

Descr.—Fur short and soft; general tint of the upper surface grey; under surface white; a white line diverges from the occiput on each side backwards over the shoulder, and passes into the white of the belly a little behind the insertion of the arms; the space between these lines is blackish brown, narrow at the occiput and gradually expanding as it approaches the shoulder, where the colour blends into the ordinary tint of the upper parts; tail mingled black and white, the black predominating on the upper and under surface of the extremity; on the chin a small dusky mark; legs whitish; upper surface of the feet mingled black and white; arms very pale grey, internally white; hands mingled black and white, tinged with brown on the fingers; inner surface of the ears white; a white mark from the tip of the muzzle to beneath the eye; on the sides of the neck a wash of rich cream colour.

	Male.		Female.	
	feet.	inches.	feet.	inches.
Length from the nose to the extremity of the tail	3	7½	2	8½
„ of tail	1	7	1	3
„ „ tarsus and toes, including the nail		6½		5
„ „ arm and hand, including the nails		5		4
„ „ face from the tip of the nose to the base of the ear		3¾		3½
„ „ ear		3½		3¼

Macropus frænatus, Gould in Proc. of Zool. Soc., Part VIII. p. 92.

THIS elegant little Kangaroo, whose weight varies from ten to fifteen pounds, is an inhabitant of the part of New Holland to the northward of the Liverpool Plains, and in all probability will hereafter be found to range over a great extent of country towards the central portion of Australia.

The paucity of information that has been obtained respecting the Kangaroos of the interior, particularly those so strikingly marked as the present species, is somewhat remarkable, considering the number of scientific men who have at different periods traversed various portions of the country which these animals inhabit: as far as I am aware, none of the works of Oxley, Sturt or Mitchell make the slightest mention of the one here represented. On arriving in the colony, skins of the animal were presented to me by Mr. Stephen and Mr. Charles Coxen, and I afterwards had the satisfaction of frequently meeting with it in a state of nature, and of gaining some information respecting its habits. The nearest point to the colony at which I encountered it was Brezi, on the river Mokai, whence it extended into the interior as far as I had an opportunity of proceeding. It inhabits all the low mountain-ranges similar to those of Brezi, whose elevation varies from one to five or six hundred feet, and which are of a sterile character—hot, dry, stony, and thinly covered with shrub-like stunted trees. These situations are also the abode of the *Halmaturus dorsalis*, with which I sometimes found the *Macropus frænatus* associating; but it differs from that species, which is strictly an inhabitant of the brushes, in frequenting the more open parts and occasionally even the plains. When started from its seat, which is formed like that of a hare, and sheltered by a tuft of grass or a small bush, it bounds away with remarkable fleetness, generally giving the best dogs a sharp run, and frequently effects its escape by gaining the thick part of the brush, or the hole of a decayed tree. And I recollect on one occasion, that on being sharply pressed, the animal mounted the inside of the tree, to an opening nearly fifteen feet from the ground, whence it leaped down before the dogs, and succeeded in reaching the hollow trunk of a fallen tree, from which it was finally taken by the hand.

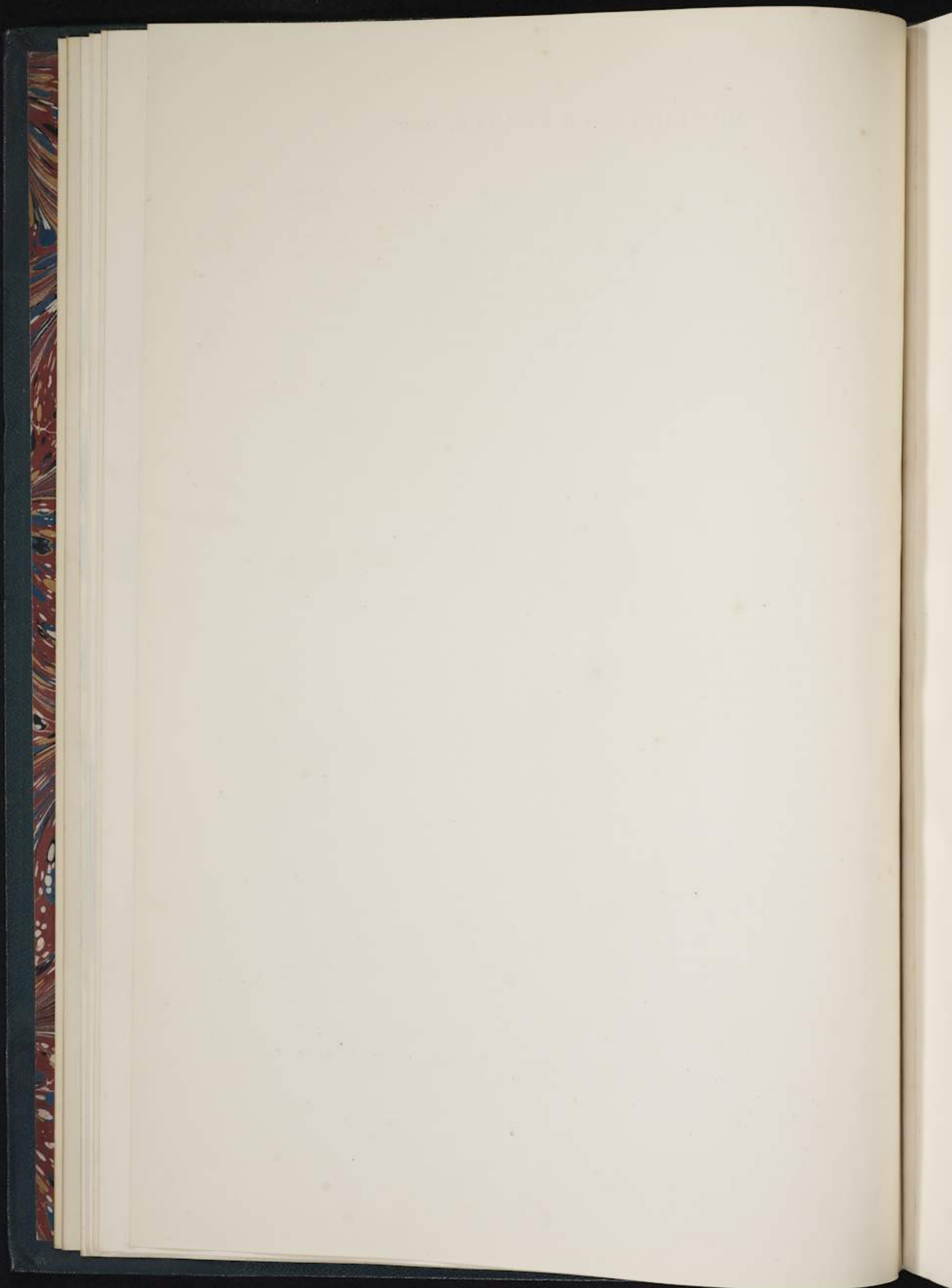
In the neighbourhood of Brezi the natives hunt this species with dogs, and often kill it with spears, bommerengs and other weapons; but at Gundermein, on the Lower Namoi, I found myself among a tribe who succeed in capturing them with nets, which, although rudely constructed, are very well adapted to the purpose. On being made acquainted with my object, the tribe were easily induced to accompany me to the Brigaloe brush, in which the present species and the *Halmaturus dorsalis* were very abundant: arriving at the skirts of the brush, the oldest men of the tribe separated from the rest, each two taking a net about twenty-five yards long by three and a half feet wide, with which they proceeded to those parts where the runs of the animals were most frequent, while the rest of the natives entered the brush on the opposite side, to beat the bushes, and with loud shouts and yells drove the Kangaroos towards the nets: by this means in a single afternoon they obtained for me as many specimens as I required.

This animal always selecting dry ridges entirely devoid of water, is doubtless the reason of its being so little known, such localities being rarely visited by expeditions of discovery.

Its flesh, like that of the other small Kangaroos, is excellent, and when procurable was eaten by me in preference to other meat.

The female is considerably smaller in size, but is not distinguished by any difference in marking from the male; the stripes are quite as intense as in the male, and are even apparent in the fœtus.

Its food consists of grass and various kinds of herbage.







MACRODIPUS UNGUIFER, GÜDD.

C. Halmerswald, Imp.

H. C. Buchholz del.



MACROPUS UNGUIFER, Gould.

Nail-tailed Kangaroo.

Spec. Char.—*Macropus vellere perbrevis, et mediocriter molli: colore fulvo; parte corporis anteriore, et collo albescentibus; capite ferè toto, nec non artibus abdomineque albis: notâ fuscâ longitudinali, apud dorsum; caudâ albidâ, apicem versus, pilis longis et fuscis indutâ, ad apicem cum ungue nigrescente, ferè magnitudinem et figuram unguis humani exhibente, instructâ.*

Descr.—Fur very short and moderately soft; general colour buffy yellow, extending on to the outer side of the legs and the base of the tail, and gradually passing into the all but pure white of the head, ears, legs and under surface; on each side of the body just before the knee a pale rusty patch; a brownish mark commences about the middle of the back, runs backward over the rump, and extends to about four inches along the upper surface of the tail; arms and tarsi cream-white; an indistinct yellowish white mark, curving upwards, crosses the thigh at the base; middle portion of the tail brownish, the tip being clothed with a long black tuft, in the centre of which is a thinnish black nail half an inch in length and a quarter of an inch in breadth, convex above and concave beneath, considerably resembling the nail of the human finger.

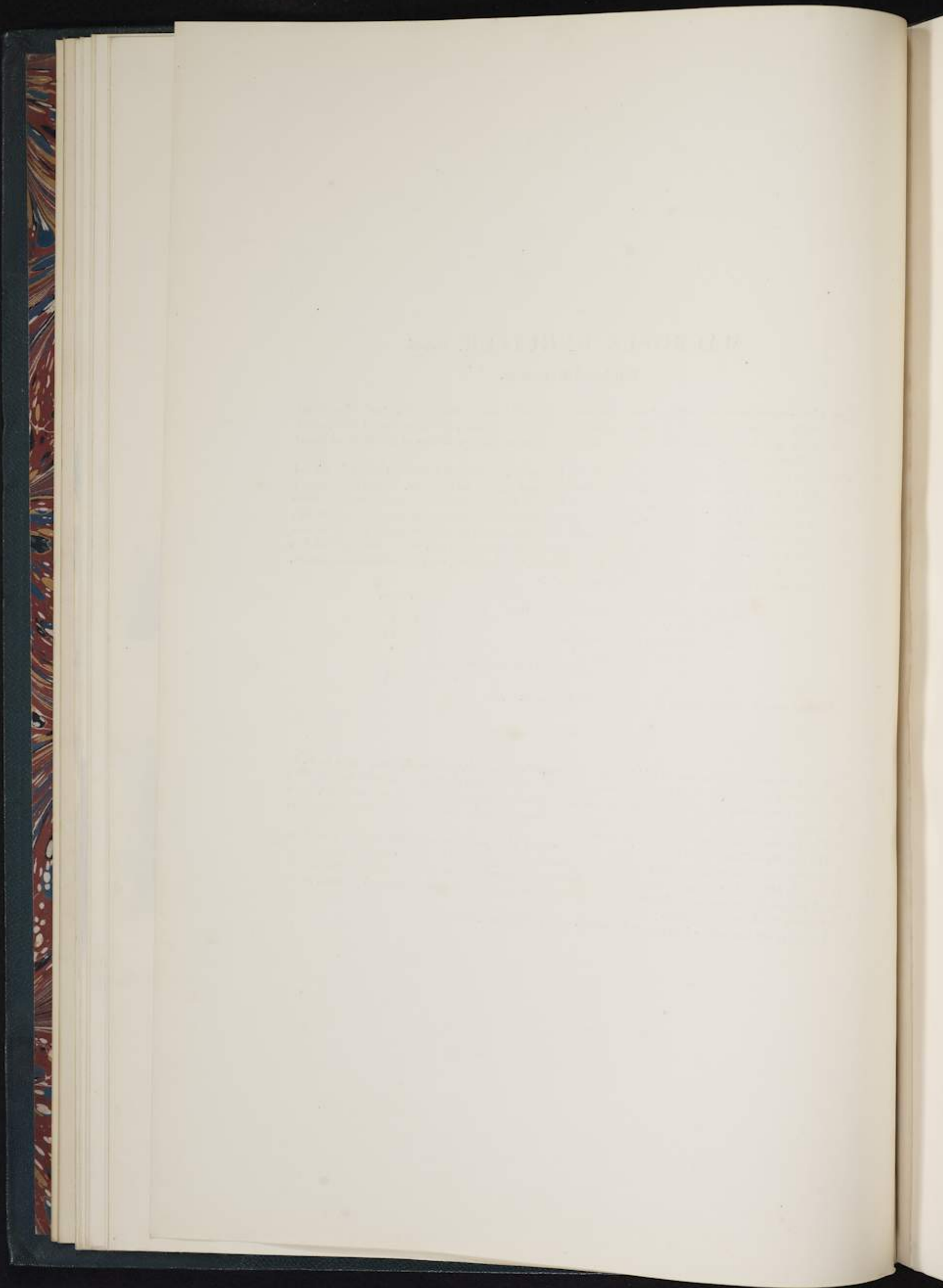
	feet.	inches.
Length from the nose to the extremity of the tail	4	4
„ of tail	2	2
„ „ tarsus and toes, including the nail		7½
„ „ arm and hand, including the nails		5
„ „ face from the tip of the nose to the base of the ear		4½
„ „ ear		2½

