A

MONOGRAPH

OF

THE MACROPODIDÆ,

OR

FAMILY OF KANGAROOS.

BY

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

PART II.

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MACROPUS FULIGINOSUS.

H.C. Richter del. et lithog.

C. Hullmandel imp.

MACROPUS FULIGINOSUS.

Sooty Kangaroo.

Spec. Char.—*Mac. colore ferruginosè flavescente-fusco ; humeris dorsoque fuliginoso tinctis ; gulâ, et abdomine medio incanescentibus ; faciei lateribus, et rostro cum corpore concoloribus.*

Descr.—Fur of the body rather long and inclining to a woolly texture ; general colour rusty yellowish brown, darker and inclining to sooty on the shoulders and centre of the back ; hairs of the throat, back and abdomen grisly ; sides of the face and muzzle uniform and of the same colour as the body ; inner surface of the ear furnished with long white hairs ; external surface blackish brown ; toes and apical half of the tail blackish brown.

	Male.		Female.	
	feet.	inches.	feet.	inches.
Length from the nose to the extremity of the tail	7	3	4	$9\frac{1}{2}$
,, of tail	2	6	1	9
,, ,, tarsus and toes, without the nail	1	0		$9\frac{1}{2}$
,, ,, the ear		$4\frac{1}{3}$		$3\frac{1}{4}$
,, ,, head		$9\frac{3}{4}$		7

Kangurus fuliginosus, Desm. Mammal., p. 273.

I MUCH regret never having met with this fine species of Kangaroo in a state of nature, or being able to gain any direct information respecting its true habitat, the extent of its range, &c.

Two fine specimens, male and female, form part of the Paris Collection, and a third, a female, is in the Leyden Museum ; the two former are the originals of Desmarest's description, and are said to have been brought to Europe by Peron from Kangaroo Island.

I am yet ignorant to which species the large Kangaroo of Swan River and the western coast generally is referable, but analogy would almost lead us to infer that the present may be the one, and not the *Macropus major* : should this ultimately prove to be the case, South Australia will in all probability be the country where the two species inosculate, as is similarly observed in many species, both of birds and quadrupeds. Any additional information on this head will be printed at the close of the work, with such addenda respecting other species as may have come to my knowledge.

The term *fuliginosus* is by no means applicable to the specimens above mentioned as they now appear ; but their long exposure to light in the Museums may have induced a considerable change in their colour, and the term may have been much more appropriate when applied to them by Desmarest.

HALMATURUS RUFICOLLIS.

HALMATURUS RUFICOLLIS.

Rufous-necked Wallaby.

Spec. Char.—*Halm. ferruginoso-fuscus, albo-irroratus; notâ albâ modicè distinctâ per labrum usque ad oculum ductâ; corpore subtùs cinerescenti-albo, pilis ad basin cinereis, ad apicem albis.*

Descr.—General colour rusty brown pencilled with white; fur on the back grey at the base, succeeded by rusty, broadly annulated with white near the extremity, and black at the point; neck and shoulders almost entirely of a bright rust-red; muzzle brownish black; on the upper lip a tolerably distinct white mark, which runs backward and terminates beneath the eye; apical half of the ear externally blackish; internal surface of the ear well clothed with white hairs, the tip narrowly margined with black; on the chin a patch of black; throat pure white; under surface of the body grey-white, the hairs being grey at the base and white at the extremity; arms bright rust-colour grizzled with black and rusty white; hands black; tarsi clothed with white hairs, all of which are brownish black at the base; toes covered with black hairs; tail hoary grey with a small pencil of black hairs at the tip.

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

Kangurus ruficollis, Desm. Ency. Méth. Mamm., p. 274.
———— *rufo-griseus*, Desm. Ib., p. 273.
Macropus ruficollis, Less. Man. de Mamm., p. 226.
Warroon of the Aborigines of the Illawarra district.

This species of *Halmaturus* has been long known as forming part of the continental collections, particularly those of Paris and Leyden; the specimens therein contained have been described under at least two specific names, *ruficollis* and *rufo-griseus*, and Mr. J. E. Gray believes that the *Macropus elegans* of Lambert is also referable to the same animal; an opinion in which, however, I cannot concur, as neither the drawing in the 'Linnean Transactions,' nor the accompanying description of the fur, which is said to be of "a beautiful silver-grey," at all agrees with the one here figured, in any state of its colouring. The *M. elegans* is, moreover, said to be very scarce in New South Wales, while the *H. ruficollis* is more abundant there than any other: the aboriginal name of the latter is *Warroon*, while that of the former is said to be *Ba-garee*; a further argument in favour of their being distinct.

