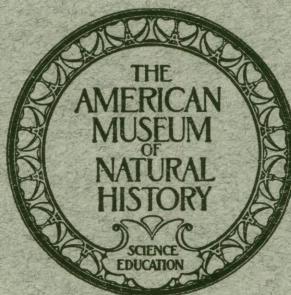


**WALLACE'S LINE
AND THE DISTRIBUTION OF
INDO-AUSTRALIAN MAMMALS**

By **HENRY C. RAVEN**

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Article IV.—WALLACE'S LINE AND THE DISTRIBUTION OF INDO-AUSTRALIAN MAMMALS

By HENRY C. RAVEN

With an Introduction by

WILLIAM K. GREGORY

TEN MAPS

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INTRODUCTION

In 1909 Dr. P. N. Van Kampen published a paper on the zoögeography of the East Indian Archipelago in which he gave expression to the following opinion regarding the zoögeographic significance of Wallace's Line: "According to the researches of more recent times, among which should be mentioned especially those of Von Martens, Max Weber, and the Sarasins, it becomes evident that such a sharp boundary as Wallace drew does not exist. Not only is there none where he drew it, but no such line exists anywhere in the archipelago. Of course it is possible to draw such a line which apparently bounds the distribution of some single group; . . . But taking the fauna as a whole it is quite certain that no line may be drawn; but, rather, we may lay out a transition zone in which the fauna of India and that of Australia are mingled, and wherein from the west to the east the Australian components increase more and more in number; and on the other hand, the Indian tend to die out. All of this region belongs to the eastern half of the archipelago from Celebes to New Guinea, and included in it we find a part of the Polynesian Islands; but it is necessary to keep in mind that even the boundaries of this transition region are not sharply defined."

W. D. Matthew (1915), in his famous paper on Climate and Evolution, included Celebes, the Moluccas, Timor and smaller islands east of Wallace's Line in a new subregion which he called Australo-malaya. He referred to this region as "the debatable ground between the Oriental and the very distinct Australian region" and said that "the consensus of opinion classes it by preference with the Australian".

In the present paper Mr. Raven will present evidence tending to show: (1) that so far as the distribution of the mammals indicates, Van Kampen greatly underestimated the value and significance of "Wallace's Line", as a zoögeographic boundary, at least in its lower two-thirds; (2) that the upper end of Wallace's Line where it runs between Celebes and the Philippines is of less significance and geologic antiquity; (3) that Matthew's "Australo-malaya" is an artificial complex, since the mammalian fauna of Celebes is primarily Indo-Malayan in origin with only a few Australian immigrants, and since the Moluccas are another artificial complex, some of them belonging with

Celebes, others being on the other side of Weber's Line and definitely within the Australian region.

Mr. Raven spent the years 1912 to 1918 collecting mammals and other vertebrates for the United States National Museum in the Dutch East Indies and the years 1921 to 1923 collecting similar material in Australia for the American Museum of Natural History; he thus became interested in the zoogeographical problems of the Indo-Australian region. In order to test the validity of Dr. Van Kampen's conclusion as expressed in the above mentioned article, he therefore began in 1927 a systematic tabulation of all the known forms of mammals from this region. The literature was searched and a series of maps was made, showing the distribution of 2240 species and subspecies of mammals.

In considering the problems raised by the distribution of the mammals in the Indo-Australian region, he has had constantly before him the basic physiographic map of Molengraaff (1921), the standard work of Lydekker (1896) on the geographic history of mammals and the palaeogeographic treatises and maps of W. D. Matthew (1915) and A. W. Grabau (1927). Nor has he neglected the evidence supplied by the fossil mammals of India, Java, Japan and the Philippines, when considered in the light of the general distribution and sequence of fossil mammals in North America, Europe and Asia. After the first draft of his manuscript was finished, he was naturally delighted to find that his results were so thoroughly in accord with those of Roy E. Dickerson and his collaborators in their excellent work on the Distribution of Life in the Philippines (1928). Indeed it seems noteworthy that the results of such a large number of field and museum workers on the geology, palaeontology, physiography, and botany, on the birds, mammals, reptiles, fishes, molluses, insects, etc., from so many parts of the vast Indo-Australian region, should so perfectly fit together and confirm the general conclusions of Wallace, Lydekker, Matthew, Weber and other great students of zoogeography.

In this connection, it may be noted that quite recently Bailey Willis (1932) has developed the hypothesis that the East Indies, like the West Indies, consist in part of long curving or festooned mountain chains and volcanic peaks which have been thrust up by the pressure of great ocean depths in deep geosynclines, bordering or between continental land masses and great ocean depths; that these isthmian lands have been more or less unstable, forming contacts with the main land in periods of elevation, giving rise to scattered archi-

pelagos and new volcanic islands in periods of depression. We may here generalize the results of Brouwer, Molengraaff, Weber and others by stating that Borneo, along with the Malay Peninsula, Sumatra, Java and Bali forms the remnants of the southeastern corner of the Asiatic continent, called Cathaysia by Grabau, while the Lesser Sunda Islands, Celebes and the Philippines form part of the great north and south festoon of isthmian lands to which Dickerson (1928, p. 27) and his collaborators have recently given the name of Wallacea.

W. K. G.

PART I. ANALYSIS OF THE MAMMALIAN FAUNA OF THE INDO-AUSTRALIAN REGION

For convenience in analyzing the material, I may begin by reviewing the mammals that transgress Wallace's Line, then consider those that do not transgress it and finally take up the main zoögeographic subregions of the Indo-Australian region and attempt to determine the geographic sources of its mammalian fauna.

EAST INDIAN MAMMALS THAT TRANSGRESS WALLACE'S LINE

SHREWS.—As shown in Plate II and in the Faunal List on page 220, the family Soricidae extends beyond Wallace's Line as far east as Timor and the Moluccas. However, of the fifty-nine species of the family in the Indo-Australian Region, only thirteen are found east of Wallace's Line; these belong to two genera, *Crocidura* and *Suncus*, which have relatives west of the Line in the Philippines, Borneo, Java, and Sumatra. Soricidae are relatively abundant in Celebes, where I discovered six new species, described by Miller and Hollister (1921). The family as a whole is distinctly Holarctic in origin, being recorded from the Middle Oligocene of North America (Matthew) and the Miocene of Europe (Zittel).

BATS.—The bats of both suborders (Pl. III and p. 224) transgress almost every geographical barrier, especially in the tropics, and pay little if any attention to Wallace's Line or to the Sahul Shelf, extending far out into the Pacific. Nevertheless there are many endemic genera of bats in the Indo-Australian Region (see Table I).

TABLE I.

—MEGACHIROPTERA—

Pteropodidae		Malay Peninsula (Malacca) and Islands	Sumatra and Islands	Borneo, Palawan and Islands	Philippines and Islands	Java and Islands	Bali	WALLACE'S LINE	Lombok to Timor	Celebes	Ceram-Buru and Islands	Gilolo Group	SABU SHELF	Australian Region
<i>Acerodon</i>	(6)	x			x			x	x	x				
<i>Balionycteris</i>	(1)	x		x						x				
<i>Boneia</i>	(2)									x				
<i>Chironax</i>	(1)					x								
<i>Cynopterus</i>	(10)	x	x	x	x	x				x				
<i>Dobsonia</i>	(12)		x						x	x	x	x	x	x
<i>Dyacopterus</i>	(1)													
<i>Eonycteris</i>	(4)	x	x	x	x	x				x				
<i>Harpionycteris</i>	(2)					x				x				
<i>Macroglossus</i>	(2)	x	x	x	x	x	x		x	x	x			x
<i>Megaerops</i>	(1)	x												
<i>Melonycteris</i>	(1)												x	
<i>Nesonycteris</i>	(1)											x	x	x
<i>Nyctimene</i>	(14)								x	x	x	x	x	x
<i>Pantheron</i>	(1)	x												
<i>Ptenochirus</i>	(1)				x									
<i>Pteralopex</i>	(2)				x								x	x
<i>Pteropus</i>	(56)	x	x	x	x	x	x	x	x	x	x	x	x	x
<i>Rousettus</i>	(5)	x	x	x	x	x	x	x	x	x	x	x	x	x
<i>Styloctenium</i>	(1)									x				
<i>Syconycteris</i>	(3)									x		x	x	x
<i>Thoopterus</i>	(1)									x				

TABLE I (continued)

—MICROCHIROPTERA—

		Malay Peninsula (Malacca) and Islands	Sumatra and Islands	Borneo, Palawan and Islands	Philippines and Islands	Java and Islands	Bali	WALLACE'S LINE	Lombok to Timor	Celebes	Gilolo Group	SAHUL	SHELF	Australian Region
Rhinopomidae														
<i>Rhinopoma</i>	(1)	x	x	x	x	x				x		x	x	x
Emballonuridae														
<i>Emballonura</i>	(13)	x	x	x	x	x				x		x	x	x
<i>Saccopteryx</i>	(3)													
<i>Taphozous</i>	(1)													
		x	x	x	x	x				x		x	x	x
Nycteridae														
<i>Nycteris</i>	(1)	x								x				
<i>Petalia</i>	(1)			x										
Megadermidae														
<i>Macroderma</i>	(1)	x	x	x	x	x				x		x	x	x
<i>Megaderma</i>	(7)	x	x	x	x	x	x	x	x	x	x			
Rhinolophidae														
<i>Rhinolophus</i>	(47)	x	x	x	x	x	x	x	x	x	x	x	x	x
Hipposideridae														
<i>Anthops</i>	(1)													x
<i>Caelops</i>	(1)													x
<i>Chilophylla</i>	(1)					x			x					x
<i>Hipposideros</i>	(35)	x	x	x	x	x	x	x	x	x	x	x	x	x
<i>Rhinonycteris</i>	(1)													x
Vespertilionidae														
<i>Anamygdon</i>	(1)													x
<i>Chalinolobus</i>	(5)												x	x
<i>Chrysotterion</i>	(1)													x
<i>Eptesicus</i>	(2)								x					x

TABLE I (continued)

MURIDAE.—The genus *Rattus* (Pl. IV. and p. 248) extends over all the island region and for that matter over the rest of the world; but there are no less than two hundred and forty-three species of this genus in the Indo-Australian region as against three in North America recorded by G. S. Miller (1923). We may well suppose therefore that not only for the true rats and mice but for all the other Muridae the unstable conditions of the isthmian tracts and the richly differentiated environments of the continental lands Cathaysia and Australia have afforded favorable foci of isolation and specialization to an almost unprecedented extent.

The Mice (genus *Mus*) are likewise widely distributed in the Indo-Australian region but represented by very few species. As rats and mice have a demonstrated ability to extend their range, either by raft transportation or by taking advantage of occasional isthmian contacts, their crossing of Wallace's Line has little bearing on its validity as a zoogeographic barrier for other types of mammals. It is evident, however, that the Muridae have a palaearctic origin, since they date back at least from the Miocene of Europe. The other genera of Muridae, however, do have important bearing on the problem. The fundamental work of Oldfield Thomas, as extended by later mammalogists and as summarized and revised by Lydekker (1896), Longman (1916), Le Souef, Burrell and Troughton (1926) has shown that the Muridæ of the Australian region may be broadly grouped as follows:

- I. "Water Rats" (Hydromyinae): Seven genera. According to Oldfield Thomas (1899, p. 378) three genera of primitive Hydromyinae are found also in the Philippines.
- II. Typical Rats: seven genera, of which four are found only in New Guinea. *Rattus* is world-wide and *Mastacomys* is peculiar to Tasmania, South Australia and the Australian Pleistocene.
- III. Prehensile-tailed Rats: *Pogonomys*, twelve species, New Guinea.
- IV. Australian Mice, with four mammae: *Pseudomys*, with six species, all Australian.
- V. Jerboa-Rats: five genera (*Conilurus*, et al.) including twenty species, all Australian.
- VI. Kangaroo-Mice: two genera: *Notomys*, nine species, Australia; *Lorentzimys*, 1 species, New Guinea.
- VII. Mosaic-tailed Rats: three genera closely allied (*Uromys*, et al.) with about sixty species in New Guinea, Australia, Solomon Islands, Moluccas as far as Telaud Island (near Wallace's Line).

It would seem that the Hydromyinae may have been derived at some relatively distant date from an immigrant species of "Xeromys" (= *Celaenomys*) coming from the Philippine Islands; but as to the times and routes by which the other Muridae reached the Australian region we know nothing.

Another great center of adaptive radiation of the Muridae is in the Philippine Islands, where no less than fourteen genera are recorded other than *Rattus* and *Mus*. Of these, several, according to Oldfield Thomas, have relatives in Celebes, three genera are related to the Australian Hydromyinae, while *Carpomys* and *Batomys* are related to a group of arboreal genera scattered over the oriental part of the East Indian Archipelago. Most of the Philippine genera, however, contain but one or a few species, a fact suggesting local isolation but not especially great antiquity.

Celebes has three endemic genera of Muridae, with few species, and one (*Uromys*), which extends to Ceram, New Guinea and Australia. All the rest of the Malay Region, including Borneo, has only five genera (other than *Rattus* and *Mus*), including fourteen species. Of these *Lenothrix* is an island form, *Oromys*, a mountain form from Sumatra. Others (*Chiropodomys*, *Nesokia* and *Pithecheirus*) are widespread in the Malaysian region. The only genus of Muridae (apart from *Rattus* and *Mus*) that crosses Wallace's Line is *Xeromys*, a primitive terrestrial member of the "Water-rat family", represented by different species in the Philippines and in the Australian region.

SQUIRRELS (*Sciurus* only).—The genus *Sciurus* transgresses Wallace's Line by extending into Celebes and small adjacent islands. Of its one hundred and six species, fourteen are found in Celebes, all however, sufficiently close to forms in Borneo and Java to come within the genus even as narrowly delimited by the mammalogists. Most of the Celebian squirrels are specialized members of the *Sciurus vittatus* group, which is the commonest type of East Indian squirrel. One or two species are specialized members of the *Sciurus prevostii* group common in Borneo. Squirrels, however, in the course of long ages might easily be transported by natural rafts, as suggested by Matthew. On several occasions while sailing in Macassar Strait I have seen great natural rafts that have come down from the rivers of Borneo. There are currents in this region that alternate with the monsoons,

TABLE II.
DISTRIBUTION OF MURIDAE (Compare Plate IV)

Muridae		Malay Peninsula and Islands	Sumatra and Islands	Borneo, Palawan and Islands	Philippines and Islands	Java and Islands	Bali	WALLACE'S LINE	Lombok to Timor	Celebes	Ceram-Buru	Gilolo (Halmahera) Group	SAHUL SHELF	Australian Region
<i>Anisomys</i>	(1)											x	x	x
<i>Apomys</i>	(7)				x									x
<i>Ascopharynx</i>	(2)				x									x
<i>Batomys</i>	(2)				x									x
<i>Bullimus</i>	(1)				x									*
<i>Carpomys</i>	(2)				x									*
<i>Celaenomys</i>	(1)				x									x
<i>Chiropodomys</i>	(7)	x	x	x		x								*
<i>Chrotomys</i>	(7)				x									*
<i>Conilurus</i>	(11)				x									x
<i>Crateromys</i>	(1)				x									x
<i>Crossomys</i>	(1)				x									*
<i>Crunomys</i>	(2)				x									x
<i>Dendrosminthus</i>	(1)				*									x
<i>Echinothrix</i>	(3)										x			x
<i>Eropeplus</i>	(1)										x			x
<i>Hydromys</i>	(9)													x
<i>Laomys</i>	(2)										x			x
<i>Lenomys</i>	(2)			x										x
<i>Lenothrix</i>	(1)													x
<i>Leporillus</i>	(B)													x
<i>Leptomys</i>	(1)													x

* Marks presence of allied form.

TABLE II. (continued)
DISTRIBUTION OF MURIDAE (Compare Plate IV)

		Malay Peninsula and Islands	Sumatra and Islands	Borneo, Palawan and Islands	Philippines and Islands	Java and Islands	Bali	WALLACE'S LINE	Lombok to Timor	Celebes	Ceram-Buru	Gilolo (Halmahera) Group	SAHUI. SHELF	Australian Region
<i>Limnomys</i>	(4)				x					x				
<i>Mallomys</i>	(2)											x	x	x
<i>Mastacomys</i>	(2)											x	x	x
<i>Melasmotherrix</i>	(1)													
<i>Melomys</i>	(7)											x	x	x
<i>Mesembriomys</i>	(2)			x										
<i>Mus</i>		x				x			x	x				
<i>Nesocia</i>	(1)		x			x								
<i>Notomys</i>	(4)		x									x	x	x
<i>Oromys</i>	(1)			x										
<i>Phloeomys</i>	(3)				x									
<i>Pithecheirus</i>	(1)	x				x								
<i>Podanomatus</i>	(1)			x		x		x					x	x
<i>Pogonomys</i>	(13)					x							x	x
<i>Pseudomys</i>	(6)					x							x	x
<i>Rattus</i>	(243)	x	x	x	x	x	x	x	x	x	x	x	x	x
<i>Rhynchosomys</i>	(1)				x					*				
<i>Stenomys</i>	(4)				x					x			x	x
<i>Tarsomys</i>	(1)				x								x	x
<i>Tryphomys</i>	(1)				x									
<i>Uromys</i>	(37)				x					x	x			x
<i>Xeromys</i>	(1)													
<i>Zyzomys</i>	(1)												x	

* Marks presence of allied form.

which would occasionally carry such rafts from Borneo to Celebes. I have twice crossed Macassar Strait in a small sail-boat and I know how strong these currents may be at times.

If the Celebean squirrels had come in at one of the times of its contact with the mainland, it would be a question why all the other troops of Cathaysian sciurids, tupaiids, tragulids, etc., did not get in at the same time.

The distribution of the remaining Sciuridae is discussed below (pp. 197, 198).

TRUE PIGS (*Sus*).—The genus *Sus* is almost comparable with *Sciurus* in its wide distribution, rich local specialization and transgression of Wallace's Line. Yet all the pigs east of Wallace's Line are small, blackish pigs with a big head-crest and big callosities on top of the snout. They belong to closely allied species of the *Sus vittatus* group and differ widely from the *Sus barbatus* group, the common pigs of the Malay Islands, including Borneo.

As to the ability of pigs to transgress geographical barriers, it may be noted that they are unusually good swimmers. On a certain island which I visited off the coast of Borneo, the forest was entirely cleared and the pigs were exterminated. As soon, however, as the island was planted with cocoanuts, pigs from the mainland occasionally swam across, attracted by the smell of the cocoanuts carried by the on-shore breeze. On one occasion I collected a pig more than a mile from shore, swimming directly toward one of these cocoanut-bearing islands eight miles off the coast.

As to the derivation of the Celebean species of *Sus*, a closely allied species, *Sus celebensis borneensis*, is recorded from Borneo. *Sus floresianus* Jentink belongs to the *vittatus* group, as does *S. Nehringii*. The same is true of *S. niger*, *S. papuensis*, *S. timoriensis*, *S. weberi*, etc. The pigs east of Wallace's Line are thus clearly derived from those west of that Line.

Babirusa of Celebes and neighboring islands, although very peculiar in certain characters, is regarded by Stehlin (1889, pp. 460-461) as a derivative of the *Sus verrucosus* group of Java, Recent and Pleistocene.

Van Kampen in the paper now under review (p. 551) regards *Babirusa* as related to the African wart-hogs and as indicating an extremely ancient bond with Africa. Comparison of the skulls of all

the principal types of Suidae does not support this view. I would rather strongly endorse the carefully considered judgment of Stehlin, who suggested that *Babirusa* is merely an aberrant offshoot of the *Sus verrucosus* group, which is widely distributed in the Indo-Malayan region.

DEER.—Of the twenty-one species of *Cervus* in the lists, only two species occur east of Wallace's Line. These forms, *Cervus hippelaphus* and *C. hippelaphus timoriensis*, also occur on Celebes. Both are closely related to *C. hippelaphus* of Java and Borneo.

Deer are excellent swimmers and I have seen them swim right out to sea when chased by dogs. Young deer are also often carried about from island to island by the Malayans. Nevertheless, the majority of the species of *Cervus* have never transgressed Wallace's Line, as shown below.

BUFFALO.—In the Indo-Malayan region there are five genera of Bovidae, including sixteen species, and of these only the dwarf buffaloes of Celebes, *Bos depressicornis* and *B. quarlesi*, transgress Wallace's Line. According to most authorities, the anoa is closely allied with the tamarau (*Bos minodrensis*) of Mindoro, Philippine Islands, which in turn finds its closest ally in Borneo. Although the Celebean anoa has sometimes been considered a distinct genus, there seems no reasonable doubt that the endemic buffaloes of both Celebes and Mindoro have been derived, perhaps by way of Palawan and Borneo, from some of the Pontian Bovidae of India (Pilgrim, 1925, p. 216).

CERTAIN VIVERRINES.—Of the eleven genera and fifty-six species of Viverridae in the Indo-Australian region seven species are found east of Wallace's Line. One of these, *Paradoxurus leucomystax refulgens* Rosenberg, has possibly been carried by natives as far east as the Aru Islands. The other genus, *Viverra*, may also have spread in the same way.

Wallace (1869, p. 80) notes that *V. tangalunga* is often made captive by the Malays, also that Antonio de Morga (1602) says that "the natives of Mindanao carry about civet cats in cages and sell them on the islands; and they take the civet from them and let them go again."

The family as a whole is Palaearctic in origin.

The remaining five species east of Wallace's Line all belong to the genus *Paradoxurus*, which on account of its arboreal and omnivorous habits would seem to be an almost ideal passenger for a natural raft.

CANIS DINGO.—Of the six species of Canidae recorded in the Indo-Australian region, three belonging to the *Canis dingo* group are found far to the east of Wallace's Line in Australia. True dingo jaws have also been found in the Pleistocene caves of Australia. Characteristic teeth were carefully figured by Etheridge (1916) and after personally examining them in the Australian Museum, Sydney, in 1921, I cannot doubt that they are true Canidae and not some marsupial imitation. Wood Jones (1925, p. 355) has made out a strong case for his view that the Pleistocene dingo was brought in by Pleistocene man. In any case, the dingo, like other East Indian Canidae, doubtless derives from some ancient Palaeoarctic dog such as the true *Canis* of the Pontian of India described by Pilgrim (1932, p. 30).

Other genera of Canidae will be noted below (p. 199).

CELEBEAN MACAQUES.—Van Kampen suggests that the Celebean *Cynopithecus niger* is closely related to the baboons of Africa, but a comparison of the skulls of various species of baboons and macaques has convinced me that the Celebean macaques and *Cynopithecus*, while good endemic genera, are but specialized derivatives of the macaques of Southeastern Asia. Relations with the baboons are quite indirect. Buttikoffer (1917) in his monographic study of the Celebean

TABLE III.

CARNIVORA

macaques calls them "Crested macaques". Dr. Gerrit S. Miller, and no higher authority on this subject could be quoted, has kindly answered my query as follows:¹ "I think that *Cynopithecus* is an aberrant member of the macaque group and not in any way nearly related to the baboons". Thus they may well have been isolated in Celebes since Pliocene times and derived from some of the Pontian macaques of India.

TARSIUS.—This highly specialized and ancient type of Primates is represented by nine species, of which three are found in the Celebes and in Sanghir, a small island north of Celebes. Three are in the Philippines, the remaining three in Java, Sumatra, Borneo and islands between the latter two.

Tarsius, being thoroughly aboreal, might possibly be one of the small forms rafted over from Borneo to Celebes, or it might have come south from the Philippines by way of Sanghir. It is doubtless a derivative of the Eocene tarsioids of Europe, especially *Pseudoloris* (Teilhard de Chardin).

MAN.—The evidence reviewed in this paper indicates very clearly that among the various families of placental mammals there have been many movements of expansion by which groups of East Asiatic origin have again and again colonized the East Indian archipelago. Although many were stopped by the barriers at Wallace's Line, some transgressed this Line but never reached beyond Weber's Line; one family, however, namely that of the rats and mice, even got past the last-named barrier and entered on a new period of expansion on the great New Guinea-Australian land-mass. Early man, likewise, shares with the rats, bats, pigs and dingo the distinction of transgressing Weber's Line and even reached Tasmania, beyond the limits of the dingo.

In the Pleistocene of Java and of China we have the genera *Pithecanthropus* and *Sinanthropus*, which are about as closely related as any two genera of rats. Oopenoorth (1932) has put together a morphological series of crania starting with *Pithecanthropus* and passing through stages represented by the Peking, Solo, Wadjak and Australian skulls. This, however, is probably not a true series and we have little evidence that the path actually followed was from Java down the Lesser Sundas to Northern Australia except possibly

¹ In litteris, July 23, 1931.

the presence of Papuan elements in islands as far west as Flores and Peling (Keane, 1900, p. 130). The Talgai skull is of primitive Australian type (Stewart A. Smith, 1917; Burkitt, 1929). It may be of Pleistocene age. The researches of anthropologists, summarized and interpreted recently by Hooton (1931, pp. 514, 545, 546), would make it appear rather that the Australians were compounded from a far-wandering proto-Dravidian stock crossed with Tasmanian Papuans. The Tasmanians in turn may have reached their final destination after a long and unknown route starting from the Papuans of New Guinea. According to Sir Edgeworth David (1914, p. 289), the Tasmanians may have arrived by an almost continuous, if not continuous, land-bridge across Bass Strait.

The Negritos of the Philippines (*cf.* Dickerson, 1928, p. 289) seem to have come up through Borneo and Palawan. The absence of Negritos in Celebes suggests that the Melanesians and Papuans did not reach New Guinea by the Celebes-Buru-Ceram route.

The Indonesians and Malays of Borneo, the Philippines and Celebes, who have spread far to the east and south, absorbing Negrito, Papuan and Melanesian elements, seem to be basically of proto-Mongoloid stocks, with perhaps a dash of "Mediterranean" (*cf.* Hooton, 1931, p. 559).

The Polynesians doubtless started as Southeastern Asiatics and included proto-Mongoloid and Caucasoid elements. While passing through the screen of islands they absorbed Melanesian and Papuan elements in varying degrees (Bishop Museum Memoirs).

Thus the mammals that have succeeded in crossing Wallace's Line from the west include many of the shrews, hosts of bats, many true rats, a few mice and the highly varied rat fauna of New Guinea and Australia. The true squirrels have crossed from Borneo to Celebes and the true pigs reached New Guinea; but the *Babirusa* of Celebes is probably derived from some one of the *Sus verrucosus* group of the Javan Pleistocene. The true deer (*Cervus*) spread to Celebes from Java but were also carried about by the natives. The anoa of Celebes is assuredly derived from some East Indian bovid that was closely related to the Philippine tamara. Some of the Viverridae have also been spread by man but others, namely *Paradoxurus*, may have travelled east of Wallace's Line by natural rafts. One species of *Felis* reaches Sunba, east of the Line. The dingo among the Canidae had reached Australia in Pleistocene times. The

Celebean macaques are evidently derived from macaques west of the Line. *Tarsius* of Borneo, the Philippines, and Celebes is another transgressor.

But the East Indian mammal which has most frequently violated the boundaries of the zoögeographers is man, who, at least since Pleistocene times, has again and again crossed or gone around the obstacles of deep water.

In view of all this, it might seem at first sight that Van Kampen was right in stating that: "it becomes evident that such a sharp boundary as Wallace drew does not exist. Not only is there none where he drew it, but no such line exists anywhere in the archipelago . . ." But a closer analysis of the mammalian fauna reveals, we believe, very substantial evidence for accepting Wallace's Line, or at least the lower two-thirds of it, exactly as it is. We therefore pass to the consideration of the many East Indian mammals that have been stopped by Wallace's Line in their spread toward the east.

TABLE IV.

SCIURIDAE

EAST INDIAN MAMMALS THAT DO NOT TRANSGRESS WALLACE'S LINE

INSECTIVORA (except Soricidae).—The Erinaceidae, represented by three genera including four species, have not succeeded in crossing Wallace's Line. The Gymurinae are extremely primitive in skull, dentition and postcranial skeleton and have doubtless been derived from the primitive Leptictidae of the Oligocene of North America and Europe (Matthew).

The Tupaiidae, including four genera and thirty-nine species, extend to Wallace's Line but not beyond it. At present their nearest known fossil relatives are the Anagalidae of the Oligocene of Mongolia (G. G. Simpson, 1931).

DERMOPTERA.—Two genera and seventeen species of the "Flying Lemurs" (*Galeopithecus*) all lie west of Wallace's Line. Their nearest possible relatives are the Plagiomenidae of the Middle Eocene of North America (Matthew).

SPALACIDAE.—Distributed over Africa, Pleistocene to Recent; southern Europe, upper Pliocene; southern Asia, Pliocene to Recent. Represented in Malaysia by two species of bamboo rats (*Rhizomys*) from Sumatra and Malacca and possibly also from Borneo (Van Balen I.).

SCIURIDAE (except *Sciurus*).—Apart from *Sciurus* (see p. 187 above) there are twelve genera of this family, including eighty-seven species widely distributed in Borneo, Sumatra and the Malay Peninsula but none of them transgresses Wallace's Line. Two genera reach the Philippines.

HYSTRICOMORPHS.—Four genera including eleven species extend from the Malay Peninsula through Borneo. One species reaches the Philippines. The family is represented in the late Tertiary of India and in the Pleistocene and Recent of Java.

LAGOMORPHA.—The hares and rabbits are very rare in the East Indies, being represented by only two monotypic genera in Sumatra and Java. Their presence suggests that savannah conditions existed in former times preceding the forests. Fossil lagomorphs are recorded from the Siwaliks (Matthew).

PANGOLINS.—These excessively specialized mammals of Palaeartic origin are represented in the East Indies by one genus, one recent

and one fossil species, the family ranging from India and China to Java and northward through Borneo, to Palawan and the Philippines.

EXTINCT HIPPOPOTAMI AND GIRAFFES.—These large animals, essentially Siwaliks in origin, are unknown today in the East Indies but are represented in the Pleistocene of Java. There is no evidence that they ever reached further eastward.

TRAGULINES.—The genus *Tragulus* with no less than forty-three species has its headquarters in the Malayan region, including the Philippines, but not one of its species transgresses Wallace's Line.

Pliocene and Pleistocene tragulines were found in India, while the family as a whole dates back to the Oligocene of North America and Europe.

CERVIDS (except *Cervus*).—The Muntjae (*Muntiacus*, "Cervulus"), unlike the larger true deer, are limited to the Malayan region and do not extend east of Borneo.

PERISSODACTYLS.—The tapirs, including two species, and the rhinoceroses with four species, extend only as far east as Java and Borneo; they are outliers of the Indian fauna of the Pliocene and Pleistocene and have not gone beyond the continental shelf. The horses and chalicotheres, although present in China and India in Pliocene and Pleistocene times, are notably absent in the Malayan region, possibly because it was a forested country.

PROBOSCIDEA.—In Pliocene times several species of *Stegodon*, an essentially Siwaliks genus, extended as far east as Java and Japan but are unknown in Borneo. The present Bornean elephants belong to *Elephas indicus*. They have probably been introduced by man. The reported occurrence of *Stegodon* in Mindanao, Philippine Islands, could not be confirmed by the authors of the "Distribution of Life in the Philippines" (p. 85).

CANIDAE (except *Dingo*).—*Cyon javanicus*, with one species allied with Indian species, extends east to Borneo and Java but no further. *Mececyon* is confined to Java.

URSIDAE.—*Helarctos malayanus* is found in Malacca, Sumatra and Borneo but not east of Wallace's Line.

MUSTELIDAE.—Eight genera (see Table VIII) occur in the Malay region, including Borneo and its annex Palawan. They may have

been derived from some of the abundant Siwaliks genera described by Pilgrim (1932).

PRIMATES (except *Tarsius*, Macaques, Man).—The lemuroids, represented by several species of *Nycticebus*, extend east as far as Java, Borneo and the Philippines.

Of the higher Primates, apart from the so-called black apes (see p. 194), the genus *Macacus* with fifteen species ranges from Sumatra to the Philippines.

The semnopitheques, including *Pygathrix* with thirty-four species and *Simias* with one, range over the Malay region (including Borneo) but do not transgress Wallace's Line. *Nasalis* with one species is characteristic of Borneo. It is a highly specialized semnopithecus.

Of the anthropoids, the gibbons have two genera with eight species in the Malay Peninsula, Java and Sumatra, Borneo and Palawan; while the orangs, including one genus and one excessively variable species, are found in Borneo and Sumatra.

All these primates are of East Asiatic derivation and none have transgressed Wallace's Line.

From what precedes it is evident that while a goodly number of mammalian groups have succeeded in passing Wallace's Line, a much greater number have been stopped by it. This seems consistent with the fact that Wallace's Line for the most part marks the eastern boundary of the ancient continent, while the islands east of it have had only occasional contacts with it. The facts suggest that those numerous families which failed to cross Wallace's Line only reached it in relatively modern times after the barrier was fully established. Also the heavy forestation of Malaysia west of the Line may have supervened upon an earlier period of greater elevation and wider savannahs.

NOTES ON THE INDO-AUSTRALIAN SUBREGIONS AND THE SOURCES OF THEIR MAMMALIAN FAUNAS

MALAYSIA AND ITS MODERN REMNANTS.—It is well known that the Malay Peninsula, Sumatra, Java, Bali, Borneo and the small islands of the South China Sea are fragments of an old land-mass, Malaysia or Cathaysia, and that the old continental shelf runs east of Borneo. On the northeast this land-mass was connected through Palawan with Mindoro of the Philippines and by the Sulu archipelago

with Mindanao. The modern remnants of the old land-mass consist of a rich and diversified archipelago of large and small islands, which are for the most part mountainous and covered with forested mountains and plains but with practically no savannahs or grassy plains except as the result of clearing off the forest by man. The remnants of Malaysia are now populated with diversified descendants of the old mammalian fauna of India and Southeastern Asia.

