CHECKLIST
OF
PALAEARCTIC
AND
INDIAN MAMMALS
1758 to 1946

by

J. R. ELLERMAN

T. C. S. MORRISON-SCOTT

BRITISH MUSEUM
(NATURAL HISTORY)

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PREFACE

It is a commonplace that novelty exercises such an attraction that it frequently diverts to itself a measure of attention out of all proportion to the true value of the subject or object. In science the field of every new discovery forthwith becomes the focal point round which attention centres, to the detriment of other fields more important but less glamorous. The tide of geographical exploration in the nineteenth century with its accompanying flood of zoological novelties exercised precisely this effect with the result that, whereas the vertebrate faunas of the Ethiopian, Oriental, Nearctic, and even the Australian and Neotropical regions, have been more or less comprehensively listed in recent years, there have been few comparable works relating to the Palaearctic region where taxonomic zoology was born and cradled. The present work, whose geographical limits have been selected to link up with Chasen's (1940) list of Malayan mammals and Allen's (1939) similar list for the Ethiopian region, is an attempt to remedy this lack of balance in the field of systematic mammalogy.

The authors have succeeded in producing a list which is not merely one of the working tools that every systematist must make for his own use. It is, in fact, a critical revision, shorn of all detailed argument, based on the unrivalled collections of the Museum.

H. W. Parker
Keeper of Zoology

British Museum (Natural History)
London

AMENDMENTS

page 92, *line* 1: for "Anderson" read "Andersen".

page 134: to the distribution of *Tadarida aegyptiaca* add "Zululand and Cape Province (Roberts)".

page 140, *line* 34: for "Polvidv" read "Polvdiv".

page 185, *line* 10: delete the comma between "Kuznetzk" and "Ala-Tau".

page 198, *line* 1: for "1894" read "1892". Delete "(*N.V.*)".

page 223, *line* 8: for "see page 225" read "see page 3".

page 286, *line* 35: for "*nigrifons*" read "*nigrifrons*".

page 292, *line* 13: for "*benettii*" read "*bennettii*".

page 313, *line* 18: for "*anastaseae*" read "*anastasiae*".

page 335, *line* 4: for "King Williams Town" read "Albany".

page 385, *line* 29: for "appear-" read "appears".

line 30: for "generis" read "generi-".

page 401: the genus should be known as "NEMORHAEDUS H. Smith, 1827", since "Naemorhedus" is clearly a misspelling.

page 434, *line* 3: for "ARABIC CARABICUS" read "ARABICUS ARABICUS".

line 32: for "Clanwilliam" read "Cape Peninsula".

page 476, *line* 9: for "*vulgarisformosovi*" read "*vulgaris formosovi*".

page 665: add "*Clethrionomys glareolus pirinus* Wolf, 1940, Mitt. Naturw. Inst. Sofia, *13:* 158. Banderiza Hut, Pirin Mts., 1,150–1,800 m., Bulgaria".

page 684, *line* 34: for "1835" read "1836".

page 742: for "*atratus* Blyth, 1867" read "*atratus* Blyth, 1863".

INTRODUCTION

Our late friend and colleague, James Lawrence Chaworth-Musters, had spent much time latterly on the synonymies of the species of Palaearctic mammals, and in particular had devoted much patient research to the type localities and dates of publication of species described in the eighteenth and early nineteenth centuries. At the time of his death, in April 1948, he had nearly completed this work for the Insectivora and done much of the Chiroptera and Rodentia. His executors kindly placed his manuscript cards and foolscap sheets at our disposal, and we have made free use of the data referred to above. His death was a most untimely and unfortunate loss to the Museum and to his friends and colleagues. (An obituary notice appears in *Journal of Mammalogy*, 1949, *30:* 95.)