The undefined markings and variable colouring of the present animal have much puzzled me, and I am led to suspect that the Brush Wallaby of Van Diemen's Land, to which Mr. Waterhouse has given the name of *Bennettii*, in honour of the late estimable Secretary of the Zoological Society, may be identical with it; and I am strengthened in this supposition, by having observed that, as we proceed from Van Diemen's Land northward through the islands of Bass's Straits to the continent of Australia, the thick dark-coloured fur gradually gives place to a thinner and rusty red coat similar to the figures here given, from examples taken in New South Wales; but should this supposition ultimately prove to be unfounded, it must be conceded that the larger species of Wallaby inhabiting Flinders and King's Islands will be referable to the present species, and not to *Bennettii*, whose habitat would then be confined to Van Diemen's Land. I may here mention, that Peron's specimens in the Paris Museum were collected on King's Island, and are the originals from which Desmarest took his descriptions of *ruficollis* and *rufo-griseus*. I hope ere long to receive perfect skeletons of this or these animals, as the case may be, from different localities, by which means alone can it be determined whether or not they are identical.

This species was formerly common near Sydney, but is now gradually retiring before the advance of civilized man; it is still, however, abundant in the thick *Daveysia* scrub on the table-land behind Illawarra, particularly on the fine estate at Bong-Bong, belonging to Charles Throsby, Esq., to whom I am indebted for many friendly attentions, and for his assistance in procuring fine specimens of this animal.

HALMATURUS LALABATUS.

W.C. Richter del. et lithog. C. Hullmandel Imp.

HALMATURUS UALABATUS.

Black Wallaby.

Spec. Char.—*H. vellere longo, rigido; nigrescenti fusco, pallidiore adsperso; corpore subtùs flavido, nonnunquam arenaceo, vel ferrugineo; auribus internè pilis sordidè albis instructis, et externè notâ ferrugineâ basali usque ad collum productâ, cinctis; antibrachiis notâ nigerrimâ basali.*

Descr.—Fur long, harsh to the touch; general colour blackish brown, pencilled with a lighter hue; under surface yellowish in some specimens, in others deep sandy or rusty red; ears clothed with dirty white hairs internally; a rusty patch surrounds their base, and is extended on the neck; cheeks pale brown, mingled with dirty white; upper part of the muzzle and round the eye blackish; lips and chin whitish; wrists and hand black; immediately beneath the insertion of the fore-arm a jet-black patch; tarsi black; basal third of the tail like the body, the remainder black.

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

Macropus Ualabatus, Less. Man. de Mamm., p. 227.
Kangurus Brunii, Desm. Ency. Méth. Mamm., p. 275?
Halmaturus Lessonii, Gray.

This well-marked species inhabits, with but few exceptions, all the thick brushes of New South Wales, especially such as are wet or humid. I hunted it successfully at Illawarra, on the small islands at the mouth of the Hunter, and on the Liverpool ranges. In the former localities it was frequently found in the wettest places, either among the high grass and other dense vegetation, or among the thick mangroves, whose roots are washed by each succeeding tide. The islands at the mouth of the Hunter, particularly Mosquito and Ash islands, are not unfrequently flooded to a great extent, yet it leaps through the shallow parts with apparent enjoyment, and even crosses the river from one island to the other. On the Liverpool range it as strictly keeps to such parts as are most humid, often near the crowns of mountains, which are frequently enveloped in fogs and dews. Over what extent of country this species will be found to range it is impossible to say; as yet I have only observed it in the localities above mentioned; the dense brushes of the Clarence, Manning, and, in fact, all the brushes from Western Port to Moreton Bay, are in all probability inhabited by it.

Independently of its dark colouring, lengthened tail, and stiff wiry hair, it may be readily distinguished from every other species by the jet-black spot immediately beneath the insertion of the arm. When full grown this animal is about the size of *H. Bennettii* and *H. ruficollis*.

HALMATURUS PARRYI.

H. C. Richter del. et lith. C. Hullmandel Imp.

HALMATURUS PARRYI.

Parry's Wallaby.

Spec. Char.—*Halm. vellere modicè elongato, et molli; colore supernè ex argenteo cinereo, subtùs albo; vittâ latâ albâ per latera faciei ductâ, et ab albo colore gutturis disjunctâ, lineâ angustâ cinereâ.*

Descr.—Fur moderately long and soft; general colour silvery grey, the lower part of the back tinged with purplish brown; muzzle deep brown inclining to black, gradually becoming paler on the forehead until it passes into the grey of the upper surface; a broad pure white mark extends from near the tip of the muzzle along the cheeks, and terminates a little beyond the posterior angle of the eye; below this a faint grey line; ears nearly naked within, but having a few small white hairs on the apical portion; externally they are clothed with blackish brown fur at the base, with adpressed white hairs in the middle, and with black hairs at the tip; chin, throat, inner side of the limbs, under surface of the body and under side of the basal half of the tail white; the tips of the hairs on the chest faintly tinged with grey; arms hoary grey; hands black; tarsi and two inner toes white; the other toes black at the extremity, and with a mixture of black and white hairs at the base; tail nearly white, with the exception of the tip, which, with a fringe of long hairs on the under surface of the extremity, are black. The orifice of the pouch of the female is clothed with rust-coloured hairs, which also extend some little distance into the interior of it.