THE PHILIPPINES.—These islands lie northwest of Wallace's Line and indeed have been connected with Borneo through Palawan and perhaps through the Sulu Islands. The fact that they have some affinities with Celebes and that their flora has an appreciable Australian element is hardly decisive as to their zoogeographic relationships but the evidence of their unstable geological history as cited in "The Distribution of Life in the Philippines" justifies the authors of that work in classing the Philippines with Celebes and the Lesser Sunda Islands as part of "Wallacea," the unstable area between Asia and Australia (p. 27). According to this idea, which is also in accord with Bailey Willis's hypothesis of the origin of isthmian chains, such as those of the East and West Indies, the upper end of Wallace's Line might better have been drawn not between Mindanao and Celebes but between the Philippines, Palawan and Borneo.

Nevertheless, the mammalian fauna of the Philippines is clearly derived on the whole from that of Malaysia, as shown by the presence of tree-shrews, lorises, tarsiers, macaques, sciurids, porcupines and even of the buffalo tamara. Therefore there is some justification for letting the upper end of Wallace's Line stay where it was drawn. The most surprising elements of the Philippines mammalian fauna are the Muridae of northern Luzon, which include no less than eight genera of rodents, one or two of which may be the source of the Australian water-rats; however, the Australian relationships of one of these forms does not seem to us to add an "Australian element" to the fauna but to suggest the original source of the Australian Muridae from the Philippines.

CELEBES.—Whereas Borneo is a forested country, Celebes, the Moluccas and the Lesser Sunda Islands are covered in part at least with savannahs. The outstanding mammals of Celebes are the *Babirusa*, the two genera of macaques (see p. 194), the anoa, several genera of rats and three species of phalangers, all except the last being ultimately of Malaysian derivation.

Conspicuous absentees are tupaiids, erinaceids, sciurids (except *Sciurus*), spalacids, hystricids, lorises, gibbons, orangs, semnopitheques, ursids, mustelids, canids, felids, tragulids, muntjacks, pangolins, elephants, tapirs, rhinoceroses. All this is consistent with the checkered geological history of Celebes, which has been more or less submerged several times during the Tertiary and has had only narrow contacts at times with neighboring islands.

The three species of Celebean phalangers are related to those found in islands to the east and southeast, including the Moluccas, New Guinea and northeastern Australia. In other words, they are clearly immigrants and probably rather recent immigrants from the Australian region. The five great arms or radii of Celebes mark the meeting-place of as many "isthmuses," which at periods of elevation may have afforded brief contacts in various directions.

LOMBOK TO WETTA (*including Sumba and Timor*).—This eastern prolongation of what we may call the Javan Andes carries a very impoverished mammalian fauna including (apart from rats) a deer on several islands, a paradoxure, a macaque, and questionably a cat (*Felis megalotis* Müller) on Sumba, based on an incomplete description which includes no diagnostic feline characters and might have applied to a viverrid. In all these volcanic islands, beginning with Sumbawa, there is a notable diminution of typical East Indian forest and an emphasis of savannah and grass (Alang-alang) country and eucalyptus forest.

CERAM-BURU.—The present trend-lines of the so-called "Javan Andes" continue eastward into a fish-hook-like curve parallel to the Sahul shelf and ending in Ceram and Baru. According to the palaeographer (Willis, 1932) however, these islands represent an isthmus extending out from Australia nearly to the Sula Islands, which in turn are connected by shallow seas with eastern Celebes. They are characterized by the presence of the following mammals: (1) *Babirusa* (in Buru only), closely allied to the *Babirusa* of the Sula Islands and Celebes; (2) a bandicoot in Ceram plainly derived from Australia; (3) one species of phalanger on both islands, from the same source. The presence of cassowaries on Ceram also clearly ties these islands with Australia.

GILOLO (HALMAHERA) GROUP.—These islands are widely connected with New Guinea and narrowly, via the Sula Islands, with

Celebes. The presence of a black macaque, however, on Batijian is said to be due to importation by the natives. Apart from this and from the omnipresent bats and rats, not even the shrew (*Crocidura*) shows a very satisfactory contact with the true East Indian fauna. The phalangers (*Petaurus* and *Phalanger*), on the other hand, are closely related to those of New Guinea.

AUSTRALIAN REGION.—There has never been any question as to the essential unity of this region, which is the home of the monotremes, true diprotodonts, peramelids, dasyurids and *Thylacinus*. Of these the diprotodonts, in spite of the enormous difference between such extreme forms as *Diprotodon* and *Thylacoleo*, are all plainly the diversified descendants of an ancient diprotodont stock, of which the smaller phalangers are the "living fossil" representatives. Huxley, Dollo, Bensley and later authors have traced clearly the general steps of this evolution. The bandicoots, although technically polyprotodonts, seem to stand not far from the base of the diprotodont stem. The polyprotodonts, apart from bandicoots, likewise include a very wide range, from the highly specialized pouched mole (*Notoryctes*) to the wolf-like "tiger" (*Thylacinus*), with the small phascogales serving as "living fossils" or structural ancestors. It is possible that both polyprotodonts and diprotodonts have been derived from a single ancestral polyprotodont which only once gained access to Australia, perhaps before the close of the Cretaceous. But whence came this ancestral polyprotodont? Dollo, Bensley, Matthew, have shown that the American opossums, especially those of the North American Cretaceous, have the structural characteristics which would seem to be demanded in a common ancestor of all the marsupials. Matthew has shown that the modern Australian marsupials, like other types of southern mammals, have been derived from ancestors which in late Mesozoic or basal Tertiary time lived in the northern hemisphere. The two difficulties in the case of the Australian marsupials are: first, the complete absence so far as the record indicates, of any fossil marsupials in India, in Eastern or Southeastern Asia; second, the fact that although the modern American opossums are generalized, they show no close affinity to the Australian dasyurids. On the other hand, the borhyaenids of the Miocene of Patagonia have been shown by H. E. Wood (1924) to be structurally close to the thylacines and dasyures of Australia, while the caenolestids of South America share certain peculiar anatomical characters with the bandicoots of

Australia (Osgood, 1921). A connection of South America with Antarctica and of Antarctica with Australia, suggested by Dollo and other authors, would under the proper climatic conditions afford a passage for the marsupials from Patagonia to Australia. The serious obstacle to this is the wide gap of very deep water between Australia and Antarctica and the total lack of any direct evidence for such a contact with either South America or Australia.

Many authors, including J. W. Gregory and C. W. Andrews, have endeavored to establish the reality of an ancient "land bridge" connecting North Africa with Brazil. Bailey Willis (1932) gives added reasons for accepting it, as well as "Lemuria," connecting Madagascar with India. Could the Cretaceous dasyuroids and caenolestids have reached Australia by following fragments of Gondwanaland from Brazil to Africa, from Africa to Asia? The hypothesis is too frail to stand without palaeontological support. Thus at present we are left in the dark, first, as to whether the Australian marsupials were derived from Cretaceous Asiatic polyprotodonts, which have so far escaped collectors; second, whether closely similar families (Dasyuridae, Borhyaenidae) have been produced independently in Australia and South America by derivation from Palaearctic opossums. A third alternative perhaps would be the migration of Oligocene opossums from Alberta to Alaska, thence to Kamchatka, Asia, thence down "Wallacea" to New Guinea. The South American marsupials would then have been derived via the Rocky Mountain and Andean chains in the manner assumed by Matthew. As Professor Marcellin Boule well says, what we need is fossils and still more fossils.

CONCLUSION

Wallace's deductions regarding the zoogeographical relations of the Indo-Australian region were made nearly seventy-five years ago, long before the intensive field studies of the mammalogists or of the geologists and palaeogeographers. And yet the three sets of facts fit ideally well. The concept of isthmian tracts lying between great depths and affording occasional narrow contacts with the mainland of Cathaysia, together with the doctrine of specialization through isolation, accord perfectly with the abundance of mammalian forms of the Malay Peninsula and Borneo, which are parts of the old Cathaysia; they also fit well with the relative paucity of the fauna in

the Philippine Islands and Celebes, together with the discovery of secondary centers of adaptive radiation of the Muridae in these islands. To the narrowness and transitory nature of the contacts are due the presence of only one peculiar bovid and one peculiar suid in Celebes and the absence of all the great array of large ungulates now represented in the remnants of the Cathaysian mainland.

On the whole, I regard Wallace's Line as well established, since, except at its upper end, it serves to mark the boundary of the old continental shelf, which was also the eastern limit of the great majority of the East Indian mammals.

TABLE V.

ENUMERATION OF PLACENTAL MAMMALS THAT TRANSGRESS WALLACE'S LINE

ORDERS AND FAMILIES	TOTAL NUMBER OF FORMS	TOTAL NUMBER OF GENERA	GENERA EAST OF WALLACE'S LINE
INSECTIVORA			
Lipotyphla			
Erinaceidae	5	3	0
Soricidae	69	4	2
Menotyphla			
Tupaiidae	72	5	0
DERMOPTERA			
Galeopithecidae	18	2	0
CHIROPTERA			
Megachiroptera			
Pteropodidae	165	22	16
Microchiroptera			
Rhinopomidae	1	1	0
Emballonuridae	25	4	3
Nycteridae	2	2	0
Megadermatidae	9	2	2
Rhinolophidae	58	1	1
Hipposideridae	48	5	3
Vespertilionidae	106	19	16
Molossidae	19	3	2
PRIMATES			
Lorisidae	11	1	0
Tarsiidae	10	1	1
Cercopithecidae	91	6	3
Hylobatidae	7	2	0
Pongidae	1	1	0
EDENTATA			
Manidae	2	1	0
LAGOMORPHA			
Leporidae	2	2	0
RODENTIA			
Sciuridae	286	13	1
Muridae	485	44	26
Spalacidae	2	1	0
Hystricidae	13	4	0

TABLE V. (continued)

ORDERS AND FAMILIES	TOTAL NUMBER OF FORMS	TOTAL NUMBER OF GENERA	GENERA EAST OF WALLACE'S LINE
CARNIVORA			
Canidae	7	3	1
Ursidae	1	1	0
Mustelidae	27	8	0
Viverridae	70	11	2
Hyaenidae	1	1	0
Felidae	25	1	0
PROBOSCIDEA			
Elephantidae	14	3	0
PERISSODACTYLA			
Tapiridae	4	1	0
Rhinocerotidae	4	1	0
ARTIODACTYLA			
Suidae	45	3	2
Tragulidae	54	1	0
Cervidae	36	2	1
Bovidae	22	5	1
Giraffidae	3	2	0

PART II. FAUNAL LIST OF THE MAMMALS OF THE
INDO-AUSTRALIAN REGION

MONOTREMATA

Tachyglossidae

- Tachyglossus aculeatus acanthion* (Collett), 1884. N. Queensland,
Australia.
 " " *aculeatus* (Shaw), 1792. New South Wales;
S. Queensland.
 " " *ineptus* Thomas, 1906. W. Australia.
 " " *lawesi* (Ramsay), 1877. Port Moresby; S.E.
New Guinea.
 " " *multiaculeatus* (Rothschild), 1905. S. Aus-
tralia.
 " " *setosus* (Geoffroy), 1803. Tasmania.
 " *oweni* Krefft, 1863¹. Pleistocene, Australia.
Zaglossus bartoni Thomas, 1907. Fly River, E. New Guinea.
 " " *clunius* Thomas & Rothschild, 1922. N. E. New
Guinea.
 " *bruijnii bartoni* (Thomas), 1907. New Guinea.
 " " *bruijnii* (Peters & Doria), 1882². Mt. Arfak, N.
W. New Guinea.
 " " *gularis* Thomas & Rothschild, 1922. S.W. New
Guinea.
 " " *nigroaculeatus* (Rothschild), 1892³. W. New
Guinea.
 " " *pallidus* Thomas & Rothschild, 1922. N. New
Guinea.
 " " *robustus* (Dun), 1896. Pliocene, New South
Wales.
 " " *villossissimus* (Dubois), 1884⁴. N. New Guinea.
 " *hacketti* Glauert, 1914. W. Australia.
 " *harrissoni* Scott & Lord, 1922. King Island, Australia.
 " *goodfellowi* (Thomas), 1907⁵. Salawatti I.

Ornithorhynchidae

- Ornithorhynchus agilis* De Vis, 1885¹. Pleistocene, Queensland.
 " *anatinus* (Shaw), 1799². Queensland; N. S. W.;
Tasmania; Victoria.
 " " *phoxinus* Thomas, 1923. N. Queensland.
 " " *triton* Thomas, 1923. S.W. New South
Wales.
 " *maximus* Dun, 1896. Pliocene Gulong, New South
Wales.

MARSUPIALIA

Dasyuridae

- 001 *Amperta cristicauda* (Krefft), 1866³. C. Australia.
 002 " *hillieri* (Thomas), 1905³. S. Australia.
 003 *Antechinomys laniger* (Gould), 1856³. S. Queensland, New South
Wales.

¹ = Trouessart, E.-L. 1897-1905. Catalogus Mammalium tam Viventium quam Fossilium, Fasc. II-V and Quinquennale Supplementum.

² = Elliot, D. G. 1913. A Review of the Primates.

³ = Cabrera, Angel. 1919. Genera Mammalium: Mcnotremata, Marsupialia.

Dasyuridae (cont'd)

- 004 *Antechinomys spenceri* Thomas, 1906³. C. Australia.
 005 *Dasyuroides byrnei byrnei* Spencer, 1896³. C. Australia.
 " " *pallidior* Thomas, 1906³. C. Australia.
 006 *Dasyurus albopunctatus* Schlegel, 1880³. Mt. Arfak, N.W. New Guinea.
 007 " *affinis* Mc Coy, . Pleistocene, Victoria.
 008 " *bowlingi* Spencer & Kershaw, 1910³. King I.
 009 " *doemonellus* Thomas, 1904³. Britannica, New Guinea.
 010 " *fuscus* Milne-Edwards, 1880³. Geelvink; Mt. Arfak, N.W.
 New Guinea.
 011 " *geoffroyi* Gould, 1840¹. Queensland; New South Wales.
 " " *fortis* Thomas, 1906³. S.W. Australia.
 " " *geoffroyi* Gould, 1840³. N. Australia.
 012 " *hallucatus exilis* Thomas, 1909³. Kimberley, Australia.
 " " *hallucatus* Gould, 1842³. N. Queensland; Aus-
 tralia.
 " " *nesaeus* Thomas, 1926. Australia.
 " " *predator* Thomas, 1926. Australia.
 013 " *maculatus* (Kerr), 1792³. E. & S. E. Australia; Tasmania.
 014 " *viverrinus* (Shaw), 1800³. New South Wales; Victoria;
 Tasmania, S. Australia.
 015 *Phascogale apicalis* (Gray), 1842³. C. Queensland, Australia.
 016 " *bella* Thomas, 1904³. Arnhemland, S. Australia.
 017 " *blythi* Waite, 1904³. Philbarra, N.W. Australia.
 018 " *burrelli* Le Souef & Burrell, 1926. New South Wales.
 019 " *calura* (Gould), 1844¹. W. & S. Australia.
 020 " *cristicauda* (Krefft), 1866³. S. & C. Australia.
 021 " *doriae* (Thomas), 1886³. Mt. Arfak, N.W. New Guinea.
 022 " *dorsalis* (Peters & Doria), 1876¹. Mt. Arfak, N.W. New
 Guinea.
 023 " *flavipes adusta* Thomas, 1923. N. Queensland.
 " " *flavipes* Waterhouse, 1837³. E. Australia.
 " " *leucogaster* Gray, 1841¹. W. & N. Australia.
 024 " *godmani* Thomas, 1923. N. Queensland.
 025 " *hillieri* Thomas, 1905. S. Australia.
 026 " *ingrami* Thomas, 1906³. Alexandria, S. Australia.
 027 " *longicaudata* (Schlegel), 1866³. Aru Is.
 028 " *lorentzii* Jentink, 1911¹. New Guinea.
 " " *venusta* Thomas, 1921. New Guinea.
 029 " *macdonnellensis* (Spencer), 1895³. C. Australia.
 030 " *mayeri* Dollman, 1930. New Guinea.
 031 " *melanura melanura* Thomas, 1899³. Britannica, New
 Guinea.
 " " *modesta* Thomas, 1912³. Holandesa; New
 Guinea.
 032 " *melas* Schlegel & Müller, 1839. N.W. New Guinea; Sala-
 watti; Andai; Jobi Islands.
 033 " *mimulus* Thomas, 1906³. N. & S. Australia.
 034 " *minima* (Geoffroy), 1804³. Tasmania; Australia.
 035 " *minutissima* (Gould), 1851³. C. & S. Australia.
 " " *sinualis* Thomas, 1926. Australia.

Dasyuridae (cont'd)

- 036 *Phascogale murex aspera* Thomas, 1913³. Utakwa R., Holendesa; New Guinea.
 " " *murex* Thomas, 1913³. N.E. New Guinea.
 037 " *naso* Jentink, 1911¹. Holendesa, New Guinea.
 038 " *nouhuysii* Jentink, 1911³. Holendesa, New Guinea.
 039 " *penicillata* Broom, 1895. Pleistocene, New South Wales.
 " " *penicillata* (Shaw), 1800³. N. Australia.
 " " *pirata* Thomas, 1904. Australia.
 040 " *subtilissima* Lonnberg, 1913. W. Australia.
 041 " *swainsoni* Waterhouse, 1840³. Tasmania; S.E. Australia.
 " " *mimetus* Thomas, 1924. New South Wales.
 043 " *umbrosa* Dollman, 1930. Arfak Mts., New Guinea.
 044 " *wallacei* (Gray), 1858³. S. New Guinea.
 045 *Planigale ingrami brunneus* Troughton, 1928. N. Queensland, Australia.
 046 " *tenuirostris* Troughton, 1928. New South Wales; Australia.
 047 *Sarcophilus harrisii* (Boitard), 1842³. Tasmania; Australia.
 048 " *laniarius* (Owen), 1838¹. Pleistocene, Queensland, New South Wales.
 049 " *prior* De Vis, 1883. Pleistocene, Australia.
 050 *Sminthopsis crassicaudata centralis* Thomas, 1902³. C. South Australia.
 " " *crassicaudata* (Gould), 1844³. Australia.
 051 " *hirtipes* Thomas, 1898³. Charlotte Waters, C. South Australia.
 052 " *larapinta* Spencer, 1896³. C. South Australia.
 053 " *leucopus* (Gray), 1842³. E. Australia; Tasmania.
 054 " *longicaudatus* Spencer, 1908³. W. Australia.
 055 " *murina constricta* Spencer, 1896³. Udnadatta, C. South Australia.
 " " *murina* (Waterhouse), 1837³. S. Australia.
 056 " *nitela* Collett, 1897¹. E. Australia.
 057 " *psammophilus* Spencer, 1895³. Charlotte Waters, C. Australia.
 058 " *rufigenis* Thomas, 1922. Aru Is.
 059 " *stalkeri* Thomas, 1906³. N. Australia.
 060 " *virginiae* (De Tarragon), 1847³. C. Queensland.

Thylacinidae

- 061 *Thylacinus cynocephalus* (Harris), 1808³. Tasmania.
 062 " *major* Owen, 1877¹. Pleistocene, New South Wales.
 063 " *rostralis* De Vis, 1893¹. Pliocene, Queensland, Australia.
 064 " *spelaeus* Owen, 1845¹. Queensland, New South Wales.

Myrmecobiidae

- 065 *Myrmecobius fasciatus* Waterhouse, 1836³. Australia.
 066 " *rufus* Jones, 1924. S. Australia.

Notoryctidae

- 067 *Notoryctes caurinus* Thomas, 1920. Wollawol, N. Australia.
 068 " *typhlops* Stirling, 1891³. Kimberley, C. Australia.

Peramelidae

- 069 *Choeropus castanotis* Gray, 1842¹. New South Wales, Victoria.
 070 " *ecaudatus* Ogilby, 1836². S.E. and S. & C. Australia.
 071 *Echymipera aruensis* (Peters & Doria), 1875³. Aru Is.
 072 " *cockerelli* (Ramsay), 1877⁴. N. New Guinea & adjacent Is.
 073 " *garagassi* (Miklouho-Maclay), 1884⁵. E. New Guinea.
 074 " *gargantua* Thomas, 1914⁶. S. W. New Guinea; Arch.
 d'Entrecasteaux.
 075 " *kalubu* (Fischer), 1829⁷. Waigou I.; N. New Guinea.
 076 " *rufescens* (Peters & Doria), 1875⁸. Kei Is.
 077 *Isoodon auratus* (Ramsay), 1887⁹. N.W. Australia.
 078 " *barrowensis* Thomas, 1901¹⁰. Barrow I.
 079 " *macrurus* (Gould), 1842¹¹. N. Australia.
 080 " *moresbyensis* (Ramsay), 1878¹². Port Moresby, S.E. New
 Guinea.
 081 " *nauticus* Thomas, 1922. S. Australia.
 082 " *obesulus* (Shaw), 1797¹³. Australia; Moore R., Tasmania.
 083 " *peninsulae* Thomas, 1922. Cape York, Australia.
 084 " *torosus* (Ramsay), 1877¹⁴. N. Queensland.
 085 *Perameles bougainvillaei* *bougainvillaei* Quoy & Gaimard, 1824¹⁵. W. Aus-
 tralia.
 " " *fasciata* Gray, 1841¹⁶. S. & S. E. Australia.
 " " *myosura* Wagner, 1841¹⁷. S.W. Australia.
 086 " *doreyanus* Quoy & Gaimard, 1834. New Guinea.
 087 " *cremina* Spencer, 1897¹⁸. C. Australia.
 088 " *gumni* Gray, 1838¹⁹. Tasmania.
 090 " *mainoisi* Forster, 1913. New Guinea.
 091 " *myosura notina* Thomas, 1922. S. Australia.
 092 " *nasuta* Geoffroy, 1804²⁰. E. Australia.
 " " *pallescens* Thomas, 1923. N. Queensland, Australia.
 093 " *ornata* Thomas, 1904. New Guinea.
 094 " *tenuirostris* Owen, 1877. Pleistocene, New South Wales.
 095 " *wombeyensis* Broom, 1896. Pleistocene, New South Wales.
 096 *Peroryctes broadbenti* (Ramsay), 1878²¹. S.E. New Guinea.
 097 " *dorsalis* Thomas, 1922. N. New Guinea.
 098 " *longicaudatus* Peters & Doria, 1876²². Mt. Arfak, N. W.
 New Guinea.
 099 " *mainoisi* Forster, 1913²³. Bulung R., E. New Guinea.
 100 " *ornatus* (Thomas), 1903²⁴. Aroa R., New Guinea.
 101 " *raffrayanus* (Milne-Edwards), 1878²⁵. Amberaki, N.W.
 New Guinea.
 102 " *rothschildi* Forster, 1913²⁶. Mt. Bolan, E. New Guinea.
 103 *Rhynchomeles prattorum* Thomas, 1920. Caram, Mt. Manusela.
 104 *Suillomeles hispida* Allen & Barbour, 1909²⁷. N. New Guinea.
 105 *Thalacomys lagotis* (Reid), 1833²⁸. W. & S.W. Australia.
 106 " *leucurus* (Thomas), 1887²⁹. Australia.
 107 " *minor* (Spencer), 1897³⁰. C. Australia.
 108 " *nigripes* Jones, 1923. S. Australia.
 109 " *sagitta* Thomas. 1905³¹. S. Australia.

Phalangeridae

- 110 *Acrobates pulchellus* Rothschild, 1892³. N.E. New Guinea.
 111 " *pygmaeus* (Shaw), 1794³. Queensland, New South Wales,
 Victoria.
- 112 *Archizonurus securus* De Vis, 1889. Pleistocene, Queensland.
 113 *Burramys parvus* Broom, 1896. Pleistocene, Queensland.
 114 *Coescoes procuscus* De Vis, 1889. Pleistocene, Queensland.
 115 *Dactylopsila arfakensis* Matschie, 1916. Hattam, Arfak Mts., N.W.
 New Guinea.
- 116 " *biedermannii* Matschie, 1916. S.E. New Guinea.
 117 " *hindenburgi* Raunne, 1914³. New Guinea.
 118 " *kataui* Matschie, 1916. New Guinea.
 119 " *melampus* Thomas, 1908. S.E. New Guinea.
 120 " *occidentalis* Matschie, 1916³. N.W. New Guinea.
 121 " *picata* Thomas, 1908³. N. Queensland.
 122 " *trivirgata* Gray, 1858³. Aru Is.; Waigou I.; N.W. New
 Guinea.
- 123 *Distoechurus neuhammi* Matschie, 1916. Saddle Mt., New Guinea.
 124 " *pennatus pennatus* Thomas, 1920. Mt. Arfak, Andai I.,
 New Guinea.
 " " *amoenus* Thomas, 1920. New Guinea, Rawlin-
 son Mts.
 " " *dryas* Thomas, 1920 Mt. Gayata, New Guinea.
- 125 *Dromicia britta* Jones, 1925. Millicent, S. Australia.
 126 " *caudata* Milne-Edwards, 1877³. Mt. Arfak, N.W. New
 Guinea
 " *concinna* Gould, 1845³. S. & W. Australia.
 128 " *lepidia* Thomas, 1888³. Tasmania.
 129 " *nana* Desmarest, 1817³. Tasmania.
- 130 *Eudromicia macrura* Mjöberg, 1916. Cedar Creek, Australia.
 131 *Gymnobelideus leadbeateri* McCoy, 1890³. Victoria.
 132 *Koalemus ingens* De Vis, 1889. Pleistocene; Queensland, Australia.
 133 *Palaeopetaurus elegans* Broom, 1895. Pleistocene; New South Wales,
 Australia.
- 134 *Petauroides cinereus* (Ramsey), 1890³. N.E. Queensland, Australia.
 135 " *volans armillatus* Thomas, 1923. M. Queensland, Australia.
 " " *incanus* Thomas, 1923. S.E. Queensland, Australia.
 " " *minor* (Collett), 1887³. C. Queensland, Australia.
 " " *volans* (Kerr), 1792³. E. Australia; Queensland;
 Victoria.
- 136 *Petaurus australis* Shaw, 1791³. New South Wales, Victoria, Australia.
 " " *reginae* Thomas, 1923. S.E. Queensland, Australia.
 137 " *breviceps* Waterhouse, 1838³. Queensland; New South Wales;
 Victoria, Australia.
- 138 " *papuanus* Thomas, 1888³. Gilolo I., W. of New Guinea.
 139 " *sciureus* (Shaw), 1794³. Queensland, New South Wales, Vic-
 toria, Australia.
- 140 *Phalanger breviceps* Thomas, 1888³. Solomon Is.
 141 " *carmelitae* Thomas, 1898³. Vanapa, New Guinea.
 142 " *celebensis* (Gray), 1858³. Celebes.
 143 " *coccygis* Thomas, 1922. N.E. New Guinea.

Phalangeridae (cont'd)

- 144 *Phalanger furvus* Hollister, 1912. Rano Rano, M. Celebes.
- 145 " *larvatus* Forster & Rothschild, 1911. Rawlinson Mts., New Guinea.
- 146 " *leucippus* Thomas, 1898^a. Vanapa R., New Guinea.
- 147 " *lullulae* Thomas, 1896^a. Woodlark I., Australia.
- 148 " *maculatus krameri* Schwarz, 1910^a. Admiralty Is.
- " " *maculatus* (Geoffroy), 1803^a. Saleyer I.; Ceram I.; Kei Is.; Amboina Is.; N.E. Australia.
- " " *minor* Cohn, 1914. Admiralty Is.; Manus.
- " " *papuensis* (Desmarest), 1822^a. Waigou I.
- " ?? ?? Wettar I.
- 149 " *melanotis* Thomas, 1898^a. Talaut I.; Lirung.
- 150 " *procuscus* De Vis, 1889. Queensland, Australia.
- 151 " *orientalis intercastellanus* Thomas, 1895^a. Fergusson I.
- " " *ducatoris* Thomas, 1922. Duke of York I.
- " " *kiriwiniae* Thomas, 1896^a. Kiriwina I.
- " " *meeki* Thomas, 1898^a. Louisiades Archipelago.
- " " *mimmicus* Thomas, 1922. New Guinea.
- " " *orientalis* (Pallas), 1766^a. Timor I.; Buru I.; Ceram I.; N.W. New Guinea.
- " " *vestitus* (Milne-Edwards), 1877^a. Mt. Arfak, N. W. New Guinea.
- 152 " *ornatus* (Gray), 1860^a. Gilolo I.
- 154 " *rothschildi* Thomas, 1899^a. Great Obi; Moluccas Is.
- 155 " *sangirensis* Meyer, 1896^a. Sangir I.
- 156 " *sericeus* Thomas, 1907^a. New Guinea.
- 157 " *ursinus* (Temminck), 1826^a. Celebes.
- 158 *Phascalarctus cinereus* (Goldfuss), 1819^a. E. Australia; Victoria, Queensland.
- " " *adustus* Thomas, 1923. Queensland, Australia.
- 159 *Pseudochirus albertsi albertsi* Peters, 1874^a. New Guinea.
- " " *coronatus* Thomas, 1897^a. Arfak Mts., New Guinea.
- " " *paradoxus* Dollman, 1930. Arfak Mts., N.W. New Guinea.
- 160 " *archeri* Collett, 1884^a. C. Queensland, Australia.
- 161 " *antiquus* Broom, 1896. Pleistocene; New South Wales.
- 162 " *argenteus* Forster, 1913^a. E. New Guinea.
- 163 " *avarus* Thomas, 1906^a. Port Moresby, New Guinea.
- 164 " *barbatus* (Matschie), 1915^a. E. New Guinea.
- 165 " *bernsteini* (Schlegel), 1866. Salawatti I.
- 166 " *burgesi* (Matschie), 1915. N.E. New Guinea.
- 167 " *canescens canescens* Waterhouse, 1846^a. N.W. New Guinea.
- " " *gyrator* Thomas, 1904. Lindum Creek.
- 168 " *capistratus* (Matschie), 1915^a. N.E. New Guinea.
- 169 " *caroli* Thomas, 1921. N.W. New Guinea.
- 170 " *cervinus* Longman, 1915^a. Queensland, Australia.
- 171 " *cooki* (Desmarest), 1817^a. Tasmania.
- 172 " *corinnae* Thomas, 1897^a. Vanapa, New Guinea.

Phalangeridae (cont'd)

- 172 *Pseudochirus corinnae cæias* Thomas, 1922. N.W. New Guinea.
 173 " *cupreus* Thomas, 1897^a. Mt. Owen Stanley, E. New Guinea.
 174 " *dahli* Collett, 1895^a. Mary R., N. Australia.
 175 " *dammermanni* Thomas, 1922. N. New Guinea.
 176 " *forbesi* Thomas, 1887^a. S.E. New Guinea.
 177 " *herbertensis* Collett, 1884^a. C. Queensland, Australia.
 " " *colletti* Waite, 1889^a. Queensland, Australia.
 178 " *laniginosus incanens* Thomas, 1923. N. Queensland, Australia.
 " " *modestus* Thomas, 1926. New South Wales, Australia.
 " " *notialis* Thomas, 1923. Aldgate, S. Australia.
 " " *oralis* Thomas, 1926. Queensland, Australia.
 179 " *larvatus* Forster & Rothschild, 1911. New Guinea.
 180 " *lemuroides* (Collett), 1884^a. C. Queensland, Australia.
 181 " *lewisi* Dollman, 1930. Arfak Mts., N.W. New Guinea.
 182 " *notabilis* De Vis, 1889. Pleistocene; Queensland, Australia.
 183 " *occidentalis* Thomas, 1888^a. W. Australia.
 184 " *peregrinus* (Boddaert), 1785^a. Queensland, New South Wales.
 185 " *pulcher* Matschie, 1915. S. C. Australia.
 186 " *rubidus* Troughton & Le Souef, 1929. S.W. Queensland, Australia.
 187 " *schlegeli* Jentink, 1884^a. Mt. Arfak, N.W. New Guinea.
 188 " *schultzei* (Matschie), 1915^a. N.E. New Guinea.
 189 " *victoriae* Matschie, 1915. Victoria, Australia.
 190 " *vulpecula* Forster, 1913^a. E. New Guinea.
 191 *Tarsipes spencerae* Gray, 1842^a. S.W. Australia.
 192 *Trichosurus caninus caninus* (Ogilby), 1835^a. New South Wales, Queensland, Victoria, Australia.
 " " *nigrans* Le Souef, 1916^a. Queensland, New South Wales.
 193 " *fuliginosus* Krefft, 1868. Subrecent, Tasmania.
 194 " *vulpecula arnhemensis* Collett, 1897^a. Arnhemland, N. Australia.
 " " *eburacensis* Lönnberg & Mjöberg, 1897. Queensland.
 " " *fuliginosus* (Ogilby), 1831^a. Tasmania.
 " " *johnstonii* Ramsay, 1888^a. Queensland, Australia.
 " " *mesurus* Thomas, 1926. N. Queensland, Australia.
 " " *ruficollis* Schwarz, 1909. Murchison, Australia.
 " " *vulpecula* (Kerr), 1792^a. E. & M. Australia.
 " " *xanthopus* Ogilby, 1831^a. S.W. Australia.

Phalangeridae (cont'd)

- 195 *Wynyardia bassiania* Spencer, 1900. Pleistocene; Tasmania.
 196 *Wyulda squamicaudata* Alexander, 1918. N.W. Australia.
 197 *Thylacoleo carnifex* Owen, 1852¹. Pleistocene; Australia.

Phascolomyidae

- 198 *Phascolomys angustidens* De Vis, 1891. Pleistocene; New South Wales; Queensland.

199 " *curvirostris* (Ramsay), 1886. Pleistocene, New South Wales; Queensland, Australia.

200 " *gillespiei* De Vis, 1900³. Queensland, Australia.

201 " *hacketti* Glauert, 1910. S.W. Australia.

202 " *kreffti* Owen, 1872. Pleistocene; New South Wales.

203 " *latifrons* Owen, 1845. Pleistocene and Recent; New South Wales.

204 " *magnus* Owen, 1872. Pleistocene; Queensland, Australia.

205 " *medius* Owen, 1872. Pleistocene; Queensland, Australia.

206 " *mitchelli* Owen, 1838³. New South Wales; Victoria, Australia.

207 " *parvus* Owen, 1872. Pleistocene; Queensland; New South Wales.

208 " *pliocenus* McCoy, 1861. Pleistocene; Victoria, Australia.

209 " *tasmaniensis* Spencer & Kershaw, 1910³. Tasmania.

210 " *ursinus* (Shaw), 1800³. Pleistocene; Queensland; New South Wales.