Macropus unguifer, Gould in Proc. of Zool. Soc., Part VIII. p. 93.

THIS very elegant little Kangaroo, of which I have only seen a single example, was liberally placed in my hands, for the purpose of being described and figured, by Mr. Bynoe of Her Majesty's Ship the Beagle, who had obtained it on the north-west coast during the present expedition of that vessel, whose captains and other officers, not only in this, but in her former voyage, have so largely extended our knowledge of the zoological productions of the little known countries they have visited in the course of their explorations.

This animal peculiarly attracts our attention by the circumstance of its possessing a character not found in any other known member of its family, namely, a broad flattened nail much resembling that of the finger, situated at the extremity of the tail, but which is not ordinarily observable, from its being hidden in the tuft of long black hairs clothing the apical portion of that organ. It is true that a somewhat similar character exists in the *Macropus frænatus*, but in that species it is merely rudimentary.

I regret to add that nothing is at present known respecting its habits and economy.





cm 1 2 3 4 5



IPETE TRIGONALE IRONIBUS TUS, Gould

PETROGALE ROBUSTA, Gould.

Great Rock Wallaby.

Spec. Char.—*Petrogale artubus anticis magnis et prærobustis; vellere e fusco cinereo, infernè pallidiore; tarsis fuscis; digitis anticè nigris; antipedibus carpisque nigris; capite fuliginoso levitè tincto; utrâque genâ lineâ albescente notatâ; gulâ, guttureque albidis; caudâ supernè fuscâ, subtùs pallidiore.*

DESCR.—MALE. Fur harsh and somewhat shaggy; general colour slate-grey, obscurely washed with brownish, and tinted with vinous on the outer sides of the thighs; feet dark brown, gradually passing into black on the fore-part; upper part of the arm brownish; hands and wrists black; inner surface of the ear white, the exterior brown; muzzle and a patch on the chin blackish; a line round the angle of the mouth and the lower lip white; throat and fore-part of the neck white, the hairs being grey at the base; under surface like the upper, but paler; tail blackish brown above, paler beneath.

FEMALE. General colour silvery grey, obscurely tinted with purplish or vinous on the back; under surface nearly white; cheeks hoary, with a blackish patch on the chin; tail dirty white, slightly tinged with brown on the upper side; legs paler than the body; hands brown, becoming nearly black on the fingers; toes brownish black above.

	Male.		Female.	
	feet.	inches.	feet.	inches.
Length from the nose to the extremity of the tail	7	0	5	10
„ of tail	2	10½	2	6
„ „ tarsus and toes, including the nail	12		1	10½
„ „ arm and hand, including the nails	13½		9½	
„ „ face from the tip of the nose to the base of the ear	8		7	
„ „ ear	3½		3	

Macropus (Petrogale) robustus, Gould in Proc. of Zool. Soc., Part VIII. p. 92.
Black Wallaroo of the Colonists.

THE Great Rock Wallaby, which may be considered the Chamois among the Kangaroos, inhabits the summits of sterile and rocky mountains, seldom descending to the coverts of their sides and never to their base; few, therefore, have had an opportunity of observing it in a state of nature; indeed there are thousands of persons in Australia who are not even aware of its existence. Although the south-eastern portion of the continent is, I believe, the only part of the country in which it has yet been observed, in all probability it has an extensive range northwards. It is tolerably abundant on the Liverpool range, and I ascertained that it inhabited many of those hills that branch off on either side of this great mountain-chain, both towards the interior as well as towards the coast.

Like the other members of the genus, the *Petrogale robusta* is extremely agile among the rocks, and its retreats are so well chosen among the crags and overhanging ledges, that it is nearly useless to attempt its pursuit and capture with dogs. It is a formidable and even dangerous animal to approach, for if so closely pressed that it has no other chance of escape, it will rush at and force the invader over the edge of the rocks, as the Ibex is said to do under similar circumstances. Independently of its great muscular power, this animal is rendered still more formidable by the manner in which it makes use of its teeth, biting its antagonist with great severity.

The *Petrogale robusta* may be regarded as a gregarious animal, four, six and even more being frequently seen in company. On one of the mountains near Turi, to the eastward of the Liverpool Plains, it was very numerous; and from the nature of this and the other localities in which I observed it, it must possess the power of existing for long periods without water, that element being rarely to be met with in such situations.

The summits of the hills to which this species resorts soon become intersected by numerous roads and well-trodden tracks, caused by its repeatedly traversing from one part to the other; its food consists of grasses and the shoots and leaves of the low scrubby trees which clothe the hills it frequents.

Although much shorter in stature, and consequently less elegant in form, the fully adult male of this species equals in weight the largest specimens of *Macropus major*; and so remarkable is the difference in the colour and size of the sexes, that had I not seen them together in a state of nature, I should have considered them to be different species, the black and powerful male offering so great a contrast to the small and delicate female.



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PETROGALE BRACHYOTIS, *Coold.*

H. C. Richter del.

C. Hulmandel imp.



PETROGALE BRACHYOTIS, *Gould.*

Short-eared Rock-Wallaby.

Spec. Char.—*Pet. vellere e fusco cinereo, apud partes inferiores albescente; caudâ floccosâ, ad apicem nigrâ; utrâque genâ lineâ albescente notatâ.*

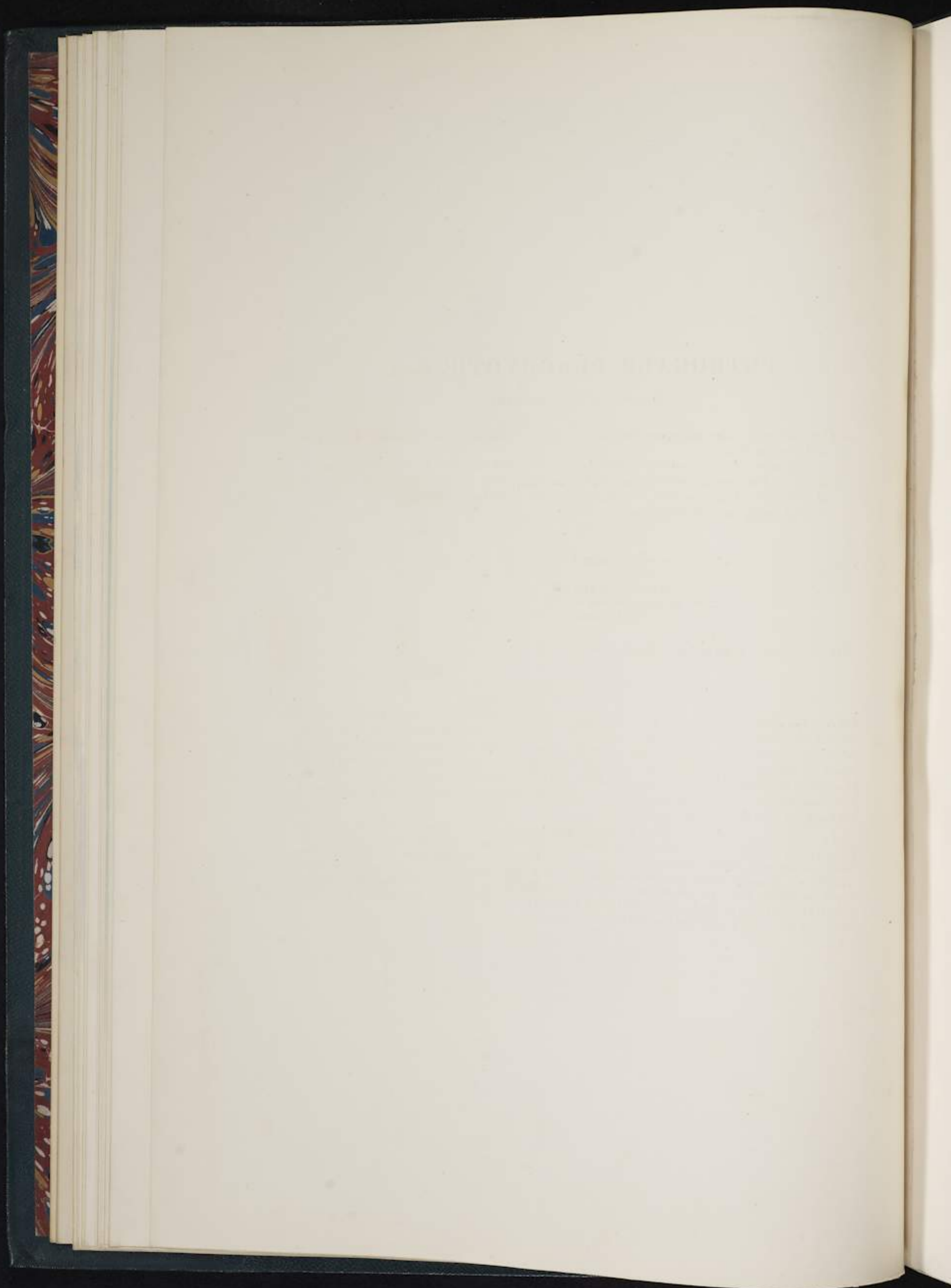
Descr.—General colour greyish brown; under surface of the body dirty white, obscurely tinted with yellowish: on each side of the body, near the base of the fore leg, a dusky patch; a dirty white mark is observable on each side of the head, and an indistinct mark on the base of the thigh; tail moderately bushy, coloured at the base like the body, but the apical third dusky black.

	Male.	
	feet.	inches.
Length from the nose to the extremity of the tail	3	0
„ of tail	1	3
„ „ tarsus and toes, including the nail		5
„ „ arms and hands, including the nails		$3\frac{1}{2}$
„ „ face from the tip of the nose to the base of the ear		$3\frac{3}{4}$
„ „ ear		$1\frac{3}{4}$

Petrogale brachyotis, Gould in Proc. of Zool. Soc., for Oct. 1840.