	Male.	
	feet.	inches.
Length from the nose to the extremity of the tail	5	5
,, of tail	2	7
,, ,, 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 . . .		$5\frac{1}{2}$
,, ,, ear		$3\frac{1}{2}$

Macropus Parryi, Bennett, Trans. of Zool. Soc., vol. i. p. 295, pl. 37; and in Proc. of Zool. Soc., Part II. p. 151.
Macropus elegans, Lambert, Trans. of Linn. Soc., vol. viii. p. 318, pl. 16?

With this animal neither the colonists of New South Wales nor the naturalists of Europe are very familiar; not so much in consequence of its being really scarce, as from the extreme shyness of its disposition, the fleetness with which it escapes from its pursuers, and the mountainous and almost inaccessible parts of the country it inhabits. I did not succeed in procuring it myself while in Australia, it being confined, as far as I could learn, to the range of hills which stretch along parallel to the coast from Port Stephens to Moreton Bay, a part of the country not visited by me. Like most other members of its race, it is easily tamed, readily becoming familiar and docile.

At least two living specimens are on record as having been sent to England, both of which were presented to the Zoological Society; one by Captain Sir Edward W. Parry, R.N., after whom the animal has been named; and the other by James Macarthur, Esq.: I regret to add that they both soon died.

Sir Edward Parry states that his animal "was obtained at Stroud, near Port Stephens, in the latitude of about 30° south. It was caught by the natives, having been thrown out of its mother's pouch when the latter was hunted. At that time it was somewhat less than a rabbit, but was full-grown on its arrival in England. It was never kept in confinement until it was embarked for England, but lived in the kitchen, and ran about the house and grounds like a dog, going out every night after dark in the bush or forest to feed, and usually returning to its friend the man-cook, in whose bed it slept, about two o'clock in the morning. Besides what it might obtain in these excursions, it ate meat, bread, vegetables, in short everything given to it by the cook, with whom it was extremely tame, but would allow nobody else to take liberties with it. It expressed its anger when very closely approached by others, by a sort of half grunting, half hissing, very discordant sound, which appeared to come from the throat, without altering the expression of the countenance. In the daytime it would occasionally, but not often, venture out to a considerable distance from home, in which it would sometimes be chased back by strange dogs, especially those belonging to the natives. From these, however, it had no difficulty in escaping, through its extreme swiftness; and it was curious to see it bounding up a hill and over the garden fence, until it had placed itself under the protection of the dogs belonging to the house, especially two of the Newfoundland breed to which it was attached, and which never failed to afford it their assistance, by sallying forth in pursuit of its adversaries."

But little doubt exists in my mind that Lambert's characters of his *Macropus elegans* were taken from an animal of this species, although neither his figure nor his description are sufficiently correct to determine this point with certainty.

HALMATURUS AGILIS: *Gould.*

H. C. Richter del. et lith. *C. Hullmandel Imp.*

HALMATURUS AGILIS, *Gould.*

Agile Wallaby.

Spec. Char.—*Halm. fulvus, suprà nigro adspersus, infrà sordidè albus; aurium apicibus externis et margine antico nigris; strigâ fuscescente utrinque ab oculis usque ad nares productâ, et infrà hanc lineâ albâ; clunibus lineâ albidâ notatis; caudâ longâ pilis brevibus albidis, ad basin suprà flavidis, ad apicem nigrescentibus, indutâ.*

Descr.—Fur rather short, adpressed, and harsh to the touch; general colour sandy yellow; the upper surface of the head and body freely pencilled with blackish, the hairs being of this colour at the point; chin, throat and chest dull white; abdomen yellow, the hairs terminated with white; limbs pale sandy yellow externally and white on their inner side, the arms externally pencilled with blackish; tarsi nearly white, passing into rusty on the toes; lips whitish, and a whitish mark from the lip to beneath the eye, parallel with which is another of a dusky hue; ears white within, externally sandy yellow at the base and broadly margined with black at the apex, and with a narrow black line along the inner edge; on each side of the rump an oblique whitish line; tail sparingly clothed with nearly white hairs except at the base, which is like the body; the tip of the tail black.

	Male. feet.	inches.
Length from the nose to the base of the tail	5	3
,, of tail	2	6
,, ,, tarsus and toes, including the nail		10
,, ,, arms and hand, including the nails		9
,, ,, face from the tip of the nose to the base of the ear		6
,, ,, ear		3

Halmaturus agilis, Gould in Proc. of Zool. Soc., Part IX. p. 81.

This new species of Wallaby may be readily distinguished from every other by its short, wiry, adpressed hair, and the almost uniform sandy brown colour of the body; the male is also remarkable for having very powerful incisors, and also for having the outer toe much developed, whence results a deep cleft between it and the middle one; the head is also longer and more pointed than in any other species which I have seen.

The Agile Wallaby appears to be abundant on all the low swampy lands of the northern coast of Australia. I have seen many specimens from the Cobourg Peninsula; and it is common both near the settlement of Port Essington and at Raffles' Bay. I have also had others placed at my disposal for the purpose of describing by Mr. Bynoe of H.M.S. the Beagle, which were collected on the shores of Torres Straits. It is stated to be a most agile species, readily eluding the dogs employed in hunting it by its extreme activity in leaping among the high grass; when chased it frequently seeks shelter in the thick beds of mangroves, passing over the muddy flats in such a manner as almost to baffle all pursuit.