Extent and Method of this Work

The area covered by this work is the Palaearctic region and the Indian[1] and Indo-Chinese subdivisions of the Oriental region. Zoologists will be well aware of the difficulty in delimiting these zoogeographical areas. However, for the purposes of a list such as this, some arbitrary limit must be set. In Africa we have drawn the boundary along the parallel of 20° N. which, owing to the barrier of the Sahara, does correspond reasonably well with the facts. The boundary in Malaya has, however, been drawn in a purely arbitrary manner along the parallel of 10° N. This line has been chosen because it is the northern limit of the area covered by Chasen, 1940, *Handlist of Malaysian Mammals*.

The limits in point of time are from 1758 to 1946. That is to say, we have endeavoured to include all forms of recent mammals named from the tenth edition of Linnaeus up till the end of 1946, except that domestic animals, and wild mammals which have become extinct, have as a rule been omitted.

No one man can, of course, be a connoisseur of more than a small part of the class Mammalia. Nevertheless, in writing this work we have thought it worth while attempting a revision rather than making a mere nominal compilation. We have therefore re-examined all relevant monographs and revisions, in so far as they are known to us, together with the extensive study collections of the British Museum, and this checklist represents the results. Whether readers agree with our views or not, we hope that the presentation of such a survey within the covers of one book will prove useful.

There has been a considerable reduction in the number of named forms regarded as valid, though we have only proceeded with this "lumping" to the extent that the evidence before us justified it; there is probably much more to be done, and subspecies have been arranged in order of priority for the convenience of subsequent revisers.

[1] The term 'India' has been used throughout in its zoogeographical sense to include the modern India and Pakistan.

We have recognized 809 species of mammals in the Palaearctic and Indian regions as defined above.

We have endeavoured to indicate the diagnostic characters of each genus and species by reference to the appropriate works, and where they are non-existent we have provided keys. The distribution of each species has been approximately shown, though it should be remembered that the distributions of many mammals are imperfectly known and that the ranges of many of the larger mammals are shrinking every year.

Nomenclatorial Difficulties

There are workers who seem to take a delight in bedevilling zoology with esoteric changes of nomenclature, to the considerable irritation of their colleagues and the confusion of non-specialists. In fact, exasperation at their efforts leads many to wonder whether they have any scientific work to attend to.

Perhaps this unhappy circumstance is due to the idea that the only way to attain stability in nomenclature is rigorously to apply the law of priority, and that the resulting confusion will in the end have been worth while. It is of course true that with the passage of time the likelihood of fresh discoveries of early names becomes less. But the point is that the risk can never be eliminated.

On the other hand, the *Official List of Generic Names in Zoology* and the *Official List of Specific Trivial Names in Zoology* do offer a chance of real stability (without confusion), and it is the view of the International Commission on Zoological Nomenclature that this is the way to attain it (*Bull. Zool. Nomencl.*, 1950, *4:* 267, 627 and *5:* 147). It should therefore be the purpose of zoologists to see that the names of as many genera and species as possible of the groups in which they specialize are placed on these lists by the International Commission, and thereby protected from the activities of nomenclatorial excavators.

The corollary to the above lists are the *Official Index of Rejected and Invalid Generic Names in Zoology* and the *Official Index of Rejected and Invalid Specific Trivial Names in Zoology* which the Commission instituted for the reception of names which they have either suppressed under their plenary powers, or declared to be otherwise unavailable (*Bull. Zool. Nomencl.*, 1950, *4:* 333).

The Commission have urged that zoologists who discover a name which would cause confusion or inconvenience, through antedating a later but currently adopted name, should refrain from publishing their unfortunate find, and instead should hurry it off to the Commission for burial in the appropriate *Index*, at the same time requesting the Commission to place on the appropriate *List* the later but currently used name (*Bull. Zool. Nomencl.*, 1950, *4:* 234, *5:* 18).