211 *Phascolonus gigas* Owen, 1859. Pleistocene; New South Wales; Victoria; Queensland; W. Australia; S. Australia.

Macropodidae

- 212 *Aepyprymnus rufescens* (Gray), 1887. New South Wales.
 213 *Bettongia cuniculus* (Ogilby), 1838. Hunter's R., New South Wales.
 214 " *gaimardi* (Desmarest), 1822. Port Jackson, Australia.
 215 " *lesueuri* (Quoy & Gaimard), 1824. Swan R., W. Australia.
 " " *grayi* (Gould), 1849. "Dirck-Hatcks" I.
 216 " *penicillata* Gray, 1837. New South Wales.
 217 *Brachalletes palmeri* De Vis, 1883. Pleistocene; Chinchilla, Darling-
Downs, Queensland, Australia.
 218 *Caloprymnus campestris* (Gould), 1843. S. Australia.
 219 *Dendrolagus bennettianus* De Vis, 1887. S. of Cooktown, N. Queens-
land.
 220 " *burgersi* Matschie, 1912. German New Guinea.
 221 " *dorianus* Ramsay, 1884. Mt. Astrolabe, New Guinea.
 222 " *finschi* Matschie, 1916. Humboldt Bay, New Guinea.
 223 " *goodfellowi* Thomas, 1908. Owen Stanley Range, New
Guinea.
 224 " *inustus* Schlegel & Müller, 1840. Papua, New Guinea.
 225 " *keiensis* Matschie, 1916. Great Kei Is.
 226 " *leucogenys* Matschie, 1916. Dorev, New Guinea.

Macropodidae (cont'd)

Macropodidae (cont'd)

- 253 *Macropus faunus* (De Vis), 1895. Pleistocene; Darling-Downs, Australia.
- 254 " *ferragus* Owen, 1874. Queensland.
- 255 " *fuliginosus* Griffith, 1827. Kangaroo I.
- 256 " *giganteus* (Zimmerman), 1777. Cooktown, N. Queensland.
- " " *ocydromus* (Gould), 1842. Swan R., W. Australia.
- " " *tasmaniensis* LeSouef, 1924. Tasmania.
- 257 " *hagenbecki* Rothschild, 1907. N. or N.W. Australia.
- 258 " *isabellinus* Gould, 1841. Barrow I.; Australia.
- 259 " *magister* (De Vis), 1895. Pleistocene; Darling-Downs, Queensland.
- 260 " *melanops* Gould, 1842. Australia.
- 261 " *pan* (De Vis), 1895. Pleistocene; Darling-Downs, Queensland, Australia.
- 262 " *robustus* Gould, 1840. Mts. of New South Wales.
- " " *alexandriae* Schwarz, 1910. Alexandria, Australia.
- " " *alligatoris* Thomas, 1904. S. Alligator R., S. Australia.
- " " *argentatus* Rothschild, 1905. S. Australia.
- " " *bracteator* Thomas, 1911. N. of W. Australia.
- " " *cervinus* Thomas, 1900. Murchison, W. Australia.
- " " *erubescens* (Slater), 1870. Spencer's Gulf, S. Australia.
- " " *reginae* Schwarz, 1910. N. Queensland, Australia.
- " " *rubens* Schwarz, 1910. Box Soak, N.W. Australia.
- " " *woodwardi* Thomas, 1901. Grant Range, N.W. Australia.
- 263 " *rufus* (Desmarest), 1822. Blue Mts., New South Wales, Australia.
- " " *occidentalis* Cahn, 1906. Swan R., W. Australia.
- " " *pallidus* Schwarz, 1910. Shaw R., N.W. Australia.
- 264 " *titan* Owen, 1838. Wellington Caves, New South Wales, Australia.
- 265 *Onychogalea fraenata* (Gould), 1840. New South Wales.
- 266 " *lunata* (Gould), 1840. Swan R., W. Australia.
- 267 " *unguifera* (Gould), 1840. N.W. Coast Australia.
- 268 *Palorchestes azael* Owen, 1874. Victoria, Australia.
- 269 " *parvus* De Vis, 1895. Pleistocene, Darling-Downs, Australia.
- 270 *Peradorcas concinna* (Gould), 1842. N.W. Coast Australia.
- " " *canescens* Thomas, 1909. Arnhemland, N. Australia.
- " " *monastria* Thomas, 1926. Broome Bay, N.W. Australia.
- 271 *Petrogale assimilis* Ramsay, 1876. Palm I., Australia.
- 272 " *brachyotis* (Gould), 1840. Hanover Bay, N.W. Coast Australia.
- " " *signata* Thomas, 1926. Mary R., N. Australia.

Macropodidae (cont'd)

- 273 *Petrogale celeris* Le Souef, 1924. Terachy Station, S.W. Queensland.
 274 " *godmani* Thomas, 1923. Black Mt., N. Queensland.
 275 " *herberti* Thomas, 1926. S.E. Queensland, Australia.
 276 " *inornata* Gould, 1842. N. Coast Australia.
 277 " *lateralis* Gould, 1842. Swan R., W. Australia.
 " *hacketti* Thomas, 1905. Mondrain I., W. Australia.
 278 " *longmani* Thomas, 1926. N. Australia.
 279 " *pearsoni* Thomas, 1922. Pearson's Isles, S. Australia
 280 " *penicillata* (Griffith), 1827. New South Wales.
 281 " *purpureicollis* Le Souef, 1924. N. W. Queensland, Australia.
 282 " *puella* Thomas, 1926. Flinders R., S. Australia.
 283 " *rothschildi* Thomas, 1904. Cossack R., N. of W. Australia.
 284 " *venustula* Thomas, 1926. King R., N. Australia.
 285 " *wilkinsi* Thomas, 1926. Roper R., N. Australia.
 286 " *xanthopus* Gray, 1854. Flinder's Range, S. Australia.
 287 *Potorous gilberti* (Gould), 1841. W. Australia.
 288 " *platyops* (Gould), 1844. Walyema Swamp, Victoria, Australia.
 289 " *tridactylus* (Kerr), 1792. New South Wales, Australia.
 " *apicalis* (Gould), 1851. Norfolk, Tasmania.
 " *antiquus* Broom, 1896. Wombeyan Caves, New South Wales.
 290 *Propleopus oscillans* (De Vis), 1889. Pleistocene, King's Creek, Darling-Downs, Queensland, Australia.
 291 *Protomnodon agilis* (Gould), 1841. Port Essington, Australia.
 " " *aurescens* (Schwarz), 1910. Fitzroy R., N.W. Australia.
 " " *jardinii* (De Vis), 1884. Cape York, N. Queensland.
 " " *nigrescens* (Lönnberg), 1913. Dampier, W. Australia.
 " " *papuanus* (Peters & Doria), 1875. E. New Guinea.
 292 " *anak* Owen, 1874. Pleistocene; Darling-Downs, Queensland.
 293 " *bedfordi* (Thomas), 1900. N. Queensland, Australia.
 294 " *bicolor* (Desmarest), 1803. New South Wales, Victoria, Australia.
 294 " *bicolor apicalis* (Gunther), 1874. N. Queensland.
 " *ingrami* (Thomas & Dollman), 1908. Burdekin R., Queensland, Australia.
 " *mastersii* (Krefft), 1871. Burnett R., Queensland.
 295 " *cooperi* (Owen), 1874. Pleistocene, Darling-Downs, Queensland.
 296 " *dorsalis* (Gray), 1837. Australia.
 297 " *dryas* (De Vis), 1895. Pleistocene, Darling-Downs, Queensland.
 298 " *eugenii eugenii* (Desmarest), 1817. S. Australia.
 " *derbianus* (Gray), 1837. Swan R., W. Australia.
 " *flindersi* (Wood Jones), 1924. Flinders I.

Macropodidae (cont'd)

- 298 *Protemnodon eugenii hautmanni* (Gould), 1844. Wallaby I.; Australia.
 " *parma* (Waterhouse), 1846. New South Wales,
 Australia.
- 299 " *greyi* (Waterhouse), 1846. S. Australia.
- 300 " *indra* (De Vis), 1895. Pleistocene; Darling-Downs,
 Queensland.
- 301 " *irma* (Jourdan), 1837. Swan R., W. Australia.
- 302 " *minor* (Owen), 1877. New South Wales, Australia.
- 303 " *odin* (De Vis), 1895. Pleistocene; Darling-Downs;
 Queensland.
- 304 " *parryi* (Bennett), 1834. Port Stephens, New South
 Wales.
- 305 " *rufogriseus bennetti* (Waterhouse), 1837. New South
 Wales; Tasmania.
 " *ruficollis* (Desmarest), 1817. King I.; Bass
 Strait.
 " *rufogriseus* (Desmarest), 1817. Blue Mts.,
 New South Wales.
- 306 " *siva* (De Vis), 1895. Pleistocene; Darling-Downs;
 Australia.
- 307 " *thor* (De Vis), 1895. Pleistocene; Darling-Downs; Aus-
 tralia.
- 308 " *vinceus* (De Vis), 1895. Pleistocene; Darling-Downs;
 Australia.
- 309 " *vishnu* (De Vis), 1895. Pleistocene; Darling-Downs;
 Australia.
- 310 " *welsbyi* (Longman), 1922. Stradbroke I.; S. Queens-
 land, Australia.
- 311 " *wombeyensis* (Broom), 1896. Wombeyan Caves, New
 South Wales.
- 312 *Sthenurus atlas* (Owen), 1838. Wellington Valley, New South Wales.
- 313 " *goliath* (Waterhouse), 1846. Queensland, Australia.
- 314 " *occidentalis* Glauert, 1910. Mammoth Cave, S.W. of W.
 Australia.
- 315 " *oreas* De Vis, 1895. Pleistocene; Darling-Downs, Queens-
 land.
- 316 " *otuel* (Owen), 1874. Pleistocene; King's Creek, Darling-
 Downs, Queensland, Australia.
- 317 " *pales* De Vis, 1895. Darling-Downs, Queensland, Australia.
- 318 *Synaptodon aevorum* De Vis, 1889. Pleistocene; Chinchilla; Darling-
 Downs, Queensland, Australia.
- 319 *Thylogale billardieri* (Desmarest), 1822. Tasmania.
- 320 " *brachyurus* (Quoy & Gaimard), 1830. King George's
 Sound, W. Australia.
- 321 " *brownii* (Ramsay), 1877. New Ireland.
- 322 " *brunii* (Schreber), 1777. Aru I.; Kei I.
- 323 " *coxeni* (Gray), 1866. Port Albany, Cape York Peninsula.
- 324 " *keysseri* (Forster & Rothschild), 1914. New Guinea.
 " *lanatus* (Thomas), 1922. Saruwaged Mts., N.E.
 New Guinea.

Macropodidae (cont'd)

- 324 *Thylogale keysseri lauterbachi* (Matschie), 1916. German New Guinea.
 325 " *stigmaticus* (Gould), 1860. N.E. Coast Australia.
 326 " *thetis* (Lesson), 1827. Port Jackson, New South Wales, Australia.
 327 " *wilcoxi* (McCoy), 1866. Richmond R., New South Wales, Australia.

Diprotodontidae

- 328 *Diprotodon bennetti* Owen, 1877. Pleistocene; New South Wales, Australia.
 329 " *longiceps* McCoy, 1865. Pleistocene; Victoria, Australia.
 330 " *minor* Huxley, 1862. Pleistocene; Queensland; S. Australia.
 331 " *optatum* Owen, 1838. Pleistocene; W. Australia; N. S. W.; Queensland; Victoria; Australia.
 332 *Euowenia grata* (De Vis), 1888. Pleistocene; Queensland.
 333 " *robusta* De Vis, 1891. Pleistocene; Queensland; Victoria; Australia.
 334 *Nototherium dunense* De Vis, 1888. Queensland, Australia.
 335 " *inerme* Owen, 1845. Pleistocene; Queensland, Australia.
 336 " *mitchelli* Owen, 1845. Pleistocene; Queensland; W. Australia; S. Australia; N. S. W.; Tasmania; King I.
 337 " *tasmanicum* Scott, 1911. Pleistocene; Tasmania; S. of Australia.
 338 " *victoriae* Owen, 1872. Pleistocene; L. Victoria; South Australia.
 339 *Sthenomerus charon* De Vis, 1883. Pleistocene; Queensland, Australia.
 340 *Zygomaturus trilobus* Owen, 1858. Pleistocene; Queensland, Australia.

INSECTIVORA**Erinaceidae**

- 01 *Echinosorex alba* (Giebel), 1863¹. Borneo.
 02 " *gymnura gymnura* (Raffles), 1822². Sumatra; Malacca.
 03 *Hylomys suillus dorsalis* Thomas, 1888³. Mt. Kina Balu, N. Borneo.
 " " *parvus* Robinson & Kloss, 1916³. Sumatra.
 " " *suillus* Müller & Schlegel, 1839³. Java; Sumatra.
 04 *Podogymnura truei* Mearns, 1905³. Mt. Apo, Mindanao I., Philippines.

Soricidae

- 05 *Crocidura aequicauda* Robinson & Kloss, 1918³. Sumatra.
 06 " *andamanensis* Miller, 1902³. Andaman I.
 07 " *aoris* Robinson, 1913³. Johore, Malay Archipelago.
 08 " *baluensis* Thomas, 1898³. Mt. Kina Balu, N. Borneo.
 09 " *bartetii* Jentink, 1910³. Java.

Soricidae (cont'd)

- 10 *Crocidura beatus* Miller, 1910^a. Mindanao, P. I.
 11 " *beccarii* Dobson, 1887^a. Mt. Singaloan, Sumatra.
 12 " *brevicauda* (Jentink), Weber, 1890^a. Java.
 13 " *brunnea* Jentink, 1888^a. Sumatra; Java.
 14 " *doriae* Peters, 1870^a. Sarawak, Borneo.
 15 " *elongata* Miller & Hollister, 1921^a. N.E. Celebes.
 16 " *foetida* Peters, 1870^a. Borneo.
 17 " *fuliginosa trichura* Dobson, 1888^a. Java.
 18 " *grandis* Miller, 1919^a. Mindanao, P. I.
 19 " *gravida* Kloss, 1917. Malay Peninsula.
 20 " *grayi* Dobson, 1890^a. Philippine Is.
 21 " *halconus* Miller, 1910^a. Mindoro, P. I.
 22 " *hispida* Thomas, 1913^a. C. Andaman I.
 23 " *klossi* Robinson, 1912^a. Malacca.
 24 " *kukenthali* Matschie, 1901. Moluccas Is.
 25 " *lea* Miller & Hollister, 1921^a. N.E. Celebes.
 26 " *lepidura* Lyon, 1908. E. Sumatra.
 27 " *levicula* Miller & Hollister, 1921^a. C. Celebes.
 28 " *mackloti* Jentink, 1868^a. Timor I.
 29 " *major* Kloss, 1911. Malay Peninsula.
 30 " *malayana* Robinson & Kloss, 1911^a. Perak, Malacca.
 31 " *maporensis* Robinson, 1916^a. Rhio-Linga Archipelago.
 32 " *melanorhyncha* Jentink, 1910^a. Java.
 33 " *mindorus* Miller, 1910^a. Mindoro, P. I.
 34 " *monticola* Peters, 1870^a. Java; Sarawak, Borneo.
 35 " *neglecta* Jentink, 1888^a. Sumatra.
 36 " *negligens* Robinson & Kloss, 1914^a. Malacca.
 37 " *nicobarica* Miller, 1902^a. Nicobar I.
 38 " *nigripes lipara* Miller & Hollister, 1921^a. C. Celebes.
 " *nigripes* Miller & Hollister, 1921^a. N.E. Celebes.
 39 " *orientalis* (Jentink) Weber, 1890^a. Java.
 40 " *paradoxura* Dobson, 1887^a. Mt. Singalan, Sumatra.
 41 " *rhoditis* Miller & Hollister, 1921^a. N.E. Celebes.
 42 " *tenuis* Müller, 1839^a. Timor I.
 43 " *tionis* Kloss, 1917. Tioman I., E. Coast Malay Peninsula.
 44 " *villosa* Robinson & Kloss, 1918^a. Sumatra.
 45 " *vosmaeri* Jentink, 1888^a. Banka I.
 46 " *weberi* (Jentink), Weber, 1890^a. Sumatra.
 47 " *sp.*, Komodo I.
 48 *Crossogale phaeura* Thomas, 1898^a. Mt. Kina Balu, N. Borneo.
 49 " *sumatrana* Thomas, 1921^a. Sumatra.
 50 *Nycteromys crocidurooides vulcani* Robinson & Kloss, 1919. W. Java.
 51 *Suncus edwardsiana* Trouessart, 1880. Sulu I.
 52 " *fuscipes* Peters, 1870^a. Singapore, Malacca.
 53 " *hosei* Thomas, 1893^a. Sarawak, Baram, N. Borneo.
 54 " *indicus celebensis* Revilliod, 1911^a. Celebes.
 " " *heterodon* Blyth, 1855^a. Malacca, Java.
 " " *sumatranaus* Peters, 1870^a. Sumatra.
 55 " *krooni* Kohlbrugge, 1895^a. Borneo.
 56 " *luzoniensis* Peters, 1870^a. Luzon, P. I.

Soricidae (cont'd)

- 57 *Suncus mülleri* Jentink, 1888^a. Timor I.
 58 " *murina celebensis* Revilliod, 1901. N.C. Celebes.
 59 " *occultidens* Hollister, 1913^a. Mindano, P. I.

MENOTYPHLA

Tupaiidae

- 60 *Dendrogale melanura baluensis* Lyon, 1913. Mt. Kina Balu, N. Borneo.
 " " *melanura* (Thomas), 1892. Mt. Dulit, N.W. Borneo.
 61 " *murina* (Schlegel & Müller), 1843. Pontianak, Borneo.
 62 *Ptilocercus lowii continentis* Thomas, 1910. Selangor, Malay Peninsula.
 " " *lowii* Gray, 1848. Sarawak, N. Borneo.
 63 *Tana cervicalis cervicalis* (Miller), 1903. Tana Bala, Batu Is.
 " " *masae* Lyon, 1913. Tana Masa, Batu Is.
 64 " *chrysura* (Gunther), 1876. Borneo, Opposite Labuan I.
 65 " *dorsalis* (Schlegel), 1857. Lower Kapuas R., W. Borneo.
 66 " *lingae* Lyon, 1913. Linga I.
 67 " *paitana* Lyon, 1913. S.W. Borneo.
 68 " *tana besara* Lyon, 1913. Kapua R., W. Borneo.
 " " *banguei* Chasen & Kloss, 1931. Linga I., Banguei I., N. Borneo.
 " " *bunoae* (Miller), 1900. Pulo Bunoa, Tambelan I.
 " " *sirhassenensis* (Miller), 1901. Sirhassen I., Natuna Group.
 " " *tana* (Raffles), 1821. Bencoolen, Sumatra.
 " " *tuancus* Lyon, 1913. Pulo Tuangku, Banjak Is.
 " " *utara* Lyon, 1913. Mt. Dulit, N. Borneo.
 69 *Tupaia anambae* Lyon, 1913. Pulo Dimaja, Anamba Is.
 70 " *carimatae* Miller, 1906. Telok Edar, Karimata I., W. Coast Borneo.
 71 " *castanea* Miller, 1903. Pulo Bintang, Rhio Archipelago.
 " " *redacta* Robinson, 1916^a. Linga I.
 72 " *chrysogaster* Miller, 1903. N. Pagi I., S.W. Coast Sumatra.
 73 " *chrysomalla* Miller, 1900. Pulo Siantan, Anamba Is.
 74 " *cuyonis* Miller, 1910. Cuyo I., N.E. of Palawan, P. I.
 75 " *demissa* Thomas, 1904. Tanjong Bringin, Lower Langkat.
 76 " *discolor* Lyon, 1906. Banka I.
 77 " *dissimilis* (Ellis), 1860. Pulo Kundur.
 78 " *glis batamana* Lyon, 1907. Senimba Bay, Batam I.
 " " *ferruginea* Raffles, 1821. Bencoolen, Sumatra; Batam I.
 " " *glis* (Diard), 1820. Penang I., Malay Peninsula.
 " " *jacki* Robinson & Kloss, 1918^a. Sumatra.
 " " *operosa* Robinson & Kloss, 1914^a. Malacca.
 " " *pemangilis* Lyon, 1911. Pulo Pemangil.
 " " *phoeniura* Thomas, 1923. Deli, N.E. Sumatra.
 " " *pulonis* Miller, 1903. Pulo Aor, E. Coast Malay Peninsula.
 " " *sordida* Miller, 1900. Pulo Tioman.
 " " *ultima* Robinson & Kloss, 1914^a. Malacca.
 79 " *gracilis edarata* Lyon, 1913. Karimata I.

Tupaiidae (cont'd)

- 79 *Tupaia gracilis* Thomas, 1893. Apoh R., Baram District, N. Borneo.
 " *inflata* Lyon, 1906. Banka I.
- 80 " *hypochrysa* Thomas, 1895. Java.
- 81 " *javanica* Horsfield, 1821. Province of Blambangan, Java.
 " " *balina* Thomas, 1913³. Bali I.
 " " *occidentalis* Robinson & Kloss, 1918³. Sumatra.
- 82 " *lacernata lacernata* Thomas & Wroughton, 1909. Lankawi I.
 " " *longicauda* Kloss, 1911. E. Perhentian I.
 " " *obscura* Kloss, 1911. Great Redang I.
 " " *raviana* Lyon, 1911. Pulo Rawi, Butang Is.
- 83 " *longipes longipes* (Thomas), 1893. N.W. Borneo.
 " " *salatana* Lyon, 1913. S.E. Borneo.
- 84 " *lucida* (Thomas & Hartert), 1895. Pulo Laut, Natuna Is.
- 85 " *minor caedis* Chasen & Kloss, 1931. Balambangan I., N. Borneo.
 " " *humeralis* Robinson & Kloss, 1919³. S.W. Sumatra.
 " " *malaccana* Anderson, 1879. Malacca, Linga I., Sinkep I.
 " " *minor* Günther, 1876. Borneo, opposite Labuan I.
 " " *sincipis* Lyon, 1911. Sinkep I.
- 86 " *mollendorffi* Matschie, 1898. Calamian I., N. of Palawan, P. I.
- 87 " *montana baluensis* Lyon, 1913. Mt. Kina Balu, N.E. Borneo.
 " " *mcentana* Thomas, 1892. Mt. Dulit, N. Borneo.
- 88 " *natunae* Lyon, 1911. Bunguran, Natuna Is.
- 89 " *nicobarica nicobarica* (Zelebor), 1869. Great Nicobar I.
 " " *surda* Miller, 1902. Little Nicobar I.
- 90 " *palawanensis* (Thomas), 1893. Palawan, P. I.
- 91 " *phaeura* Miller, 1902. Sinkep I.; Linga I.
- 92 " *picta* Thomas, 1892. Apoh, Baram, N. Borneo.
- 93 " *riabus* Lyon, 1913. Pulo Riaba, Anamba Is.
- 94 " *siaca* Lyon, 1908. Little Siak R., E. Sumatra.
- 95 " *siamensis* Glydenstolpe, 1916³. E. Malay Peninsula.
- 96 " *siberu* Chasen & Kloss, 1928. Siberut I., W. of Sumatra.
- 97 " *spendidula* Gray, 1865. Borneo.
- 98 " *tephrrura* Miller, 1903. Tana Bala, Batu Is., W. Coast Sumatra.
- 99 *Urogale everetti* (Thomas), 1892. Zamboanga, Mindanao, P. I.

DERMOPTERA

Galeopithecidae

- 001 *Galeopithecus volans* (Linne), 1758³. Samar I., Leyte I., Mindanao I., Basilan I., Philippines.
- 002 *Galeopterus abbotti* Lyon, 1911³. Panebangan, Borneo.
 " *aoris* (Miller), 1903³. Aor I.
- 003 " *boreanus* Lyon, 1911³. E. Borneo.
- 004 " *gracilis* (Miller), 1903³. Sirhassen I.; Natuna I.
- 005 " *hantu* Cabrera, 1924³. Sarawak, N.W. Borneo.
- 006 " *lautensis* Lyon 1911³. Laut I., Sebuku I., S.E. of Borneo.
- 007 " *lechei* Glydenstolpe, 1919³. C. Borneo.
- 009 " *natunae* (Miller), 1903. Bunguran I., Natuna Group.

Galeopithecidae (cont'd)

- 010 *Galeopterus peninsulae* Thomas, 1908³. Malacca.
 011 " *pumilus* (Miller), 1903³. Butang Is.
 012 " *saturatus* (Miller), 1903³. Batu Is.; Tana Bala I.
 013 " *taylori* Thomas, 1908. Tioman I.
 014 " *tellonis* (Lyon), 1908³. Tana Masa I., Batu Is.
 015 " *temmincki* (Waterhouse), 1838³. Sumatra.
 016 " *tuancus* (Miller), 1903³. Tuangku I.
 017 " *variegatus* (Geoffroy), 1796³. Java.
 " " *perhentianus* (Chasen & Kloss), 1929. Per-
 hentian I.
 " " *terataus* Chasen & Kloss, 1929. Teratua I.

CHIROPTERA (Andersen 1912)

Megachiroptera

Pteropodidae

- 001 *Acerodon celebensis* (Peters), 1867. Salayer I., Celebes.
 002 " *gilvus* Andersen, 1909. Waingapo, Sumba, Lesser Sunda Is.
 003 " *humilis* Andersen, 1909. Lirong, Talaut I.
 004 " *jubatus jubatus* Eschscholtz, 1831. Mindanao, P. I.
 " " *mindanensis* Andersen, 1909. Mindanao, P. I.
 005 " *luciferi* Elliot, 1896. Panay, P. I.
 006 " *mackloti mackloti* Temminck, 1837. Timor I.
 " " *alorense* Andersen, 1909. Alor I., Lesser Sunda Is.
 " " *floresii* (Gray), 1870. Flores I.
 007 *Balionycteris maculata* (Thomas), 1893. Sarawak, Mt. Kenepai,
 Borneo.
 " " *seimundi* Kloss, 1921. Pahang, Malay Pen-
 insula.
 008 *Boneia bidens* Jentink, 1879. N. Celebes.
 009 " *menadensis* Thomas, 1896. Menado, N. Celebes.
 010 *Chironax melanocephalus* (Temminck), 1825. Bantam, Java.
 012 *Cynopterus babi* Lyon, 1916. Pulo Babi, W. Coast Sumatra.
 013 " *brachyotis angulatus* Miller, 1906. Pagi Is.
 " " *brachyotis* (Müller), 1838. Borneo; Natunas;
 Philippines.
 " " *brachysoma* Dobson, 1871. Andaman Is.
 " " *insularum* Andersen, 1910. Kangean I.; Mata
 Siri I.
 " " *javanicus* Andersen, 1910. Buitenzorg, Java.
 " " *minutus* Miller, 1906. Nias I., W. Coast Su-
 matra.
 " " *scherzeri* (Zelebor), 1869. Nicobar Is.
 014 " *harpax* Thomas & Wroughton, 1909. Malay Peninsula.
 015 " *horsfieldi* Gray, 1843. Java.
 " " *lyoni* Andersen, 1912. Sumatra.
 016 " *major* Miller, 1906. Mojei R., Nias I.
 017 " *montanoi* Miller, 1906. Great Karimon I.; Penuba, Kondur
 I.; Sanglar I.

Pteropodidae (cont'd)

- 018 *Cynopterus minor* Revelloid, 1911. Lumbaja, S.E. Celebes.
 019 " *persimilis* Andersen, 1910. Sarawak, Borneo.
 020 " *princeps* Miller, 1906. Mojei R., Nias I.
 021 " *sphinx titthaecheilus* (Temminck), 1827. Nias I., Mentawai I., Java.
 022 *Dobsonia anderseni* Thomas, 1914. Moena I., Celebes.
 023 " *crenulata* Andersen, 1909. Ternate I., Gilolo Group.
 024 " *exoleta* Andersen, 1909. Tomohon, Minahassa, Celebes.
 025 " *inermis* Andersen, 1909. E. Solomon Is.
 026 " *magna* Thomas, 1905. Tamata, N. New Guinea; Is. W. of New Guinea.
 027 " *minor* (Dobson), 1878. Amberbaki, N.W. New Guinea.
 028 " *moluccensis* Quoy & Gaimard, 1830. Amboina Group.
 029 " *nesea* Andersen, 1909. Alu, Shortland, Solomon Is.
 030 " *pannietensis* (De Vis), 1905. Is. S.E. of New Guinea.
 031 " *peroni* (E. Geoffroy), 1803. Timor Group.
 032 " *sumbana* Andersen, 1909. Sumba, Timor Group.
 033 " *viridis* (Heude), 1896. Amboina Group; Banda I.; Kei I.
 " *umbrosa* Thomas, 1910. Buru I.; Ceram I.
 034 *Dyacopterus brooki* Thomas, 1920. Sumatra.
 035 *Eonycteris major* Andersen, 1910. Mt. Dulit, N. Borneo.
 036 " *robusta* Miller, 1913. Mentalban, Luzon, P. I.
 037 " *rosenbergi* (Jentink), 1889. Gorontalo, N. Celebes.
 038 " *spelaea* Dobson, 1871. Malacca, Sumatra; Java; Borneo.
 039 *Harypioncteris celebensis* Miller & Hollister, 1921. Gimpoe, M. Celebes.
 040 " *whiteheadi* Thomas, 1896. Mindoro, P. I.
 041 *Macroglossus lagochilus* lagochilus Matschie, 1899. Buru I., Amboina Group; Borneo; Celebes; P. I.
 " *microtus* Andersen, 1911. Alor I.; Guadalupe, Solomon Is.
 " *nanus* (Matschie), 1899. Mysol, Aru, Kei Is.
 " *pygmaeus* Andersen, 1911. Murray I., Torres Straits.
 042 " *minimus minimus* (E. Geoffroy), 1810. Java.
 " *fraternus* Chasen & Kloss, 1928. Sipora I.
 " *sobrinus* Andersen, 1911. Perak, Sumatra; Java.
 043 *Megaerops ecaudatus* (Temminck), 1837. Malay Peninsula.
 044 *Melonycteris melanops* Dobson, 1877. New Guinea; Bismarck Archipelago.
 045 *Nesonycteris woodfordi* Thomas, 1887. Shortland I.; Fauro I.; Solomon Is.
 046 *Nyctimene aëlo* (Thomas), 1900. Milne Bay, Mysol I.
 047 " *albiventris* (Gray), 1862. Gilolo Group.
 048 " *celaeno* Thomas, 1902. N. New Guinea.
 049 " *cephalotes* (Pallas), 1767. Amboina Group; Moluccas; Teoleti Bay, Ceram I.
 050 " *certans* Andersen, 1910. Mt. Goliath, S.E. New Guinea; Aroa R.
 051 " *cyclotis* Andersen, 1910. Arfak Mts., N.W. New Guinea.

Pteropodidae (cont'd)

- 052 *Nyctimene geminus* Andersen, 1910. Huon Gulf S., New Guinea.
 053 " *lullulae* Thomas, 1904. Woodlark I.
 054 " *major* (Dobson), 1877. Duke of York I.
 055 " *minutus* Andersen, 1910. N. Celebes.
 056 " *papuanus* Andersen, 1910. Milne Bay, E. New Guinea.
 057 " *robinsoni* Thomas, 1904. Cooktown, Queensland, Australia.
 058 " *scitulus* Andersen, 1910. Solomon Is.
 059 " *varius* Andersen, 1910. Mt. Mada, W. Buru I.
 060 *Penthetor lucasi* (Dobson), 1880. Malay Peninsula.
 061 *Ptenochirus jagori* Peters, 1861. Philippine Is., Luzon, Mindoro, S. Mindanao.
 062 *Pteralopex anceps* Andersen, 1909. Bougainville, Solomon Is.
 063 " *atrata* Thomas, 1888. Aola I., Solomon Is.
 064 *Pteropus admirabilitum* Thomas, 1894. Admiralty I.
 065 " *alecto* Temminck, 1837. Celebes.
 066 " *argentatus* Gray, 1843. Amboina Is.
 067 " *arquatus* Miller & Hollister, 1921. M. Celebes.
 068 " *aruensis* Peters, 1867. Aru Is.
 069 " *aterrimus* (Matschie), 1899. Bawean I., Java Sea.
 070 " *balutus* Hollister, 1913. Talaut I., Serangini Group, S. of Mindanao.
 071 " *brunneus* Dobson, 1878. Percy I., Australia.
 072 " *caniceps* Gray, 1870. Batchian I., Gilolo Group.
 073 " *capistratus* Peters, 1876. Duke of York I.
 074 " *chrysauchen* Peters, 1862. New Guinea; Amboina I.; Gilolo Group.
 075 " *chrysoproctus* Temminck, 1837. Amboina; Ceram; Goram; Sanghir Is.
 076 " *cognatus* Andersen, 1908. San Christoval, Solomon Is.
 077 " *colonus* Andersen, 1908. Alu I., Shortland I., Solomon Group.
 078 " *conspicillatus* Gould, 1849. Is. W. & S. of New Guinea.
 079 " *dobsoni* Andersen, 1908. Celebes.
 080 " *epularius* Ramsay, 1878. Yule I., New Guinea.
 081 " *faunulus* Miller, 1902. Car Nicobar I., Nicobar Group.
 082 " *gouldi* Peters, 1867. Is. of Torres Strait; N. Australia.
 083 " *grandis* Thomas, 1887. Solomon Is.
 084 " *griseus* E. Geoffroy, 1810. Timor I.; Banda I.
 085 " *hypomelanus annectens* Andersen, 1908. S. Natuna Is.
 " " *cagayanus* Mearns, 1905. Cagayan Sulu.
 " " *canus* Andersen, 1908. N. Natuna Is.
 " " *enganus* Miller, 1906. Engano I.
 " " *fretensis* Kloss, 1916. Pulo Jarak, Sts. of Malacca.
 " " *hypomelanus* Temminck, 1835. Philippine I.; Gilolo I.
 " " *lepidus* Miller, 1900. Tambelan Is.
 " " *luteus* Andersen, 1908. Kiriwina I.
 " " *macassaricus* Heude, 1896. Macassar, Celebes.