In size, when full grown, the male is nearly equal to *H. Ualabatus*.

HALMATURUS THETIDIS: *Geoff. & F. Cuv.*

H. Richter del. et lith.

C. Hullmandel Imp.

HALMATURUS THETIDIS, *Geoff. & F. Cuv.*

Pademelon Wallaby.

Spec. Char.—*H. vellere mediocritèr molli; intensè fusco; humeris, nuchâ, et colli lateribus ferrugineis; mento et gulâ albis; antibrachiis cinerescentibus; antipedibus, pedibus, tarsisque saturatè fuscis; caudæ lateribus vix pilis vestitis, et squamas epidermidis ostendentibus.*

Descr.—Fur rather soft; general colour deep brown; shoulders, sides and back of the neck rusty red; ears furnished internally with moderately long dirty white hairs; upper lip dirty white; chin and throat white; remainder of the under surface dirty white; arms greyish; hands brown; tarsi and feet uniform dark brown; tail brownish grey above and dirty white beneath; on the sides of the tail the hairs are scanty, and the scales covering the tail are very apparent.

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

Halmaturus Thetidis, Geoff. & F. Cuv. Mamm., p. lvi.
Pademelon of the colonists of New South Wales.

Of the smaller species of Wallaby inhabiting Australia, the present is perhaps the one best known to the colonists, inasmuch as it is more abundant in New South Wales than any other. It is strictly a brush animal; and consequently only to be found in such localities. All the brushes I have visited from Illawarra to the Hunter, as well as those of the great range which stretches along parallel with the coast, are equally favoured with its presence; I have also received specimens from Moreton Bay. It is not unfrequently found running in the same locality, and even in company with the *H. Ualabatus*, although the very humid parts of the forest appear to be less suited to it than to that species.

As an article of food, few animals are so valuable, its flesh being tender and well-flavoured, and more like that of the Common Hare than that of any other European animal I can compare it with.

The sexes are precisely alike in colour, but the female is a trifle smaller in size.

The species appears to have been first brought to Europe by the French navigators, who applied to it the inappropriate term of *Thetidis* (after their vessel), which, however, it would not be right to alter. Having seen the original specimen in Paris, which is said to have been brought from Port Jackson, I am satisfied of its identity with my own specimens. I mention this circumstance, particularly as the name of *Thetidis* has been placed as a synonym of *Eugenii*, an animal brought home by Peron, and which I now believe to be identical with *H. Derbyanus*.

The *H. Ualabatus* must be classed among the smaller *Halmaturi*, being scarcely so large as *H. Derbyanus* or *H. Billardierii*.

OSPHRANTER ANTILOPINUS: *Gould.*

H.C. Richter del. et lith. *C. Hullmandel Imp.*

OSPHRANTER ANTILOPINUS, *Gould.*

Red Wallaroo.

Spec. Char.—Mas. *Osph. vellere rigido, adpresso; colore ferruginoso, apud faciem et humeros pallidiore; corpore subtùs albo.*

Fœm. *Vellere minùs rigido et magìs laxo quàm in mare; colore ex arenaceo fuscescente, apud humeros, nucham, et faciem vinaceo-cinereo; notâ flavescenti-fulvâ ante aures, et alterâ pallidiore per labrum ductâ.*

Descr.—Male. Fur of the body rigid and adpressed; general colour rusty red, becoming paler on the face and shoulders, and white or yellowish white on the throat, chest, abdomen and inside of the limbs; hands and feet dark reddish brown, passing into black on the toes; tip of the tail reddish brown.

Female. Fur less rigid and more loose than in the male; general colour reddish sandy brown, passing into vinous grey on the shoulders, back of the neck and face; base of the ear externally dark brownish grey, passing into yellowish white towards the tips; immediately in front of the ear a conspicuous patch of yellowish buff; a light buff mark also extends from beneath the eye along the upper lip; throat, chest, abdomen and inside of the limbs pale yellowish white; hands and feet dark brown, becoming black towards the nails.

	Male.		Female.	
	feet.	inches.	feet.	inches.
Length from the nose to the extremity of the tail	7	3	5	6
„ of tail	2	9	2	3
„ „ tarsus and toes, including the nail	1	1		11
„ „ arm and hand, including the nails	1	2		11
„ „ face from the tip of the nose to the base of the ear		7½		6
„ „ ear		4½		3½

Osphranter Antilopinus, Gould in Proc. of Zool. Soc., Part IX. p. 80.

Mar-ra-a-woke of the Aborigines of Port Essington.