These are the principles which we have endeavoured to follow in this checklist. So far as Palaearctic and Indian genera are concerned, the following works have proved the most troublesome:

(*a*) Frisch, 1775, *Das Natursystem der vierfussigen Thiere.* This work has generally been regarded as unavailable under the *Règles* and Sherborn rejected it when compiling his *Index Animalium.* Simpson (1945), however, in his *Classification of Mammals*

dates some fifteen well-known names from Frisch (1775). It is not clear why he did this since, in any case, some of the names have been dated from other authors by Opinion 91 of the International Commission. The matter has now been settled by the Commission who, in Paris in July, 1948, declared this work of Frisch to be unavailable (*Bull. Zool. Nomencl.*, 1950, *4:* 549). The Commission made one reservation. They had previously (*Bull. Zool. Nomencl.*, 1950, *4:* 547) declared that Zimmermann, 1777, *Specimen Zoologiae Geographicae* was unavailable and that Zimmermann, 1778–1783, *Geographische Geschichte* was available. The result of all this is that the name *Dama* becomes the technically valid name for the Virginian Deer of America instead of for the Fallow Deer of Europe, in which latter sense it has been used for years. The Commission, realizing the confusion which this would cause, indicated (*Bull. Zool. Nomencl.*, 1950, *4:* 551) that they would use their plenary powers to prevent such a transfer if zoologists so desired, and in the meantime recommended them to make no change. Apart from this one name, the non-availability of Frisch (1775) appears to cause no inconvenience.

(*b*) Oken, 1815–1816, *Lehrbuch der Naturgeschichte*. This work can scarcely be held consistently to exhibit the principles of binominal nomenclature and the Commission are considering the question of its availability. If Oken is declared unavailable, then there are certain generic names which it appears important to us to save. One of us (T. C. S. M.-S.) has therefore made application to the Commission for the following names of Oken to be placed on the *Official List:*

Citellus *Tayra*
Genetta *Vulpes*
Grison *Pan*
Panthera

(*c*) Brisson, 1762, *Regnum Animale*. The genera proposed as new in this work have been generally accepted by mammalogists and are now well established. But the technical validity of the book under the *Règles* is doubtful and the matter is now before the Commission (*Bull. Zool. Nomencl.*, 1950, *4:* 314). In the meantime Hopwood, 1947, *P.Z.S. 117:* 533, has rejected Brisson (1762) and would date his names from other and later authors. However, his suggestions, if adopted, would in several cases prove unfortunate, and we have asked the Commission to validate the following of the generic names of Brisson:

Cuniculus. This is the Paca. The next use of *Cuniculus* is of Gronovius (1763) which, though also the Paca, seems insecure under the *Règles*. The next use is *Cuniculus*, Meyer (1790), which is the European Rabbit. It seems desirable, therefore, to retain *Cuniculus* Brisson.

Glis. Unless *Glis* Brisson is validated, the name of the Fat Dormouse must be *Myoxus* Zimmermann (1780). (See Ellerman, 1949, *Ann. Mag. N.H. 2:* 894, who took the precaution of designating *Glis zemni* as the type species of *Glis* Erxleben, 1777, in order to forestall the transference of *Glis* to the marmots, a worse confusion which would otherwise ensue from any suppression of *Glis* Brisson.)

Meles. It would be wise to validate this name as of Brisson in view of the doubt which surrounds the use as of Geoffroy (1767) and Storr (1780).

Odobenus. After considerable shuffling of the names of the Walrus, zoologists have finally settled down with *Odobenus*. If this is invalid then *Rosmarus* Brünnich, 1772, will have to be used.

Tragulus. The consequence of sinking this name of Brisson would indeed be unfortunate. Hopwood suggests that *Tragulus* may equally well be dated from Boddaert (1785). But *Tragulus* Boddaert has nothing to do with the Tragulidae. It is *Moschus moschiferus*, a member of the Cervidae. A change in the family name of the chevrotains would then become necessary, to add to the confusion.