Pteropodidae (cont'd)

- 085 *Pteropus hypomelanus robinsoni* Andersen, 1909. Rumbia I., Strs. of Malacca.
 " " *simalurus* Thomas, 1923. Simalur I.
 " " *tomesi* Peters, 1868. Sarawak, N. Borneo.
 " " *vulcanius* Thomas, 1905. N.W. New Guinea.
- 086 " *keyensis* Peters, 1867. Kei I.
 087 " *lavellanus* Andersen, 1908. C. Solomon I.; Vella Lavella.
 088 " *leucopterus* Temminck, 1835. Philippine Is.
 089 " *tiops* Thomas, 1910. Buru I.
 090 " *lombocensis* Dobson, 1878. Lombok I.
 091 " *macrotis* Peters, 1867. Yule I., New Guinea.
 092 " *mahaganus* Sanborn, 1931. E.C. Solomon Is.
 093 " *mearnsi* Hollister, 1913. Isabella, Basilan, Philippine Is.
 094 " *melanopogon* Peters, 1867. Sanghir; Buru; Amboina; Ceram; Mysol Is.
 095 " *mimus* Andersen, 1908. Macassar, S. Celebes.
 096 " *modigliani* Thomas, 1894. Engano I.
 097 " *morio* Andersen, 1908. Waingapo, Sumba I.
 098 " *natalis* Thomas, 1887. S. of Java.
 099 " *niadicus* Miller, 1906. Nias I., W. of Sumatra.
 100 " *ocularis* Peters, 1867. Ceram I.
 101 " *pallidus* Temminck, 1825. Banda I.
 102 " *papuanus* Peters & Doria, 1881. N.W. New Guinea.
 103 " *pelewensis* Andersen, 1908. Pelew I.
 104 " *personatus* Temminck, 1825. Ternate I.
 105 " *pilosus* Andersen, 1908. Pelew I.
 106 " *poliocephalus* Temminck, 1825. Timor I.; Australia.
 107 " *pumilus* Miller, 1910. Palmas I., S.E. of Mindanao, P. I.
 108 " *rayneri* Gray, 1870. Solomon Is.
 109 " *rennelli* Troughton, 1929. Rennell I., Solomon Group.
 110 " *rubianus* Andersen, 1908. Rubiana I., Solomon Group.
 111 " *satyrus* Andersen, 1908. Narcondam, Andaman Is.
 112 " *scapulatus* Peters, 1862. Australia.
 113 " *sepikensis* Sanborn, 1931. Marienberg, New Guinea.
 114 " *solitarius* Andersen, 1908. Lesser Sunda I.
 115 " *solomonis* Thomas, 1904. Ghizo I., Solomon Is.
 116 " *temmincki* Peters, 1867. Semao I.; Amboina I.; Ceram I.
 117 " *tytleri* Mason, 1908. Rutland I.; Andaman I.
 118 " *vampyrus edulis* E. Geoffroy, 1810. Timor I.
 " " *lanensis* Mearns, 1905. Mindanao, P. I.
 " " *malaccensis* Andersen, 1908. Malay Peninsula; Sumatra; Banka I.
 " " *natunae* Andersen, 1908. N. Natuna I., N. Borneo.
 " " *pluton* (Temminck), 1853. Bali I.; Lombok I.
 " " *vampyrus* (Linneaus), 1740. Java; Linga I.
 119 " *woodfordi* Thomas, 1888. Guadalcanar I.; Solomon Is.
 120 *Rousettus amplexicaudatus* (E. Geoffroy), 1810. Philippine Is.; Celebes; Key I.; Borneo; Sumatra; Engano; Timor; Alor; Savu Islands.

Pteropodidae (cont'd)

- 121 *Rousettus brachyotis* (Dobson), 1877. Celebes; Mt. Arfak, N.W. New Guinea; Amboina I.
- 122 " *celebensis* Andersen, 1907. Sanghir I., Celebes.
- 123 " *minor* (Dobson), 1873. Java.
- 124 " *shortridgei* Thomas & Wroughton, 1909. S. Java.
- 125 *Styloctenium wallacei* (Gray), 1866. Macassar, S. Celebes.
- 126 *Syconycteris australis* (Peters), 1867. Queensland, Australia.
- 127 " *crassa crassa* (Thomas), 1895. Fergusson I.
" " *finschi* (Matschie), 1899. Bismarck Archipelago.
" " *keyensis* Andersen, 1911. Key I.
" " *major* Andersen, 1911. Amboina I.; Ceram I.
" " *papuana* Matschie, 1899. Aru Is.
- 128 " *naias* Andersen, 1911. Woodlark I.
- 129 *Thoopterus nigrescens* (Gray), 1870. Moratai I., Gilolo Group.

Microchiroptera

Rhinopomidae

- 001 *Rhinopoma sumatra* Thomas, 1903¹. N.W. Sumatra.

Emballonuridae

- 002 *Emballonura anambensis* Miller, 1900¹. Pulo Mobur, Anamba Is.
- 003 " *beccarii* Peters & Doria, 1881¹. Jobi I.
- 004 " *cor* Thomas, 1915. Choiseul, Solomon Is.
- 005 " *furax* Thomas, 1911. Kapari R., S.W. New Guinea.
- 006 " *meeki clavum* Thomas, 1915. Aru Is.; Kei Is.
" " *locusta* Thomas, 1920. Schouten I., N.W. New Guinea.
- 007 " *monticola* Temminck, 1839¹. Malasia; Java; Borneo; Sumatra; Philippine Is.
" " *rivalis* Thomas, 1915. Bida, Sarawak, N. Borneo.
- 008 " *nigrescens* (Peters), 1867¹. Moluccas; Duke of York I.; Solomons.
" " *solomonis* Thomas, 1904. Florida I., Solomon Group.
- 009 " *papuana* Thomas, 1914. Wakatimi, Minima R., S.W. New Guinea.
- 010 " *peninsularis* Miller, 1898¹. Malacca; Little Karimon I.; Sanglar; Bintang I.
- 011 " *pusilla* Lyon, 1911. Mankol, Kendawangan R., S.W. Borneo.
- 012 " *raffrayana* Dobson, 1878¹. Gilolo I.
- 013 " *semicaudata* Peale, 1848¹. Sumatra; Borneo; Engano I.
- 014 " *stresemanni* Thomas, 1914. Mt. Lumutu, W. Ceram I.
- 015 *Saccoaimus flaviventris* (Peters), 1866¹. Australia.
- 016 " *mixtus* Wroughton, 1925. Port Moresby, Papua, E. New Guinea.

Emballonuridae (cont'd)

- 017 *Saccolaimus nudicluniatus* (De Vis), 1905. Cardwell, Queensland, Australia.
 018 *Taphonycteris capito* Hollister, 1913. Pandan, Catanduanes, Philippine Is.
 019 *Taphozous achates* Thomas, 1915. Savu I., W. of Timor I.
 020 " *affinis* Dobson, 1875¹. Labuan I.; Sumatra, Engano I.
 " " *insignis* Leche, 1884¹. S. Australia.
 021 " *australis* Gould, 1853¹. New Guinea, Australia.
 022 " *cavaticus* Hollister, 1913. Moeara Dua, S. of Padang, Sumatra.
 023 " *fumosus* De Vis, 1905. Cardwell, Queensland, Australia.
 024 " *georgianus* Thomas, 1915. W. Australia.
 025 " *granti* Thomas, 1911. Mimika R., S. New Guinea.
 026 " *longimanus* Hardwicke, 1824¹. Malacca.
 " " *albibinnis* Thomas, 1915¹. Labuan I., Borneo.
 " " *leucopterus* Dobson, 1876¹. Flores I.
 027 " *melanopogon* Temminck, 1835¹. Java; Borneo; Philippine Is.
 " " *fretensis* Thomas, 1916. Pulo Teratau, Strs. Malacca.
 028 " *pluto* Miller, 1910. Mercedes, Mindanao, P. I.
 029 " *saccolaimus* Temminck, 1835¹. Malacca, Sumatra; Java.

Nycteridæ

- 030 *Nycteris javanica* E. Geoffroy, 1813¹. Malacca; Java; Timor I.
 031 *Petalia tragata* Andersen, 1912. Bida Caves, Sarawak, N. Borneo.

Megadermidae

- 032 *Macroderma gigas* (Dobson), 1880¹. C. Queensland, Australia.
 033 *Megaderma carimatae* Miller, 1906. Karimata I.
 034 " *lasiae* Lyon, 1910. Pulo Lasia, W. Coast Sumatra.
 035 " *lyra* E. Geoffroy, 1810¹. Java.
 036 " *naturae* Andersen & Wroughton, 1907. Bunguran I.; N. Natuna Is.
 037 " *niasense* Lyon, 1916. Pulo Nias, W. Coast Sumatra.
 038 " *siumatis* Lyon, 1916. Pulo Siumat, W. Coast Sumatra.
 039 " *spasma* (Linnaeus), 1758¹. Malacca; Philippine Is.; Celebes.
 " " *medium*, Andersen, 1918. Singapore; Malacca.

Rhinolophidae

- 040 *Rhinolophus achilles* Thomas, 1900¹. Kei Is., S. of New Guinea.
 041 " *acuminatus* Peters, 1871¹. Java; N. Borneo.
 " " *audax* Andersen, 1905. Lombok I.
 042 " *affinis* Horsfield, 1824¹. Sumatra; Java; Borneo; N. Natuna Is.
 " " *nesites* , Bunguran I.; N. Natuna Is.
 " " *princeps* Andersen, 1905. Lombok I.

Rhinolophidae (cont'd)

- 042 *Rhinolophus affinis superans* Andersen, 1905. Pahang, Malay Peninsula.
- 043 " *andamanensis* Dobson, 1872¹. S. Andaman I.
- 044 " *anderseni* Cabrera, 1909. Luzon, P. I.
- 045 " *" aequalis* Allen, 1922. Palawan, P. I.
- 045 " *arquatus beccarii* Andersen, 1907. Upper Padang, Sumatra.
- 046 " *boreensis* Chasen & Kloss, 1931. N. Borneo.
- 047 " *canuti* Thomas & Wroughton, 1909. Kalopoetjang, S. Java.
- 048 " *celebensis* Andersen, 1905. Macassar, Menado, Celebes.
- 049 " *circe* Andersen, 1906. Nias I.
- 050 " *cognatus* Andersen, 1905. Port Blair, S. Andaman I.
- 051 " *creaghi* Thomas, 1896. N. Borneo.
- 052 " *edax* Andersen, 1918. Singapore, Malay Peninsula.
- 053 " *uryotis* Temminck, 1835¹. Amboina I.; Aru Is.
- " *" aruensis* Andersen, 1907. Aru Is.
- " *" burius* Hinton, 1925. Buru I., Moluccas.
- 054 " *fallax* Andersen, 1905. British New Guinea.
- 055 " *famulus* Andersen, 1918. Central Andaman Is.
- 056 " *geminus* Andersen, 1905. Kediri, E. Java.
- 057 " *hipposideros* Bechstein, 1801. Java.
- 058 " *hirsutus* Andersen, 1905. Guimares, C. Philippine Is.
- 059 " *inops* Andersen, 1905. Mt. Apo, Mindanao, P. I.
- 060 " *javanicus* Andersen, 1918. Pandandaran, S. Java.
- 061 " *klossi* Andersen, 1918. Pulo Pemangil.
- 062 " *luctus* Temminck, 1835¹. Malacca; Sumatra; Java; Borneo; Philippine Is.
- 063 " *macrotis dohrni* Andersen, 1907. Labuan I.; Deli, N.E. Sumatra.
- 064 " *madurensis* Andersen, 1919. E. Madura, Java; Luzon, P. I.
- 065 " *malayanus* Bonhote, 1903. Bisera, Jalon, Malay Peninsula.
- 066 " *megaphyllus* Gray, 1834¹. New South Wales.
- " *" truncatus* Peters, 1871¹. Batchian I.
- " *" var.*, Dobson, 1878¹. N. Celebes.
- 067 " *minor* Horsfield, 1824¹. Sumatra; Java; Borneo; Celebes.
- 068 " *minutus* Miller, 1900¹. Pulo Siantan, Anamba Is.
- 069 " *morio foetidus* Andersen, 1918. Baram, E. Sarawak, Borneo.
- 070 " *nereis* Andersen, 1905. Pulo Siantan, Anamba Is.
- 071 " *philippinensis* Waterhouse, 1843¹. Philippine Is.
- 072 " *pilosus* Andersen, 1918. E. Madura, Java.
- 073 " *refulgens* Andersen, 1905. Perak, Malay Peninsula.
- " *" cuneatus* Andersen, 1905. Deli, Sumatra.
- 074 " *rouxi* Temminck, 1835¹. Anamba Is.
- 075 " *rufus* Peters, 1861¹. Philippine Is.
- 076 " *sedulus* Andersen, 1905. Sarawak, Borneo.
- 077 " *simplex* Andersen, 1905. Lombok, Celebes.

Rhinolophidae (cont'd)

- 078 *Rhinolophus solitarius* Andersen, 1905. Tanjong, Banka I.
 079 " *spadix* Miller, 1901. Sirhassen, S. Natuna Is.
 080 " *stheno* Andersen, 1905. Selangor, Malay Peninsula.
 081 " *subrufus* Andersen, 1905. Manila, P. I.
 082 " *sumatranus* Andersen, 1905. Lower Langkat, Sumatra.
 083 " *tozopei* Hinton, 1925. Buru I., Molucca Group.
 084 " *trifoliatus* Temminck, 1835¹. Java, Borneo.
 " " *niasensis* Andersen, 1906. Nias I.
 " *sp.*, Thomas, 1920. Toloeti Bay, S. Ceram.
 085 " *virgo* Andersen, 1905. Luzon, P. I.

Hipposideridae

- 086 *Anthops ornatus* Thomas, 1888¹. Solomon Is.
 087 *Caelops frithii* Blyth, 1848¹. Java.
 088 *Chilophylla hirsuta* Miller, 1910. Alag River, Mindoro, P. I.
 089 *Hipposideros albanensis saevus* Andersen, 1918. Kei Is.
 090 " *armigera* (Hodgson), 1835¹. Pinang I.
 " " *debilis* Andersen, 1906. Wellesley Prov., Malay Peninsula.
 091 " *barbensis* Miller, 1900¹. St. Barba I.; Tambelan Is.
 092 " *batchianus* Matschie, 1901¹. Batchian I., Gilolo Group.
 093 " *bicolor* Temminck, 1835¹. Borneo; Philippine is.; Engano I.
 " " *amboinensis* (Peters), 1871¹. Amboina Is.
 " " *aruensis* Gray, 1858¹. Aru I., N. Australia.
 094 " *calcarata* (Dobson), 1877¹. Duke of York I.
 095 " *cervinus* Gould, 1853¹. New Guinea; N. Australia; Aru Is.; Solomon Is.
 096 " *coronata* Peters, 1871¹. Philippine Is.
 097 " *coxi* Shelford, 1901¹. Mt. Penrisen, Sarawak, N. Borneo.
 098 " *demissa mirandus* Thomas, 1914. Manus I., Admiralty Group.
 099 " *dmissus* Andersen, 1909. Yanatu, Solomon Is.
 100 " *diadema diadema* E. Geoffroy, 1878. Aru Is.; Engano I.; Ceram I.
 " " *custos* Andersen, 1918. Aru Is.; Kei Is.
 " " *oceania* Andersen, 1905. Aola; Guadalcanar; Solomon Is.
 " " *pullatus* Andersen, 1905. Haveru, British New Guinea.
 " " *speculator* Andersen, 1918. Kalao, S. Celebes.
 " " *vicarius* Andersen, 1905. Niah Cave, Sarawak, N. Borneo.
 101 " *dinops* Andersen, 1905. Rubiana, Solomon Is.
 102 " *doriae* (Peters), 1861¹. Sarawak, N. Borneo.
 103 " *dyacorum* Thomas, 1902. Sarawak, Borneo, Baram.
 104 " *euotis* Andersen, 1905. Batchian I., Gilolo Group.
 105 " *galeritus* Cantor, 1846¹. Borneo; Labuan I.; Engano I.

Hipposideridae (cont'd)

- 106 *Hipposideros gentilis atrox* Andersen, 1918. Semangko Gap, Selangor, Malay Peninsula.
 " " *major* Andersen, 1918. Bua-Bua; Engano I.
 107 " *insolens* Lyons, 1911. S.E. Borneo.
 108 " *larvata* (Horsfield), 1824¹. Java; Borneo; Philippine Is.
 109 " *muscina* (Thomas & Doria), 1886¹. Fly River, C. New Guinea.
 110 " *nequam* Andersen, 1918. Klang, Selangore, Malay Peninsula.
 111 " *nicobariculae* Miller, 1902¹. Minor, Nicobar I., Nicobars.
 112 " *nicobarensis* (Dobson), 1871¹. Nicobar Is.
 113 " *obscura* Peters, 1861¹. Philippine Is.
 114 " *papua* Thomas & Doria, 1886¹. Misory I., E. New Guinea.
 115 " *pygmaea* Waterhouse, 1843¹. Philippine Is.
 116 " *ridleyi* Robinson & Kloss, 1911. Singapore, Malay Peninsula.
 117 " *sabanus* Thomas, 1891¹. Lawas, N. Borneo.
 118 " *schneiderti* Thomas, 1904. Upper Langkat, Sumatra.
 119 " *semoni* Matschie, 1903. Cooktown, Queensland, Australia.
 120 " *speoris* (Schneider), 1826¹. Java.
 121 " *stenotis* Thomas, 1913. Mary River, S. Australia.
 122 " *stoliczkana* Dobson, 1871¹. Pinang I.
 123 " *wollastoni* Thomas, 1913. Utakwa R., S.W. New Guinea.
 124 *Rhinonycteris aurantia* (Gray), 1845¹. Victoria; Port Essington, N. Australia.

Vespertilionidae

- 125 *Anamygdon solomonis* Troughton, 1929. Rovianna I., Solomon Group.
 126 *Chalinolobus gouldi* (Gray), 1841¹. Queensland; Tasmania; Australia.
 " " *venatoria* Thomas, 1908. Alexandria, Australia.
 127 " *nigrogriseus* Gould, 1853¹. Port Essington, New South Wales.
 128 " *rogersi* Thomas, 1909. Parry's Creek, N.E. Kimberley, Australia.
 129 " *signifer*, Dobson, 1876¹. Queensland, Australia.
 130 " *tuberculatus* (Forster), 1772¹. E. Australia; Queensland; Tasmania.
 131 *Chrysopterion bartelsii* Jentink, 1910. Java.
 132 *Eptesicus pumilus caurinus* Thomas, 1914. Kimberley, N. Australia.
 " " *vulturnus* Thomas, 1914. Tasmania.
 133 *Hesperoptenus tomesi* Thomas, 1905. Malacca.
 134 *Kerivoula agnella* Thomas, 1908. St. Aignan, S.E. of New Guinea.
 135 " *bicolor* Thomas, 1904. Biserat, Jalor, Malay Peninsula.
 136 " *bombifrons* Lyon, 1911. Matan R., W. Borneo.
 137 " *engana* Miller, 1906. Pulo Dua; Engano I.
 138 " *hardwickei* (Horsfield), 1824¹. Borneo; Duke of York I.
 139 " *javana* Thomas, 1880¹. Kosala, Java.

Vespertilionidae (cont'd)

- 140 *Kerivoula jagori* Peters, 1866¹. Samar, P. I.
 141 " *myrella* Thomas, 1914. Manus I., Admiralty Group.
 142 " *papillosa* (Temminck), 1835¹. Java.
 143 " *papuensis* Dobson, 1878¹. Port Moresby, New Guinea.
 144 " *pellucida* (Waterhouse), 1845¹. Philippine I.
 145 " *picta* (Pallas), 1775¹. Sumatra, Java.
 146 " *pusilla* Thomas, 1894¹. Sarawak, Borneo.
 147 " *weberi* (Jentink), 1890¹. Celebes.
 148 " *whiteheadi* Thomas, 1894¹. Philippine Is.
 149 *Miniopterus australis* Tomes, 1858¹. Australia.
 150 " *medius* Thomas & Wroughton, 1909. Java.
 151 " *orianae* Thomas, 1922. N. Australia.
 152 " *paululus* Hollister, 1913. Guimares I.; Philippine Is.
 153 " *pusillus* Dobson, 1876¹. Andaman I.; Nicobar I.; Philip-
 pine Is.
 154 " *schreibersi* (Natterer), 1819¹. New Guinea; Australia.
 " " *magnater* Sanborn, 1913. Marienberg, E. New
 Guinea.
 155 " *tristis* (Waterhouse), 1845¹. Philippine Is.
 156 *Murina canescens* Thomas, 1923. Nias I., W. Coast Sumatra.
 157 " *harpya* (Temminck), 1839¹. Sumatra; Java; Amboina Is.
 158 " *suilla* (Temminck), 1839¹. Sumatra; Java; Flores Is.
 159 " *toxopei* Thomas, 1923. Buru Is., Moluccas Group.
 160 *Myotis abbotti* Lyon, 1916¹. N. Pagi Is., W. Coast Sumatra.
 161 " *adversus* (Horsfield), 1824¹. Malacca; Celebes; C. Australia.
 162 " *ater* Bernstein & Peters, 1866¹. Batjan I.; Ternate I.; Gilolos.
 163 " *australis* (Dobson), 1878¹. S. Australia.
 164 " *capaccinii* (Bonaparte), 1832¹. Philippine Is.
 165 " *carimatae* Miller, 1906. Telok Edar, Karimata Is.
 166 " *dryas* Andersen, 1907. Port Blair, Andaman Is.
 167 " *hasselti* (Temminck), 1835¹. Malacca, Sumatra; Java.
 168 " *hermani* Thomas, 1923. Sabang, N.W. of Sumatra.
 169 " *lepidus* (Thomas), 1915. Baram, Sarawak, Borneo.
 170 " *macrotarsus* (Waterhouse), 1845¹. Philippine Is.
 171 " *moluccarum* Thomas, 1915. Aru Is.; Kei Is.
 172 " *muricola* (Hodgson), 1846¹. Celebes; Amboina Is.
 173 " *niasensis* Lyon, 1916. Siaba Bay; Nias I.; W. Coast Sumatra.
 174 " *peytoni federatus* Thomas, 1916. Semangko Pass, Selangor.
 175 " *stalkeri* Thomas, 1910. Aru Is.; Kei Is.
 176 *Nyctophilus bifax* Thomas, 1915. N. Queensland, Australia.
 177 " *daedulus* Thomas, 1915. Daly R., Australia.
 178 " *geagyi* Trouessart, 1915. Victoria, Australia.
 179 " *geoffroyi* *geoffroyi* Thomas, 1888. W. Australia.
 " " *pacificus* Gray, 1843. S.E. Australia; Tasmania.
 " " *pallescens* Thomas, 1913. Alexandria, S. Aus-
 tralia.
 180 " *major* Peters, 1866¹. W. Australia.
 181 " *microtis* Thomas, 1888¹. New Guinea.
 " " *bicolor* Thomas, 1915. Aroa R., British New
 Guinea.

Vespertilionidae (cont'd)

- 182 *Nyctophilus sherrini* Thomas, 1915. Tasmania.
 183 " *timoriensis* (E. Geoffroy), 1806¹. Timor I.; Tasmania; Australia.
 184 " *walkeri* Thomas, 1892¹. Adelaide R., Australia.
 185 *Pachyotis temmincki celebensis* Sody, 1928. Toli-Toli, Celebes.
 " *panayensis* Sody, 1928. Panay, P. I.
 186 *Pharotis imogene* Thomas, 1914. Kamali, British New Guinea.
 187 *Philetor rohui* Thomas, 1902¹. C. New Guinea; Mt. Albert Edward.
 188 *Phoniscus atrox* Miller, 1905. Kateman R., E. Sumatra.
 " *rapax* Miller, 1931. Palaleh, N. Coast N.E. Celebes.
 189 *Pipistrellus camortae* Miller, 1902. Kamorta I.; Nicobars.
 190 " *curtatus* Miller, 1911. Engano I.; Sumatra.
 191 " *imbricatus* (Horsfield). Malacca; Java; Engano I.
 192 " *kitcheneri* Thomas, 1915. Boentok, Barito R., Borneo.
 193 " *papuanus collinus* Thomas, 1920. Mambari R., E. New Guinea.
 194 " *regulus* Thomas, 1906. King George's Sound, S.W. Australia.
 195 " *subulidens* Miller, 1901. Sirhassen I.; S. Natuna Is.
 196 *Scoteinus balstoni* Thomas, 1906. N. Pool; Laverton, S.W. Australia.
 197 " *inflatus* Thomas, 1924. C. Part of So. N. Queensland.
 198 *Scotophilus castaneus* Horsfield, 1851¹. Malacca.
 199 " *greyi* Gray, 1843¹. Port Essington; Mt. Liverpool, Australia.
 200 " *ruppeli* Peters, 1866¹. New South Wales; S. Australia.
 201 " *temmincki* (Horsfield), 1824¹. Borneo; Java; Flores, Philippines.
 202 *Tylonycteris robustula* Thomas, 1915. Upper Sarawak, Borneo.
 203 *Vespertilio abramus* Temminck, 1837¹. Solomon Is.; N. Australia.
 " *irretitus* Cantor, 1842¹. Philippine Is.
 205 " *annulatus* Peters, 1880¹. Duke of York I.
 206 " *batchianus* Matschie, 1901. Batchian I.
 207 " *brachypterus* Temminck, 1835¹. Sumatra; Java; Banka I.
 208 " *doriae* Peters, 1868¹. Sarawak, N. Borneo.
 209 " *kreffti* Peters, 1869¹. Tasmania; S. Australia.
 210 " *maurus mordax* Peters, 1866¹. Java.
 211 " *minahassae* Meyer, 1899¹. Minahassa, Celebes.
 212 " *murrayi* Andrews, 1900¹. Christmas I., S. of Java.
 213 " *noctula* Schreber, 1775¹. Malacca; Sumatra; Java.
 214 " *pachypus* Temminck, 1835¹. Sumatra; Java; Celebes; Philippines Is.
 215 " *papuanus orientalis* Meyer, 1899¹. Astrolabe Bay, Bongu, New Guinea.
 216 " *petersi* Meyer, 1899. Minahassa, Celebes.
 217 " *pumilus* Gray, 1841¹. Australia; Cape York; Tasmania; Australia.
 218 " *ridleyi* Thomas, 1888¹. Selangore, Malacca.
 219 " *stenopterus* Dobson, 1875¹. Sarawak, Borneo.
 220 " *tenuis* Temminck, 1835¹. Sumatra; Java; Borneo.
 221 " *tylopus* Dobson, 1875¹. N. Borneo.
 222 " *vordermanni* Jentink, 1890¹. Billiton I., W. of Borneo.

Molossidae

- 223 *Chaerephon luzonus* Hollister, 1913. Cagayan I.; N. Luzon, Philippine Is.
- 224 *Cheiromeles jacobsoni* Simpson, 1931. Logu, Simalur I., N.W. Sumatra.
- 225 " *parvidens* Miller & Hollister, 1921. Pinedapa, M. Celebes.
- 226 " *torquatus* Horsfield, 1824¹. Malacca; Sumatra; Java; Borneo; Celebes.
- 227 *Nyctinomus albidus* Leche, 1884¹. S. Australia.
- 228 " *astrolabiensis* Meyer, 1899¹. New Guinea.
- 229 " *australis* Gray, 1838¹. Australia; New Guinea.
- 230 " *atratus* Thomas, 1924. Ooldea, S. Australia.
- 231 " *beccarii* Peters, 1881¹. Amboina Is.
- 232 " *doriae* Andersen, 1907. Deli; N.E. Australia.
- 233 " *jobiensis* Miller, 1902¹. Jobi Is.
- 234 " *johorensis* Dobson, 1873¹. Malacca; Johore I.
- 235 " *loriae* Thomas, 1888¹. E. New Guinea.
- 236 " *mops* F. Cuvier, 1825¹. Sumatra.
- 237 " *norfolkensis* (Gray), 1839¹. Norfolk I.; E. Australia.
- 238 " *petersi* Leche, 1884¹. S. Australia.
- 239 " *plicatus* (Buchanan-Hamilton), 1800¹. Malacca; Philippine Is.; Tasmania; Australia.
- 239 " *sarasinorum* Meyer, 1899¹. Minahassa, Celebes.

PRIMATES

Lemuroidea

Lorisidae

- 001 *Nycticebus bancanus* Lyon, 1906². Klabat Bay; Banka I.
- 002 " *borneanus* Lyon, 1906². Sakaiam R., W. Borneo.
- 003 " *coucang insularis* Robinson, 1917. Tioman I.
- 004 " *hillieri* (Stone & Rehn), 1902². Batu Is.; Sumatra.
- 005 " *javanicus* Geoffroy, 1812². Java.
- 006 " *malaianus* (Andersen), 1881². Sumatra.
- 007 " *menagensis* Hollister, 1912. Bongoa, Tawi Tawi, P. I.
- 008 " *natura* (Stone & Rehn), 1902². Bunguran, N. Natuna Is.
- 009 " *ornatus* Thomas, 1921. W. Java.
- 010 " *philippinus* Cabrera, 1908². Mindanao, P. I.
- 239 " *? pagensis*. S. Pagi Is.

Tarsioidae

Tarsiidae

- 011 *Tarsius bancanus* Horsfield, 1821². Banka I.
- 012 " *borneanus* Elliot, 1910². Landak R., Borneo.
- 013 " *carbonarius* Heude, 1899. Mindanao, P. I.
- 014 " *fuscus* Fischer, 1804². Celebes.
- 239 " *" dentatus* Miller & Hollister, 1921. Laboea Sore, Celebes.

Tarsiidae (cont'd)

- 015 *Tarsius fraterculus* Miller, 1910². Seville, Bohol, Philippine Is.
 016 " *philippinensis* Meyer, 1894². Samar, P. I.
 017 " *pumilus* Miller & Hollister, 1921. Rano Rano, M. Celebes.
 018 " *saltator* Elliot, 1910². Billiton I., W. of Borneo.
 019 " *sanghirensis* Meyer, 1897². Sanghir I., Philippines.

Catarrhinae

Cercopithecidae

- 020 *Cynopithecus niger* Desmarest, 1820². Celebes.
 021 " *lembicus* Miller, 1931. Pulo Lembeh, N.E. Celebes.
 022 *Macacus adustus* Miller, 1906. Malay Peninsula.
 023 " *agnathus* (Elliot), 1909. Banjak I.
 024 " *alacer* (Elliot), 1909. Rhio Archipelago.
 025 " *andamanensis* Bartlett, 1869². Andaman I.
 026 " *baweanus* (Elliot), 1910. Bawean I., Java Sea.
 027 " *bintangensis* (Elliot), 1909. Rhio Archipelago.
 028 " *broca* Miller, 1906. N.E. Borneo.
 029 " *cagayanus* (Mearns), 1905. Cagayan I., Philippine Group.
 030 " *carimatae* (Elliot), 1910. Karimata I.
 031 " *cupidus* (Elliot), 1910. Pulo Mata Siri, Java Sea.
 032 " *dollmani* (Elliot), 1910. Singapore; Malacca.
 033 " *fascicularis* (Raffles), 1822². Sumatra; Karimon; Ungar;
 Bintang; Dunaan; Sugi; Linga Is.
 " " *limitis* (Schwarz), 1913. Timor I.
 034 " *fuscus* Miller, 1903². Simalur I.
 035 " *impudens* (Elliot), 1910. Rhio Archipelago.
 036 " *irus* (Raffles), 1766². Malay Peninsula.
 " " *argentimembris* Kloss, 1911. E. Coast Malay Peninsula.
 037 " *karimoni* (Elliot), 1909. Rhio Archipelago.
 038 " *laetus* (Elliot), 1909. Malay Peninsula.
 039 " *lapsus* (Elliott), 1910. Sumatra; Banka I.
 040 " *lautensis* (Elliot), 1910. Pulo Laut; Natuna Is.
 041 " *lingae* (Elliot), 1910. Rhio Archipelago.
 042 " *lingungensis* (Elliot), 1910. Lingung; Natuna Is.
 043 " *mandibularis* (Elliot), 1910. Pontianak, Borneo.
 044 " *mansalaris* (Lyon), 1916. Mansalar, W. Coast of Sumatra.
 045 " *mindanensis* (Mearns), 1905. Mindanao, P. I.
 " " *apoensis* (Mearns), 1905. Mt. Apo, Mindanao,
 P. I.
 046 " *mindorus* (Hollister), 1913. Mindoro, P. I.
 047 " *mordax* Thomas & Wroughton, 1909. Java.
 048 " *nemestrinus* (Linnaeus), 1766. Sumatra.
 " " *mentaveensis* De Beaux, 1923. Sumatra; Men-
 tawai; Sipora I.
 049 " *pagensis* Miller, 1903. Sioba Bay; Nias I.
 050 " *phaeura* Miller, 1903. S. Pagi I.
 051 " *philippinensis* (Mearns), 1905. Mindanao, Manila, Luzon,
 P. I.
 " " *apoensis* (Mearns), 1905. Mt. Apo, Mindanao,
 P. I.

Cercopithecidae (cont'd)

Cercopithecidae (cont'd)

- 093 *Presbytis robinsoni* Thomas, 1910. Malay Peninsula.
 094 " *rubicunda* (Müller), 1838. N. to S.E. Borneo.
 095 " *sabana* (Thomas), 1893. Paitan, N. Borneo.
 096 " *sumatrana* (Müller & Schlegel), 1839-44. Ophir Mts.
 097 " *thomasi* (Collett), 1892. N.E. Sumatra.
 098 " *ultima* Elliot, 1910. Mt. Dulit, Borneo.
 099 " *vigilans* Miller, 1913. Sirhassen I., Natuna Group.
 100 *Simias concolor* Miller, 1903. S. Pagi I., W. of Sumatra.
 " " *siberu* Chasen & Kloss, 1928. W. Sumatra.