From the period at which Australia was first visited by our enterprising navigators to the present time, our knowledge of its natural productions has been almost entirely confined to those of the narrow and limited tract of land bordering its eastern and southern shores; and it may fairly be said, that the whole of the zoology of the vast range of country washed by the seas of Torres' Straits is as much or more unknown than that of any similar extent of country in the world; and in exemplification of what I have here asserted of our ignorance of the productions of that region, I may mention that the noble Kangaroo here figured is only one of many new and interesting animals I have lately received from these parts. It is very abundant on the Cobourg Peninsula, and I have no doubt that, when the country towards the interior from these parts is explored, it will there be found in great numbers, particularly on the hilly ground, and that it possesses an extensive range, assimilating very closely in habits and economy to the great Black Wallaroo (*Osphranter robustus*), its remarkable analogue of the southern and eastern coasts.

Two very fine specimens, from which my figures and dimensions are taken, were collected by Mr. Gilbert while at Port Essington, and these in all probability are the only perfect specimens in Europe: the weight of the male was about one hundred and twenty pounds. Captain Chambers, however, late of H.M.S. Pelorus, has placed at my disposal, for the purpose of comparison, &c., several imperfect skins of this species, which clearly indicate that the animal frequently attains a much larger size; and that gentleman also assured me that he has himself seen examples weighing one hundred and seventy pounds; few species therefore exceed it in size, and certainly, with the exception of *Macropus laniger*, none in the richness of its colour and markings. Captain Chambers further informed me, that when hardly pressed in the chase it becomes exceedingly fierce and bold, and while among the rocks a most dangerous animal to encounter, one of his finest dogs being tumbled over a precipice and killed by an old male: in this fierceness of disposition it exhibits a striking resemblance to the Black Wallaroo; they also closely assimilate in the diminutive size of their females.

PETROGALE PENICILLATA: *Gray.*

H.C. Richter del. et lith.

C. Hullmandel Imp.

PETROGALE PENICILLATA, *Gray*.

Brush-tailed Rock Wallaby.

Spec. Char.—*P. vellere longo, subrigido; saturatè fusco, purpureo tincto; prymno et caudæ basi ferrugineis; humeris et lateribus saturatè vinoso-cinereis, hoc colore ab illo partium superiorum lineâ pallidiore et indistinctâ sejuncto; lineâ angustâ albâ a gutture per medium pectus ductâ; auribus nigris, ad basin cinereis; antibrachiis et antipedibus, tarsis pedibusque e ferrugineo nigris; caudâ nigrâ, perlongâ ad apicem floccosâ.*

Descr.—Fur long and rather harsh; general colour dusky brown tinged with purple, passing into deep rusty red on the rump and base of the tail; face dark grey; a dusky white mark commences at the lip and extends along the face to the ear; a narrow dark line runs from the middle of the forehead nearly half way down the back; shoulders and flanks dark vinous grey, separated from the general tint of the upper surface by an indistinct line of a lighter tint, in some specimens scarcely to be distinguished; a narrow white line extends from the throat down the centre of the chest; abdomen brown, becoming more rufous towards the lower part of the body; ears black, passing to grey at the base, and with a distinct band of rufous along the outer edge; arms and hands, tarsi and feet rusty black; tail black, very long, and clothed with long hairs forming a brush.

Some specimens are more red than others. The two sexes when adult are nearly of a size, and are similar in colour.

The entire length of the male figured in the Plate is forty-three inches, but a female which lived for some time in the menagerie of the Zoological Society measured forty-six inches.

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

Macropus penicillatus, Gray in Griff. An. Kingd., vol. iii. pl. in p. 49.
Kangurus penicillatus, Griff. An. Kingd., vol. v. p. 204.
Petrogale penicillatus, Gray in Mag. Nat. Hist., vol. i. New Series, p. 583.
Heteropus albogularis, Jourd. Compte rendu des Séances de l'Acad. des Sci., Oct. 9, 1839, p. 522?

This species is the type of Mr. Gray's genus *Petrogale*, a well-marked group, comprising several kinds of Kangaroos, whose natural habits lead them to resort to rocky mountains, frequently those of the most steep and precipitous character; hence it is not surprising that so little has hitherto been known respecting this singular animal, since the inaccessible nature of the localities it inhabits precludes all opportunity for observation.

Two specimens, apparently young females, have for a long time formed part of the collection of the Linnean Society: they were received from New South Wales, a portion of the Australian continent where the species abounds wherever the kind of country suitable to its habits occurs. The specimens in my own collection were procured on the Liverpool range, and on the rocky sides of the mountains facing Yarrundi on the Dartbrook, a tributary of the Hunter. I also ascertained that it is very abundant on Turi, and the other mountains situated to the eastward of the Liverpool Plains, and it doubtless ranges over a much greater extent of country than we are yet acquainted with. It is considerably larger than any other species of the genus yet discovered, and like many other of the smaller Kangaroos is strictly gregarious, assembling in such numbers as to form well-beaten paths along the sides of the mountains they inhabit. Their agility in leaping from rock to rock is truly surprising, often alighting upon ledges so slight and narrow that it appears almost impossible for them to retain their footing: this power tends greatly to their protection, as neither the wily aborigine, nor their still greater enemy the Dingo, can follow them to their retreats. When closely pursued, and during the heat of the day, they seek shelter in the crevices and caverns among the rocks: to the caverns they evince a great partiality, usually, however, selecting those with more than a single outlet; a precaution rendered necessary by the frequent intrusion of the Dingo, who also resorts to similar situations.