THIS new species of Rock-Wallaby was presented to me by Captain George Grey, the present Governor of South Australia, who procured it on the north-west coast while traversing that previously unexplored region. Only two specimens were collected: these fortunately proved to be a male and a female, and apparently adult. It differs from most of the other species with which I am acquainted in the shortness and scantiness of its hair, which may, perhaps, be attributed to the great heat of the latitudes it inhabits, and the peculiar localities to which the animal resorts, viz. hard craggy surfaces exposed to the burning sun. The following account, which has been kindly furnished me by His Excellency, is all that is known respecting it:—

“ I procured this species near Hanover Bay, December the 29th, 1837. It is excessively wild and shy in its habits; frequenting in the day-time the highest and most inaccessible rocks, and only comes down to the valleys to feed early in the morning and late in the evening. When disturbed in the day-time it bounds among the roughest and most precipitous rocks, apparently with the greatest facility, and is so watchful and wary that it is by no means easy to get a shot at it. How it can support the excessive heat of the sand rocks amongst which it always lies is to me truly astonishing, the temperature there during the hottest part of the day being frequently 136°. I have never seen this animal on the low land or the plains, and I consequently believe it to be entirely an inhabitant of the mountains.”







MACQUARIE KANGAROO

H. C. Pouchard del.



HALMATURUS BENNETTII.

Bennett's Wallaby.

Spec. Char.—*Halm. pilis subspinosis, corpore supra fusciscenti-cinereo, clunibus, et regione circum-oculari, rufo-brunneis; corpore subtus cinerescenti-albo; rostro, auribus posticè, digitis anticis posticisque nigris; lineâ albescente vix distinctâ ab angulo oris, ad genas excurrente; caudâ cinerescente, ad apicem nigrâ, et subtus sordide flavescenti-albâ.*

Descr.—Fur rather long and moderately soft; general tint a very deep gray, inclining to black on the back; somewhat paler on the sides of the body, with a rust-like tint on the back of the neck, base of ears, the haunches, shoulders, and in the region of the eye; under surface of the body, and the inner side and fore part of the hinder legs, grayish white; muzzle black; crown of the head brownish black; an obscure whitish line extends backwards from the corners of the mouth, and becomes obliterated on the cheeks; lips dirty white; chin blackish; ears white internally, black externally; hands, toes and outer side of the heel black; hairs of the tail (excepting at the base, where they are of the same colours and character as those of the body) black, broadly annulated with white near the apex; tip of the tail black, under side of the tail white; the hairs on the upper part of the body are of a deep slate colour at the base, the remaining portion of each hair is black annulated with white, or more generally with pale rust colour; on the under parts of the body the hairs are of a deep slate colour with the apical portion white.

	Male.	
	feet.	inches.
Length from the nose to the extremity of the tail	4	2
„ of tail	2	1
„ „ tarsus and toes, including the nail		10
„ „ arm and hand, including the nails		8
„ „ face from the tip of the nose to the base of the ear		6
„ „ ear		3

Macropus Bennettii, Waterh. in Proc. of Zool. Soc. (Oct. 1837), Part V. p. 103.

Halmaturus ualabatus, Gray in Mag. of Nat. Hist., Nov. 1837, vol. i. New Series, p. 583.

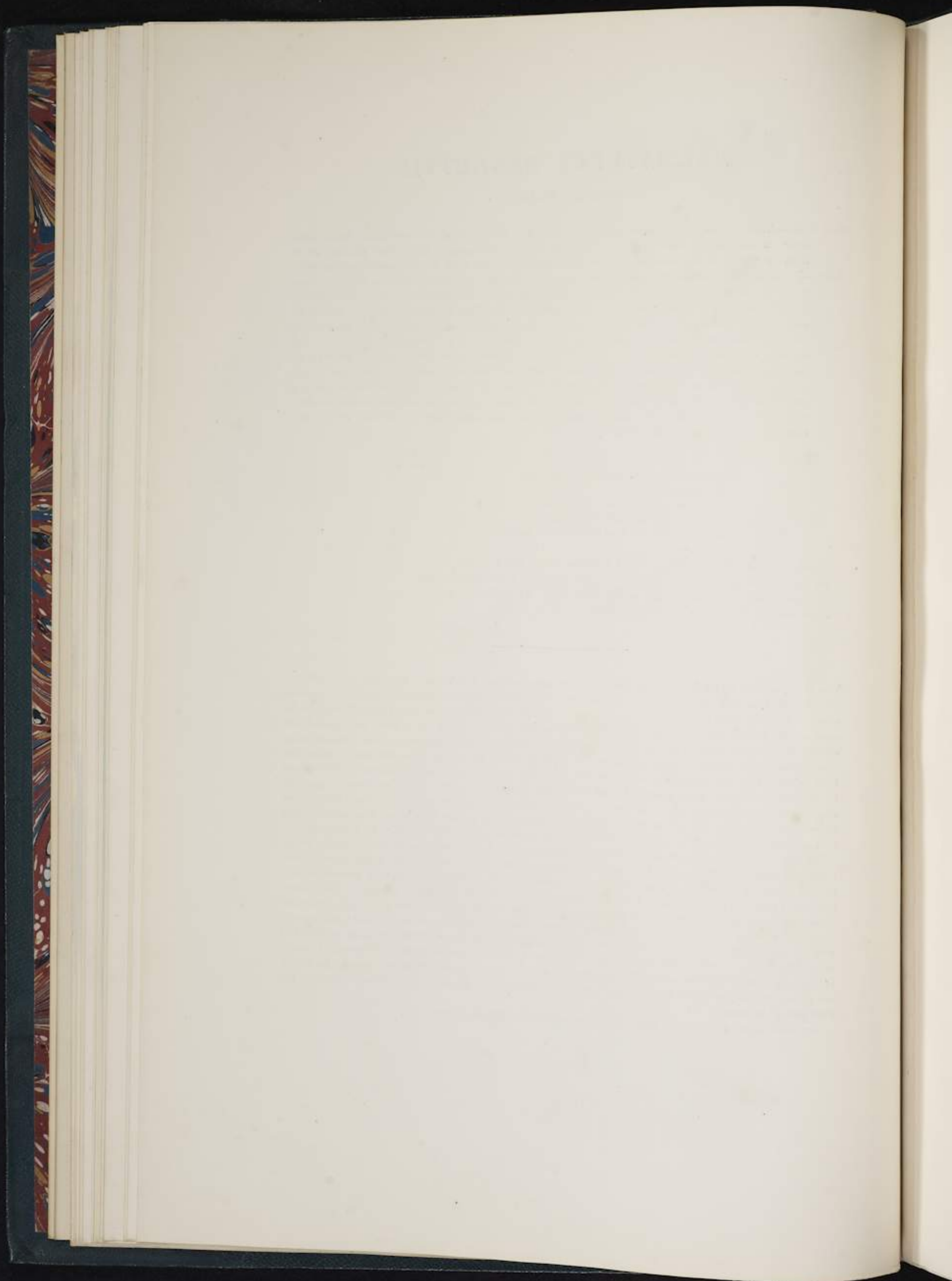
Macropus (Halmaturus) fruticus, Ogilby in Ann. of Nat. Hist., May 1838, vol. i. p. 219.

Brush Kangaroo, Colonists of Van Diemen's Land.

THIS is not only the largest Wallaby with which we are yet acquainted, but it is the most important, since its flesh is very generally eaten and highly esteemed, and its skin forms a considerable article of commerce, being largely imported from Van Diemen's Land into England for the manufacture of boots and shoes, besides being extensively used for the same purpose in the colony. It is universally dispersed over Van Diemen's Land, whose dense and humid forests afford it a retreat so secure as to preclude all chance of its extermination for centuries to come, although many thousands are killed annually. Advertisements may frequently be seen in the Hobart Town newspapers, stating that three thousand skins are immediately wanted, and they are quickly supplied by the settlers, servants and shepherds at the out-stations: they are either captured by dogs or obtained by snares set in their runs; the skins are generally taken off on the spot, and are afterwards stretched on the ground to dry; they are then sold for about fourpence or sixpence each to persons who visit the stock stations of the interior for the purpose of collecting them, and who retail them again in Hobart Town or Launceston to the advertiser or others for colonial consumption or for exportation.

The Bennett's Wallaby is gregarious in its habits, and although truly a brush animal, does not confine itself so strictly to localities of that description as the smaller members of the genus; but frequently resorts to the thinly-timbered forests and the crowns of the low grassy hills, always, however, seeking security in the thick brush when pursued, or such steep rocky acclivities as present almost insurmountable obstacles to the pursuit with dogs. I believe it to be confined to Van Diemen's Land; at all events the neighbouring islands in Bass's Straits form the extent of its range northwards. This is one of the most hardy members of the family, and would doubtless readily become acclimatized in this country, since the temperature of Van Diemen's Land more nearly resembles that of the British Islands than does any other part of Australia, in proof of which I may mention that numbers have been bred in the Menagerie of the Zoological Society, in that of the Earl of Derby and others. The full-grown male varies in weight from forty to sixty pounds: the haunch and loins are the only parts that are eaten, and these are constantly exposed for sale in Hobart Town, Launceston, and other parts of the country.

The female closely resembles the male in colour, but is about one-third less in size.



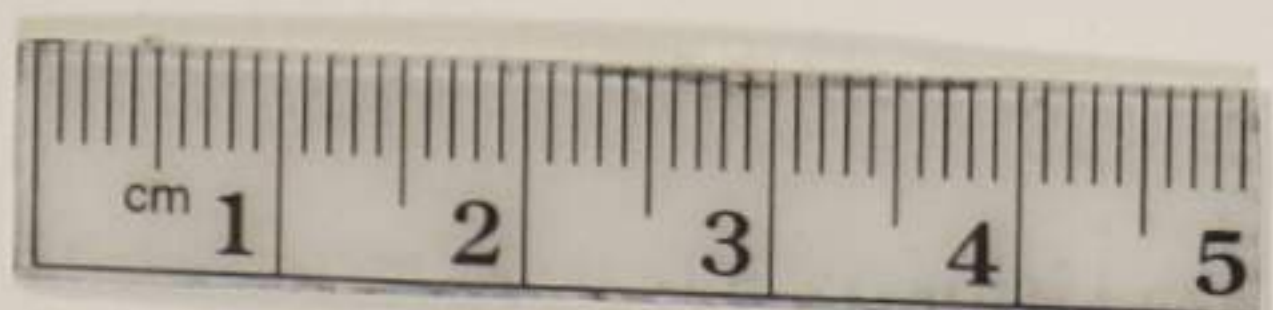




C. Adcock del. & sculp.

HALMATUS DORSALIS: Gray

H. C. Richter del.



HALMATURUS DORSALIS, Gray.

Black-striped Wallaby.

Spec. Char.—*Halm. caudâ longissimâ ; colore rufescenti-fusco nigro alboque variegato (vel irrorato) capitis corporisque partibus inferioribus albis ; collo humerisque rufis ; strigâ nigrâ ab occipite ad dorsi medium eductâ ; rostro supernè obscuro, utrinque lineâ albâ notato ; dorso imo notâ transversâ albâ ; caudâ cinereâ ; digitis omnibus nigris.*

Descr.—Fur rather harsh to the touch ; general colour brown, with a rusty tinge, produced by each hair being of a rusty brown in the middle ; upper surface and sides of the body freely pencilled with black and white ; on the back of the neck, shoulders and outer side of the arms a bright rusty red hue prevails, and the same hue is observable on the hinder part of the back, outer side of the hind legs (especially near the knee) and sides of the body, but is much paler ; chin, throat, and all the under parts of the body white ; tail clothed with very short, adpressed, grisly hairs, becoming longer and of a dirty white on the under side of the apical half ; upper surface of the muzzle dusky, with a white line on each side ; ears black on the outside, and white internally ; a black mark commences near the occiput and proceeds backwards ; towards the tail it is broadest, and most distinct on the middle of the back, and becomes obliterated as it approaches the tail ; on the haunch a transverse white mark ; hands and feet black.