Hylobatidae

- 101 *Hylobates agilis* (Cuvier) 1812. Sumatra.
 102 " *cinereus abbotti* Kloss, 1929. S.W. Borneo.
 103 " *concolor* (Harlan), 1827². Borneo.
 104 " *moloch funereus* Chasen & Kloss, 1931. Sulu Archipelago;
 N. Borneo.
 105 " *lar* (Linnaeus), 1771². Malay Peninsula.
 106 " *leuciscus* (E. Geoffroy), 1812². Java.
 107 *Symphalangus syndactylus* (Desmarest), 1820². Sumatra.
 " " *continentis* Thomas, 1908². Selangore,
 Malay Peninsula.
 108 " *klossi* Miller, 1903². S. Pagi Is., W. of Sumatra.

Pongidae

- 109 *Pongo pygmaeus* (Hoppius), 1763². Borneo; Sumatra.

EDENTATA**Pholidota****Manidae**

- 1 *Manis javanica* Desmarest, 1822¹. Malacca; Sumatra; Java; Borneo;
 Sinkep I.
 2 " *paleojavanica* Stremme, 1911. Pleistocene; Java.

LAGOMORPHA**Leporidae**

- 1 *Lepus nigricollis* F. Cuvier, 1823¹. Sumatra; Java.
 2 *Nesolagus netscheri* (Jentink), 1880¹. Padang, S.W. Sumatra.

RODENTIA**Sciuridae**

- 001 *Hylopetes thomasi* Chasen & Kloss, 1931. Borneo.
 002 *Lariscus insignis forniciatus* Robinson, 1917. Juara Bay; Tioman;
 Pahang.
 " " *javana* Thomas & Wroughton, 1909. Buitenzorg,
 Java.

Scuridae (cont'd)

- 002 *Lariscus insignis meridionalis* Robinson & Kloss, 1911. Changi; Singapore I.
- 003 " *niobe siberu* Chasen & Kloss, 1928. Siberut I., W. of Sumatra.
" " *vulcanus* Kloss, 1921. Idjen Massif, E. Java.
- 004 *Nannosciurus bancanus* Lyon, 1908. Klabat Bay, Banka, Sumatra.
- 005 " *borneanus* Lyon, 1906. Sanggau, W. Borneo.
- 006 " *exilis sordidus* Chasen & Kloss, 1928. Long Tambelan; N.E. Borneo.
" " *retectus* Thomas, 1910. Banguey I., N.E. Borneo.
- 007 " *melanotis pallidus* Chasen & Kloss, 1928. Long Poehoes, N. Borneo.
- 008 " *pulcher* Miller, 1902. Sinkep I., S. China Sea.
- 009 " *sumatrana* Lyon, 1906. Tarussan Bay, W. Sumatra.
- 010 " *surrutilus* Hollister, 1913. Mt. Bliss, Mindanao, P. I.
- 011 *Nyctoleptes insularis* Thomas, 1915. Padang, Deli, N. Sumatra.
- 012 *Petaurillus emiliae* Thomas, 1908. Baram, Sarawak, Borneo.
- 013 *Petaurista batuana* Miller, 1903. Tana Bala, Batu Is., W. of Sumatra.
" *elegans* Temminck, 1836¹. Musa-Kambang, Java.
" *mimicus* Miller, 1913. Pulo Rupat, E. Sumatra.
" *nitida* (Desmarest), 1818¹. Malacca; Sumatra; Java; Borneo.
" " *marchio* Thomas, 1908. Si Ramba, Sumatra.
" " *rajah* Thomas, 1908. Mt. Dulit, Baram, Sarawak, N. Borneo.
- 017 " *nitidula* Thomas, 1900. Bunguran, Natuna Is.
- 018 " *petaurista lumholtzi* Gyldenstolpe, 1919. C. Borneo.
- 019 " *punctata* (Gray), 1846¹. Malacca.
" " *sumatrana* Kloss, 1920. Padang Highlands, W. Sumatra.
- 020 " *terataus* Lyon, 1907. Pulo Teratua, Malay Peninsula.
- 021 *Petionomys setosus* Chasen & Kloss, 1931. Bettotan, N. Borneo.
- 022 *Pteromyscus borneanus* Thomas, 1900. Sarawak, Borneo.
- 023 *Ratufa anambae* Miller, 1900. Pulo Dimaja, Anamba Is.
- 024 " *affinis* (Raffles), 1822¹. Singapore; Malacca.
" " *aureiventer* (I. Geoffroy), 1832¹. Penang; Malacca; Java.
" " *banguei* Chasen & Kloss, 1931. Banguey I., N. Borneo.
" " *baramensis* Chasen & Kloss, 1931. Sarawak, Dutch N.E. Borneo.
" " *cothurnata* Chasen & Kloss, 1931. S.W. Borneo.
" " *ephippium* Chasen & Kloss, 1931. S.E. Borneo.
" " *johorensis* Miller, 1900¹. Johore, Malay Peninsula.
" " *jalorensis* Robinson & Kloss, 1911. Padang Tuan, N.W. Johore.
" " *sandakensis* Chasen & Kloss, 1931. Sandakan, N. Borneo.
- 025 " *angusticeps* Miller, 1901. Pulo Lingung, S. Coast Bunguran I.
- 026 " *arusinus* Lyon, 1907. Aroa Bay, Sumatra.
- 027 " *balae* Miller, 1903. Tana Bala, Batua Is.

Scuridae (cont'd)

- 028 *Ratufa bicolor* Sparrman, 1778¹. Malacca; Sumatra; Java; Borneo.
 " *baliensis* Thomas, 1917. Tjetoekambawang, Bali I.
 " *major* Miller, 1911. Mt. Gede, Tjibodas, Java.
- 029 " *bunguranensis* (Thomas & Hartert), 1894¹. Bunguran, Natuna Is.
- 030 " *buluana* Lyon, 1909. Pulo Bulan, Rhio Archipelago.
- 031 " *carimonensis* Miller, 1906. Great Karimon Is.
- 032 " *catemana* Lyon, 1907. Kateman R., S.E. Sumatra.
- 033 " *condurensis* Miller, 1906. Pulo Kundur, Rhio-Linga Archipelago.
- 034 " *confinis* Miller, 1906. Pulo Sinkep, Rhio-Linga Archipelago.
- 035 " *conspicuus* Miller, 1903. Pulo Bintang, Rhio Archipelago.
- 036 " *dulitensis* Lönnberg & Mjöberg, 1925. Pipoh, Boelengeen, Borneo.
- 037 " *ephippium lumholtzi* Lönnberg & Mjöberg, 1925. Pipoh, Borneo.
 " " *sirhassenensis* Bonhote, 1900. Sirhassen, Natuna Is.
- 038 " *femoralis* Miller, 1903. Pulo Tuangku, Banjak Is.
- 039 " *gigantea* (MacClelland), 1839¹. Malacca.
- 040 " *griseicollis* Lyon, 1911. Panebangon, W. Coast of Borneo.
- 040a " *hypoleuca* (Horsfield), 1824. Sumatra.
- 041 " *insignis* Miller, 1903. Pulo Sugi, Rhio Archipelago.
- 042 " *laenata* Miller, 1903. Pulo Tuangku, Banjak Is.
- 043 " *masae* Miller, 1903. Tana Masa, Batu Is.
- 044 " *melanopepla decolarata* Robinson & Kloss, 1914. Koh Samui, N.E. Malay Peninsula.
 " " *pretensis* Thomas & Wroughton, 1909. Langkawi I.
 " " *penangensis* Robinson & Kloss, 1911. Penang I.
- 045 " *nanogigas* (Thomas & Hartert), 1895¹. Pulo Laut, Natuna Archipelago.
- 046 " *nigrescens* Miller, 1903. Pulo Mansalar, Sumatra.
- 047 " *notabilis* Miller, 1902. W. Coast Linga I.
- 048 " *palliata* Miller, 1902. Indragiri R., E. Sumatra.
 " " *batuana* Lyon, 1916. Tana Bala, Batu Is.
- 049 " *polia* Lyon, 1906. Bukit Menguru, Billiton I.
 " " *bananca* Lyon, 1906. Tanjong, Banka I., E. of Sumatra.
- 050 " *tiomanensis* Miller, 1900. Tioman I.
- 051 " *sirhassenensis* (Bonhote), 1900. Sirhassen I.; S. Natuna Is.
- 052 " *vittata* Lyon, 1911. Saeotok; Pulo Laut, S.E. Borneo.
- 053 " *vittatula* Lyon, 1911. Pulo Sebuku, S.E. Borneo.
- 054 *Rheithrosciurus macrotis* Gray, 1856¹. Sarawak, N. Borneo.
- 055 *Rhinosciurus castaneus* (Miller), 1900¹. Pulo Siantan, Anambas Is.
- 056 " *everetti* (Thomas), 1890¹. N. Borneo.
- 057 " *hosei* (Thomas), 1892¹. N. Borneo.
- 058 " *inclusatus* Lyon, 1916. Pulo Tuangku, Banjak Is.
- 059 " *insignis* F. Cuvier, 1822¹. Malacca; Sumatra; Java; Borneo.
 " " *diversus* Thomas, 1888¹. Sarawak, Borneo.
 " " *jalorensis* (Bonhote), 1903¹. Malacca.

Scuridae (cont'd)

- 060 *Rhinosciurus laticaudatus* (Müller & Schlegel), 1839¹. Malacca; Sarawak; Linga I.; Borneo.
 " " *saturatus* Robinson & Kloss, 1919. W. Sumatra.
- 061 " *leo* Thomas & Wroughton, 1909. Changi, Singapore.
 " " *rhionis* Thomas & Wroughton, 1909. Karimon I.
- 062 " *niobe* Thomas, 1888¹. Padjo, Sumatra.
- 063 " *peracer* Thomas & Wroughton, 1909. Maxwell's Hill, Perak.
- 064 " *robinsoni* Thomas, 1908. Juara Bay, Tioman I.
- 065 *Sciuropterus alboniger* Hodgson, 1836¹. Borneo.
- 066 " *amoenus* Miller, 1906. Pulo Kundur, Rhio-Linga Archipelago.
- 067 " *belone* Thomas, 1908. Pulo Teratua, Strs. of Malacca.
- 068 " *crinitus* Hollister, 1911. Basilan I., P. I.
- 069 " *everetti* Thomas, 1896¹. Bunguran, Natuna Is.
- 070 " *genibarbis* (Horsfield), 1824¹. Malacca; Java; Borneo.
 " " *boreonis* Thomas, 1908. Bakong R., Sarawak, Borneo.
 " " *malaccanus* Thomas, 1908. Malacca.
- 071 " *hageni* Jentink, 1888¹. Deli, Sumatra.
- 072 " *harrisoni* Stone, 1900. Menbuang R., Sarawak, Borneo.
- 073 " *hosei* Thomas, 1900. Baram District, Borneo.
- 074 " *kinlochi* Robinson & Kloss, 1911. Selangore, Malay Peninsula.
- 075 " *lepidus* (Horsfield), 1824¹. Java.
- 076 " *lugens* Thomas, 1895¹. Mentawai, Sipora Is.
- 077 " *maerens* Miller, 1903. N. Pagi Is., W. of Sumatra.
- 078 " *nigripes* Thomas, 1893¹. Palawan, P. I.
 " " *elassodontus* Osgood, 1918. Balabac Straits.
- 079 " *phaeomelas* (Gunther), 1873¹. Borneo.
- 080 " *platyurus* Jentink, 1890¹. N. Sumatra.
- 081 " *pulverulentus* Gunther, 1873¹. Malacca; Pinang; Borneo.
- 082 " *sagitta* (Linnaeus), 1766¹. Malacca.
 " " *aurantiacus* Wagner, 1841¹. Banka I.
 " " *davisoni* Thomas, 1886¹. Malacca.
 " " *horsfieldi* (Waterhouse), 1837. Java; Borneo.
- 083 " *setosus* Temminck & Schlegel, 1847¹. Sumatra; Borneo.
- 084 " *thomsoni* Thomas, 1900. Baram District, Borneo.
- 085 " *tephromelas* Gunther, 1873¹. Malacca; Selangore; Pinang.
- 086 " *vordermanni* Jentink, 1890¹. Billiton I.
- 087 *Sciurus abbotti* Miller, 1900. Big Tambelan I.
- 088 " *adamsi* Kloss, 1921. Sarawak, Borneo.
- 089 " *adangensis* Miller, 1903. Pulo Adang, Butang Is.
- 090 " *albicauda* Matschie, 1898¹. Calamianes, Culion, Philippine Is.
- 091 " *alstoni* Andersen, 1878¹. ? Borneo.
- 092 " *andrewsii* Bonhote, 1901. Tjigombong, Java.
- 093 " *aoris* Miller, 1903. Pulo Aor, Johore, Malay Peninsula.
- 094 " *arendsis* Lyon, 1911. Arends I., Java Sea.

Scuridae (cont'd)

- 095 *Sciurus armalis* Lyon, 1911. Pulo Panebangan, W. Coast Borneo.
 096 " *atratus* Miller, 1903. N. Pagi I.; Sumatra.
 097 " *atricappillus* Schlegel, 1863¹. Borneo.
 " " *atrox* Miller, 1913. Talisaihan Mt., Borneo.
 098 " *atristriatus* Miller, 1913. Lo Bon Bon, S.E. Borneo.
 099 " *balae* Miller, 1903. Tana Bala, Batu Is.
 100 " *baluensis* Bonhote, 1901. Mt. Kina Balu, Borneo.
 101 " *bancarus* Miller, 1903. Pulo Bangkaru, Banjak Is.
 102 " *beebei* Allen, 1911. Sarawak, Borneo.
 103 " *bilimitatus* Miller, 1903. Tringanu, Malay Peninsula.
 104 " *billitonus* Lyon, 1906. Budong Bay, Billiton Is.
 105 " *borneoensis palustris* Lyon, 1907. Kapuas R., W. Borneo.
 106 " *brookei* Thomas, 1892¹. Mt. Dulit, N.W. Borneo.
 107 " *caniceps helvus* Shamel, 1930. Koh Tau I., Malay Peninsula.
 108 " *carimatae* Miller, 1906. Telok Pai, Karimata Is.
 109 " *carimonensis* Miller, 1906. Kariman I., Rhio Archipelago.
 110 " *concolor* Blyth, 1855¹. Malacca.
 111 " *caroli* Bonhote, 1901. Marudi R., Baram, Borneo.
 " " *griseicauda* Bonhote, 1901. Mt. Kalulong, Borneo.
 112 " *condurensis* Miller, 1901. Pulo Kundur, Linga Archipelago.
 113 " *datus* Lyon, 1911. Pulo Datu, W. Coast Borneo.
 114 " *diardi* Jentink, 1879¹. Java.
 114a " *dulitensis dulitensis* Bonhote, 1901. Mt. Dulit, Borneo.
 114b " " *dilutes* Miller, 1913. Tanjung Batu, Dutch S.E. Borneo.
 115 " *epomophorus* Bonhote, 1901. Salanga I., Malay Peninsula.
 116 " *erebus* Miller, 1903. Tapanuli Bay, Sumatra.
 117 " *erythraeus* Pallas, 1778¹. Malacca.
 118 " *erythromelas* Temminck, 1863¹. Celebes.
 119 " *evidens* Miller & Hollister, 1921. Pulo Lembeh, Celebes.
 120 " *finlaysoni* Horsfield, 1824¹. Malacca.
 121 " *fraterculus* Thomas, 1895¹. Mentawai I.; Sipora I.
 122 " *hippurellus* Lyon, 1907. Batu Ampar, Borneo.
 123 " *hippurosus* Lyon, 1907. Tarussan Bay, Sumatra.
 124 " *hippurus* I. Geoffroy, 1832¹. Malacca; Java; Sumatra; Natuna Is.
 " " *grayi* Bonhote, 1901¹. Borneo.
 125 " *humilis* Miller, 1913. Kateman R., E. Sumatra.
 126 " *ictericus* Miller, 1903. Tana Bala, Batu Is.
 127 " *jentinki* Thomas, 1887¹. Mt. Kina Balu, Borneo.
 128 " *juvencus* Thomas, 1908. Palawan I.; P. I.
 129 " *klossi* Miller, 1900. Saddle I., Tambelan Group.
 130 " *lamucotanus* Lyon, 1911. Pulo Lamkotan, Borneo.
 131 " *lancavensis* Miller, 1903. Pulo Lankawi, Malay Peninsula.
 132 " *lautensis* Miller, 1901. Pulo Laut, Natuna Is.
 133 " *leucomus* Müller & Schlegel, 1839¹. N. Celebes.
 " " *occidentalis* Meyer, 1898¹. Celebes.
 134 " *lingungensis* Miller, 1901. Pulo Lingung, Natuna Is.
 135 " *lowi* Thomas, 1892¹. N.W. Borneo.
 " " *bangueyae* Thomas, 1910. Banguey I.; N. Borneo.

Scuridae (cont'd)

- 135 *Sciurus lowi siberu* Chasen & Kloss, 1928. Siberut I., Sumatra.
 136 " *lutescens* Miller, 1910. Sirhassen I., Natuna Group.
 137 " *macclellandi leucotis* Temminck, 1853¹. Malacca.
 138 " *mansalaris* Miller, 1903. Pulo Mansalar, Tapanuli Bay, Sumatra.
 " " *batus* Lyon, 1916. Tana Bala, Batu Is.
 139 " *marinsularis* Lyon, 1911. Pulo Laut, Borneo.
 140 " *melanogaster* Thomas, 1895¹. Mentawai I.
 " " *mentawi* Chasen & Kloss, 1928. Siberut I.
 141 " *melanops* Miller, 1902. Indragiri R., E. Sumatra.
 " " *penialus* Lyon, 1908. Pulo Penjalei, Kampar R., Sumatra.
 142 " *mendanaus* Lyon, 1906. Pulo Mendanau, Bilitton I.
 143 " *microrhynchus* Kloss, 1906. Tioman I.
 144 " *microtis* Jentink, 1879¹. Saleyer I.
 145 " *mimellus* Miller, 1900. Pulo Wai, Tambelan Group.
 146 " *mimiculus* Miller, 1900. St. Barbe I., Tambelan Group.
 147 " *mindanensis* Steere, 1890¹. Mindanao, P. I.
 148 " *murinus* Müller & Schlegel, 1839¹. N. Celebes.
 " " *necopinus* Miller & Hollister, 1921. Lehio, M. Celebes.
 149 " *mollendorffi* Matschie, 1899. Calamianes, Culion, P. I.
 150 " *natuensis* (Thomas), 1895¹. Sirhassen I.; Natunas.
 151 " *nigrovittatus* Horsfield, 1824¹. Java; Sumatra; Malacca.
 " " *besuki* Kloss, 1921. Tamansari, E. Java.
 " " *bocki* Robinson & Wroughton, 1911. Padjo, Sumatra.
 " " *johorensis* Robinson & Wroughton, 1911. Johore.
 " " *klossi* Miller, 1900¹. Tambelan I.
 " " *orestes* Thomas, 1895¹. Borneo.
 152 " *notatus* Boddaert, 1785¹. Java.
 " " *albescens* Bonhote, 1901. Acheen, Sumatra.
 " " *balstoni* Robinson & Wroughton, 1911. S.C. Java.
 " " *dilutus* Chasen & Kloss, 1931. N. & N.E. Borneo.
 " " *guilleardi* Kloss, 1926. Pulo Tenggol, Malay Peninsula.
 " " *malawali* Chasen & Kloss, 1931. Mallewalle I.; N. Borneo.
 " " *stresemanni* Thomas, 1913. Bolleleng, Bali I.
 " " *tamansari* Kloss, 1921. E. Java.
 153 " *mowewensis* Roux, 1910. S.E. Celebes.
 154 " *nyx* Lyon, 1908. Pulo Rupat, E. Coast of Sumatra.
 155 " *palliatus tanae* Neumann, 1902. Middle Tana.
 156 " *parvus* Miller, 1901. Nulu, Sarawak, N. Borneo.
 157 " *pelapius* Lyon, 1911. Pulo Pelapis, W. Coast Borneo.
 158 " *pemangilis* Miller, 1903. Pulo Pemangil, Johore.
 159 " *peninsularis* Miller, 1903. Endau R., Linga I.; Pahang, Karimon Is.; Sinkep I.; Penuba, Bintang I.
 160 " *philippinensis* Waterhouse, 1839¹. Mindanao, Basilan, Philippines.
 161 " *piniensis* Miller, 1903. Pulo Pinie, Batu Is., W. of Sumatra.

Scuridae (cont'd)

- 162 *Sciurus poliopus* Lyon, 1911. Pamukang Bay, S. Borneo.
 163 " *preiosus* Miller, 1903. Bulo Bangkaru, Banjak Is.
 164 " *prevostii* Desmarest, 1820¹. Malacca; Sumatra; Natuna Is.; Banka I.
 " " *bangkanus* Schlegel, 1863¹. Banka I.
 " " *borneoensis* Schlegel, 1863¹. Borneo.
 " " *caedis* Chasen & Kloss, 1931. Balambangan I.; Banguey I.
 " " *harrisoni* Stone & Rehn, 1902. Goenoeng Soegi, Sumatra.
 " " *humei* Bonhote, 1901. Klang, Selangore, Malay Peninsula.
 " " *kuchingensis* Bonhote, 1901. Borneo.
 " " *navigator* Bonhote, 1901. Sirhassen, Natuna Is.
 " " *pluto* Chasen & Kloss, 1931. N. Borneo.
 " " *prevostii* Robinson, 1916. Triang, S.W. Pahang,
 " " *rafflesi* Vigors & Horsfield, 1828. Sumatra.
 " " *redimitus* Boone Mesch, 1829¹. Sumatra; Celebes.
 " " *sarawakensis* (Gray), 1867¹. Borneo.
 " " *wrayii* Kloss, 1911. Pahang, Redang I.
 165 " *procerus* Miller, 1901. Bunguran I., N. Natuna Group.
 166 " *proserpinae* Lyon, 1907. Pulo Temaju, W. Coast Borneo.
 167 " *pryeri* Thomas, 1892¹. Borneo.
 " " *inquinatus* Thomas, 1908. Lawas R., N. Borneo.
 168 " *pumilus* Miller, 1903. S. Pagi I., S.W. of Sumatra.
 169 " *robinsoni* Bonhote, 1902. Bukit Besar, Malay Peninsula.
 " " *alacris* Thomas, 1908. Semangko Pass, Pahang, Malay Peninsula.
 170 " *rubidiventer* Miller, 1901. Bunguran I., N. Natuna Group.
 171 " *rufoniger* Gray, 1842¹. Borneo.
 172 " *rubriventer* Müller & Schegel, 1839-44¹. Minahassa, Celebes.
 173 " *rutiliventris* Miller, 1901. Pulo Midei, S. Natuna Is.
 174 " *samarensis* Steere, 1890¹. Samar, P. I.
 175 " *sanggaus* Lyon, 1907. Sanggau, W. Borneo.
 176 " *sarasinorum* Meyer, 1898¹. N. Celebes.
 177 " *saturatus* Miller, 1903. Pulo Mansalar, Sumatra.
 178 " *seimundi* Thomas & Wroughton, 1909. Kundur I. Rhio Archipelago.
 179 " *seraiae* Miller, 1901. Pulo Seraia, S. Natuna Is.
 180 " *serutus* Miller, 1906. Pulo Serutu, Karimata Is.
 181 " *schlegeli* Gray, 1867¹. Celebes.
 182 " *siriensis* Lyon, 1911. Pulo Mata Siri, Java Sea.
 183 " *steeri* Gunther, 1876¹. Balabac, Palawan, Philippine Is.
 184 " *tahan* Bonhote, 1908. Gunong Tahan, Pahang.
 185 " *tedongus* Lyon, 1906. Tanjong Tedong, Banka I.
 186 " *tenuirostris* Miller, 1900. Tioman I., S. China Sea.
 187 " *tenuis* Horsfield, 1824¹. Malacca; Sumatra; Java; Borneo;
 Lingga; Anambas I.
 " " *altitudinus* Robinson & Kloss, 1916. Sungei Kring, Sumatra.

Scuridae (cont'd)

- 187 *Sciurus tenuis siantanicus* Chasen & Kloss, 1928. Pulo Siantan, Anambas I.
 " " *sordidus* Kloss, 1911. Great Redang I.; Malay Peninsula.
 " " *surdus* Miller, 1900¹. Malacca.
 " " *tiomanicus* (Robinson), 1917. Juara Bay, Pulo Tioman.
- 188 " *tingahi* Meyer, 1896¹. Sanghir; Ruang; Tragulanda.
- 189 " *tonkeanus* Meyer, 1896¹. N. Celebes.
- 190 " *topapuensis* Roux, 1910. Topapu Mts., C. Celebes.
- 191 " *ubericolor* Miller, 1903. Pulo Tuangku, Banjak Is.
- 192 " *vanakeni* Robinson & Kloss, 1916. Korinchi Peak, W. Sumatra.
- 193 " *vittatus* Raffles, 1822¹. Malacca; Sumatra.
 " " *abbotti* Miller, 1900¹. Tambelan Is.
 " " *anambensis* Miller 1900¹. Anambas Archipelago.
 " " *famulus* Robinson, 1912. Johore Archipelago.
 " " *maporense* Robinson, 1917. Pulo Mapor, Rhio Archipelago.
 " " *nesiotes* Thomas & Wroughton, 1909. Batam I.
 " " *perhentianus* Kloss, 1911. W. Perhentian I., Malay Peninsula.
 " " *plasticus* Kloss, 1911. Great Redang I., Malay Peninsula.
 " " *proteus* Kloss, 1911. W. Perhentian I., Malay Peninsula.
 " " *rupatius* Lyon, 1908. Pulo Rupat, E. Coast Sumatra.
 " " *scottii* Kloss, 1911. Little Redang I.
 " " *subluteus* Thomas & Wroughton, 1909. S.E. Johore.
 " " *tapanuliensis* Lyon, 1907. Tapanuli Bay, Sumatra.
 " " *tarussanus* Lyon, 1907. Tarussan Bay, Sumatra.
 " " *tenuirostris* Miller, 1900¹. Anambas Archipelago.
 " " *watsoni* Kloss, 1911. Lintinga I.; Malay Peninsula.
 " " *weberi* Jentink, 1890¹. C. Celebes.

Muridae

- 001 *Anisomys imitator* Thomas, 1903. Avera, Aroa, British New Guinea.
- 002 *Apomys bardus* Miller, 1910. Mt. Bliss, Mindanao, P. I.
- 003 " *hylocoetes* Mearns, 1905. Mt. Apo, Mindanao, P. I.
- 004 " *insignis* Mearns, 1905. Mt. Apo, Mindanao, P. I.
- 005 " *major* Miller, 1910. Haight's-in-the-Oaks, Benguet, Luzon, P. I.
- 006 " *microdon* Hollister, 1913. Biga Catanduanes, P. I.
- 007 " *musculus* Miller, 1910. Camp John Hay, Baguio, Benguet, Luzon, P. I.
- 008 " *petraeus* Mearns, 1905. Mt. Apo, Mindanao, P. I.
- 009 *Ascopharynx cervinus* (Gould), 1851¹. C. Australia.
- 010 " *fuscus* Jones, 1925. Ooldea, S. Australia.
- 011 *Batomys granti* Thomas, 1895¹. N. Luzon, P. I.
- 012 " *dentatus* Miller, 1910. Haight's-in-the-Oaks, Benguet, Luzon, P. I.

Muridae (cont'd)

- 013 *Bullimus bagobus* Mearns, 1905. Mt. Apo, Mindanao, P. I.
- 014 *Carpomys melanurus* Thomas, 1895¹. N. Luzon, P. I.
- 015 " *phaeurus* Thomas, 1895¹. N. Luzon, P. I.
- 016 *Celaenomys silaceus* (Thomas), 1895¹. M. Luzon, P. I.
- 017 *Chiropodomys anna* Thomas & Wroughton, 1909. Tjilatjap, Java.
- 018 " *gilioides* (Blyth), 1855¹. Malacca.
- 019 " *legatus* Thomas, 1911. Mt. Kina Balu, N. Borneo.
- 020 " *major* (Thomas), 1893¹. Sarawak, N.W. Borneo.
- 021 " *niadis* Miller, 1903. Lafau, Nias I.; Sumatra.
- 022 " *pictor* Thomas, 1911. Mt. Kina Balu, N. Borneo.
- 023 " *pusillus* (Thomas), 1893¹. Mt. Kina Balu, N. Borneo.
- 024 *Chrotomys whiteheadi* Thomas, 1895¹. N. Luzon, P. I.
- 025 *Conilurus albipes* (Lichenstein), 1829¹. Victoria; New South Wales, Australia.
- 026 " *boweri* (Ramsay), 1886¹. N.C. Australia.
- 027 " *gouldi* (Gray), 1842¹. C. & W. Australia.
- 029 " *hemileucurus* Gray, 1855¹. Queensland, N.E. Australia.
- 030 " *hirsutus* Gould, 1842¹. N. Queensland.
- 031 " *macrurus* (Peters), 1876¹. N.C. Queensland.
- 032 " *melibius* Thomas, 1921. Biro, Apsely Strs., Mellville, Australia.
- 033 " *murinus* Gould, 1845¹. C. Australia.
- 034 " *papuanus* Ramsay, 1883¹. New Guinea.
- 035 " *penicillatus* Gould, 1842¹. N. Queensland, Australia.
- 036 " *personatus* Krefft, 1867¹. N. Queensland, Australia.
- 037 *Crateromys schadenbergi* (Meyer), 1894¹. N. Luzon, P. I.
- 038 *Crossomys moncktoni* Thomas, 1907. Brown R., N.E. New Guinea.
- 039 *Crunomys fallax* Thomas, 1898¹. Isabella I., Luzon I., P. I.
- 040 " *melanius* Thomas, 1907. N.C. Mindanao, P. I.
- 041 *Dendromyminthus aroaensis* De Vis, 1907. Aroa R., British New Guinea.
- 042 *Echiotrix brevicula* Miller & Hollister, 1921. Pinedapa, M. Celebes.
- 043 " *centrosa* Miller & Hollister, 1921. Winatoe, M. Celebes.
- 044 " *leucura* Gray, 1867¹. Menado, N. Celebes.
- 045 *Eropeplus canus* Miller & Hollister 1921. Goenoeng Lehio, M. Celebes.
- 046 *Hydromys chrysogaster* E. Geoffroy, 1805¹. New South Wales; Victoria.
- " " *caurinus* Thomas, 1909. Parry's Creek, Kimberley, Australia.
- " " *leucogaster* E. Geoffroy, 1805¹. New South Wales; Victoria.
- " " *reginae* Thomas & Dollman, 1909. N. Queensland, Australia.
- 047 " *esox* Thomas, 1906. Port Moresby, E. New Guinea.
- " " *illuteus* Thomas, 1922. Udenburg R., N. New Guinea.
- 048 " *beccarii* Peters, 1875¹. C. & E. New Guinea.
- 049 " *fulvolattus* Gould, 1863¹. C. Australia.
- " " *fuliginosus* Gould, 1863¹. W. Australia.
- 050 " *longmani* Thomas, 1923. Vine Creek, Ravenshoe, Queensland.

Muridae (cont'd)

- 051 *Hydromys lutrilla* MacCley, 1863¹. New South Wales, Australia.
 052 " *melicertes* Thomas, 1921. Biro, Apsley Strs., Melville I.
 053 " *nauticus* Thomas, 1921. Dobo, Aru Is.
 054 " *meeki* Thomas, 1904. Avera, Aroa R., New Guinea.
 055 *Laomys pedunculatus* Wood Jones, 1925. C. Australia;
 " *brachytis* Wood Jones, 1925. C. Australia;
 Alice Springs.
 056 " *woodwardi* Thomas, 1909. Parry's Creek, Kimberely, Australia.
 057 *Lenomys longicaudus* Miller & Hollister, 1921. Gimpoe, M. Celebes.
 058 " *meyeri* (Jentink), 1878¹. Celebes.
 059 *Lenothrix canus* Miller, 1903. Pulo Tuangku.
 060 *Leporillus apicalis* Wood Jones, 1925. S. Australia.
 061 " *conditor* Wood Jones, 1925. S. Australia.
 062 " *jonesi* Thomas, 1921. Franklin I., S. of Australia.
 063 *Leptomys elegans* Thomas, 1897¹. E. New Guinea.
 064 *Limnomyss asper* Thomas, 1906. Mt. Gayata, E. New Guinea.
 065 " *mearnsi* Hollister, 1913. Mindanao, P. I.
 066 " *picinus* Hollister, 1913. Mt. Halcon, Mindoro, P. I.
 067 " *sibuanus* Mearns, 1905. Mt. Apo. Mindanao, P. I.
 068 *Mallomys hercules* Thomas, 1922. Mt. Gambier, S. Australia.
 069 " *rothschildi* Thomas, 1898¹. E. New Guinea.
 070 *Mastacomys fuscus* Thomas, 1882¹. Tasmania; S. of Australia.
 " " *foss.*, Lydekker, 1885¹. Pleistocene; C. Australia.
 071 " *mordicus* Thomas, 1922. Mt. Gambier, S. Australia.
 072 *Melasmotherrix naso* Miller & Hollister, 1921. Rano Rano, M. Celebes.
 073 *Melomys australius* Thomas, 1924. Dinner Creek, N. Queensland,
 Australia.
 074 " *cervinipes eboreus* Thomas, 1924. N. Australia.
 " *pallidus* Troughton & LeSouef, 1929. Queensland,
 Australia.
 075 " *lanosus* Thomas, 1922. Doormanpad-bivak, N. New Guinea.
 076 " *littoralis insulae* Troughton & LeSouef, 1929. N.C. Queens-
 land.
 077 " *rattooides* Thomas, 1922. Mamberano R., N. New Guinea.
 078 " *rubex* Thomas, 1922. Doormanpad-bivak, N. New Guinea.
 079 " *rubicola* Thomas, 1924. Bramble Key, Torres Straits, N.
 Australia.
 080 *Mesembriomys argurus industus* Thomas, 1909. Parry's Creek, N.
 Australia.
 081 " *hirsutus rattooides* Thomas, 1924. Cooktown, Australia.
 082 *Mus albertsi* Peters & Doria, 1881¹. Sorong I.; New Guinea.
 083 " *albocinereus* Gould, 1845¹. W. Australia.
 084 " *concolor* Blyth, 1859¹. Malacca.
 085 " *hermannsburgensis* Waite, 1896¹. C. Australia.
 086 " *musculus* Komodo I.
 " *adelaidensis* Gray. Australia.
 " *owensi* Kloss, 1921. E. Java.
 " *urbanus* Hodgson, 1845¹. Andaman I.
 087 " *novae-hollandiae* Waterhouse, 1842. C. Australia.