The *Petrogale penicillata* is strictly nocturnal in its habits, and during the night frequently leaves its well-beaten tracks among the rocks for the grass beds on the crowns or base of the mountains, but never so far from its haunts as to be unable to retreat again on the slightest alarm. It also readily ascends the trunks of sloping trees, wearing a kind of track or path in the bark: while thus occupied the tail is not made use of, but hangs down unemployed.

As an article of food the flesh of this animal is most excellent.

PETROGALE LATERALIS: *Gould.*

H.C. Richter del et lithog.

C. Hullmandel imp.

PETROGALE LATERALIS, *Gould.*

Striped-sided Rock Wallaby.

Spec. Char.—*P. vellere et breviore et valdè molliore quàm in P. penicillatâ ; caudæ dimidio basali fuscescenti-cinereo, apicali nigro ; lineâ albâ conspicuâ ab apice usque ad auris basin ; notâ splendidè fuscâ inter scapulas oriente, per brachia posticè ductâ, per latera ; et intùs per femora ; hac notâ a colore corporis superioris disjunctâ lineâ albâ conspicuâ ; mento, gutture, pectore et abdomine arenaceo-rubris ; colli lateribus inferioribus cinereis.*

Descr.—Fur shorter and much softer than that of *P. penicillata* ; general colour reddish brown, passing into silvery grey on the neck and shoulders ; basal half of the tail brownish grey, the remainder black, with a brush at the end ; face greyish brown ; a distinct white mark from the tip to the base of the ear ; a black mark between the ears extending in a distinct narrow line half way down the back ; ears dark brown, becoming of a light sandy colour at the base ; a deep rich brown mark extends from behind the shoulders, down the back of the arm, along the flanks and down the inside of the thigh ; this mark is separated from the general colour of the back by a very distinct stripe of white ; chin, throat, chest and abdomen sandy red ; under sides of the neck grey ; arms light sandy red, passing into black on the hands ; tarsi reddish brown, passing into blackish brown on the toes.

	Male.	
	feet.	inches.
Length from the tip of the nose to the extremity of the tail	3	5
,, of the tail	1	5
,, ,, tarsus and toes, including the nail		$5\frac{1}{4}$
,, ,, arms and hands, including the nails		$4\frac{3}{4}$
,, ,, face from the tip of the nose to the base of the ear . . .		4
,, ,, ear		$1\frac{7}{8}$

Petrogale lateralis, Gould in Proc. of Zool. Soc., for January 11, 1842.

This conspicuously marked species is very abundant in all the rocky districts of Swan River, and I have little doubt that the whole of the line of coast of Western Australia will hereafter be found to be inhabited by it, wherever the character of the country is suitable. Independently of its markings and the character of its fur, it is a much more diminutive animal than the *P. penicillata* ; the crania of these two animals also exhibit sufficient differences to satisfy the most sceptical mind of their being specifically distinct ; in disposition and economy, however, but little difference is found to exist between them.

Mr. Gilbert states that "it is only to be met with in the rocky parts of the interior intersected with caverns. It is a remarkably shy and wary animal, seldom venturing out during the day, but feeds at night in little open patches of grass, never, from all that I have been able to observe, going more than two or three hundred yards from its rocky retreats. When alarmed it leaps most extraordinary distances from rock to rock and point to point with the utmost rapidity."

H. C. Richter del. et lithog.

PETROGALE INORNATA: *Gould.*

C. Hallmandel Imp.

PETROGALE INORNATA, *Gould.*

Unadorned Rock Wallaby.

Spec. Char.—*P. facie et dorso arenaceo-cinereis; humeris canescente irroratis; lateribus pallidioribus absque notis conspicuis; antibrachiis tarsisque arenaceo-cinereis, digitis ad apicem saturatè fuscis; caudæ dimidio basali arenaceo-fusco.*

Descr.—General colour of the upper parts sandy grey, grizzled over the shoulders, and becoming much lighter on the flanks; an indistinct line of a lighter hue along the face under the eye; a dusky red patch behind the elbow; under surface sandy white inclining to rufous on the lower part of the abdomen; arms and tarsi sandy grey passing into dark brown at the extreme tips of the toes; basal half of the tail sandy brown, the remainder black, the former colour extending along the sides of the tail for some distance towards the tip; ears sandy grey, bordered by a very narrow line of dark brown on their inner edge; a dark patch at the occiput passing into a dark line down the forehead.

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

Petrogale inornata, Gould in Proc. of Zool. Soc., for January 11, 1842.

This new species, for which I am indebted to the kindness of B. Bynoe, Esq., of H.M.S. Beagle, differs from all the other members of the genus in the unusual unformity of its colouring. Mr. Bynoe collected it on the north coast of Australia. In size it is about equal to the *P. lateralis* of the western coast, to which, as also to *P. penicillata*, it is very nearly allied, but differs from both in being destitute of any markings on the sides, in the absence of any dark colouring behind the ears, and in the light colouring of the arms and tarsi.