	Male.		Female.	
	feet.	inches.	feet.	inches.
Length from the nose to the extremity of the tail	4	7	3	10
„ of tail	2	1	1	9
„ „ tarsus and toes, including the nail		8		7 $\frac{1}{4}$
„ „ arm and hand, including the nails		8 $\frac{1}{2}$		6 $\frac{1}{4}$
„ „ face from the tip of the nose to the base of the ear		5		4 $\frac{1}{4}$
„ „ ear		3		2 $\frac{3}{4}$

Halmaturus dorsalis, Gray in Mag. of Nat. Hist. for Nov. 1837, vol. i., New Series, p. 583.

THIS fine Wallaby, which is distinguished from all other species by the greater length of its tail, and by the black mark which commences at the occiput and runs down the centre of the back, is an inhabitant of the interior, and is particularly abundant in all the scrubs clothing the sides of the hills that run parallel to the rivers Mokaï and Namoi ; and although I cannot positively assert that such is the case, I have reason to believe that it inhabits all similar situations between the above-mentioned localities and the great Murray scrub in South Australia. I have never heard of its having been seen between the ranges and the coast, a circumstance that may be attributed to the brush being of a totally different character, the vegetation being more dense and humid than the dry stony hills of the interior. Like the other members of the genus it is strictly gregarious ; it is in fact so numerous that I found not the slightest difficulty in procuring as many specimens as I pleased, and it was more often shot as an article of food than for any other purpose. Its flesh is excellent, and when the vast continent of Australia becomes more thickly inhabited, it will doubtless be justly esteemed. The natives often resort to the haunts of this species and commit great havoc among them, both for the sake of their flesh as food, and for their skins as articles of clothing.

They have various modes of capturing them, sometimes making use of large nets, at other times they are driven by dogs from side to side of the brush, which affords the hunters abundant opportunities of spearing or killing them with the waddy as they pass the open spots.

It is especially abundant at Brezi, to the northward of the Liverpool Plains, and I also found it extremely numerous in the Brigaloe brush on the Lower Namoi.

The female is distinguished by her smaller size, but in the markings of the two sexes no difference exists. The full-grown males of this species will weigh from twenty to twenty-five pounds.







THE AUSTRALIAN KANGAROO. - *Macropus rufus*. - *Macropus rufus*.



HALMATURUS MANICATUS, Gould.

Black-gloved Wallaby.

Spec. Char.—*Halm. obscure griseus; vellere apud partes inferiores pallidior et flavescens; capite supra fuliginoso, occipite necnon auribus externe nigris; utraque gena lineâ flavescens notatâ; tarsi antipedibusque flavescens, antrorsum nigris; caudâ nigrâ ad basin griseâ.*

Descr.—General colour of the upper surface of the body deep grey, produced by the admixture of black and white, the hairs being black at the tip, and annulated with white near the tip; sides and under surface of the body paler grey, tinted with buff-yellow; this yellow tint is almost pure on the abdomen between the hind legs, on the feet and inner side of the ears: the upper surface of the head and muzzle are of a soot-like colour, and the occiput and back of the ears, as well as the apical portion in front, are pure black; a yellowish white line is observable on each side of the muzzle, commencing at the tip, and running backwards beneath the eye; the fore half of the hands and feet are pure black, appearing as if they had been dipped in ink or some other black liquid, the black not blending, as usual, with the pale colour of the hind part of the feet, but terminating in an abrupt line; the greater portion of the tail (which is well clothed with harsh hairs) is of the same black colour; at the base, however, it is coloured as the body; and on the upper surface, for a considerable distance from the base, the black hairs are more or less annulated with whitish, producing a grizzled appearance; on the chin is a small black patch.

	Female.	
	feet.	inches.
Length from the nose to the extremity of the tail	5	0
„ of tail	2	3
„ „ tarsus and toes, including the nail		8 ³ / ₄
„ „ arm and hand, including the nails		5
„ „ face from the tip of the nose to the base of the ear		5 ¹ / ₂
„ „ ear		3 ¹ / ₂

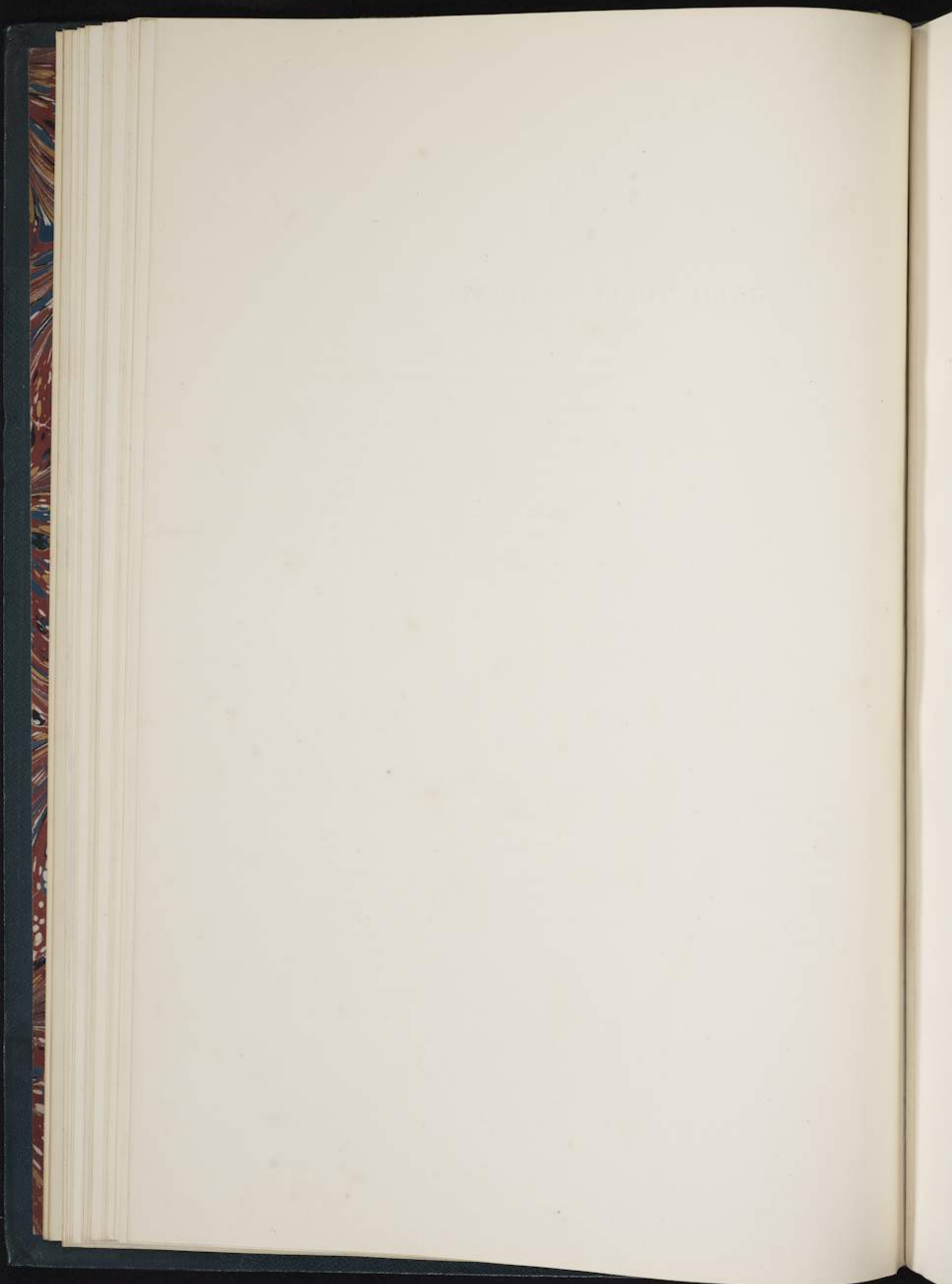
Halmaturus manicatus, Gould in Proc. of Zool. Soc. for Oct. 13, 1840.

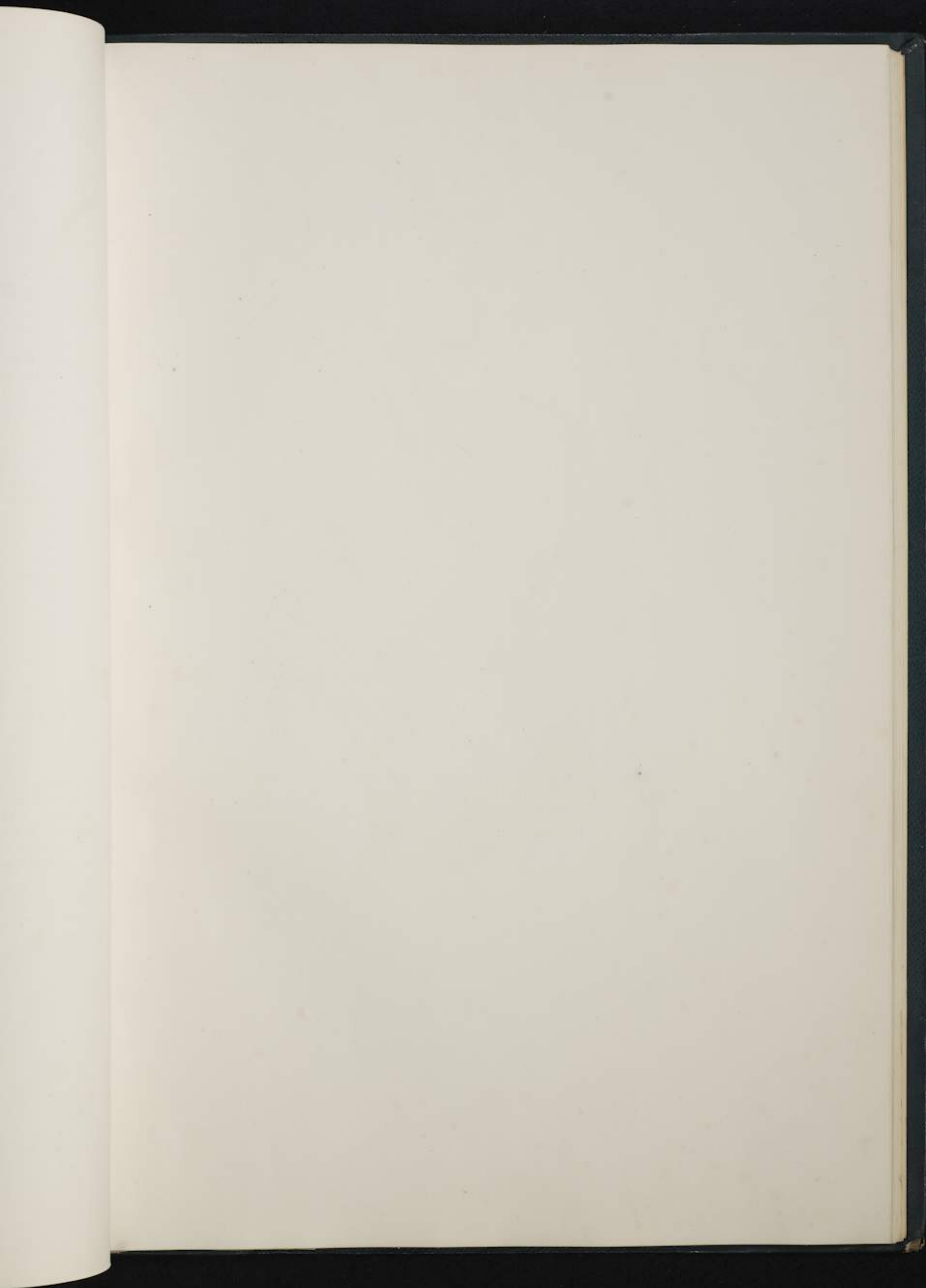
THIS beautiful and singularly marked Wallaby is a native of Swan River, where it would appear to be common, since the rugs usually slept upon by persons who lead a bush-life in Australia are frequently made of its skins. My own specimen, however, is, I believe, the only one that has yet been sent to Europe in a perfect state, although at least forty skins without the head and legs have come under my notice.