Muridae (cont'd)

- 088 *Nesocia setifer* (Horsfield), 1824¹. Java; Pinang, Andaman I.; Sumatra.
- 089 *Notomys aquilo* Thomas, 1921. Cape York, N. Queensland.
- 090 " *mitchelli macropus* Thomas, 1921. S. Australia; Kangaroo I.
- " " *mitchelli* Wood Jones, 1925. S. Australia.
- 091 " *macrotis* Thomas, 1921. Moore's River, W. Australia.
- 092 " *sturti* Thomas, 1921. New South Wales, Australia.
- 093 *Oromys crociduroides* Robinson & Kloss, 1916. Korinchi Peak, W. Sumatra.
- 094 *Phloeomys albayensis* Elera, 1895¹. Philippine Is.
- 095 " *cumingi* (Waterhouse), 1839¹. Philippine Is.
- 096 " *pallidus* Nehring, 1890¹. N. Luzon, P. I.
- 097 *Pithecheirus melanurus* F. Cuvier, 1833¹. Goenoeng Gedeh, Java.
- " " *parvus* Kloss, 1916. Selangor, Malay Peninsula.
- 098 *Podanomalus longicaudatus* (Gould), 1842¹. W. Australia.
- 099 *Pogonomys dryas* Thomas, 1904. British New Guinea.
- 100 " *forbesi* (Thomas), 1888¹. C. New Guinea.
- " " *mambatus* Thomas, 1920. Mambari R., N.E. New Guinea.
- " " *vulturinus* Thomas, 1920. Milne Bay, E. New Guinea.
- 101 " *lamia* Thomas, 1888¹. E. New Guinea.
- 102 " *lepidus* Thomas, 1888¹. E. New Guinea.
- 103 " *leucogaster* Jentink, 1908. S. New Guinea.
- 104 " *loriae* Thomas, 1888¹. E. New Guinea.
- 105 " *lorentzii* Jentink, 1908. Resi Camp, Dutch S. New Guinea.
- 106 " *macrourus* (A. Milne-Edwards), 1877¹. N. New Guinea.
- 107 " *multiplicatus* Jentink, 1907. Santani Lake, New Guinea.
- 108 " *pulcher* Thomas, 1888¹. Arch D'Entracasteaux, Ferguson I.
- 109 " *sexplicatus* Jentink, 1907. Santani Lake, New Guinea.
- 110 " *sylvestris* Thomas, 1920. Rawlinson Mts., N.E. New Guinea.
- 111 " *rates* Thomas, 1908. British New Guinea.
- 112 *Pseudomys australis oralis* Thomas, 1921. Coast of New South Wales.
- i13 " *auritus* Thomas, 1910. Lake Albert, S. Australia.
- 114 " *delicatulus mimulus* Thomas, 1926. Australia.
- 115 " *glaucus* (Thomas), 1919. S. Queensland, Australia.
- 116 " *praeconis* Thomas, 1910. Shark's Bay, W. Australia.
- 117 " *messorius* Thomas, 1925. Melrose, Spencer Gulf, Australia.
- 118 *Rattus adspersus* Miller & Hollister, 1921. Pinedapa, M. Celebes.
- 119 " *aemuli* (Thomas), 1896¹. Salayer I.; Celebes.
- 120 " *albigularis* (Mearns), 1905. Mt. Apo, Mindanao, P. I.
- 121 " *albocinereus* (Gould), 1845. W. Australia.
- " " *equalorum* Thomas, 1907. Bernier I., Shark's Bay, Australia.
- 122 " *alticola* (Thomas), 1888¹. Mt. Kina, Balu, N. Borneo.
- 123 " *anambae* (Miller), 1900¹. Pulo Siantan, Anamba Is.

Muridae (cont'd)

- 124 *Rattus andamanensis* (Blyth), 1860¹. C. Andaman I.; Port Blair.
- 125 " *annandalei* (Bonhote), 1903¹. Perak; Sungkei; Malacca.
- 126 " *andrewsi* Allen, 1911. Boeton I.; Celebes.
- 127 " *assimilis* (Gould), 1857. N.E. Australia; New South Wales; Queensland.
" " *coracius* Thomas, 1923. Dinner Creek, Ravenshoe, Australia.
- 128 " *argurus* (Thomas), 1889¹. C. Australia.
- 129 " *armandvillei* (Jentink), 1892¹. Flores I.
- 130 " *asper* (Miller), 1900¹. Tapanuli Bay, Sumatra.
- 132 " *atridorsum* (Miller), 1903¹. Barren I.; Andaman Is.
- 133 " *australis* (Gray), 1832¹. Liverpool, E. Australia.
- 134 " *baeodon* (Thomas), 1894¹. Mt. Kina Balu, N. Borneo.
- 135 " *balae* (Miller), 1903. Tana Bala, Batu Is., W. of Sumatra.
- 136 " *balmasus* (Lyon), 1916. Tana Bala, Batu Is., W. of Sumatra.
- 137 " *baluensis* (Thomas), 1894¹. Mt. Kina Balu, Borneo.
- 138 " *bandahara* Robinson, 1921. Mt. Kina Balu, Borneo.
- 139 " *bandiculus* Thomas, 1922. Mamberano R., N. New Guinea.
- 140 " *barbatus* (A. Milne-Edwards), 1900¹. Aroa R., E. New Guinea.
- 141 " *bartelsii* (Jentink), 1910. Pangerango Mt., Java.
- 142 " *barussanus* (Miller), 1911. Nias I.; Mojei R., W. of Sumatra.
- 143 " *basilanus* (Hollister), 1913. Basilan, P. I.
- 144 " *batamanus* (Lyon), 1907. Senimba Bay, Batam I., Rhio Archipelago.
- 145 " *batus* (Miller), 1911. Pulo Pinie, Batu Is.
- 146 " *beccarii* (Jentink), 1879¹. Queensland, Australia.
- 147 " *benguetensis* (Hollister), 1913. Camp John Hay, Benguet, Luzon, P. I.
- 148 " *bontanus* Thomas, 1921. Mt. Bonthain, S. Celebes.
- 149 " *borneanus* (Miller), 1913. S.E. Borneo.
- 150 " *browni* (Alston), 1877¹. New Guinea.
- 151 " *bukit* (Bonhote), 1903¹. Malacca.
" " *temmincki* Kloss, 1921. Besoeki, E. Java.
" " *treubii* Robinson & Kloss, 1919. Mt. Gedeh, Java.
- 152 " *bullatus* (Lyon), 1908. Pulo Rupat, E. Coast Sumatra.
- 153 " *burrescens* (Miller), 1902¹. Nicobar Major I.
- 154 " *burrulus* (Miller), 1902¹. Car Nicobar I.
- 155 " *burrus* (Miller), 1902. Trinkur, Nicobar Is.
- 156 " *buruensis* Allen, 1911. Bourn I.; Nicobar Is.
- 157 " *burtoni* (Ramsay), 1887¹. N.W. Australia.
- 158 " *butangensis* (Miller), 1900¹. Butang I.; Malay Peninsula.
- 158a " *caelestis* (Thomas), 1894. S. Celebes.
- 159 " *caenorom* Thomas, 1922. Mamberano R., N. New Guinea.
- 160 " *callitrichus* (Jentink), 1878¹. Menado, Celebes.
- 161 " *carimatae* (Miller), 1906. Telok Paim, Karimata I.
- 162 " *castaneus* (Higgins & Pettard), 1883¹. Long's Plains, Tasmania.
- 163 " *catellifer* (Miller), 1908¹. Pulo Mansalar, Tapanuli Bay, Sumatra.
- 164 " *celebensis* (Gray), 1867¹. Celebes.

Muridae (cont'd)

- 165 *Rattus chionogaster* Lönnberg & Mjöberg, 1916. Tolga, N. Queensland.
Australia.
- 166 " *chrombolis* Lyon, 1909. Pulo Jombol, Linga Archipelago.
- 167 " *chrysocomus* (Hoffman), 1887¹. Celebes; Philippine Is.
- 168 " *ciliatus* Bonhote, 1900¹. Gunung Inas, Malacca.
- 169 " *clabatus* (Thomas), 1904. Klabat Bay, Banka I.; E. of Sumatra.
- 170 " *colletti* (Thomas), 1904. S. Alligator R., Australia.
- 171 " *coloratus* (Hollister), 1913. Musser's Plantation, W. Basilan I.
- 172 " *commisarius* (Mearns), 1905. Davao, Mindanao, P. I.
- 173 " *conatus* Thomas, 1923. Cooktown, N. Queensland, Australia.
- 174 " *concolor* (Miller), 1906. Batam; Malacca.
- 175 " *concolor equile* Robinson & Kloss, 1927. E. Java.
" sp., Thomas, 1920. Mt. Manusela, Ceram I.
- 176 " *crassus* (Lyon), 1911. Pulo Lamkuton, W. Coast Borneo.
- 177 " *cremoriventer* (Miller), 1900¹. Malacca.
" " *kina* Chasen & Kloss, 1931. N. Borneo.
" " *cretaceiventer* Robinson & Kloss, 1919. W. Java.
" " *malawali* Chasen & Kloss, 1931. Mallewalle I., N. Borneo.
- 178 " *culmorum* Thomas & Dollman, 1909. N. Queensland, Australia.
" " *astrinrus* Thomas, 1921. Kangaroo I., S. Australia.
" " *vallesius* Thomas, 1921. Duck Creek, New South Wales.
- 179 " *dammermanni* Thomas, 1921. Wadjo, N. Celebes.
- 180 " *datae* Meyer, 1889¹. Philippine Is.
- 181 " *diardi* (Jentink), 1879¹. W. Java.
- 182 " *doboensis* (De Beaufort), 1911. Dobo, Wammer, Aru Is.
- 183 " *dominator* Thomas, 1921. Mt. Masarang, N. Celebes.
" " *camurus* Miller & Hollister, 1921. Pinedapa, N. Celebes.
- 184 " *domitor* (Miller), 1903¹. Mansalar, Tapanuli Bay, Sumatra.
- 185 " *doriae* (Trouessart), 1897¹. New Guinea.
- 186 " *enganus* (Miller), 1906. Engano I., S.W. of Sumatra.
- 187 " *ephippium* (Jentink), 1880¹. Sumatra; Labuan I.; Borneo.
" " *negrinus* Thomas, 1898¹. Mt. Data, Luzon, P. I.
- 188 " *everetti* (Gunther), 1879¹. Luzon I.
- 189 " *exulans* Peale, 1848¹. Australia; New Guinea.
- 190 " *faberi* (Jentink), 1883¹. Celebes.
- 191 " *facetus* Miller & Hollister, 1921. Goenoeng Lehio, M. Celebes.
- 191a " *feliceus* Thomas, 1920. Mt. Manusela.
- 192 " *ferculinus* (Thomas), 1902. Barrow I., N.W. Australia.
- 193 " *fieldi* (Waite), 1896¹. Alice Spring, Australia.
- 194 " *firmus* (Miller), 1902¹. Pulo Linga, Tapanuli Bay, Great Karimon Is.
- 195 " *flavidulus* (Miller), 1900¹. Pulo Lankawi.
- 196 " *flaviventer* (Miller), 1900¹. Anamba Is.
- 197 " *flebilis* (Miller), 1902¹. Henry Lawrence R., Andaman Is.
- 198 " *fraternus* (Robinson & Kloss), 1916. Pulo Sungkei Kumbang, Sumatra.

Muridae (cont'd)

- 199 *Rattus forresti* (Thomas), 1906. Alexandria, S. Australia.
 200 " *fremens* (Miller), 1902¹. Sinkep I., E. of Sumatra; Linga I.
 " " *mansalaris* Lyon, 1916. Pulo Mansalar, W. of Sumatra.
 " " *tuancus* Lyon, 1916. Pulo Tuangku, Banjak Is.
 201 " *fuscipes* (Waterhouse), 1840¹. Tasmania, S. of Australia.
 202 " *fratorum* (Thomas), 1896¹. Rurukan, Celebes.
 203 " *fulmineus* (Miller), 1913. St. Barbe I., S. China Sea.
 204 " *gala* (Miller), 1910. Alag R., Mindoro, P. I.
 205 " *gestri* (Thomas), 1897¹. New Guinea.
 206 " *glauerti* Thomas, 1926. E. Wallany I.; W. Australia.
 207 " *goliath* (A. Milne-Edwards), 1900. New Guinea.
 208 " *gouldi* (Waterhouse), 1839¹. C. Australia.
 209 " *greyi* (Gray), 1841¹. Queensland, New South Wales, Australia.
 210 " *griseiventris* (Bonhote), 1903¹. Malacca.
 211 " *griseo-caeruleus* (Higgins & Pettard), 1883¹. Tamar, Tasmania.
 212 " *hellwaldi* (Jentink), 1878¹. Menado, Celebes.
 " " *cereus* Miller & Hollister, 1921. Toli Toli, N.W. Celebes.
 " " *localis* Miller & Hollister, 1921. Laboea Sore, Celebes.
 213 " *higginsi* (Trouessart), 1904¹. Tasmania.
 214 " *hoffmani* Trouessart, 1904¹. Celebes.
 " " *hinduensis* Miller & Hollister, 1921. Tomado; Lake Lindoe.
 " " *subditivus* Miller & Hollister, 1921. M. Celebes; Toware.
 215 " *hamatus* Miller & Hollister, 1921. Goenoeng Lehio, M. Celebes.
 216 " *hylomyoides* (Robinson & Kloss), 1916. Sungai Kring, Korinchi, Sumatra.
 217 " *imperator* (Thomas), 1888¹. Solomon Is.
 218 " *inas* (Bonhote), 1906. Gunong Inas, Perak, Malay Peninsula.
 219 " *inflatus* (Robinson & Kloss), 1916. Sungai Kumbang, Korinchi, Sumatra.
 220 " *infracruteus* (Thomas), 1888¹. Mt. Kina Balu, N. Borneo.
 221 " *integer* (Miller), 1901¹. Sirhassen; Lingung; Natuna Is.
 222 " *jarak* (Bonhote), 1905. Pulo Jarak, Strs. of Malacca.
 223 " *jerdoni* (Blyth). 1863. Java; Borneo; Mt. Dulit, Kina Balu.
 " " *pan* (Robinson & Kloss), 1914. Koh Samui, N.E. Malay Peninsula.
 224 " *jalorensis* (Bonhote), 1903¹. Malacca.
 225 " *julianus* (Miller), 1903. St. Julian I., S. China Sea.
 226 " *kellери* (Mearns), 1905. Davao, Mindanao, Philippine Is.
 227 " *klossi* (Bonhote), 1906. Mt. Pulai, S. Johore.
 228 " *korinchi* (Robinson & Kloss), 1916. Sungai Kring, Korinchi Peak, W. Sumatra.
 229 " *lancavensis* (Miller), 1900¹. Pulo Lankawi, W. of Malacca.
 230 " *lepturus* (Jentink), 1879¹. Java.

Muridae (cont'd)

- 231 *Rattus leucophaetus* (Hollister), 1912. Catanduanes, Philippine Is.
 232 " *lineolatus* (Gould), 1855¹. Darling-Downs, Australia.
 233 " *lingensis* (Miller), 1900¹. Pulo Linga, Sumatra; Great Karimun Is.
 " " *antucus* Lyon, 1916. Pulo Tuangku, Banjak Is.
 " " *banacus* Lyon, 1916. Pulo Banakar, Banjak Is.
 " " *mabalus* Lyon, 1916. Tana Masa, Batu Is.
 " " *pinacus* Lyon, 1916. Pulo Pinie, Batu Is.
 234 " *lugens* (Miller), 1903. N. Pagi Is.; Sumatra.
 235 " *luta* (Miller), 1913. Pulo Laut, S.E. Borneo.
 236 " *luteiventer* (Allen), 1910. Palawan, Philippine Is.
 237 " *luzonicus* (Thomas), 1898¹. Luzon, P. I.
 238 " *macleari* (Thomas), 1887¹. Christmas I., S. of Java.
 239 " *maerens* (Miller), 1911. Mojei R., Nias I., W. of Sumatra.
 240 " *manicatus* (Gould), 1855¹. Port Essington, N. Australia.
 240a " *manusela* Thomas, 1920. Mt. Manusela, Ceram I.
 241 " *magnirostris* (Mearns), 1905. Zamboanga, Mindanao, P. I.
 242 " *mandus* (Lyon), 1908. Sungai Mandau, E. Sumatra.
 243 " *mara* (Miller), 1913. Moearatua I., Dutch S.E. Borneo.
 244 " *margarettae* (Thomas), 1893¹. Sarawak, Borneo.
 " " *pusillus* (Thomas), 1893¹. Mt. Kina Balu, N. Borneo.
 245 " *maramosurus* Thomas, 1921. Mt. Masarang, Minahassa, N. Celebes.
 246 " *masae* (Miller), 1903. Tana Masa, Batu Is.
 247 " *mayonicus* Hollister, 1903. Mt. Mayon, Albay Province, Luzon, P. I.
 248 " *melanogaster* Cabrera, 1920. Bongon, N. Celebes.
 249 " *melvilleus* Thomas, 1921. Biro Apsely Straits, Melville, Australia.
 250 " *mengurus* (Miller), 1911. Billiton I., W. of Borneo.
 251 " *metada* (Gray), 1837¹. Malacca.
 252 " *minahassae* (Thomas), 1896¹. N. Celebes.
 253 " *mindorensis* Thomas, 1898¹. Mindoro, P. I.
 254 " *meyeri* (Jentink), 1878¹. Menado, N. Celebes.
 255 " *mollicomus* Miller & Hollister, 1921. N.E. Celebes.
 256 " *mollipilosus* (Peters & Doria), 1881¹. Katan, New Guinea.
 257 " *mondrainus* Thomas, 1921. Mondrain I., W. Australia.
 258 " *mordax* (Thomas), 1904. British New Guinea.
 " " *tramitius* Thomas, 1922. Doormanpad-bivak, N. New Guinea.
 259 " *muelleri* (Jentink), 1879¹. Sumatra.
 " " *campus* (Robinson & Kloss), 1916. W. Sumatra.
 " " *foederis* (Robinson & Kloss), 1911. Upper Perak, Malay States.
 260 " *murrayi* Thomas, 1923. Pearson's Isles, S. Australia.
 261 " *musschenbroekii* Jentink, 1878¹. Menado, Celebes.
 " " *tetricus* Miller & Hollister, 1921. Gimpo, M. Celebes.
 262 " *nanus* (Gould), 1855¹. W. & C.E. Australia.

Muridae (cont'd)

- 263 *Rattus nasutus* (Lyon), 1911. Pulo Paneongan, W. Coast of Borneo.
- 264 " *neglectus* (Jentink), 1879¹. Mt. Kina Balu, N. Borneo.
- " " *ducis* Lyon, 1911. Pulo Datu, W. Coast of Borneo.
- " " *lamucotanus* Lyon, 1911. Pulo Lamukotan, W. Coast Borneo.
- 265 " *nativitatis* (Thomas), 1888¹. Christmas I.
- 266 " *nigellus* Miller & Hollister, 1921. N. Middle Celebes.
- 267 " *noobe* (Thomas), 1906. S.E. British New Guinea.
- 268 " *obscurus* (Miller), 1900¹. Pulo Siantan, Tioman I.
- 269 " *ochraceiventer* (Thomas), 1894¹. Mt. Kina Balu, N. Borneo.
- 270 " *ornatus* (Hollister), 1913. Cagayancillo, Cagayan I., P. I.
- 271 " *pachyurus* (Higgins & Pettard), 1883¹. Long's Plains, Tasmania.
- 272 " *pagensis* (Miller), 1903. S. Pagi I., Sumatra.
- 273 " *paleiae* Miller & Hollister, 1921. Pulo Paleleh, N. Coast Celebes.
- 274 " *palmarum* (Zelebor), 1868¹. Nicobar I.
- 275 " *panglima* Robinson, 1921. Palawan, P. I.
- 276 " *pannellus* (Miller), 1913. Pulo Rawi, Butan I.
- 277 " *pannosus* (Miller), 1900¹. Butang I.; Pulo Adang.
- 278 " *pantarensis* (Mearns), 1905. Panta, Mindanao, P. I.
- 279 " *patrius* Thomas & Dollman, 1909. Inkerman, N. Queensland, Australia.
- 280 " *penitus* Miller & Hollister, 1921. Goenoeng Lehio, M. Celebes.
- 281 " *perflavus* (Lyon), 1911. Pulo Laut, S.E. Coast of Borneo.
- 282 " *pesticulus* Thomas, 1921. Menado, Celebes.
- 283 " *pettardi* (Trouessart), 1904¹. Tasmania, S. of Australia.
- 284 " *pinatus* Lyon, 1916. Pulo Pinie, Batu Is.
- 285 " *pollens* (Miller), 1913. Tanjung Rengsam, Banka I., W. of Borneo.
- 286 " *potens* (Miller), 1913. Pulo Tuangku, Banjak Is.
- 287 " *punicans* Miller & Hollister, 1921. Pinedapa, M. Celebes.
- 288 " *praetor* (Thomas), 1888¹. Solomon Is.
- 289 " *pulliventer* (Miller), 1902. Nicobar Major I.
- 290 " *querceti* (Hollister), 1911. Haights-in-the-Oaks, Luzon, P. I.
- 291 " *rajah* (Thomas), 1894¹. Sarawak, Labuan, Borneo; Natuna Is.
- " " *hidongis* Kloss, 1921. Sirhassen; S. Natunas Is.
- 292 " *rapit* Bonhote, 1903¹. Mt. Kina Balu, N. Borneo.
- 293 " *rallus* Miller & Hollister, 1921. Gimpoe, M. Celebes.
- 294 " *ratticolor* (Jentink), 1908. Dutch S. New Guinea.
- 295 " *rattus alexandrinus* I. Geoffroy, 1812¹. Australia.
- " " *argentiventer* (Robinson & Kloss), 1916. W. Sumatra.
- " " *bali* Kloss, 1921. Bali I.
- " " *banguei* Chasen & Kloss, 1931. Bettutan, N. Borneo.
- " " *batin* Robinson, 1916. Mentigi, Pulo Manpar, Rhio Archipelago.
- " " *celebensis* (Hoffman), 1887. Celebes.
- " " *mentawi* Chasen & Kloss, 1928. Sipora I., W. Sumatra.
- " " *pauper* (Miller), 1913. Sirhassen I., S. Natuna Group.
- " " *rattus* (Miller), 1906. Karimon I.

Muridae (cont'd)

- 295 *Rattus rattus rhionis* (Thomas & Wroughton), 1909. Bitang I., Rhio Archipelago.
- “ “ *rimpia* (Robinson & Kloss), 1911. Pulo Rampia, W. Coast Malay Peninsula.
- “ “ *turbidus* (Miller), 1913. Tanggarung, S.E. Borneo.
- “ “ *violana* (Miller), 1913. Pulo Lankawi, W. Coast Malay Peninsula.
- “ “ ? ? Wettar I.
- 296 “ *ravensi* Miller & Hollister, 1921. Toli Toli, N. Celebes.
- “ “ *eurous* Miller & Hollister, 1921. M. Celebes.
- 297 “ *ravus* (Robinson & Kloss), 1916. Sungai Kimbang, Korinchi, W. Sumatra.
- 298 “ *remotus* (Robinson & Kloss), 1914. Koh Samui, N.E. Malay Peninsula.
- 299 “ *rex* (Thomas) 1888¹. Guadalcanar, Solomon Is.
- 300 “ *ringens* (Peters & Doria), 1881¹. New Guinea.
- 301 “ *roa* (Miller), 1913. Pulo Aor, Johore, Malay Peninsula.
- 302 “ *robiginosus* (Hollister), 1913. Cagayan, P. I.
- 303 “ *rogersi* (Thomas), 1907. W. Coast Andaman I.
- 304 “ *ruber* (Jentink), 1879¹. Dorey, New Guinea.
- 305 “ *rufescens* (Gray), 1837¹. Malacca.
- 306 “ *sabanus* (Thomas), 1887¹. Sarawak, Borneo; Bunguran Is.
- “ “ *mayaapahit* Robinson & Kloss, 1916. Tjibodas, W. Java.
- 307 “ *salomonis* (Ramsay), 1882¹. Florida I., Solomon Group.
- 308 “ *saturatus* (Lyon), 1911. Pulo Panebangan, W. Coast Borneo.
- 309 “ *sebucus* (Lyon), 1911. Pulo Sebuku, S.E. Coast Borneo.
- 310 “ *sericatus* Miller & Hollister, 1921. Rano Rano, M. Celebes.
- 311 “ *setiger* Robinson & Kloss, 1916. Korinchi Peak, Sumatra.
- 312 “ *similis* Robinson & Kloss, 1916. Siolak Dras, Korinchi Valley, Sumatra.
- 313 “ *serutus* (Miller), 1906. Pulo Serutu, Karimata I.
- 314 “ *shortridgei* Thomas, 1907. W. Australia.
- 315 “ *siantanicus* (Miller), 1900. Pulo Siantan, Anambas Is.
- 316 “ *simalurensis* (Miller), 1903¹. Simalur I., W. of Sumatra.
- “ “ *babi* Lyon, 1916. Pulo Babi, W. Coast of Sumatra.
- “ “ *masiae* Lyon, 1916. Pulo Masia, W. of Sumatra.
- 317 “ *simsoni* (Higgins & Pettard), 1882¹. Tasmania, S. of Australia.
- 318 “ *siporanus* (Thomas), 1895¹. Sipora I.
- 319 “ *soccatus* (Miller), 1903. N. Pagi I., Sumatra.
- 320 “ *solus* (Miller), 1913. Pulo Teratua, W. Coast Malay Peninsula.
- 321 “ *sordidus* (Gould), 1855¹. Darling-Downs, Australia.
- 322 “ *spatulatus* (Lyon), 1911. Pulo Lamukutan, W. Coast of Borneo.
- 323 “ *stragulum* Robinson & Kloss, 1916. Sungai Kring, Korinchi, Sumatra.
- 324 “ *stridens* (Miller), 1903. Tioman I., S.E. Coast Malay Peninsula; Siantan I., Anamba Group.
- 325 “ *surdus* (Miller), 1903. Simalur I.
- 326 “ *strepitans* (Miller), 1900¹. Pulo Siantan, Anambas Is.

Muridae (cont'd)

- 327 *Rattus stoicus* (Miller), 1902¹. Andaman I.
- 328 " *surifer aoris* (Robinson), 1912. Pulo Aor, Johore, Malay Peninsula.
- " " *butangensis* (Miller), 1900¹. Pulo Adang, Butang Is.
- " " *flavidulus* (Miller), 1900. Pulo Lankawi.
- " " *flavigrandis* Kloss, 1911. E. Coast Malay Peninsula.
- " " *grangi* (Kloss), 1911. Great Redang I., E. Coast Malay Peninsula.
- " " *leonis* Robinson & Kloss, 1914. Koh Pennan, Malay Peninsula.
- " " *manicalis* (Robinson & Kloss), 1914. Changi, N.E. Singapore.
- " " *microdon* Kloss, 1908. Juara Bay, Tioman I.
- " " *pemangilis* (Robinson), 1912. Pemangil, Johore.
- " " *spurcus* (Robinson & Kloss), 1914. Koh Samui, Malay Peninsula.
- 329 " *taciturnus* (Miller), 1902¹. C. Andaman I.
- 330 " *tagulayensis* (Mearns), 1905. Mt. Apo, Mindanao, P. I.
- 331 " *tamarensis* (Higgins & Pettard), 1883¹. Tamar, Tasmania.
- 332 " *tambelanicus* (Miller), 1900¹. Big Tambelan I.
- 333 " *terrace-reginae* (Alston), 1879¹. Queensland, Australia.
- 334 " *tingius* (Miller), 1913. Pulo Tinggi, E. Coast Johore.
- 335 " *tiomanicus* (Miller), 1900¹. Malacca; Tioman I.
- 336 " *todayensis* (Mearns), 1905. Todaya, Mt. Apo, Mindanao, P. I.
- 337 " *tompsoni* (Ramsay), 1881¹. New South Wales, Australia.
- 338 " *trachynotus* Cabrera, 1920. Mt. Kina Balu, N. Borneo.
- 339 " *tua* (Miller), 1913. Moearatua, N.E. Borneo.
- 340 " *tunneyi* (Thomas), 1904. Avera, Aroa, New Guinea.
- 341 " *tyrannus* (Miller), 1910. Ticao, P. I.
- 342 " *ubecus* (Lyon), 1911. Pulo Sebuku, S.E. Coast Borneo.
- 343 " *ulalans* (Robinson & Kloss), 1916. Siolak Dras, Korinchi, Sumatra.
- 344 " *valens* (Miller), 1913. Pulo Bangkaru, Banjak Is.
- 345 " *validus terempa* Chasen & Kloss, 1928. Siantan I.; Anambas Is.
- 346 " *variabilis* (Higgins & Pettard), 1892¹. Tasmania, S. of Australia.
- 347 " *vellerosus* (Gray), 1847¹. Murray, Australia.
- 348 " *velutinus* (Thomas), 1882¹. Tasmania; Australia.
- 349 " *verecundus* (Thomas), 1904. Avera, Aroa, New Guinea.
- 350 " *victor* (Miller), 1913. Rumpin R., Pahang.
- 351 " *vigoratus* (Hollister), 1913. Mt. Halcon, Mindoro, P. I.
- 352 " *villossissimus* Waite, 1898¹. Victoria R., C. Australia.
 " " *profusus* (Thomas), 1921. Liverpool Plains, New South Wales.
- 353 " *villosus* (Kloss), 1908. Botanical Gardens, Singapore; Malacca.
- 354 " *virtus* Lyon, 1916. Siak R., E. Sumatra.
- 355 " *vociferans* (Miller), 1900¹. Tioman I.
 " " *lancavensis* (Miller), 1900. Pulo Lankawi.

Muridae (cont'd)

- 355 *Rattus vociferans tersus* (Thomas & Wroughton), 1909. Teratua I.; Malacca.
 " " *tapanuliensis* Lyon, 1916. Tapanuli Bay, W. of Sumatra.
- 356 " *vulcani* (Mearns), 1905. Mt. Apo, Mindanao, P. I.
 " " *apicis* (Mearns), 1905. Mt. Apo, Mindanao, P. I.
- 357 " *wichmanni* (Jentink), 1900¹. Flores I.
- 358 " *whiteheadi* (Thomas), 1900¹. Mt. Kina Balu, Borneo; Malacca.
 " " *perlatus* Thomas, 1921. Balingean, N.C. Sarawak, Borneo.
- 359 " *woodwardi* (Thomas), 1908. Larange Bay, N.W. Australia.
- 360 " *xanthurus* (Gray), 1867¹. Tondanao, Celebes.
 " " *orientalis* (Revilliod), 1911. S.E. Celebes.
- 361 " *zamboanga* (Mearns), 1905. Zamboanga, Mindanao, Philippines.
- 364 *Rhynchomys soricoides* Thomas, 1895¹. M. Luzon, P. I.
- 365 *Stenomys arrogans* Thomas, 1922. Doormanpad-bivak, N. New Guinea.
- 366 " *ceramicus* Thomas, 1920. Mt. Manusela, Ceram.
- 367 " *klossi* Thomas, 1918. Upper Utakwa R., New Guinea.
- 368 " *rufulus* Thomas, 1922. Saruwaged Mts., N.E. New Guinea.
- 369 *Tarsomys apoensis* Mearns, 1905. Mt. Apo, Mindanao, P. I.
- 370 *Tryphomys adustus* Miller, 1910. Haights-in-the-Oaks, Benguet, Luzon, P. I.
- 371 *Uromys aerosus* Thomas, 1920. Mt. Manusela, Ceram I.
- 372 " *anak* Thomas, 1907. Ifogi, N.E. New Guinea.
- 373 " *arcium* Thomas, 1913. Rossel I., D'Entracasteaux Group.
- 374 " *aruensis* Gray, 1873¹. Aru I.; Kei I.
- 375 " *banfieldi* De Vis, 1907. Dunk I., N. Australia.
- 376 " *bruijnii* Peters & Doria, 1876¹. Fly R., Salawatti I.; Youle I.
- 377 " *caurinus* Thomas, 1921. Telaud I.
- 378 " *cervinipes* (Gould), 1851¹. E. Australia.
- 379 " *ductor* Thomas, 1913. Avera, Aroa, New Guinea.
- 380 " *fraterculus* Thomas, 1920. Mt. Manusela, Ceram.
- 381 " *fulgens* Thomas, 1920. Toeleti Bay, Ceram I.
- 382 " *gracilis* Thomas, 1906. Owagarra, S.E. New Guinea.
- 383 " *levipes* Thomas, 1893¹. E. New Guinea.
- 384 " *lutillus* Thomas, 1913. S.E. New Guinea.
- 385 " *litoralis* Lönnberg & Mjöberg, 1916. Russel R., N. Queensland.
- 386 " *macropus* (Gray), 1866¹. Queensland, N. Queensland.
 " " *exilis* Troughton & LeSouef, 1929. Queensland, Australia.
- 387 " *meliceus* Thomas, 1913. Biro, Apsley Straits, Australia.
- 388 " *mollis* Thomas, 1913. Mt. Carstenz, Chas. Louis Mts., New Guinea.
- 389 " *moncktoni* Thomas, 1904. Port Nelson, New Guinea.
- 390 " *murinus* Thomas, 1913. Murray I., Torres Straits.
- 391 " *muscalis* Thomas, 1913. Lower Fly R., New Guinea.
- 392 " *naso* Thomas, 1911. New Guinea.
- 393 " *nero* Thomas, 1911. Utakwa R., New Guinea.