H.C. Richter del et lith.

DENDROLAGUS URSINUS: Müll.

C. Hallmandel Imp.

DENDROLAGUS INUSTUS: *Müll.*

H.C. Richter del. et lith.

C. Hullmandel Imp.

[This page will be cancelled at the close of the work.]

DENDROLAGUS URSINUS, *Müller*,

AND

DENDROLAGUS INUSTUS, *Müller*.

A FIGURE of each of these two very remarkable and highly interesting species of Tree Kangaroos has been given in the fine work now publishing by my friend M. Temminck, entitled "Verhandelingen over de Natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen," &c.; but as the text appertaining to those plates has not yet appeared, I am unable to give any further account of them than has been conveyed to me in a letter received from M. Temminck, who says:—

"The two species were discovered by our traveller M. S. Müller during his researches in New Guinea, and who has proposed for them the names here given: they were found at Triton Bay, and also inhabit the interior of the country; they are arboreal in their habits, climbing trees with the utmost facility."

M. Temminck adds, that M. Müller will shortly publish a highly interesting account of the habits and economy of these extraordinary animals, which will be given in the third part of this Monograph.

LAGORCHESTES CONSPICILLATA: *Gould.*

H.C. Richter del. et lith. *C. Hullmandel Imp.*

LAGORCHESTES CONSPICILLATA, *Gould.*

Spectacled Hare Kangaroo.

Spec. Char.—*Lag. vellere ut in* Lepore timido; *artubus parvis; caudâ ferè quoad longitudinem cum corpore coæquali; capite corporeque suprà fuscescentibus et flavescenti-albo nigroque adspersis; corporis partibus inferioribus sordidè albis; lateribus ferrugineo-flavescentibus; caudâ pilis brevibus sordidè albis parcè indutâ; tarsis sordidè albis; auribus intùs pilis flavescenti-albis; oculis pilis ferrugineis circumdatis; vellere corporis superioris ad radicem nigro.*

Descr.—Fur very long, dense, and rather soft to the touch; on the back it is of a black colour next the skin, yellowish white towards the apex, shaded into deeper yellow still nearer to the point, and black at the point; on the lower part of the back the portion of each hair, which is yellow on the back, is replaced by white, and there is an oblique white mark on each side of the rump; fur on the side of the body is deep grey next the skin, brownish yellow in the middle, followed by black, then whitish, and at the point black; on the under surface of the body the fur is ash-coloured next the skin, and white externally, excepting on the sides of the belly, where they are of a rusty yellow hue externally; the hair on the upper surface of the head is black, freely pencilled with yellowish white; a broad space round the eye is covered with bright rusty red hairs, and this hue, though less bright, is extended backwards beneath the ear; lips and chin dirty white; throat white; ears very small and somewhat pointed; internally they are clothed with whitish hairs, and externally with dirty white hairs on the apical portion, but towards the base there is an admixture of black; fore- and hind-legs and feet pale, the hairs being dirty white at the point and brown next the skin; tail slender, and being but sparingly clothed with short dirty white bristly hairs, exhibits scales; on the under surface it is more densely clothed, and the hairs are longer and of a dirty yellowish hue.

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

Lagorchestes conspicillatus, Gould in Proc. of Zool. Soc., Part IX. p. 82.

I HAVE again to offer my thanks to the Officers of H.M.S. the Beagle for subjects they have contributed to my illustrations of Australian zoology, and especially for the loan of two fine specimens of this highly interesting *Lagorchestes*, the second species yet discovered of this beautiful form. It is to Capt. Wickham and Mr. Bynoe that science is indebted for its discovery. It was procured on Barrow Island, which lies off the north-western coast of Australia, about thirty miles from the main land. The two specimens collected by those gentlemen are fortunately male and female, and hence the subject is rendered so much the more complete. The specimen sent me by Captain Wickham has, by his desire, been presented to the national collection at the British Museum, and his example will, I feel assured, be followed by my esteemed friend Mr. Bynoe, as no exertion should be spared to render that collection, already so fine, as complete as possible.

This species is rather less in size than the *Lagorchestes Leporoïdes*; from which it is distinguished by its fur being more dense and harsh to the touch, by the extreme blackness of the basal part of the hair, by the shortness of its ears, by the want of the black patch at the base of the arm, and by the red colouring around the eyes being of a more brilliant rusty hue than in that animal.

The sexes are alike in colour and size.

BETTONGIA CUNICULUS.

H. C. Richter del. et lithog.

C. Hullmandel imp.

BETTONGIA CUNICULUS.

Tasmanian Jerboa Kangaroo.

Spec. Char.—*Bett. vellere modicè longo, at non permolli, fuscescenti-cinereo, albo irrorato; pedibus fuscescenti-albis; caudâ ad basin pallidè fuscâ, deindè saturatè fuscâ; ad apicem albâ; auribus levitèr flavo marginatis.*

Descr.—Fur rather long and not very soft; general colour brownish grey, pencilled with white; feet brownish white; tail well clothed with pale brown hairs gradually passing into dark brown near the extremity, and tipped with pure white; margin of the ears slightly tinged with yellowish; under surface of the body dirty white; fur both of the upper and under surface grey at the base.