Tardigradus. The earliest name for the Loris seems to be *Tardigradus* Boddaert, 1785, which has hitherto been regarded as preoccupied by *Tardigradus* Brisson, 1762, a Sloth. Hence *Loris* E. Geoffroy, 1796, is in current use for the Loris. If *Tardigradus* Brisson is invalid then *Tardigradus* Boddaert must be used for the Loris, which brings with it a secondary confusion in that the name "Tardigrada" is a synonym of "Bradypodoidea".

Giraffa, *Hyaena*, *Hydrochoerus*, *Lutra*, *Tapirus*. These names are all available, with the same meaning, from Brünnich, 1772, *Zoologiae Fundamenta*, though the name of the Capybara is here spelt *Hydrochaeris*. It may therefore be questioned whether there is any need to validate the use of these names from Brisson (1762). However, the Commission may well take the view that these names would be better protected by being validated from the earlier date, apart from the consideration of sanctioning a long-established usage.

Pteropus. This name comes in the same category as the last five, since it can be dated from Erxleben (1777) without change of meaning. There has, however, been some slight doubt about the type species and it is considered safer to validate the name as of Brisson (1762).

(*d*) Rafinesque, 1815, *Analyse de la Nature*. This book contains many *nomina nuda*, some of which are currently used. So far as the area covered by the present work is concerned, we consider that one of these names, *Muntiacus*, should be placed on the *Official List*. The Muntjak was known many years ago as *Cervulus* Blainville, 1816, but *Muntiacus* is now in current use and, although it cannot really be pleaded that confusion would result, it would not be a helpful step to revert now to *Cervulus*. We have submitted this case to the Commission.

(Andersen, 1908, *Ann. Mag. N.H. 1:* 431, discusses the technical availability of Rafinesque's (1815) genera.)

Abbreviations and Symbols

The abbreviations of the titles of certain periodicals have been reduced beyond those shown in the *World List:*

P.Z.S. = Proc. Zool. Soc., London
N.H. (in combination) = Nat. Hist.

A question mark before an entry in a synonymy does not mean that the date is doubtful but that the name concerned is not certainly a synonym.

A question mark in parentheses before the specific trivial name of a nominal race

indicates that the latter is probably a race of the species concerned but that there is some doubt.

N.V. = *Non vidimus* (with reference to the original publication).

Acknowledgments

We gladly record our gratitude to many of our colleagues in this Museum for their generous help with, and friendly interest in, this work.

We should especially like to thank the following: Dr. F. C. Fraser, for his advice and assistance in dealing with the Cetacea; Mr. A. C. Townsend, for helping us with difficult textual and bibliographical problems; and Mr. R. W. Hayman, for much help with the Chiroptera.

So far as possible every reference in this book has been checked with the original, and we desire to record the assistance which has been given us by the following of our colleagues—in fact without their help this work would almost certainly have proved too much for us: Mr. R. W. Hayman and Mr. G. W. C. Holt of the Mammal Room, who between them checked most of the references; Mr. G. W. F. Claxton, Mr. F. C. Sawyer, Mr. W. H. Mabbott and Mr. J. E. Yateman of the General and Zoological Libraries, to whom an incomplete or distorted reference was a professional challenge which they rarely failed to meet; and Miss J. M. Ingles who has been of great personal assistance to us.

Authorship and New Names

We take joint responsibility for this book except for the classification of the Rodents and Lagomorphs, which is the work of J. R. E., and the Ungulates for which T. C. S. M.-S. is responsible.

The new names contained in this work, a list of which appears on page 742, are proposed by us jointly irrespectively of the order to which they belong.