Muridae (cont'd)

- 394 *Uromys obiensis* Thomas, 1911. Jobi I.
 395 " *papuanus* Meyer, 1875¹. New Guinea.
 396 " *platyops* Thomas, 1906. Aroa R., S.E. New Guinea.
 397 " *porculus* Thomas, 1904. Aola, Guadalcanar, Solomon Is.
 398 " *proxilis* Thomas, 1913. Haveri, New Guinea.
 399 " *rothschildi* Thomas, 1912. Rawlinson Mts., S.E. New Guinea.
 400 " *rufescens* Alston, 1877¹. Duke of York I., Mt. Arfak, N.W.
 New Guinea.
 401 " *sapiensis* Thomas, 1902. Isabel I.; Solomon I.
 402 " *scaphax* Thomas, 1913. Canoe Camp, Dutch New Guinea.
 403 " *sherrini* Thomas, 1923. Gunang Daab, Kei Is.
 404 " *siebersi* Thomas, 1923. Ravenshoe, Queensland, Australia.
 405 " *stalkeri* Thomas, 1904. Gira R., New Guinea.
 " *callidior* Thomas, 1911. New Guinea.
 406 " *talaudium* Thomas, 1921. Liroening, Talaud I.; Mindanao,
 P. I.
 407 " *validus* Peters & Doria, 1881¹. E. New Guinea.
 408 *Xeromys myoides* Thomas, 1889¹. N. Luzon, P. I.

Spalacidae

- 001 *Rhizomys sumatrensis* (Raffles), 1822. Sumatra.
 002 " *umbriceps* Thomas, 1916. Bukit Gantang; Laraut; Perak.

Hystricidae

- 01 *Atherurus macroura* (Linnaeus), 1766¹. Jalon; Malacca.
 " *pemangilis* Robinson, 1912. Pulo Pemangil, Johore.
 02 " *terataus* Lyon, 1907. Pulo Teratua.
 03 " *tionis* Thomas, 1908. Juara Bay, Tioman I.
 04 " *zygomatica* Miller, 1903. Pulo Aor, Coast of Johore.
 05 *Hystrix crassipinoris* Gunther, 1876¹. Borneo.
 06 " *longicauda* Marsden, 1810¹. Sumatra; Jalon; Bisera, Sumatra.
 07 " *javanica* (F. Cuvier), 1822¹. Java.
 08 " *muelleri* Jentink, 1879¹. Padang, Sumatra; Borneo.
 09 " *pumila* Gunther, 1879¹. Paragua, P. I.
 10 *Thecurus sumatrae* Lyon, 1907. Aru Bay, E. Coast Sumatra.
 11 *Trichys fasciculata* (Shaw), 1801¹. Borneo.
 12 " *macrotis* Miller, 1903. Tapanuli Bay, W. Coast Sumatra.

CARNIVORA**Fissipedia****Canidae**

- 001 *Canis dingo* Blumenb., 1780¹. Australia.
 002 " *dingoides* Matschie, 1915. S. Queensland, Australia.
 003 " *mackenensis* Matschie, 1915. N.W. Australia.
 004 " *familiaris sumatrana* Studer, 1901¹. Sumatra.

Canidae (cont'd)

- 004 *Canis familiaris tenggerana* (Kohlbrugge), Studer, 1901. Java.
 005 *Cuon javanicus* (Desmarest), 1820¹. Malacca; Sumatra; Java; Borneo.
 006 *Mececyon trinilensis* Stremme, 1911. Pleistocene; Java.

Ursidae

- 007 *Helarctos malayanus* (Raffles), 1822¹. Malacca; Sumatra; Java; Borneo.

Mustelidae

- 008 *Aonyx cinerea* Hollister, 1912. Palawan, P. I.; Karimon I.; Borneo.
 009 *Arctonyx collaris* F. Cuvier, 1825¹. Sitang, C. Borneo.
 010 " *dicator* Thomas, 1910. Malay Peninsula.
 011 *Helictis everetti* Thomas, 1895¹. Mt. Kina Balu, N. Borneo.
 012 " *orientalis* (Horsfield), 1824¹. Java.
 013 *Ictis nudipes* (Desmarest), 1823¹. Java; Sumatra; Borneo; Malacca; Palawan; Calamianes; Sulu I.
 014 *Lutra barang* F. Cuvier, 1823¹. Malacca; Sumatra.
 015 " *brunnea* Pohle, 1920. Pontianak, W. Borneo.
 016 " *cinerea* Illiger, 1811¹. Malacca; Sumatra; Java; Borneo.
 017 " *intermedia* Pohle, 1920. Sumatra.
 018 " *palaeoleptonyx* Dubois, 1908. Trinil, Java.
 019 " *sumatrana* (Gray), 1865¹. Malacca; Sumatra; Borneo.
 020 *Martes flavigula* (Boddaert), 1785¹. Malacca; Sumatra; Borneo.
 " " *saba* Chasen & Kloss, 1931. Bettotan, N. Borneo.
 021 " *henricii* Westerman, 1849¹. Java; Sumatra.
 " " *leucotis* (Temminck), 1827¹. Java; Sumatra; Borneo; Palawan; Natuna Is.; Balabac; Sulu; Se-buku; Calamianes Is.
 022 *Mustela lutreolina* Robinson & Thomas, 1917. W. Java.
 023 " *nudipes leucophalus* Chasen & Kloss, 1931. N. Borneo; Sumatra.
 024 " *peninsularis* Bonhote, 1901¹. Malacca.
 025 *Mydanus javensis* (Desmarest), 1820¹. Java; Sumatra.
 " " *montanus* Moulton, 1921. Sarawak, N. Borneo.
 026 " *lucifer* Thomas, 1902. N. Borneo.
 027 " *luciferooides* Lönnberg & Mjöberg, 1925. Borneo.
 028 " *marchei* Huet, 1887¹. Palawan, Calamianes, P. I.
 029 " *meliceps* F. Cuvier, 1821¹. Java; Sumatra; S. Malacca.
 030 " *ollula* Thomas, 1902¹. Great Natuna Is.
 031 " *schadenbergi* Jentink, 1895¹. Calamianes, P. I.

Viverridae

- 032 *Arctictis binturong* (Raffles), 1822¹. Malacca; Java; Sumatra, Borneo.
 033 " *niasensis* Lyon, 1916. Nias I., W. Coast Sumatra.
 034 " *pgeli* Schwarz, 1911. Sandakan, N. Borneo.
 035 " *whitei* Allen, 1910. Palawan, P. I.
 036 *Arctogale leucotis* Horsfield, 1851¹. Malacca; Sumatra; Borneo.

Viverridae (cont'd)

- 037 *Arctogale trivirgata* (Gray), 1832¹. Java.
- 038 *Arctogalidia bancana* Schwarz, 1913. Banka I.
- 039 " **bicolor** Miller, 1913. S.E. Borneo.
- 040 " **depressa** Miller, 1913. Rhio Archipelago.
- 041 " **inornata** Miller, 1901. N. Natuna Is.
- 042 " **mima** Miller, 1913. Batam, Rhio Archipelago.
- 043 " **minor** Lyon, 1906. Billiton I.
- 044 " **simplex** Miller, 1902. Linga I.; Sinkep I.; Batam I.
- 045 " **stigmatica** (Temminck), 1853¹. S. Borneo.
- 046 " **sumatrana** Lyon, 1908. E. Sumatra.
- 047 " **tingia** Lyon, 1908. E. Coast Sumatra.
- 048 *Cynogale bennetti* Gray, 1836¹. Malacca; Sumatra; Borneo.
- 049 *Hemigalus derbianus boiei* Chasen & Kloss, 1931. N. Borneo.
- " " **sipora** (Chasen & Kloss), 1928. Sipora I.
- 050 " **hardwickei** (Gray), 1830¹. Malacca, Sumatra; Borneo.
- 051 " **hosei** Thomas, 1892¹. Mt. Kina Balu, Mt. Dulit, N. Borneo.
- 052 " **minor** Miller, 1903. S. Pagi I.
- 053 *Herpestes auropunctatus birmanicus* Thomas, 1886¹. Malacca.
- 054 " **brachyurus** Gray, 1837¹. Malacca; Sumatra; Borneo; Palawan, Calamianes, Philippine Is.
- " " **dyacorum** Thomas, 1921. E. Sarawak, Borneo.
- " " **sumatrius** Thomas, 1921. Deli, Sumatra.
- 055 " **griseus malaccensis** (F. Cuvier), 1819¹. Malacca.
- 056 " **hosei** Jentink, 1901. Borneo.
- 057 " **javanicus** (E. Geoffroy), 1812¹. Java; Sumatra; Pinang; Malacca.
- 058 " **semitorquatus** Gray, 1846¹. Borneo; Sumatra.
- 059 *Linsang gracilis* (Desmarest), 1820¹. Java; Borneo; Sumatra.
- 060 " **maculosa** (Blanford), 1812¹. Java; Borneo; Sumatra.
- 061 *Mungos brachyurus rajah* Chasen & Kloss, 1931. Borneo.
- 062 " **palawanus** Allen, 1910. Palawan, P. I.
- 063 " **parvus** (Jentink), 1895. Calamianes I.
- 064 " **semitorquatus uniformis** Robinson & Kloss, 1910. W. Sumatra.
- " " **semitorquatus** Chasen & Kloss, 1931. Borneo.
- 065 *Paradoxurus canescens* Lyon, 1906. Billiton I.
- 066 " **celebensis** Schwarz, 1911. S.E. Celebes.
- 067 " **grayi** Bennett, 1835¹. Andaman I.
- 068 " **hermaphroditus** (Schreb.), 1778¹. Malacca; Sumatra; Java; Borneo; Ceram; Saleyer I.
- " " **eganus** Lyon, 1916. Egano, S.W. of Sumatra.
- " " **hanieli** Schwarz, 1912. Timor I.
- " " **lehmanni** Mertens, 1921. Sumbawa I.
- " " **milleri** Kloss, 1908. Tioman I.
- " " **siberu** Chasen & Kloss, 1928. Siberut I.; Sumatra.
- " " **simplex** Miller, 1913. Banka I.; Borneo.
- " " ?? Wettar I.
- 069 " **kangeanus** Thomas, 1910. Kangean I., E.N.E. of Java.

Viverridae (cont'd)

- 070 *Paradoxurus leucomystax* Gray, 1836¹. Malacca; Sumatra; Java; Borneo.
 " "*refulgens* Rosenberg, 1867¹. Aru Is.
 071 " "*lignicolor* Miller, 1903. Sumatra.
 072 " "*macrodus* Gray, 1864¹. Malacca.
 073 " "*minax* Thomas, 1909. S. Minadanoa, P. I.
 074 " "*minor* Bonhote, 1903. Celebes.
 075 " "*minax* Thomas, 1909. Mindanao, P. I.
 076 " "*musschenbroecki* Schlegel, 1879¹. Menado, Gorontalo, Celebes.
 077 " "*padongus* Lyon, 1908. E. Coast Sumatra.
 078 " "*parvus* Miller, 1913. Simalur I.
 079 " "*philippinensis* Jourdan, 1837¹. Borneo; Palawan, P. I.
 " "*baritensis* Lönnberg, 1924. Borneo.
 080 " "*sabanus* Thomas, 1909. N. Borneo.
 081 " "*sumbanus* Schwarz, 1910. Sumba I.
 082 " "*torvus* Thomas, 1909. Tawi Tawi Group.
 083 " "*tytleri* Tytler, 1864¹. Andaman I.
 084 *Viverra megaspila* Blyth, 1862. Malacca, Sumatra.
 085 " "*tangalunga* Gray, 1832¹. Malacca; Sumatra; Borneo; Celebes; Amboina, Philippine Is.; Bintang I.; Lingga Is.
 " "*lancavensis* Robinson & Kloss, 1920. Langkawa I.
 086 " "*zibetha* Linnaeus, 1766¹. Malacca.
 087 *Viverricula malaccensis* Gmel., 1788¹. Malacca; Java.
 088 " "*rasse* Horsfield, 1821¹. Java.

Hyaenidae

- 089 *Hyaena bathynathia* Dubois, 1908. Pleistocene, Trinil, Java.

Felidae

- 090 *Felis badia* Gray, 1874¹. Sarawak, N. Borneo.
 091 " "*bengalensis* Kerr, 1792¹. Malacca; Borneo.
 " "*javensis* Desmarest, 1820¹. Java.
 " "*minuta* Temminck, 1827¹. Malacca; Philippine Is.
 " "*sumatrana* Horsfield, 1824¹. Sumatra.
 " "*undata* Desmarest, 1820¹. Java.
 092 " "*catus* Linnaeus, 1758. Luzon, P. I.
 093 " "*chaus affinis* Gray, 1832¹. Malacca; Andaman I.
 094 " "*delinis* Hilzheimer, 1906. Sumatra.
 095 " "*marmorata* Martin, 1836¹. Malacca; Sumatra; Java; Borneo.
 096 " "*megalotis* Miller, 1893¹. Timor I.
 097 " "*microgale* Dubois, 1908. Java.
 098 " "*minuta* Temminck, 1827¹. Java.
 099 " "*nebulosa* Griffith, 1821¹. Malacca; Sumatra; Sarawak, Mt. Dulit, Borneo; Java.
 100 " "*oxygnatha* Dubois, 1908. Java.

Felidae (cont'd)

- 101 *Felis palaeojavanica* Stremme, 1911. Pleistocene; Java.
 102 " *pardus variegatus* Wagner, 1841¹. Java; Sumatra.
 103 " *planiceps* Vigors & Horsfield, 1828¹. Malacca; Sumatra; Sarawak, Mt. Dulit, N. Borneo.
 104 " *temmincki* Vigors & Horsfield, 1828¹. Malacca; Sumatra; Borneo.
 105 " *tigris balica* Pocock, 1930. Bali I.
 " " *sondaica* Pocock, 1930. Java.
 " " *sumatrae* Pocock, 1930. Deli, Sumatra.
 " " *tigris* Pocock, 1930. Malacca.
 106 " *tingia* Lyon, 1908. W. Coast Sumatra.
 107 " *trinilensis* Dubois, 1908. Trinil, Java.

PROBOSCIDEA**Elephantidae**

- 01 *Elephas hysudricus* Dubois, 1908. Java.
 02 " *antiquus* (Stremme), 1911. Pleistocene; Java.
 03 " *indicus* (Linnaeus), 1754¹. Borneo.
 " " *sumatranus* Temminck, 1847¹. Sumatra.
 04 " *maximus hirsutus* Lydekker, 1914. Malay Peninsula.
 05 *Mastodon latidens* Clift, 1829¹. Pliocene; Java; Borneo.
 " " *sp.*, Martin, 1888¹. Pliocene; Java.
 06 *Stegodon airawana* Martin, 1890¹. Pliocene; Java.
 07 " *bombifrons* Falconer & Cautley, 1846¹. Pliocene; Java.
 08 " *ganesa javanica* Dubois, 1908. Pleistocene; Java.
 09 " *insignis* Falconer & Cautley, 1846¹. Pliocene; Java.
 " " *sp.*, Neumann, 1887¹. Pliocene; Banka; P. I.
 10 " *mindanensis* Neumann, 1890¹. Pliocene; P. I.
 11 " *trigoncephalus* Martin, 1887¹. Pliocene; Java; Mindanao, P. I.

PERISSODACTYLA**Tapiridae**

- 001 *Tapirus indicus* F. Cuvier, 1798¹. Malacca; Sumatra.
 " " *brevitanus* Kuiper, 1926. Palembang, S.E. Sumatra.
 " " *foss.*, Dubois, 1891¹. Pleistocene; Java; Sumatra.
 002 " *pandanicus* Dubois, 1908. Java.

Rhinocerotidae

- 003 *Rhinoceros kendengendicus* Dubois, 1908. Java.
 004 " *sivasondaicus* Dubois, 1908. Java.
 005 " *sondaicus* Desmarest, 1822¹. Malacca; Java; Sumatra; Borneo.
 006 " *sumatrensis* Cuvier, 1817¹. Malacca; Sumatra; Borneo.

ARTIODACTYLA

Bunodonta

Suidae

- 001 *Babirussa babyrussa* (Linnaeus), 1766¹. Buru I.
 " " *frostii* Thomas, 1920. Taliaboe I.
- 002 " *celebensis* Deninger, 1910. Celebes.
- 003 *Sus andamanensis* Blyth, 1858¹. Andaman I.; Nicobar I.
- 004 " *andersoni* Thomas & Wroughton, 1909. Batam I., Rhio Archipelago.
- 005 " *babi* Miller, 1906. W. Sumatra.
 " " *eganus* Lyon, 1916. Egano I., W. of Sumatra.
 " " *tuancus* Lyon, 1916. Pulo Tuangku, W. of Sumatra.
- 006 " *barbatus* Müller, 1839¹. Borneo; Sumatra; Pulo Laut, S.E. Borneo.
 " " *ahaenobarbus* Huet, 1888¹. Palawan I., Philippine Is.
 " " *calamianensis* Heude, 1894¹. Calamianes Is.
- 007 " *brachygynathus* Dubois, 1908. Java.
- 008 " *brantu* Kloss, 1921. E. Sumatra.
- 009 " *celebensis* Müller & Schlegel, 1842¹. Menado, Gorontalo, Macassar, Celebes.
 " " *mindanensis* Major, 1897¹. Mindanao, P. I.
 " " *amboinensis* Major, 1897¹. Amboina Is.
 " " *borneensis* Major, 1897¹. Borneo.
 " " *ceramicus* Gray, 1868¹. Ceram I.
 " " *philippinensis* Nehring, 1886¹. Luzon; Cebu Is.
- 010 " *cristatus* Wagner, 1839¹. Singapore; Pinang; Lanedy I.
- 011 " *floresianus* Jentink, 1905. Flores Is.
- 012 " *gargantua* Miller, 1906. S.E. Borneo.
- 013 " *jubatus* Miller, 1906. Pulo Teratua, Malay Peninsula.
- 014 " *longirostris* Nehring, 1885¹. Borneo; Java.
- 015 " *macassaricus* Heude, 1899. Macassar, Celebes.
- 016 " *macrognathus* Dubois, 1908. Java.
- 017 " *maritanus* Heude, 1899. Macassar, S. Celebes.
- 018 " *milleri* Jentink, 1906. Java.
- 019 " *mimus* Miller, 1906. Simalur I., W. of Sumatra.
- 020 " *minutus* Heude, 1894¹. Mindanao, P. I.
- 021 " *natuensis* Miller, 1901. Pulo Laut, Natuna Is.
- 022 " *nehringii* Jentink, 1905. S. Celebes.
- 023 " *niasensis* Miller, 1906. Nias I., W. of Sumatra.
- 024 " *nicobaricus* Miller, 1902. Great Nicobar I.; Nicobars.
- 025 " *niger* Finsch, 1886¹. Ceram I.; New Guinea.
- 026 " *oi* Miller, 1902. Indragiri R., E. Sumatra; Kundur, Ungar Is.
- 027 " *papuensis* Lesson and Garnot, 1826¹. Aru Is.
- 028 " *peninsularis* Miller, 1906. S.W. Johore, Malay Peninsula.
- 029 " *rhionis* Miller, 1906. Pulo Ungor, Rhio Archipelago; Karimon; Linga; Sugi; Bawa; Durian; Kundur.
- 030 " *timoriensis* Müller & Schlegel, 1842¹. Rotti I.; Timor I.
- 031 " *verrucosus* Müller & Schlegel, 1842¹. Parang, Java.
 " " *foss.*, Dubois, 1891¹. Pleistocene; Java; Sumatra.

Suidae (cont'd)

- 032 *Sus vittatus* Müller & Schlegel, 1842¹. Java; Sumatra; Banka; Borneo; Flores; Bawean I.
 033 " *weberi* Jentink, 1905. Saleyer I.

Hippopotamidae

- 034 *Hippopotamus sivajavanicus* (Stremme), 1911. Pleistocene; Java.

Pecora

Tragulidae

- 035 *Tragulus affinis* Gray, 1861¹. Singapore; Malacca; Biserat; Rhaman.
 036 " *amoenus* Miller, 1903. Pulo Mansalar, Tapanuli Bay, Sumatra.
 037 " *bancanus* Lyon, 1906. Banka I.
 038 " *batuanus* Miller, 1903. Batu Is.
 039 " *billitonius* Lyon, 1906. Billiton I.
 039a " *boreanus* Miller, 1902. Borneo.
 040 " *brevipes* Miller, 1902. Banjak I.
 041 " *bunguranensis* Miller, 1903. Bunguran I.; N. Natuna Is.
 042 " *canescens terataus* Thomas & Wroughton, 1909. Teratua I., W. of Malacca.
 043 " *carimatae* Miller, 1906. Telok Pai, Karimata I.
 044 " *flavicolis* Miller, 1906. Pulo Sugi, Rhio Archipelago.
 045 " *focalinus* Miller, 1903. Java.
 046 " *formosus* Miller, 1903. Pulo Bingtang, Rhio Archipelago.
 047 " *fulvicollis* Lyon, 1908. Pulo Bangkalis, E. of Sumatra.
 048 " *fulviventer* Gray, 1836¹. Malacca.
 049 " *javanicus* (Gmel.), 1766¹. Java.
 " *banguei* Chasen & Kloss, 1931. Banguey I.
 " *borneanus* Chasen & Kloss, 1931. Pulo Laut, Sebuku, Borneo.
 050 " *jugularis* Miller, 1903. Pulo Manslar, Tapanuli Bay, Sumatra.
 051 " *kanchil* (Raffles), 1822¹. Tapanuli Bay, Sumatra.
 " *anambae* Chasen & Kloss, 1928. Anamba I.
 " *everetti* Bonhote, 1903. Bunguran I.; N. Natuna Is.
 " *hosei* Bonhote, 1903. Baram R., Sarawak, Borneo.
 " *longipes* Lyon, 1908. Little Siak R., E. Sarawak.
 " *siantanicus* Chasen & Kloss, 1929. Siantan I.; Ambas Is.
 052 " *lampensis* Miller, 1903. Pulo Lampi.
 053 " *lancavensis* Miller, 1903. Pulo Lankawi, Malay Peninsula.
 054 " *luteicollis* Lyon, 1906. Banka I.
 055 " *lutescens*, Miller, 1903. Pulo Sugi; Jan; Sugi Bawa; Rhio Archipelago.
 056 " *napu* (F. Cuvier), 1822¹. Malacca; Sumatra; Java; Banka; Borneo.
 " *nias* Lyon, 1916. Nias I., W. of Sumatra.

Tragulidae (cont'd)

- 057 *Tragulus natunae* Miller, 1903. Bunguran I., Natuna Is.
 058 " *nigricans* Brook, 1877¹. Philippine Is.
 059 " *nigricollis* Miller, 1902. Sinkep I.
 060 " *nigrocinctus* Miller, 1910. Great Karimon Is.; Sinkep; Kundur.
 061 " *pallidus* Miller, 1901. Pulo Laut; Natuna Is.
 062 " *pelandoc* H. Smith, 1827¹. Java.
 063 " *perflavus* Lyon, 1906. Batam I., W. Coast of Sumatra.
 064 " *pinius* Lyon, 1916. Pulo Pinie, Sumatra.
 065 " *pretiellus* Miller, 1906. Bakong; Sebang, Rhio Archipelago.
 " *parallelus* Miller, 1911. Rhio-Linga Archipelago.
 066 " *pretiosus* Miller, 1902. Linga I.
 067 " *ravulus* Miller, 1903. Butan I.
 068 " *ravus nergatus* Thomas, 1923. Kings I. (Not Australia).
 069 " *rubeus* Miller, 1903. Bintang I.
 070 " *rufulus* Miller, 1900. Tioman I.
 071 " *russeus* Miller, 1903. Banjak I.
 072 " *russulus* Miller, 1903. Sumatra.
 " *masae* Lyon, 1916. Sumatra.
 073 " *stanleyanus* Gray, 1836¹. Malacca; Singapore; Java; Sumatra; Natuna Is.
 074 " *sebucus* Lyon, 1911. Pulo Sebuku.
 075 " *subrufus* Miller, 1903. Sinkep I.; Linga I.
 076 " *umbrinus* Miller, 1900. Pulo Lankawi.
 077 " *virgicollis* Miller, 1903. Mt. Dulit, Sarawak; Borneo.

Cervidae

- 078 *Cervus alfredi* Sclater, 1870¹. Samar, Leyte, Philippine Is.
 079 " *aristotelis* Cuvier, 1823¹. Malacca.
 " " *equinus* Cuvier, 1825¹. Singapore; Sumatra; Borneo.
 080 " *axis* Erxleben, 1777¹. Malacca; Sumatra.
 081 " *brachyceros* (Chinois), 1899. Luzon, P. I.
 082 " *cinereus* (Chinois), 1899. Cebu, P. I.
 083 " *cutionensis* Lydekker, 1898¹. Calamianes, P. I.
 084 " *elsi* Guthrie, 1842¹. Malacca.
 085 " *hippelaphus* Cuvier, 1825¹. Java; Borneo.
 " " *moluccensis* Quoy & Gaimard, 1830¹. Moluccas Is.
 " " *timoriensis* Blainville, 1822¹. Timor I.
 086 " *kendengensis* Dubois, 1908. Java.
 087 " *kuhli* Müller & Schlegel, 1844¹. Bawean; Sumatra; Borneo.
 088 " *lepidus* Sundevall, 1844¹. Java.
 089 " *lydekkeri* Stremme, 1911. Pleistocene; Java.
 090 " *michaelinus* (Chinois), 1899. Tarlac, P. I.
 091 " *nigellus* (Hollister), 1913. Mindanao, P. I.
 092 " *nigricans* Brooke, 1877¹. Philippine Is.
 093 " *palaeomendjangan* Dubois, 1908. Java.
 094 " *philippinus* H. Smith, 1827¹. Luzon, P. I.
 095 " *steeri* Elliot, 1896¹. Basilan, P. I.
 096 " *tavistocki* Lydekker, 1898¹. Philippine Is.

Cervidae (cont'd)

- 097 *Cervus unicolor* Bechstein, 1. Malacca.
 " " *brookei* Chasen & Kloss, 1931. Bangue I.; Paulo Laut,
 Borneo.
 " " *oceanus* Chasen & Kloss, 1928. W. Sumatra.
 098 " *vidalinus* (Chinois), 1899. Tarlac, P. I.
 099 " *villemerianus* (Chinois), 1899. Tarlac, P. I.
 100 *Muntiacus bancanus* Abbott, 1906. Banka; Borneo; Sumatra.
 101 " *kendengensis* (Stremme), 1911. Pleistocene; Java.
 102 " *moschatus* (Blainville), 1816. Sumatra.
 103 " *muntjak* (Zimmerman), 1780. Pleistocene; Malacca; Su-
 matra; Java; Borneo.
 " " *montanus* Robinson & Kloss, 1918. W. Sumatra.
 " " *peninsulae* Lydekker, 1915. Rhio-Lingga Archi-
 pelago.
 " " *robinsoni* Lydekker, 1915. Malay Peninsula.
 " " *rufidus* Lyon, 1911. Pulo Mata Siri, S.E. of
 Borneo.
 104 " *pleiharicus* (Kohlbrugge), 1896¹. Borneo.

Bovidae

- 105 *Bison sivalensis* Falconer, 1868. Pleistocene; Java.
 106 *Bos banteng* Raffles, 1817. Java.
 " " *butleri* (Lydekker), 1905. Malay Peninsula.
 " " *lowi* (Lydekker), 1912. N. Borneo.
 107 " *bubalis* Linnaeus, 1757. Celebes.
 " " *hosei* (Lydekker), 1898. Borneo.
 108 " *depressicornis* (Smith), 1827. Celebes.
 " " *fergusoni* (Lydekker), 1905. Celebes.
 109 " *gaurus* (Smith), 1827. Malacca.
 " " *hubbacki* (Field), 1907. Malay Peninsula.
 110 " *mindorensis* (Heude), 1888. Mindor, P. I.
 111 " *mollendorffi* (Henring). Calamianes, P. I.
 112 " *palaeindicus* (Falconer), 1859. Java; Sumatra.
 113 " *palaeokerabau* (Dubois), 1908. Java.
 114 " *palaeosondaicus* (Dubois), 1908. Java.
 115 " *protocavifrons* (Dubois), 1908. Java.
 116 " *quarlesi* Ouwens, 1910. C. Toradja Mts., Celebes.
 117 " *santeng* Dubois, 1908. Java.
 118 *Capra jourensis* Ivrea, 1899. Kangean I., Java Sea.
 119 *Capricornis sumatrensis* robinsoni Poocock, 1908. Sumatra.
 120 *Nemorhaedus sumatrensis* (Shaw), 1800. Sumatra.
 121 " *swettenhami* (Shaw), 1800. Biserat; Malacca.

Giraffidae

- 122 *Duboisa kroesentii* (Stremme) 1911. Pleistocene; Java.
 123 *Leptobos groenveldtii* Stremme, 1911. Pleistocene; Java.
 124 " *dependicornis* Stremme, 1911. Pleistocene; Java.