The following brief account of this animal has been forwarded to me by Mr. Gilbert, and is, I regret to say, all I have to communicate respecting it:—

“Found and equally abundant in all parts of the colony of Swan River: generally inhabiting scrubby places: may occasionally be seen feeding on the open plains, but always takes to the scrub again when hunted; it runs very fast.”

In size it nearly equals *Halmaturus ulabatus* and *Halmaturus Parryi*, to the latter of which it assimilates in many of its characters.







HALMATURUS BILLARDIERII.

H. G. Silliman del. et lith.

J. H. Bland sculp.



HALMATURUS BILLARDIERII.

Tasmanian Wallaby.

Spec. Char.—*Halm. vellere denso; pilis ad basin cæruleo-cinereis, apud medium fulvescenti-fuscis, apicibus elongatis nigris; facie, corporeque supernè nigrescenti-fuscis; labiis, gulâ, pectore, corporeque subtus, fulvis.*

Descr.—Fur very thick, the hairs blue grey at the base, buffy brown in the middle, the tips, which are much produced, ending in black; face and all the upper surface very dark brown, approaching to black, particularly on the shoulders and back, where the hairs become much lengthened; arms and tarsi greyish brown; lips, throat, chest and under surface reddish buff; in some specimens these parts are grey tinged with buff; ears dark brown tinged with buff; upper side of the tail dark brown; under side dirty white.

	feet.	inches.
Length from the nose to the extremity of the tail	3	6
„ of tail	1	1
„ „ tarsus and toes, including the nail		6
„ „ arm and hand, including the nails		5½
„ „ face from the tip of the nose to the base of the ear		4½
„ „ ear		2½

Kangurus Billardieri, Desm. Mamm., Suppl. p. 542.

Macropus (Halmaturus) rufiventer, Ogilby in Proc. of Zool. Soc., Part VI. (Feb. 1838) p. 23; and in Ann. of Nat. Hist. for May 1838, vol. i. p. 220.

Halmaturus (Thylogale) Tasmanei, Gray in Ann. of Nat. Hist. for April 1838, vol. i. p. 108.

Wallaby, Colonists of Van Diemen's Land.

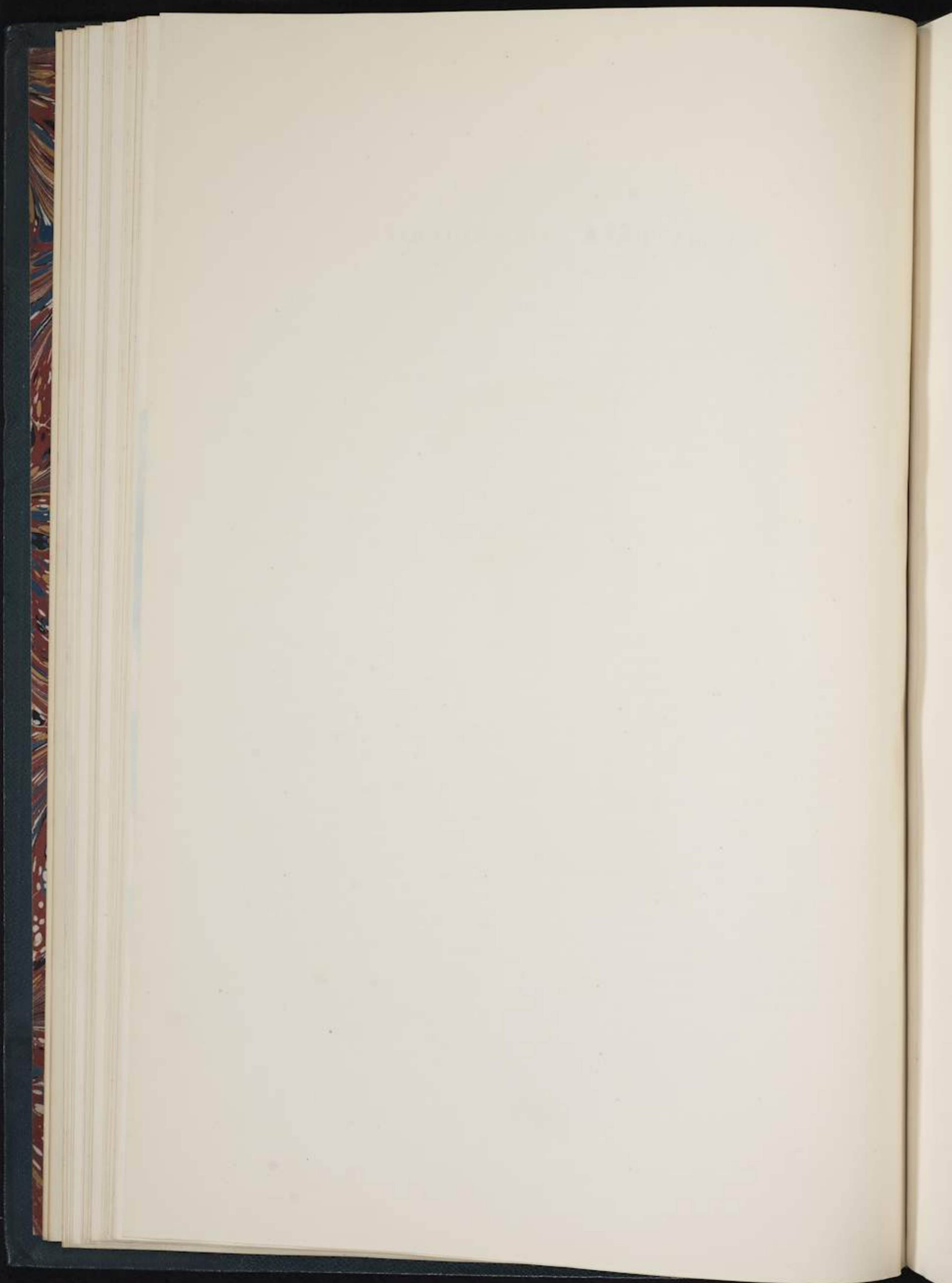
I HAVE but little doubt that the habitat of this Wallaby is limited to Van Diemen's Land, and the larger islands in Bass's Straits, in all which localities it is so numerous that the thousands annually destroyed make no apparent diminution of its numbers. In consequence of the more southerly and therefore colder latitude of Van Diemen's Land, the vegetation is there much more dense and humid than on the continent of Australia; indeed the sun never penetrates into many parts of its forests, and accordingly we find this species clothed with a warmer and more sombre-coloured coat. It is consequently of a more hardy nature than any of its congeners, and with care and a slight degree of perseverance it might be easily naturalized in England; indeed I feel confident that if a sufficient number were introduced in a suitable locality, as in some of our forests and large estates of the nobility and gentry, the experiment would be attended with complete success. Independently of the novelty of a species of this singular tribe ranging at liberty in our woods, its flesh could not fail to be highly esteemed for the table. Being one of the best of the small Kangaroos, it is very generally eaten in Van Diemen's Land.

The Tasmanian Wallaby may be regarded as strictly gregarious, hundreds generally inhabiting the same localities; the situations which it frequents are gullies, and the more dense and humid parts of the forest, particularly those that are covered with rank high grass, through and under which it forms numerous well-beaten tracks. From these coverts it seldom emerges, and never even approaches the outskirts of the forest except at night: hence it is seldom seen by ordinary observers. It is very easily taken with snares, formed of a noose placed in its run; and thousands are captured in this way solely for their skins: the sportsman also may readily procure it by stationing himself in some open glade of limited extent, accompanied by two or three small yelping dogs, before which it keeps hopping round and round, and thus affords him an opportunity of shooting it as it passes; for like the common rabbit, it never quits the locality in which it is bred.

Much diversity of colour is observable in different specimens, some having the throat and under surface deep reddish buff, while others have the same parts much lighter.

Its usual weight is from fifteen to twenty pounds, although many are smaller.

HALMATURUS BILLARDIERII







HALAMATURUS DEIRBIANUS, Gray

H. C. Beckler del.

C. Halleson del. Imp.



HALMATURUS DERBIANUS, Gray.

Derby's Wallaby.

Spec. Char.—*Vellere intensè fusco, hic atque illic rufescente, et incanescente; collo, et artubus rufis; strigâ nuchali fuscâ; caudâ sub-brevi, robustâ, et pilis brevibus adpressis instructâ.*

Descr.—Face grizzled grey, reddish and dark brown; on the upper lip a buffy-white mark which extends backwards under the eye, and blends with the general colour of the face; back of the neck, shoulders and arms rufous; a distinct blackish mark commences at the occiput, and continues downwards until it becomes lost in the colouring of the back, which is grizzled black and dull white, caused by the middle portion of each hair being dull white, and the tips black, the base of all the fur being deep blue grey; hind legs and tarsi grizzled with rufous and black, the former colour predominating; throat, chest and all the under surface buffy white; arms the same as the tarsi, but rather darker; under side of the tail buff.

	Male.	
	feet.	inches.
Length from the nose to the extremity of the tail	3	1
„ of tail	1	1½
„ „ tarsus and toes, including the nail		6
„ „ arm and hand, including the nails		4½
„ „ face from the tip of the nose to the base of the ear		4½
„ „ ear		2¼

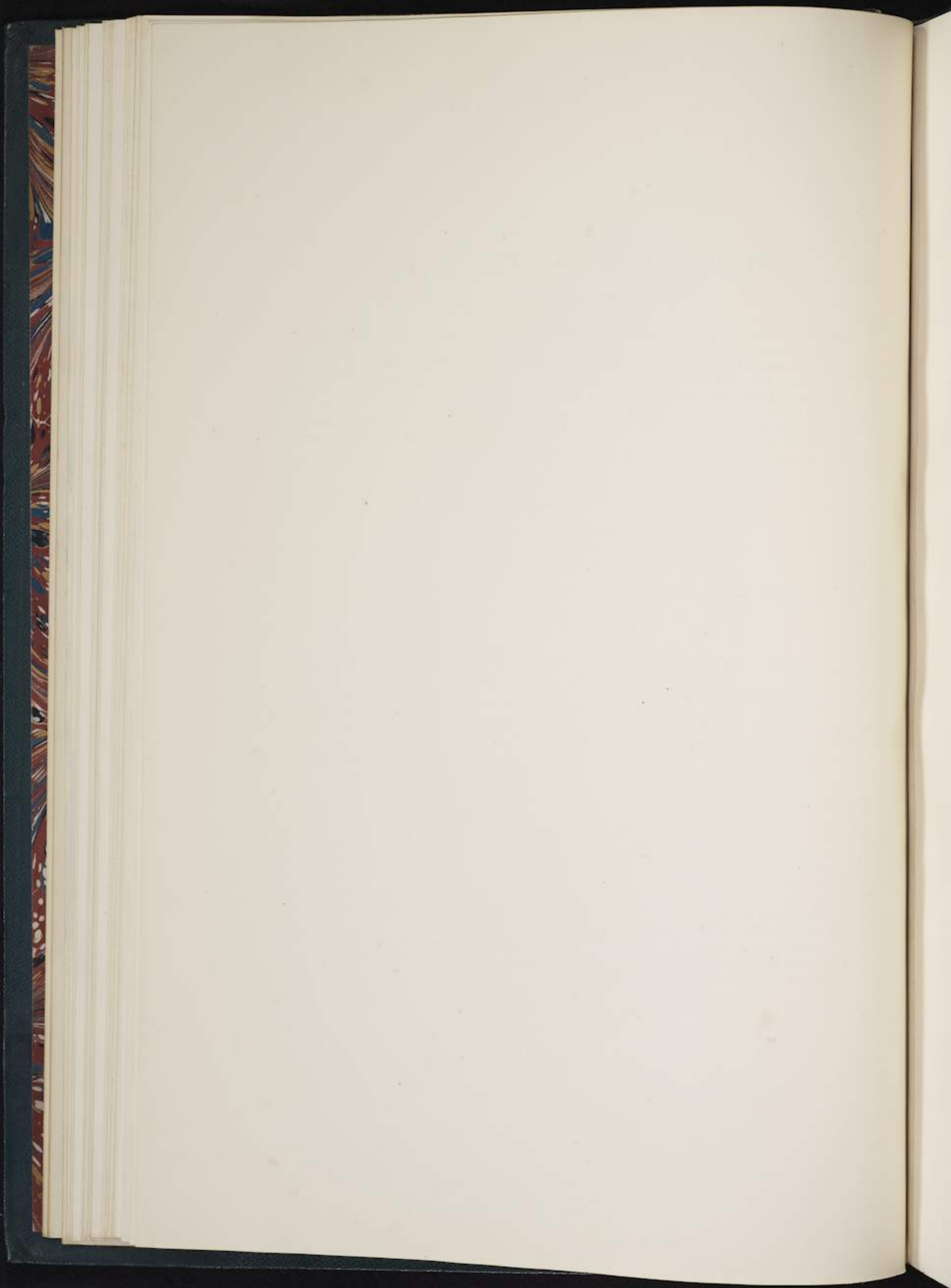
Halmaturus Derbiamus, Gray in Mag. Nat. Hist., vol. i. New Series, p. 583.