J. R. Ellerman
T. C. S. Morrison-Scott

British Museum (Natural History)

31*st December*, 1950

CLASS MAMMALIA

There are very few works dealing extensively with the class Mammalia. The following are the most important:

GREGORY, W. K. 1910. The orders of mammals. *Bull. Amer. Mus. N.H. 27.*
FLOWER, W. H., & LYDEKKER, R. 1891. *An introduction to the study of mammals, living and extinct.* London (A. & C. Black).
PARKER, T. J., & HASWELL, W. A. 1940. *A textbook of zoology, 2, Chordata.* (Revised by C. Forster Cooper.) London (Macmillan).
SIMPSON, G. G. 1945. The principles of classification and a classification of mammals. *Bull. Amer. Mus. N.H. 85.*
WEBER, M. 1927–1928. *Die Säugetiere* (2 vols). Jena (G. Fischer).
WINGE, H. 1923–1924. *Pattedyr-Slaegter* (3 vols). Copenhagen (H. Hagerup). (English translation by G. M. Allen and E. Deichmann, 1941–1942. Copenhagen (C. A. Reitzel)).

Simpson (1945) is the basic work on the classification of mammals. The mammals with which this checklist is concerned all belong to the infraclass Eutheria, which Simpson divides into four cohorts:

UNGUICULATA
Orders: Insectivora, Dermoptera, Chiroptera, Primates, Pholidota.

GLIRES
Orders: Lagomorpha, Rodentia.

MUTICA
Order: Cetacea.

FERUNGULATA
Superorder: FERAE
Order: Carnivora (Suborders: Fissipedia, Pinnipedia).
Superorder: PAENUNGULATA
Orders: Proboscidea, Hyracoidea, Sirenia.
Superorder: MESAXONIA
Order: Perissodactyla.
Superorder: PARAXONIA
Order: Artiodactyla.

We agree with Simpson in distinguishing the Mutica and the Glires, and follow the broad outline of his classification except that we retain the Pinnipedia as an order, and on account of the fact that his Ferungulata seem closely allied to his Unguiculata we have listed them directly after this cohort.

ORDER INSECTIVORA

Special works of reference: Besides works such as G. S. Miller, 1912, *Catalogue of the Mammals of Western Europe*; G. M. Allen, 1938 & 1940, *Mammals of China and Mongolia*; and works by Bobrinskii and Ognev on Mammals of the U.S.S.R., see particularly A. Cabrera, 1925, *Genera Mammalium; Insectivora, Galeopithecia*. This work gives keys to all families and genera of Insectivora here recognized and dealt with. See also G. E. Dobson, 1882–1890, *Monograph of the Insectivora*.

Simpson, 1945, *Bull. Amer. Mus. N.H. 85:* 61, 176, 182, referred the Tupaiidae (as type of a special superfamily), to the suborder Prosimii of the order Primates. Most authors refer these animals to the Insectivora. If they are so close to Lemuroids that it is thought best to refer them to Primates, surely another course would be to refer the Prosimii to the Insectivora, and restrict Primates to the Anthropoidea (perhaps with the Tarsiidae). Some authors, such as Gregory and Weber, separate the Tupaiidae and Macroscelididae from the Insectivora as a separate order Menotyphla. This is strongly supported by Broom (*in litt*). However, for the present we prefer to list these families as Insectivora. Apart from Tupaiidae Simpson recognized three superfamilies: the Erinaceoidea for the Erinaceidae and some extinct allies; the Macroscelidoidea for the Macroscelididae (which only occur in North-West Africa in the present region); and the Soricoidea for the Soricidae and Talpidae (which appear to us to be very distinct from each other morphologically, particularly as regards the very large first lower incisor in the Soricidae).