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

Hypsiprymnus Cuniculus, Ogilby in Proc. of Zool. Soc., Part VI. p. 63.
Forest Rat, colonists of Van Diemen's Land.

This species is a native of Van Diemen's Land, and so far as I am aware is confined to that island; on this point, however, from our imperfect knowledge of the zoology of Australia and the neighbouring islands, I cannot speak with certainty.

For the two fine specimens from which my figures were taken I am indebted to the kindness of my esteemed friend Ronald C. Gunn, Esq., now resident in Van Diemen's Land, and who, as is well known, has largely contributed to our knowledge of the natural productions of that island, zoological as well as botanical.

This species differs from *Bettongia penicillata* in many particulars, among the most striking of which are its much larger size, the more lengthened form of its head, and the conspicuous white tuft at the extremity of the tail; from all the other species of the genus yet discovered it offers still greater differences. Having compared my specimens with that in the collection of the Zoological Society, from which Mr. Ogilby took his description, and with another in the British Museum, I am satisfied of their identity. In both the British Museum and Zoological Society's specimen the extremity of the tail and consequently the white tip is wanting; hence the omission of this important character in Mr. Ogilby's description.

Although very generally distributed over the island of Van Diemen's Land, the Tasmanian Jerboa Kangaroo is very local, giving preference to the open, sandy or stony forest land rather than to the thick and humid brushes.

BETTONGIA FASCIATA.

H.C. Richter del. et lithog. C. Hullmandel Imp.

BETTONGIA FASCIATA.

Banded Jerboa Kangaroo.

Spec. Char.—*B. vellere longo molli, saturatè fusco, pilis ad basin cinereis in medio albis; exindè ferrugineo-flavis, ad apicem saturatè fuscis; vellere corporis superioris pilis longis albis sericeis, crebrè adsperso; dorso inferiore fasciis nigris vix conspicuis, transversìm notato; spatio circumoculari flavescenti-fusco; tarsis, et artubus posticis externè flavido lavatis.*

Descr.—Fur long and soft; general colour deep brown grey at the base, white towards the apex of the hairs, and rusty yellow shaded into dark brown at the point; fur of the upper surface interspersed with numerous long silky white hairs; on the lower half of the back are about twelve or thirteen, not very defined, transverse black bands, each of which is bordered above with white, and below with rusty yellow; throat and under surface white; chin, muzzle, and a space round the eye yellowish brown; tarsi and outer side of the legs tinged with yellow; hair of the hands and base of the toes whitish; internal surface of the ears white; tail covered with short, adpressed, grizzled grey and white, or in parts black and white hairs; about an inch and a half of the apical portion covered with longer black hairs.

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

Kangurus fasciatus, Peron et Leseur, Voy. aux Terres Australes, tom. i. p. 114; and Atlas, pl. 27.—Desm. Ency. Méth. Mamm., p. 274.

Kanguroo élégant, Cuv. Coll. de Paris.

Halmaturus elegans, Cuv. Règne Anim., tom. i. p. 187.

Hypsiprymnus Leseuri, Quoy et Gaim.?

Three specimens of this elegant little animal form part of the collection of the museum at Paris, which, as far as I am aware, are the only examples that have yet been brought to Europe: after a careful examination of them upon two different occasions, I believe that they form part of that division of the family to which Mr. Gray has assigned the generic title of *Bettongia*, and that the species is most nearly allied to *Bettongia rufescens* and *B. Graii*; at the same time it exhibits in the character of its hair, but not in the form and structure of its teeth, some affinity to the members of the genus *Lagorchestes*.

The Banded Jerboa Kangaroo is a native of Dirk Hartogs, and other islands situated off the western coast of Australia: it was there observed in great abundance by Peron, whose notes are here given as comprising all that is at present known respecting it:—

"It inhabits the impenetrable low thickets, formed of a species of *Mimosa*, which are found in those islands; from these bushes it cuts away the lower branches and spines so as to form galleries communicating one with another, and where it takes refuge in time of danger. The females bring forth but one young at a time. Although abundant on the islands, none were to be found on the main land. These little Kangaroos, like all feeble animals which have neither the power of attack nor of defence, are extremely timid. The slightest noise caused them to take flight to the thick brushwood in which their galleries are constructed, and where it is impossible to pursue them; hence, although very common, they are difficult to procure.

"The flesh of these animals is said to resemble that of the rabbit, but has a slight aromatic flavour, arising probably from the nature of the plants on which they feed, nearly all of which are fragrant.

"All the females carried young in their pouch, and the devotedness with which they sought to save their offspring was truly admirable. Although wounded they flew with the young in the pouch, and never left them until, overcome with fatigue and loss of blood, they could no longer carry them; they then stopped, and squatting themselves on the hind legs, helped the young to get out of the pouch by means of the fore feet, and sought to place them in a situation favourable for retreat."

alfred
Collection
of Harvard University
HB

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