THIS species is a native of Kangaroo Island situated at the mouths of Spencer's and St. Vincent's Gulfs, and would appear to be confined to small islands of a similar character, since I never observed or heard of its being found on the main land of South Australia; and from information received from Swan River accompanying the skin of an animal which would appear to be identical with the present species, I find it is there confined to Rottneest and Garden Islands: if upon comparison with further examples these two animals should prove to be identical, the islands of the south-western portion of Australia would seem to be the peculiar habitat of the species: I have never heard of it to the east of Kangaroo Island.

Although closely allied to the *Halmaturus Billardieri* of Van Diemen's Land, it exhibits in its smaller dimensions more grizzly hair, and the longitudinal white mark on the cheeks, a decided difference from that animal. Like many others of the small Wallabies, the present species loves to dwell among the densest underwood: hence the almost impenetrable scrub of dwarf *Eucalypti*, which covers nearly the whole of Kangaroo Island, will always afford it a secure asylum, from which in all probability it will never be extirpated; the vegetation being too green and humid to be burnt, and the land too poor to render it worth the expense of clearing. It is very abundant in the ravines and gullies, through which it makes innumerable runs; and such is the dense nature of the vegetation, that nothing larger than a dog can follow it: still it is taken by men residing on the island in the greatest abundance, both for the sake of its skin and its flesh: these men procure it principally by snares, a simple noose, placed on the outskirts of the brush; but they also shoot it when it appears on the open glades at night. An example of this little Wallaby, which is about twice the size of a Hare, was presented by J. B. Harvey, Esq., to the Zoological Society in 1839 or 1840, in whose Menagerie it is now living in perfect health.

Considerable difference exists in this, as well as in the other allied species, in the colour of the hair, which varies very much, not only in the intensity of its hue, but also in being much redder in some specimens than in others.

HALMATURUS DERBIANUS, Gray

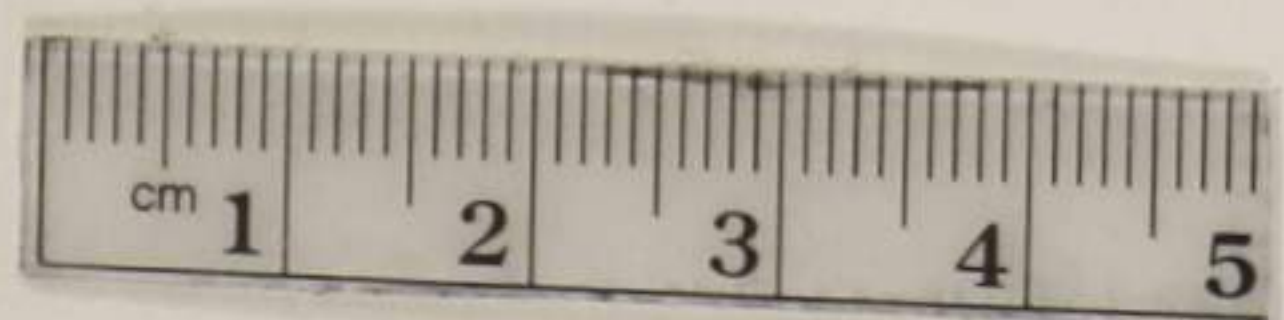






LAGORCHIES LES LEPOROIDES, Crall

H. C. Fischer del.



LAGORCHESTES LEPOROIDES, Gould.

Hare Kangaroo.

Spec. Char.—*Lag. pro magnitudine et velleris colore nec non texturâ, Lepori timido assimilis; capite breviusculo; anti-brachiis pedibusque parvulis; caudâ breviusculâ et gracili; corpore supernè nigro, fusco et flavido variegato; apud latera, et circum oculos colore pallidè fulco prævalente; abdomine e cinereo albo; artubus anticis ad basin nigris.*

Descr.—In size and in the colouring and character of the fur remarkably like a hare: top of the head grizzled black and white; upper surface variegated with black and cream-white (in some specimens with black and pale rusty buff); sides of the body, throat and chest buffy white; chin white; abdomen greyish white; arms blackish at the base; hands buffy white; legs tinged with rusty red; feet brownish white; broad space round the eye buff; ears white inside, greyish outside; tail pale brownish grey.

	feet.	inches.
Length from the nose to the extremity of the tail	2	6½
„ of tail		11
„ „ tarsus and toes, including the nail		5½
„ „ arm and hand, including the nails		2½
„ „ face from the tip of the nose to the base of the ear . . .		3¼
„ „ ear		2¼

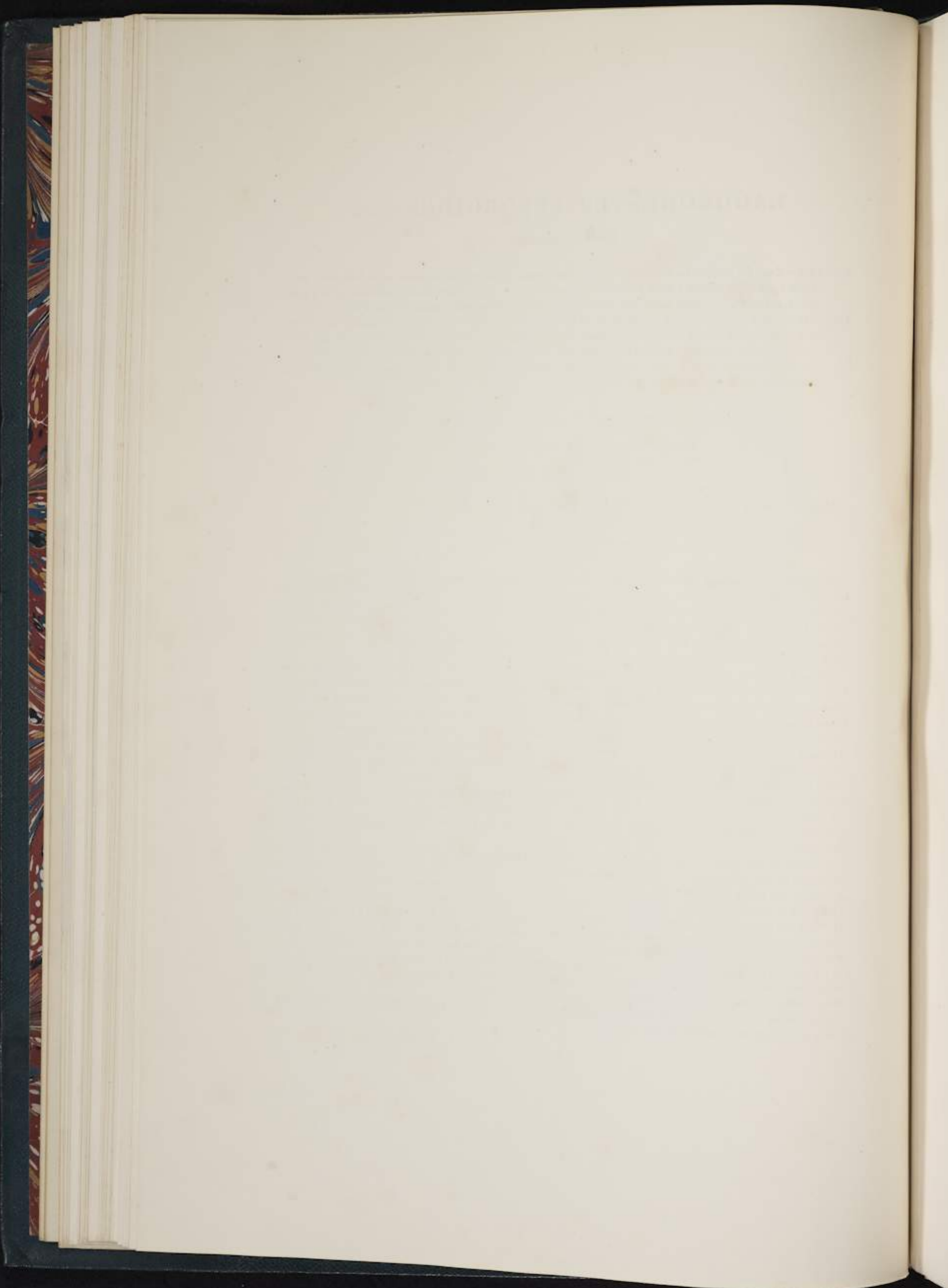
Macropus Leporides, Gould in Proc. of Zool. Soc., Part VIII. p. 93.

THIS singular little Kangaroo, which I have made the type of a new genus, ranges widely over the interior; it is tolerably abundant in all the plains of South Australia, particularly those situated between the Belts of the Murray and the mountain ranges; I also hunted it successfully on the Lower Namoi; and skins were presented to me by the Messrs. Coxen, who, I believe, had obtained them on the Liverpool Plains. Judging from what information I could gather respecting it, I believe it to be peculiar to the interior, and never to frequent that portion of New South Wales which lies between the ranges and the coast.

Although belonging to that division of the family which includes the Rat and Jerboa Kangaroos, it differs from them in inhabiting a different character of country, in having a hairy muzzle, and in the hands and nails being smaller, more slender and more delicately formed than any other known species, points indicating that it is not a burrowing animal; and it is apparent from the sharpness and spiny form of the fore-nails, that they are never used for the purpose of obtaining roots, as is decidedly the case with the Rat and Jerboa Kangaroos. That the baldness or hairiness of the muzzle indicates a great difference in the habits, not only of this, but of every other group of animals, is sufficiently evident, although to what extent, is not yet perhaps perfectly understood. Mr. Ogilby has most happily seized upon this character for some of his divisions among the Antelopes. Mr. Ogilby states that the lips of those animals having hairy muzzles are strongly prehensile, and that they procure their food by browsing, while those having the muzzle bald are strictly grazers, and are perhaps less choice in the selection of their food; and from what I have observed in the Kangaroos in Australia, I am inclined to concur in the opinion of the scientific Secretary of the Zoological Society.