FAMILY TUPAIIDAE

Genera: *Anathana*, page 13
Dendrogale, page 13
Tupaia, page 10

This family was monographed in great detail by Lyon, 1913, *Proc. U.S. Nat. Mus. 45:* 1–188. Most subsequent classifications have been based on this useful paper. Only the typical subfamily, the Tupaiinae, occurs within the region now under discussion, and its distribution is Indo-Malayan. Lyon gives keys to generic characters of the three genera listed above and their extralimital allies. The main distinctions of the four species here listed as valid and which are certainly known to occur north of the area treated by Chasen, 1940, *Handlist Malaysian Mammals*, are as follows:

1. Relatively small animals, with the tail rounded and close-haired for its whole length. *Dendrogale murina*
   Relatively larger animals, with the tail clothed with longer hairs, and squirrel-like in formation ——2

2. Lower canine little differentiated, not higher than adjacent lower I 3 and P 2. Fenestrae in zygoma small and inconspicuous; hypocones in upper molars unusually prominent. *Anathana ellioti*
   Lower canine clearly differentiated, clearly higher than adjacent lower I 3 and P 2. Fenestrae in zygoma normally large and conspicuous; hypocones in upper molars most often less prominent. ——3

3. Tail considerably longer than head and body. Much black on lower part of back. Lower canine much larger than the incisor in front of it; central upper incisors conspicuously larger than lateral pair. *Tupaia nicobarica*
   Tail most often shorter than, or not much longer than, head and body. Colour of back different. Lower canine and central upper incisors not conspicuously enlarged. *Tupaia glis*

(We have not included *Tupaia minor* in the key as we are not sure whether it is extralimital or not. According to Lyon's key, *T. minor* should be dentally as *nicobarica* but smaller than that species and coloured differently.)

North of the Malay Peninsula Lyon recognized two species, *T. glis* and *T. belangeri*, in addition to the very distinct *T. nicobarica*. They were said to differ in colour and mammary formula. But since Lyon's revision was published there have been many new forms described of the *T. glis* group, and examination of the types in the British Museum alone shows that there is no certain colour distinction between *belangeri* and races referrable to *glis*. Chasen (1940) refers several of Lyon's species to *T. glis* as races, and it seems that there is little essential difference between the southern *glis* races and the northern *belangeri* and allies, which are here considered as representing *T. glis*. It may be noted that, with reference to the above key, the hypocones may be present in the upper molars of some individuals of *T. glis siccata* which in this character approaches *Anathana*; and that in some forms of *T. glis*, for instance *T. g. lepcha*, there is a tendency for the tail to be longer than the head and body. The retention of the

genus *Anathana* is here principally based on the reduced lower canine. Thomas (1917) thought two forms of the *T. glis* group occurred in Tenasserim. These two, *clarissa* and *tenaster*, differ in the length of the rostrum, which is more lengthened in *clarissa*. However, these two forms look so alike externally that very tentatively *tenaster* is here regarded as a synonym. To prove the contrary it would be necessary to collect a much larger series in Tenasserim than these two names are based on.

Subfamily Tupaiinae

Genus **TUPAIA** Raffles, 1821

1821. *Tupaia* Raffles. Trans. Linn. Soc., London, *13:* 256 (May, 1821.) *Tupaia ferruginea* Raffles.
1821. *Sorex-glis* Cuvier & Geoffroy, Hist. Nat. Mamm. 33, 35: 1 (December, 1821, or perhaps early in 1822.) *Sorex glis* Diard & Duvaucel.
1822. *Glisorex* Desmarest, Mammalogie, footnote, 536. Substitute for *Sorex-glis*.
1824. *Cladobates* Cuvier, Dents Mamm. 251, pl. 17. *Tupaia ferruginea* Raffles.
1827. *Hylogale* Temminck, Mon. Mamm. xix. Substitute for *Tupaia*.
1843. *Hylogalea* Müller & Schlegel, Verh. Nat. Gesch. Ned. Overz. Bezitt. 159. (Emendation.)
1855. *Glisosorex* Giebel, Odontographie, 18. (Emendation of *Glisorex*.)
1860. *Tapaia* Gray, Ann. Mag. N.H. *5:* 71. (? Misprint for *Tupaia*.)
1882. *Glirisorex* Scudder, Nomencl. Zool. *2:* 131. (Emendation of *Glisorex*.)
1888. *Glipora* Jentink, Cat. Syst. Mus. H.N. Pays Bas. *12*, Mamm.: 118. *Glipora leucogaster* Jentink (*nom. nud.*) = *Tupaia minor* Günther.
1913. *Tana* Lyon, Proc. U.S. Nat. Mus. *45:* 134. *Tupaia tana* Raffles, from Sumatra. Valid as a subgenus.