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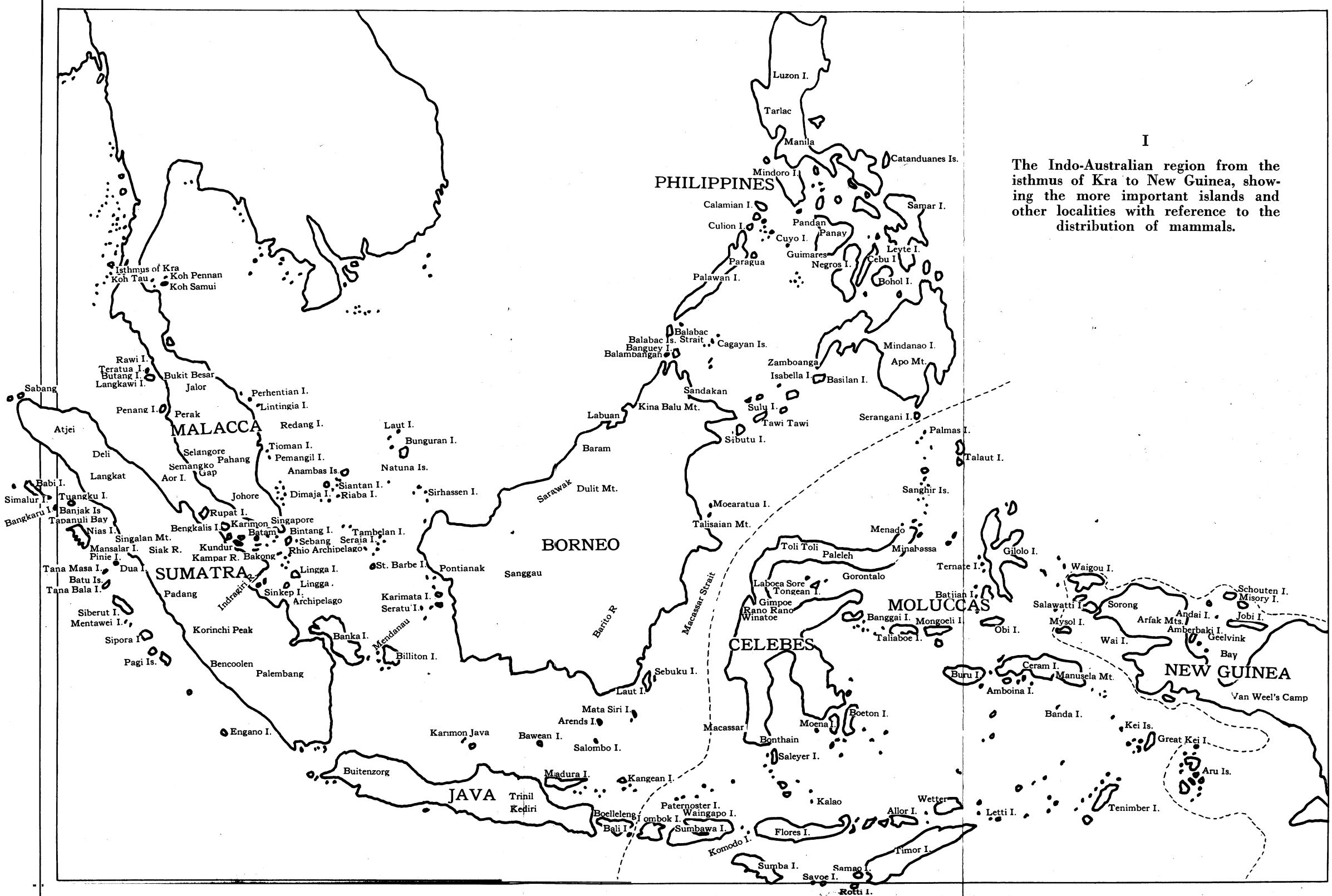
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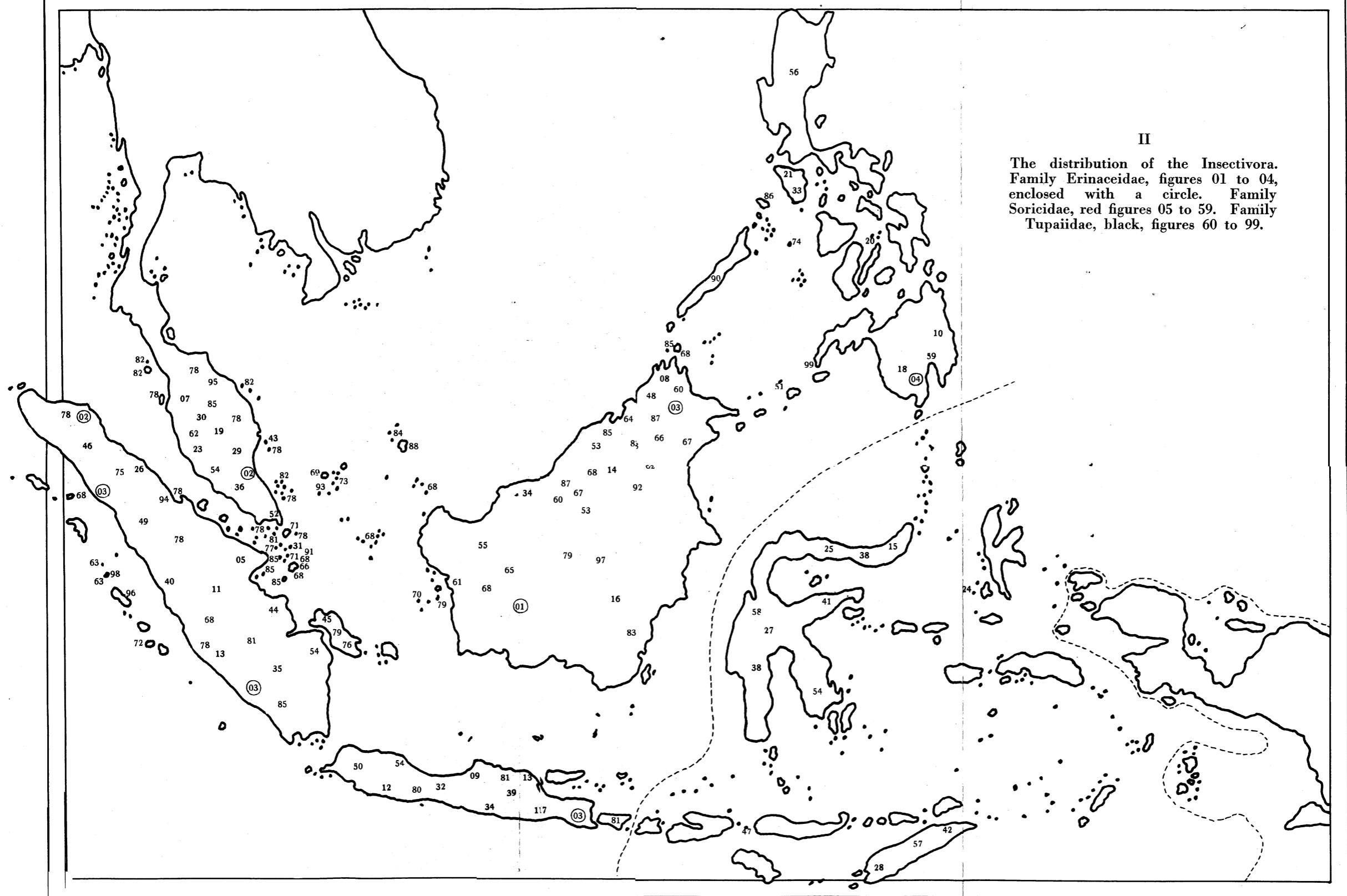
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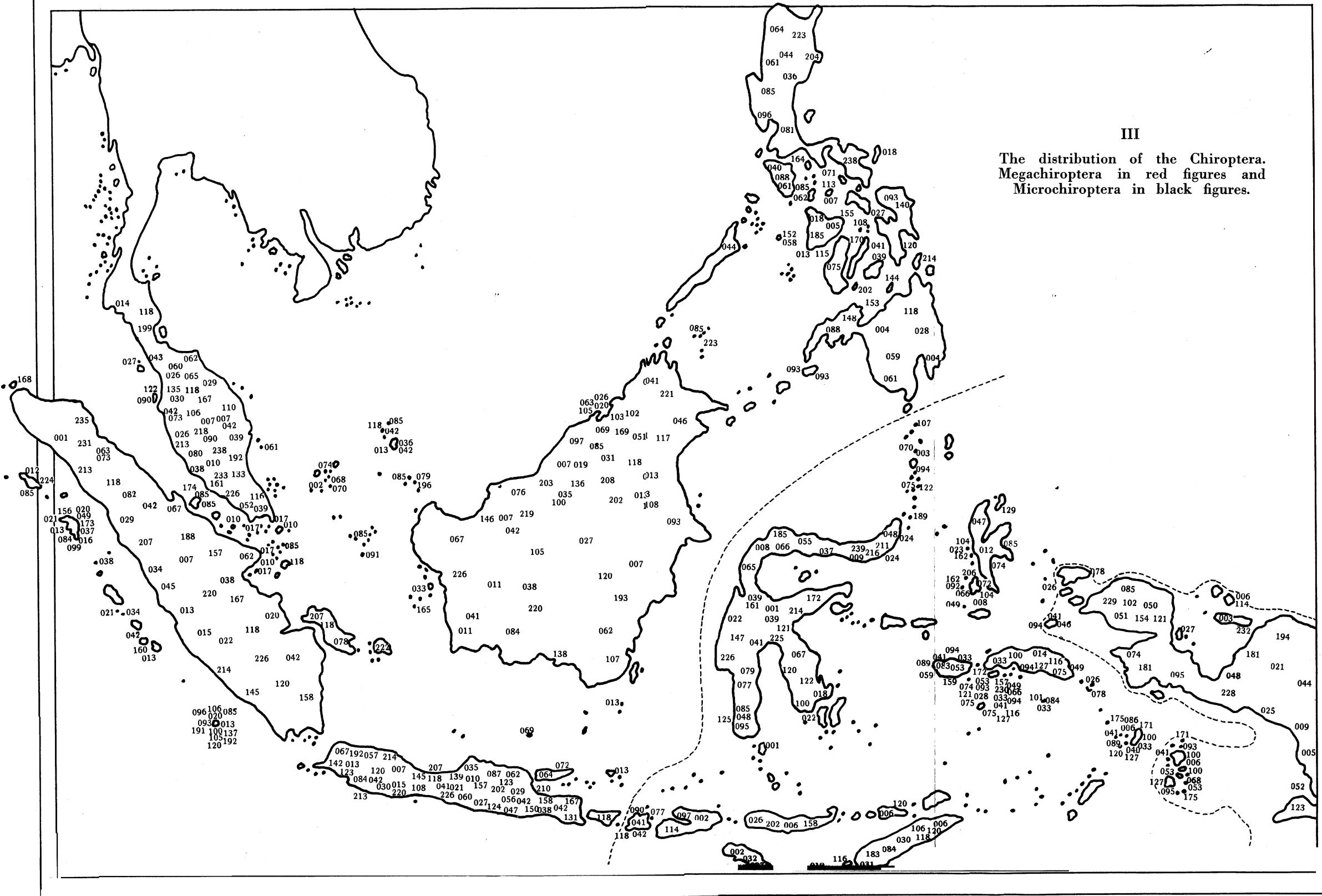
I

The Indo-Australian region from the isthmus of Kra to New Guinea, showing the more important islands and other localities with reference to the distribution of mammals.



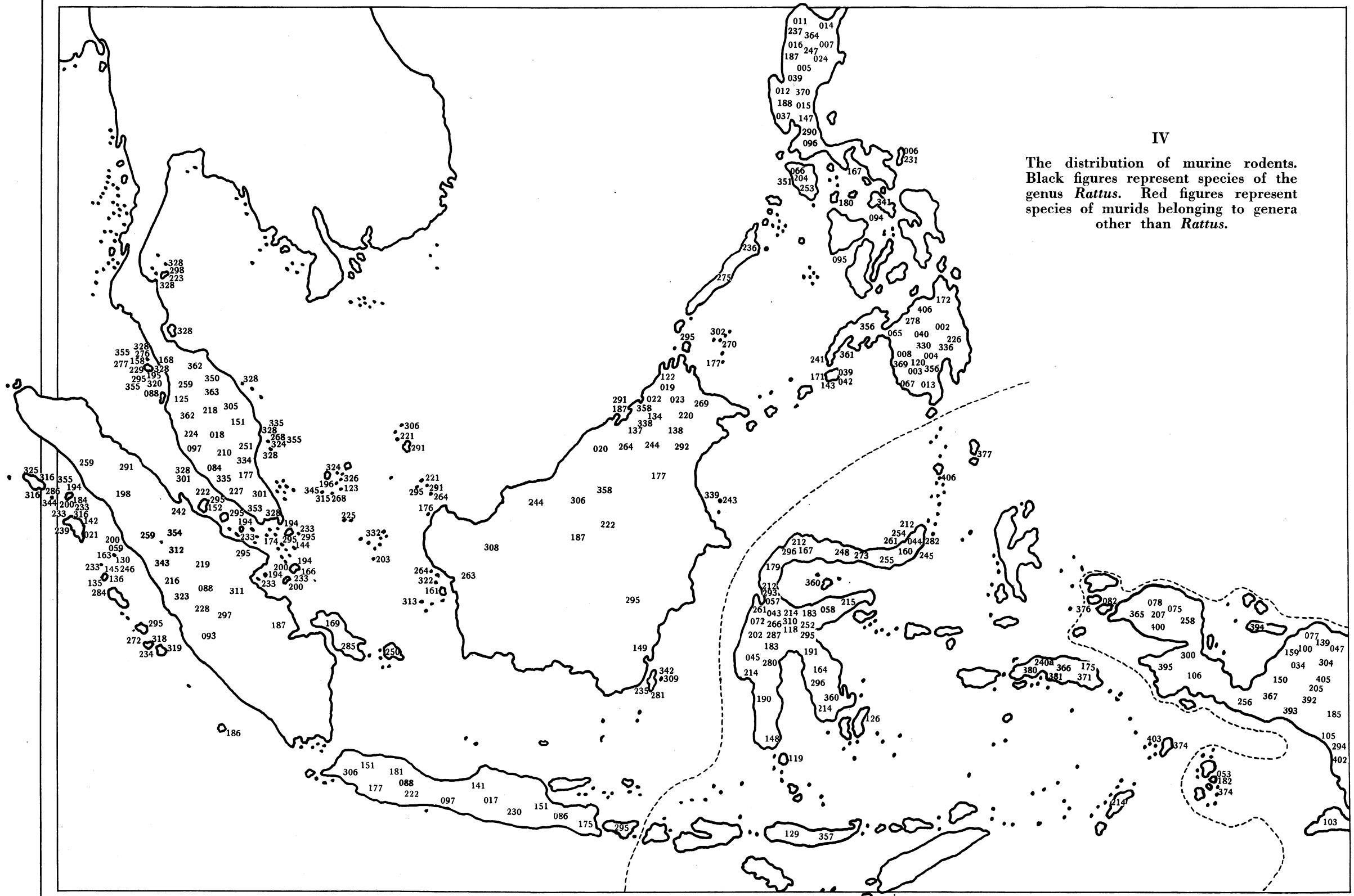


II



III

The distribution of the Chiroptera.
Megachiroptera in red figures and
Microchiroptera in black figures.

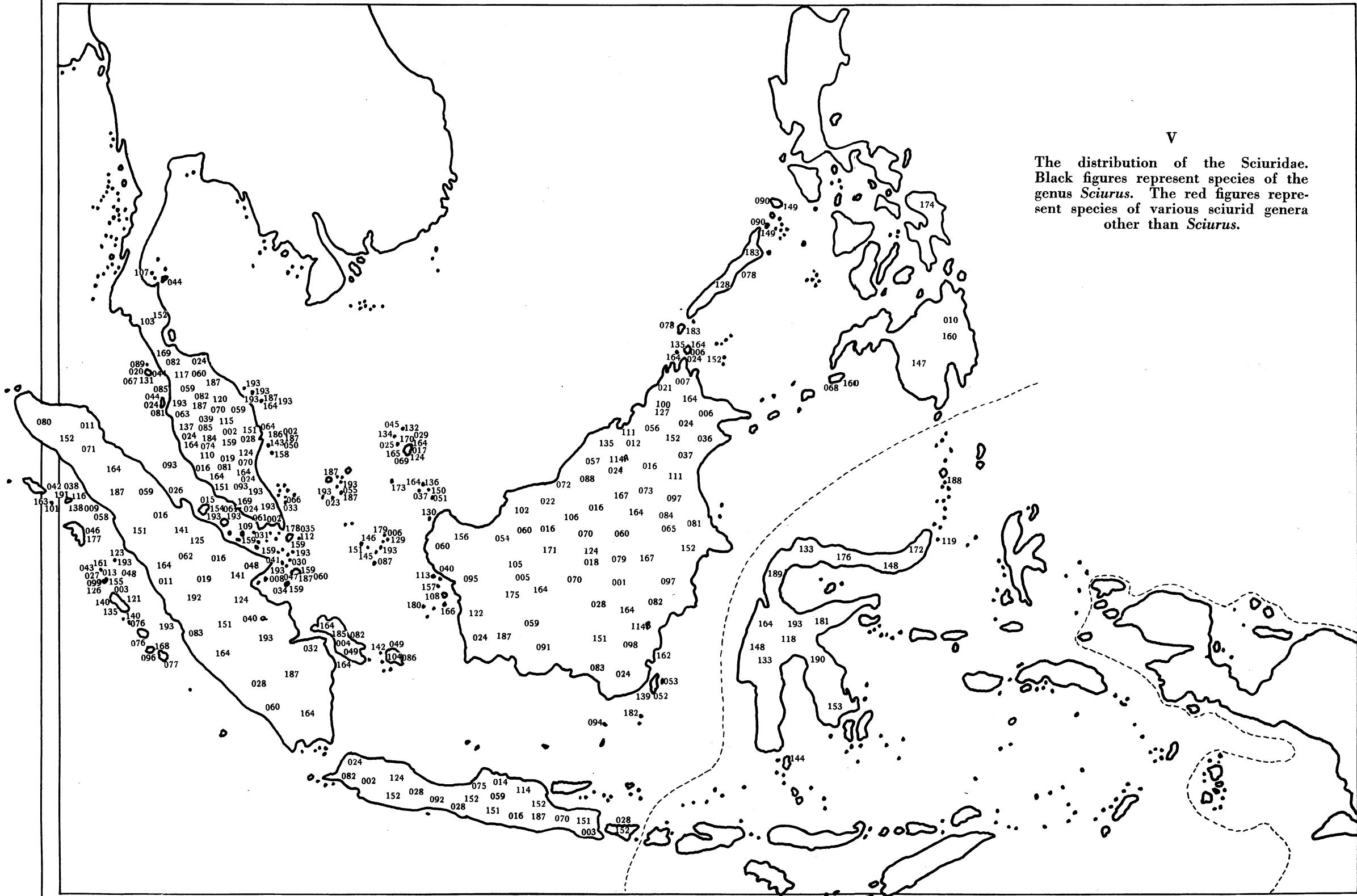


IV

The distribution of murine rodents.
Black figures represent species of the
genus *Rattus*. Red figures represent
species of murids belonging to genera
other than *Rattus*.

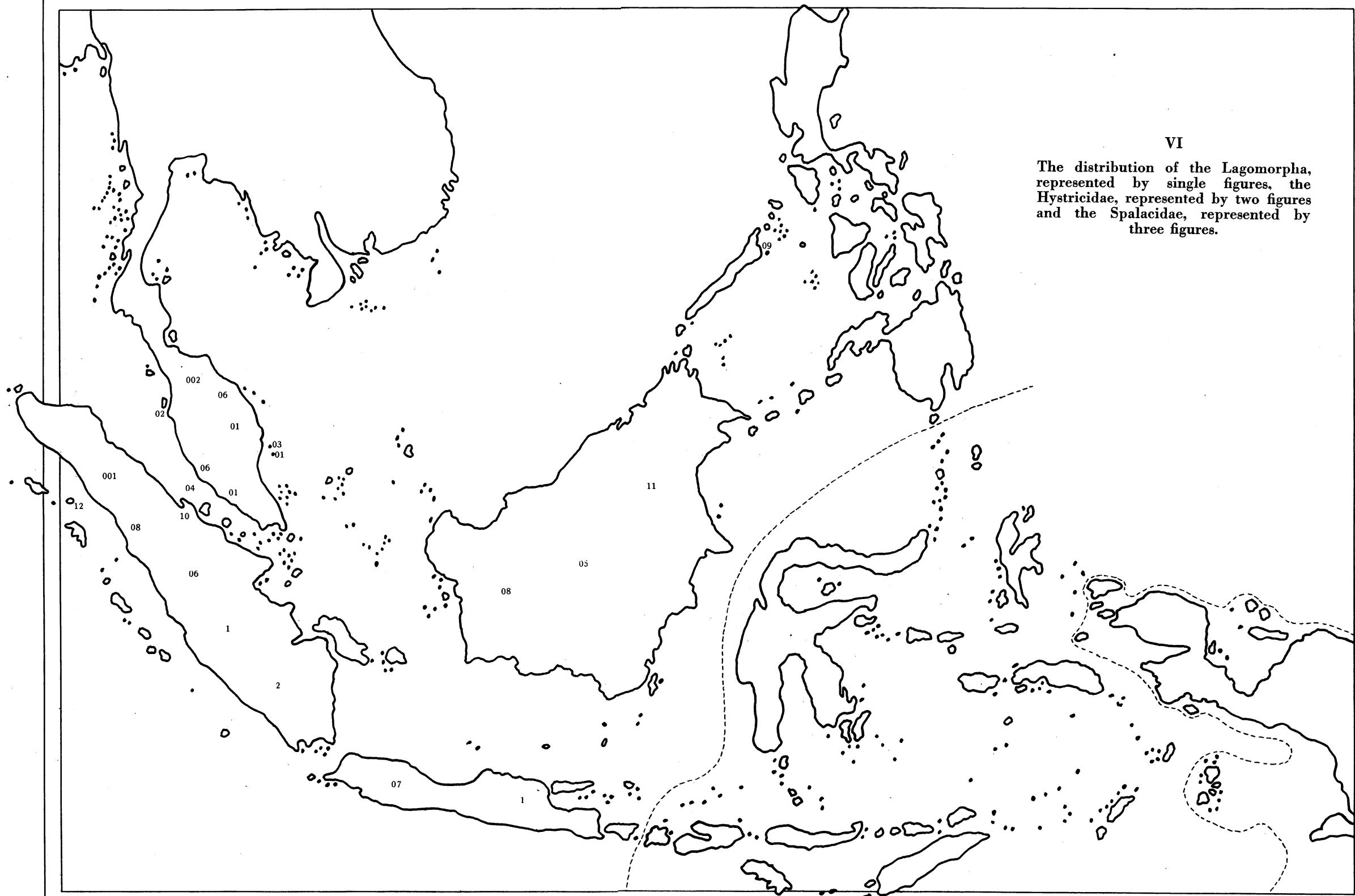
V

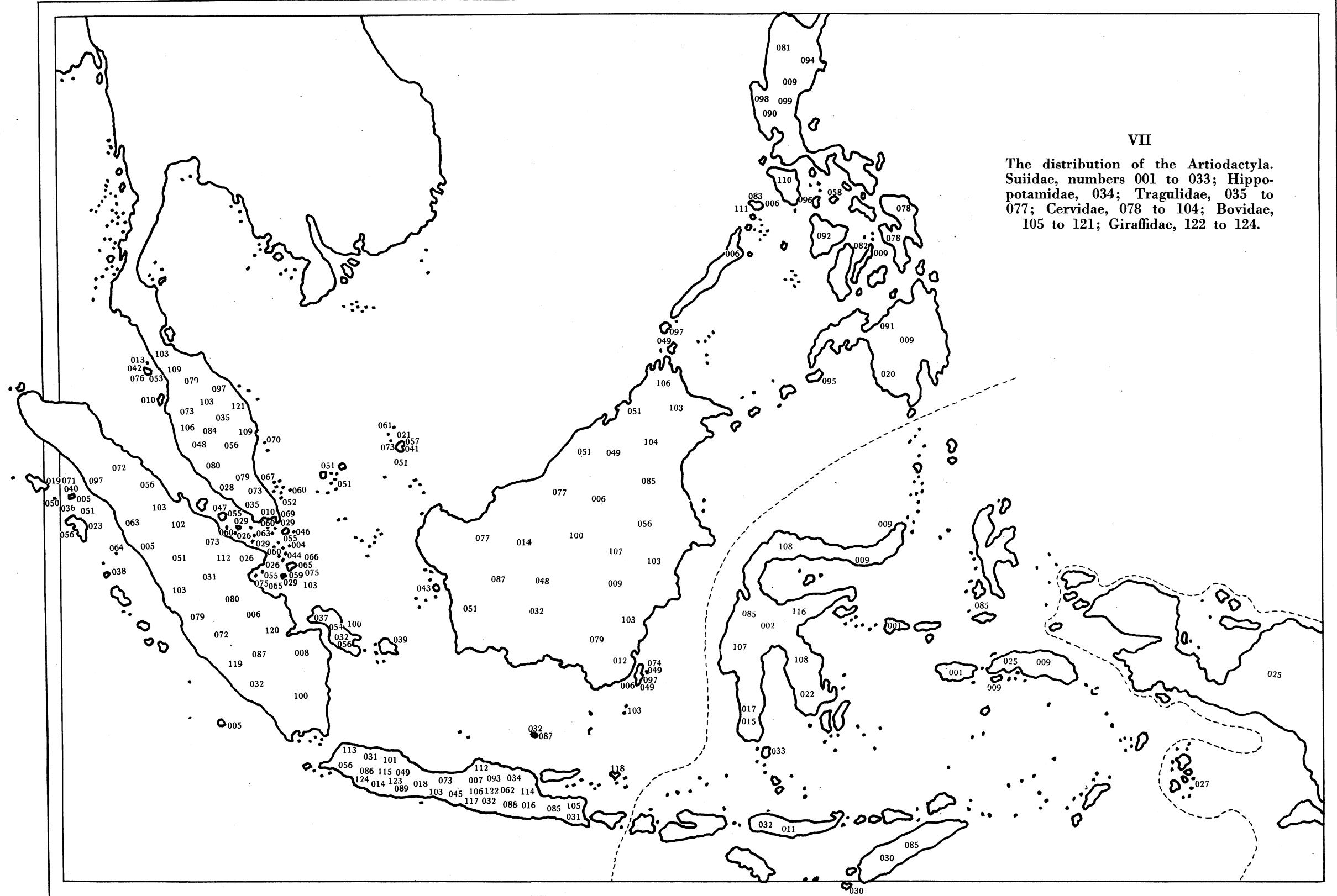
The distribution of the Sciuridae.
Black figures represent species of the
genus *Sciurus*. The red figures repre-
sent species of various sciurid genera
other than *Sciurus*.



VI

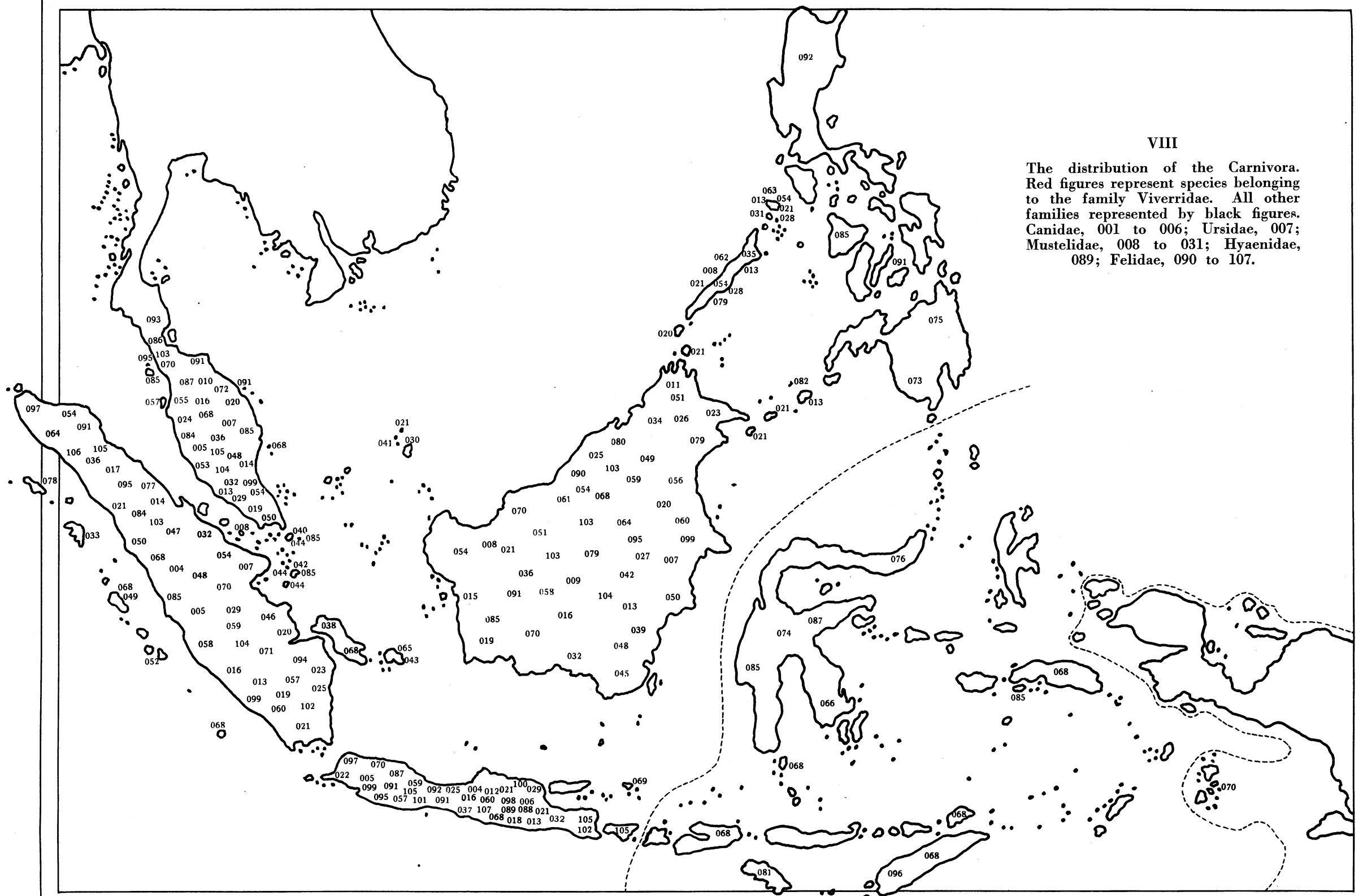
The distribution of the Lagomorpha,
represented by single figures, the
Hystricidae, represented by two figures
and the Spalacidae, represented by
three figures.





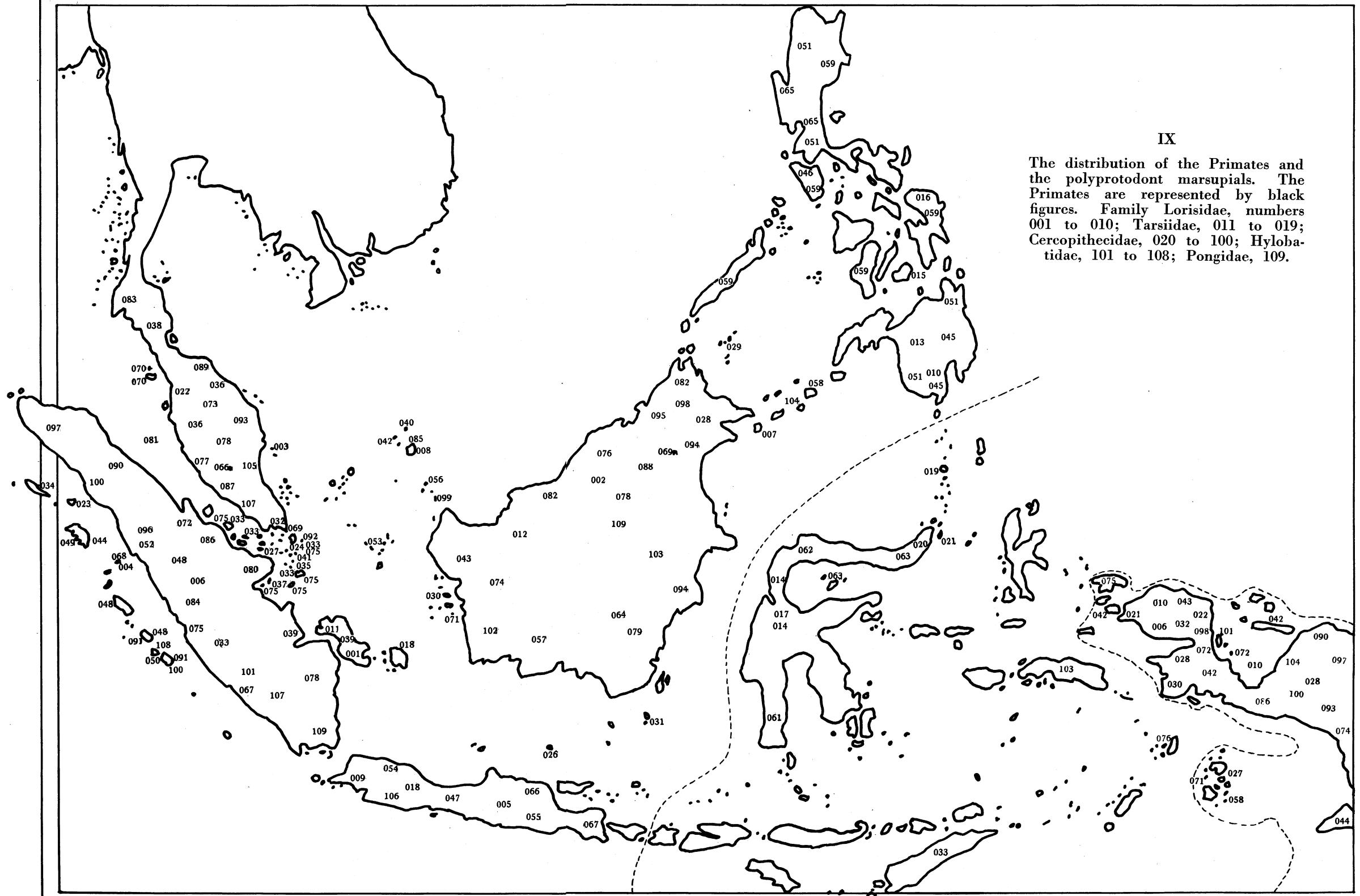
VII

The distribution of the Artiodactyla.
 Suidae, numbers 001 to 033; Hippo-
 potamidae, 034; Tragulidae, 035 to
 077; Cervidae, 078 to 104; Bovidae,
 105 to 121; Giraffidae, 122 to 124.



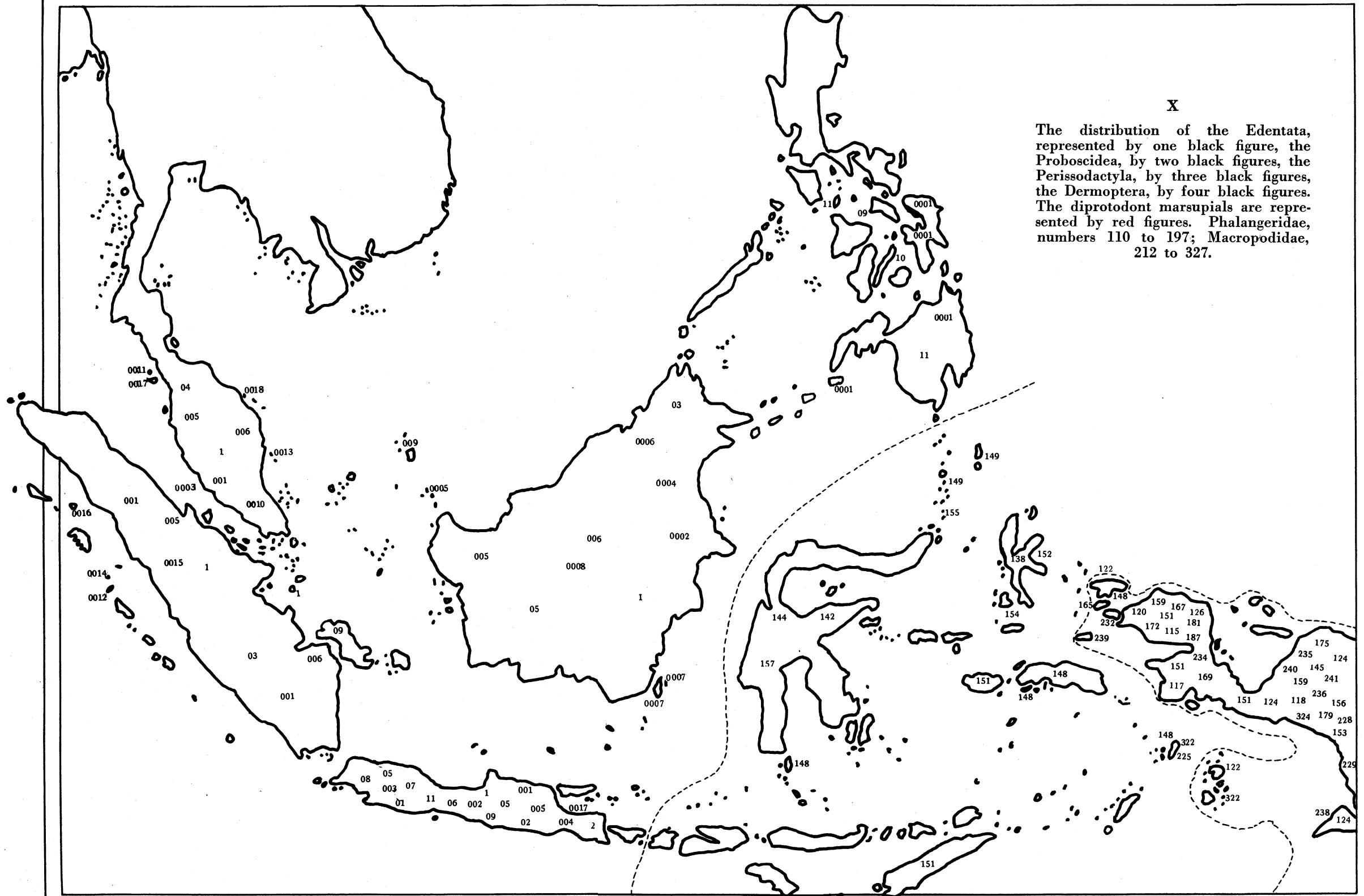
VIII

The distribution of the Carnivora.
Red figures represent species belonging
to the family Viverridae. All other
families represented by black figures.
Canidae, 001 to 006; Ursidae, 007;
Mustelidae, 008 to 031; Hyaenidae,
089; Felidae, 090 to 107.



IX

The distribution of the Primates and the polyprotodont marsupials. The Primates are represented by black figures. Family Lorisidae, numbers 001 to 010; Tarsiidae, 011 to 019; Cercopithecidae, 020 to 100; Hylobatidae, 101 to 108; Pongidae, 109.



X

The distribution of the Edentata, represented by one black figure, the Proboscidea, by two black figures, the Perissodactyla, by three black figures, the Dermoptera, by four black figures. The diprotodont marsupials are represented by red figures. Phalangeridae, numbers 110 to 197; Macropodidae, 212 to 327.