The name of Hare Kangaroo has been given to this species, as much from the similarity of its form, its size, and the colour and texture of its fur, as from its habits assimilating in many particulars to those of that animal. I usually found it solitary, and sitting close in a well-formed seat under the shelter of a tuft of grass on the open plains: for a short distance its fleetness is beyond that of all others of its group that I have had an opportunity of coursing. Its powers of leaping are also equally extraordinary: I may mention an incident connected with the chase of the animal which occurred to myself. While out on the plains in South Australia I started a Hare Kangaroo before two fleet dogs; after running to the distance of a quarter of a mile, it suddenly doubled and came back upon me, the dogs following close at its heels; I stood perfectly still until the animal had arrived within twenty feet before it observed me, when to my astonishment, instead of branching off to the right or to the left, it bounded clear over my head, and on descending to the ground I was enabled to make a successful shot, by which it was procured.

Considerable diversity of colour is observable in different specimens, some being much redder than others; but the sexes are scarcely distinguishable by size.







H. C. Beckler del.

BETTONGIA RUFESCENS: Gray

C. Hutton sculpsit.



BETTONGIA RUFESCENS, Gray.

Rufous Jerboa-Kangaroo.

Spec. Char.—*Bett. vellere aspero; colore incanescenti-cinereo, et rufo, hoc apud dorsum prævalente; corpore subtus e cinereo albo, fulvo tincto; auribus externè nigris, internè fulvescenti-albis.*

Descr.—Fur harsh and wiry; general colour grizzled-grey and rufous, the latter predominating on the back; ears black externally and buffy white internally; under surface greyish white slightly tinged with buff; tail strongly prehensile, covered with short wiry grizzly-grey hairs, becoming whiter towards the tip, where they are much lengthened; under side of the tail, throughout its whole length, dirty white; hands grey; nails white; tarsi and feet dark greyish brown.

	feet.	inches.
Length from the nose to the extremity of the tail	2	8
„ of tail	1	2
„ „ tarsus and toes, including the nail		6
„ „ arm and hand, including the nails		3
„ „ face from the tip of the nose to the base of the ear		3½
„ „ ear		1½

Bettongia rufescens, Gray in Mag. Nat. Hist., vol. i. New Series, p. 584.

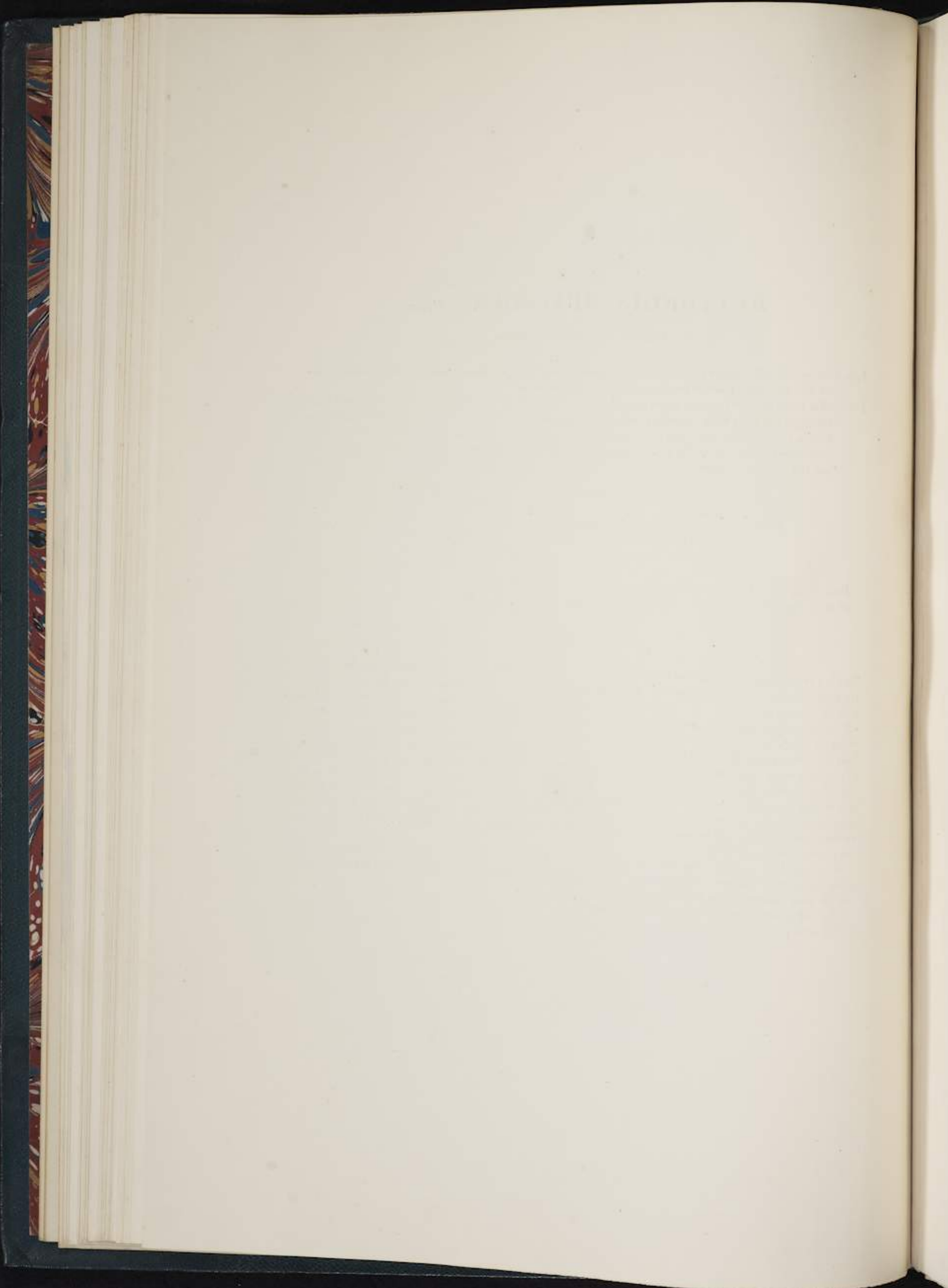
Hypsiprymnus melanotis, Ogilby in Proc. of Zool. Soc. (May 1838) Part VI. p. 62.

THIS is a very common animal in New South Wales, where it inhabits sterile and low stony ridges, particularly such as are thinly covered with scrub and grasses. It appears to be almost universally dispersed over the face of the country, from the coast to the ranges; I also obtained a single example on the borders of the Namoi, but I have never seen it in collections from any other of the Australian colonies, and I believe it to be confined to the southern and eastern portions of the continent. It is a robust little animal, and as the structure of the fore-feet and claws would lead us to infer, obtains the greater portion of its food by scratching; shallow holes and small excavations, apparently formed for the purpose of procuring roots, being abundant in the districts in which it is found. It constructs a warm nest of grass in which it lies coiled up during the day, and which is frequently placed under the shelter of the branch of a fallen tree, or at the foot of some low scrubby bush. It also sometimes reposes in a seat like the Hare-Kangaroo, but never sits out on the open plains like that species. On being startled it runs for a short distance with remarkable rapidity; but from the circumstance of its invariably seeking shelter in the hollow logs, from which it is readily cut out, it falls an easy prey to the natives, who hunt it for food.

Independently of its larger size, which is equal to that of a full-grown rabbit, the Rufous Jerboa-Kangaroo may be easily distinguished from every other species of the genus by the wiry character of its fur, the rufous hue of the back, and the black colouring of the hinder part of the ears.

The food consists of various kinds of roots and grasses.

The sexes present little difference either in size or colouring.







BETTONIA PENICILLATA: Gray

C. H. Mearns del.

H. C. Beckler del.



BETTONGIA PENICILLATA, Gray.

Jerboa Kangaroo.

Spec. Char.—*Bett. fusca, ferrugineo-albo irrorata, corpore subtus sordidè albo; auribus brevibus, rotundatis, et intus pilis brevibus flavis indutis; tarsis pallidè fuscis; caudâ ferrugineo-fuscâ supernè; apice, per partem quartam longitudinis totius, pilis fusco nigris, floccosis, instructâ.*

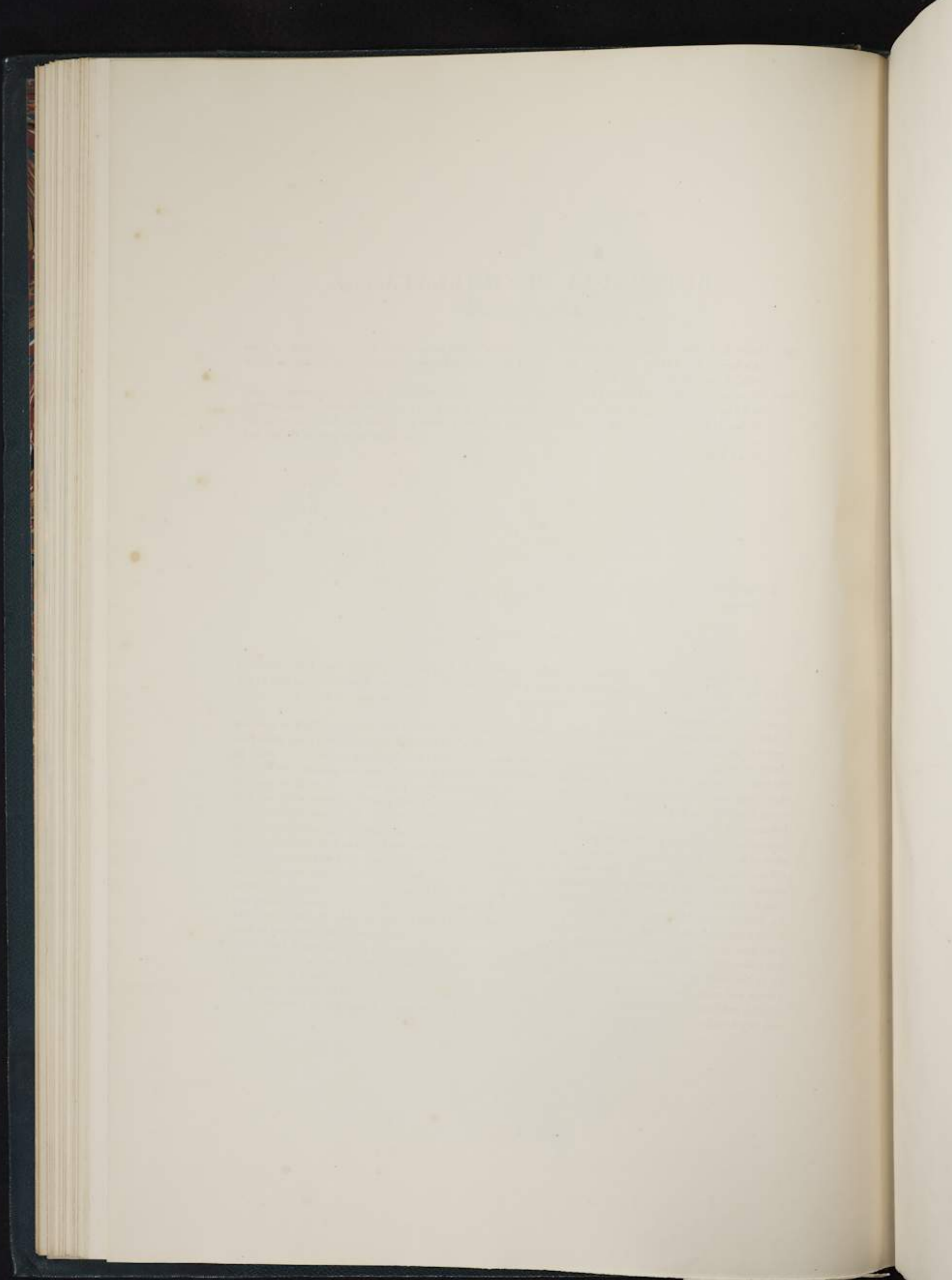
Deser.—Fur moderately long, and not very soft to the touch; general colour brown; the hairs on the upper surface grey at the base, pencilled with rusty white near the tip, and black at the point; under surface dirty white; internal surface of the ear yellow; feet very pale brown; tail rich rusty brown above and pale brown beneath, the apical quarter clothed with brownish-black hairs, which are longer than those of the other parts of the tail, and form a kind of tuft.