3 species in the area covered by this list:

Tupaia glis, page 10
Tupaia minor, page 12
Tupaia nicobarica, page 12

Tupaia glis Diard, 1820 — Common Tree-Shrew

Approximate distribution of species: Yunnan, Kwangsi, Hainan in South-West China; Sikkim, Manipur, Assam, Burma, Tenasserim; Indo-China, Siam, Malay States, Sumatra, Java, Borneo, and many small adjacent islands, to Palawan.

(Tupaia glis glis Diard, 1820. Extralimital)

1820. *Sorex glis* Diard, Asiat. J. Month. Reg. *10:* 478. (*N.V., fide* Lyon & Chasen.) Penang Island, Malay Peninsula.
1822. *Sorex glis* Diard & Duvaucel, Asiatick Res. *14:* 471, pl. 9. Penang Island.

Tupaia glis belangeri Wagner, 1841

1841. *Cladobates belangeri* Wagner, Schreber's Säugeth. Suppl. *2:* 42. Siriam, near Rangoon, Pegu, Burma.
1842. *Tupaia peguanus* Lesson, Nouv. Tabl. Règn. Anim. Mamm. 93. ? Pegu.

Range: Southern Burma and certain islands of Mergui Archipelago.

TUPAIA GLIS DISSIMILIS Ellis, 1860

1860. *Sciurus dissimilis* Ellis in Gray, Ann. Mag. N.H. *5:* 71. Pulau Condore, off south coast of Indo-China.

TUPAIA GLIS CHINENSIS Anderson, 1879

1879. *Tupaia chinensis* Anderson, Zool. Res. West Yunnan, 129, pl. 7, figs. 8 and 9. Ponsee, Kakhyen Hills, 3,185 ft., and Muangla, Sanda Valley, 2,400 ft., Western Yunnan, China.

TUPAIA GLIS MODESTA J. Allen, 1906

1906. *Tupaia modesta* Allen, Bull. Amer. Mus. N.H. *22:* 481. Lei-mui-mon, Island of Hainan, South China.

1914. *Tupaia belangeri yunalis* Thomas, Ann. Mag. N.H. *13:* 244. Mongtsze (or Mengtsz), Southern Yunnan, China. (Status *fide* Osgood, 1932.)

1925. *Tupaia belangeri tonquinia* Thomas, P.Z.S. 497. Bao-ha, Tonkin. Indo-China. (Status *fide* Osgood, 1932.)

(?) 1936. *Tupaia belangeri pingi* Ho, Contr. Biol. Lab. Sci. Soc. China, *12*, 4: 78. Bao-peng, Island of Hainan.

Range: Hainan, Annam, Laos, Tonkin, and Southern Yunnan.

TUPAIA GLIS CONCOLOR Bonhote, 1907

1907. *Tupaia concolor* Bonhote, Abstr. P.Z.S. 2; P.Z.S. 7. Nhatrang, Annam, Indo-China. Ranges to Cambodia and Cochin-China.

TUPAIA GLIS SICCATA Thomas, 1914

1914. *Tupaia belangeri siccata* Thomas, Ann. Mag. N.H. *13:* 243. Zibugaung, Lower Chindwin, Burma. Range includes Chin Hills, Mt. Popa, Shan States, Burma.

TUPAIA GLIS LAOTUM Thomas, 1914

1914. *Tupaia belangeri laotum* Thomas, Ann. Mag. N.H. *13:* 244. Nan, 290 m., Siam.

TUPAIA GLIS SINUS Kloss, 1916

1916. *Tupaia concolor sinus* Kloss, P.Z.S. 36. Koh Chang (Island), South-East Siam.

TUPAIA GLIS CLARISSA Thomas, 1917

1917. *Tupaia clarissa* Thomas, J. Bombay N.H. Soc. *25:* 200. Bankachon, Victoria Province, Tenasserim.

(?) 1917. *Tupaia belangeri tenaster* Thomas, J. Bombay N.H. Soc. *25:* 201. Tagoot, Great Tenasserim River, Tenasserim.

TUPAIA GLIS CAMBODIANA Kloss, 1919

1919. *Tupaia glis cambodiana* Kloss, J. N.H. Soc. Siam, *3:* 357. Klong Yai, South-East Siam.

TUPAIA GLIS OLIVACEA Kloss, 1919

1919. *Tupaia glis olivacea* Kloss, J. N.H. Soc. Siam, *3:* 358. Pak Bu, near Tachin, Central Siam.

TUPAIA GLIS ASSAMENSIS Wroughton, 1921

1921. *Tupaia belangeri assamensis* Wroughton, J. Bombay N.H. Soc. *27:* 599. Mokokchung, 5,000 ft., Naga Hills, Assam. Range includes Manipur.

TUPAIA GLIS COCHINCHINENSIS Robinson & Kloss, 1922

1922. *Tupaia glis cochinchinensis* Robinson & Kloss, Ann. Mag. N.H. *9:* 87. Trangbom, 30 miles east of Saigon, Cochin-China.

TUPAIA GLIS ANNAMENSIS Robinson & Kloss, 1922

1922. *Tupaia dissimilis annamensis* Robinson & Kloss, Ann. Mag. N.H. *9:* 87. Daban, 650 ft., Southern Annam, Indo-China.

TUPAIA GLIS VERSURAE Thomas, 1922

1922. *Tupaia belangeri versurae* Thomas, J. Bombay N.H. Soc. *28:* 428. Dening, 2,250 ft., Mishmi Hills, North Assam.

TUPAIA GLIS LEPCHA Thomas, 1922

1922. *Tupaia belangeri lepcha* Thomas, J. Bombay N.H. Soc. *28:* 428. Narbong, near Darjeeling, 2,000 ft. Ranges to Bhutan Duars.

TUPAIA GLIS BRUNETTA Thomas, 1923

1923. *Tupaia belangeri brunetta* Thomas, J. Bombay N.H. Soc. *29:* 84. King Island, Mergui Archipelago.

Tupaia nicobarica Zelebor, 1869 — Nicobar Tree-Shrew

Approximate distribution of species: Nicobar Islands, Bay of Bengal.

TUPAIA NICOBARICA NICOBARICA Zelebor, 1869

1869. *Cladobates nicobaricus* Zelebor, Reise Novara, Zool. Theil, *1:* 17, pl. 1, figs. 1, 2, 3, and pl. 2. Great Nicobar, Nicobar Islands.

TUPAIA NICOBARICA SURDA Miller, 1902

1902. *Tupaia nicobarica surda* Miller, Proc. U.S. Nat. Mus. *24:* 774. Little Nicobar, Nicobar Islands.

Tupaia minor Günther, 1876 — Günther's Tree-Shrew

Approximate distribution of species: Malay States, Sumatra, Borneo; north into South Siam.

(TUPAIA MINOR MINOR Günther, 1876. Extralimital)

1876. *Tupaia minor* Günther, P.Z.S. 426. Borneo, mainland opposite Island of Labuan.

TUPAIA MINOR MALACCANA Anderson, 1879

1879. *Tupaia malaccana* Anderson, Zool. Res. Yunnan, 134, pl. 7. Malacca. Chasen (1940, 10) quotes two immature examples of *T. minor* from Koh Lak, South-West Siam. We are unable to trace this locality, but have reason to believe it is just inside our region, and extralimital to the part of Peninsular Siam covered by Chasen.