	Male.		Female.	
	feet.	inches.	feet.	inches.
Length from the nose to the extremity of the tail	2	6	2	0
„ of tail	1	1		11 $\frac{1}{4}$
„ „ tarsus and toes, including the nail		5		4
„ „ arm and hand, including the nails		3 $\frac{1}{2}$		2 $\frac{3}{4}$
„ „ face from the tip of the nose to the base of the ear		3 $\frac{1}{2}$		3
„ „ ear		1 $\frac{1}{4}$		1

Bettongia penicillata, Gray in Mag. Nat. Hist. for Nov. 1837, vol. i. New Series, p. 584.
Hypsiprymnus murinus, Ogilby, in Proc. of Zool. Soc. Part VI. p. 63.

ALL my specimens of this little animal were collected in the interior, both on the Liverpool Plains and to the northward of them; I even found it plentiful on the Lower Namoi; but whether it does or does not inhabit the coast side of the ranges, and over what extent of the Australian continent it is found, I am unable to state, as I only saw it in the localities above-mentioned.

Like the other members of the genus, this species constructs a thick grassy nest, which is placed in a hollow scratched on the ground for its reception, so that when completed it is only level with the surrounding grass, which it so closely resembles, that without a careful survey it may be passed unnoticed: the site chosen for the nest is either at the foot of a bush or any large tuft of grass; during the day it is generally tenanted by one, and sometimes by a pair of these little creatures, which lying coiled in the centre are perfectly concealed from view; there being no apparent outlet, it would seem that after they have crept under they drag the grass completely over the entrance, when, as I have before stated, the whole is so like the surrounding herbage that it is scarcely perceptible. The natives, however, rarely pass without detecting its presence, and almost invariably kill the sleeping inmates, by dashing their tomahawk or heavy clubs at it. The most curious circumstance connected with the history of the Jerboa Kangaroo is the mode in which it collects the grasses for its nest: these, as may be seen in the accompanying Plate, are carried with its tail, which is strongly prehensile, and, as may be easily imagined, their appearance when leaping towards their nests with their tails loaded with grasses is exceedingly grotesque and amusing: this curious feat is even exhibited in a state of confinement, the Earl of Derby having a pair of them in his Menagerie at Knowsley, which evince the same natural habits, and which frequently load their tails with the hay of their nests, and carry it round the cage in which they are kept. The most usual resorts of the Jerboa Kangaroo are low grassy hills and dry ridges, thinly intersected with trees and bushes; and although not strictly gregarious, numbers may be found in the same locality. It is a nocturnal animal, lying curled up in the shape of a ball during the day, and sallying forth as night approaches in quest of food, which consists of grasses and roots, the latter being procured by scratching and burrowing, for which their fore-claws are admirably adapted, and their vicinity is frequently indicated by the little excavations they have made. When startled from their nest they bound with amazing rapidity, and always seek the shelter of a hollow tree, or a small hole in a rock, etc.



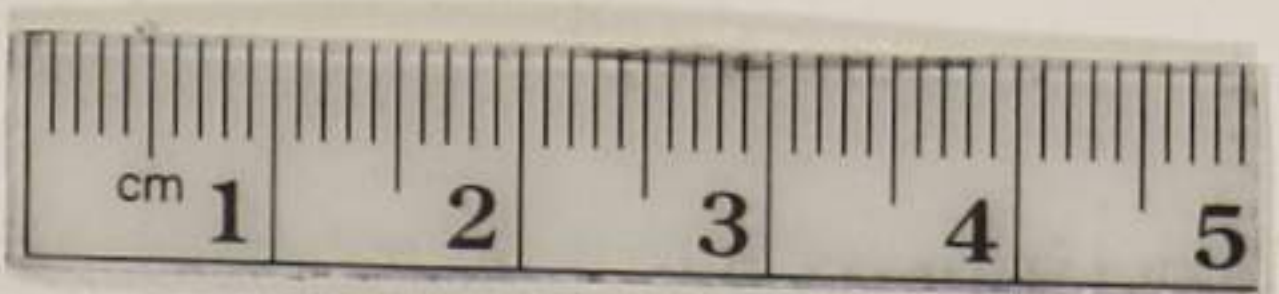




HYPSPRYMNUS GILBERTI, Gould

H. C. Fischer del.

C. Bachmann del. Imp.



HYPSPRYMNUS
GILBERTI

Hypsiprymnus gilberti Gould
 Length from the nose to the tip of the tail
 of tail
 tarsus and toe
 ear and hand
 face from the eye
 ear

Length from the nose to the tip of the tail
 of tail
 tarsus and toe
 ear and hand
 face from the eye
 ear

In its external appearance this little animal is very like the *Hypsiprymnus* of the other species, but a marked difference is seen in the position of the ears, which are set out at the sides; the tarsi and feet are also marked in each other, the latter being of a different color in the different portions of Australia. The animal here represented was procured by Mr. Gilbert, who presented his researches on the habits of the animal to me, and in the course of expressing my sense of the value of the information which he has furnished to Mr. Gilbert, I have the honor to be permitted to name it in his honor.

HYPSIPRYMNUM GILBERTII, Gould.

Gilbert's Rat Kangaroo.

Spec. Char.—*Hyps. colore corporis supernè e cinereo, fusco, nigroque commixtis, lineâ nigrescente a naso ductâ cum colore frontis se intermiscente; corpore subtùs e cinereo albo.*

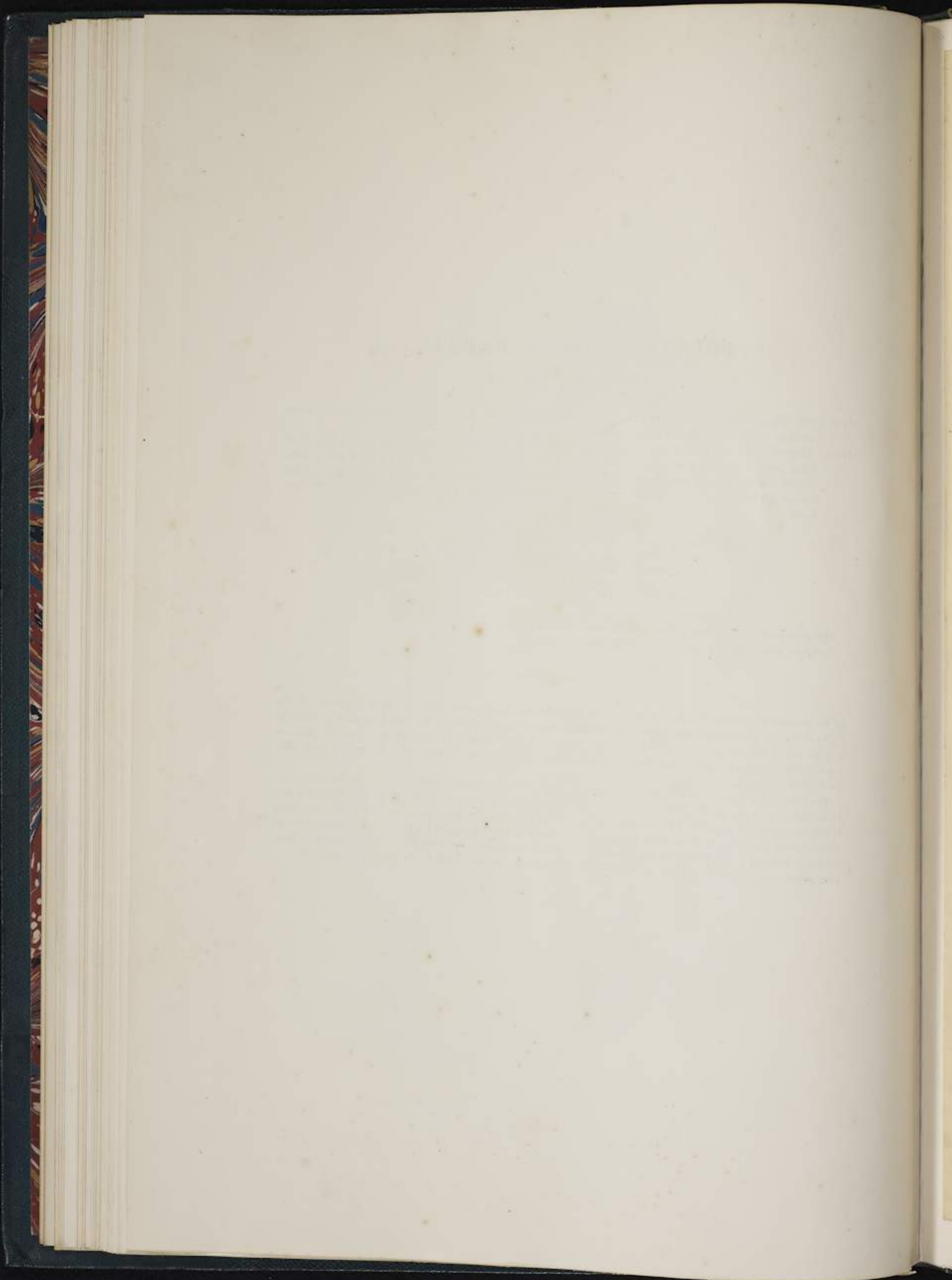
Descr.—General colour of all the upper surface mingled grey, brown and black; produced by the base of the hairs being grey, the middle portion brown and black; centre and lower part of the back washed with reddish brown; a blackish line commences at the nose and blends into the general colour on the forehead; all the under surface greyish white; hands greyish brown; feet blackish brown; tail black, very thinly clothed with short hairs.

	feet.	inches.
Length from the nose to the extremity of the tail	1	10
„ of tail		6 $\frac{1}{4}$
„ „ tarsus and toes, including the nail		3
„ „ arm and hand, including the nails		2 $\frac{3}{4}$
„ „ face from the tip of the nose to the base of the ear		3 $\frac{1}{2}$
„ „ ear		1

Hypsiprymnus Gilbertii, Gould in Proc. of Zool. Soc., February 9, 1841.
Grul-gyte, Aborigines of King George's Sound, South Australia.

IN its outward appearance this little animal closely resembles the *Hypsiprymnus Minor*, but on a comparison of the skulls of the two species a marked difference is observable, that of the present having the nasal bone more produced or swollen out at the sides; the tarsi and tail also are shorter in Gilbert's than in the *Hyp. Minor*. These *Hypsiprymni* are evidently analogues of each other, the former being found only on the western coast, while the other is confined to the eastern portions of Australia.

The animal here represented was procured at King George's Sound, where it is called *Grul-gyte* by the Aborigines. In dedicating it to Mr. Gilbert, who proceeded with me to Australia to assist in the objects of my expedition, and who is still prosecuting his researches on the northern portion of that continent, I embrace with pleasure the opportunity thus afforded me of expressing my sense of the great zeal and assiduity he has displayed in the objects of his mission; and as science is indebted to Mr. Gilbert for the knowledge of this and several other interesting discoveries, I trust that, however objectionable it may be to name species after individuals, in this instance it will not be deemed inappropriate.



KANGAROOS

GOULD

KANGAROOS
GOULD

