JOURNAL

OF THE

FEDERATED MALAY STATES

MUSEUMS.

VOL. II.

DECEMBER, 1906, TO MARCH, 1909.

KUALA LUMPUR:
PRINTED AT THE F.M.S. GOVERNMENT PRINTING OFFICE.

1909.

275/8-09.

greatest length, 52; basal length, 45; palatal length, 25; least palatal breadth, 4.75; diastema, 15; length of upper molar-row, 9; length of palatal foramina, 8.25; combined breadth of foramina, 3.25; median length of nasals, 20; interorbital breadth, 7; cranial breadth, 18; zygomatic breadth, 24; greatest length of bullæ, 8.5; greatest depth of bullæ from highest point in inferior edge of squamous bone, 9; anterior breadth of basi-occipital, 5 m.m.

Specimens examined.—Four, all from Singapore Island.

Remarks.—Though allied to *Mus validus* this rat may be immediately distinguished by the abruptness of the line of demarcation between the colours of the sides and abdomen. Its skull notably differs in the larger bullæ and less developed post-orbital ridges.

A PROVISIONAL LIST OF THE MAMMALS OF THE PENINSULAR REGION.

By C. BODEN KLOSS.

THE last and most complete account of the Mammals of the Malay Peninsula previously drawn up was that of Mr. Stanley S. Flower (P.Z.S., 1900, pp. 338-351), in which about one hundred and forty species are recorded from our area. The work of naturalists during the last ten years, during which period there has been a great revival of interest in the Zoology of the Peninsula, has added considerably to the amount, which has been further increased by the discovery of a number of geographical races in the adjacent small islands that had hitherto remained unvisited, so that at the moment of writing, and disregarding reports shortly forthcoming on recent collections, the mammal fauna is now swollen to a total of nearly two hundred and twenty.

The Peninsular Region as treated here may be defined as containing the Malay Peninsula south of the Isthmus of Kra and all the small islands closely adjacent, of which the principal are:—Junkceylon, the entire Langkawi group, Penang, Pulo Jarak, Singapore, the Tioman and Tinggi chains, the Redangs and the group of islands off the Bandon Bight: but not the Rhio Archipelago, the fauna of which is more nearly related elsewhere than to the Peninsula.

Order PRIMATES.

APES, MONKEYS AND LEMURS.

1. Symphalangus *sp.*
2. Hylobates lar (*Linn.*).
3. Hylobates agilis, *F. Cuvier.*
4. Presbytes cristatus (*Raffles*).
5. Presbytes obscurus (*Reid*).
6. Presbytes femoralis (*Horsf.*).
7. Presbytes albocinereus (*Cantor*).
8. Macaca fascicularis (*Raffles*).
9. Macaca nemestrina (*Linn.*).

9*a*. Macaca nemestrina adusta, *Miller.*

10. Macaca rufescens, *Anderson.*
11. Nycticebus malayanus (*Anderson*).

Order CARNIVORA.

CATS, CIVETS, MONGOOSES, DOGS, MARTENS, WEASELS, OTTERS AND BEARS.

12. Felis tigris, *Linn.*
13. Felis pardus, *Linn.*
14. Felis nebulosa, *Griffith.*
15. Felis marmorata, *Martin.*
16. Felis bengalensis, *Kerr.*
17. Felis temmincki, *Vig. & Horsf.*
18. Felis planiceps, *Vig. & Horsf.*
19. Viverra zibetha, *Linn.*
20. Viverra megaspila, *Blyth.*
21. Viverra tangalunga, *Gray.*
22. Viverricula malaccensis, *Gmel.*
23. Hemigale hardwickii (*Gray*).
24. Prionodon maculosus, *Blanford.*
25. Paradoxurus hermaphroditus, *Pallas.*
25*a*. Paradoxurus hermaphroditus macrodus, *Gray.*
26. Paradoxurus (hermaphroditus) milleri, *Kloss.*
27. Paradoxurus niger, *Desm.*
28. Paradoxurus minor, *Bonhote.*
29. Paradoxurus leucomystax (*Gray*).
30. Paradoxurus leucomystax robustus, *Miller.*
31. Arctogalidia leucotis, *Blyth.*
32. Arctogalidia major, *Miller.*
33. Arctictis binturong (*Raffles*).
34. Cynogale bennetti, *Gray.*
35. Herpestes mungo (*Gmel.*).
36. Herpestes brachyurus, *Gray.*
37. Herpestes javanicus (*Geoffr.*).
38. Cyon rutilans (*S. Müll.*).
39. Mustela flavigula peninsularis, *Bonhote.*
40. Putorius nudipes (*F. Cuvier*).
41. Lutra cinerea, *Illiger.*
42. Lutra sumatrana, *Gray.*
43. Lutra macrodus, *Gray.*
44. Ursus malayanus, *Raffles.*

Order UNGULATA.

ELEPHANTS, RHINOCEROSES, TAPIRS, CATTLE, GOATS, DEER, MOUSE-DEER AND PIGS.

45. Elephas maximus, *Linn.*
46. Rhinoceros sondaicus, *Cuv.*
47. Rhinoceros sumatrensis, *Cuv.*
48. Tapirus indicus, *Cuv.*
49. Bos gaurus hubbacki, *Lydekker.*
50. Bos sondaicus butleri, *Lydekker.*
51. Nemorhædus swettenhami, *Butler.*
52. Cervulus muntjac grandicornis, *Lydekker.*
53. Cervus unicolor equinus, *Cuv.*
54. Tragulus canescens, *Miller.*
55. Tragulus (canescens) umbrinus, *Miller.*
56. Tragulus (canescens) rufulus, *Miller*
57. Tragulus ravus, *Miller.*
58. Tragulus (ravus) lancavensis, *Miller.*
59. Tragulus (ravus) ravulus, *Miller.*
60. Sus jubatus, *Miller.*
60*a*. Sus (jubatus) jubatulus, *Miller.*
61. Sus peninsularis, *Miller.*

Order RODENTIA.

SQUIRRELS, RATS, BAMBOO-RATS AND PORCUPINES.

62. Petaurista melanotus, *Gray.*
62*a*. Petaurista (melanotus) terutaus, *Miller.*[1]
63. Petaurista punctata (*Gray*).
64. Iomys horsfieldi (*Waterhouse*).

[1] The validity of forms marked *a* appears to be questionable. Sub-species are indicated by trinomials but insular races have the typical specific name placed in parentheses.

SQUIRRELS, RATS, BAMBOO-RATS AND PORCUPINES (*cont.*)

65. Iomys davisoni (*Thomas*).
66. Pteromyscus pulverulentus (*Günth.*).
67. Sciuropterus tephromelas (*Günth.*).
68. Sciuropterus spadiceus, *Blyth.*
69. Ratufa melanopepla, *Miller.*
69*a*. Ratufa (melanopepla) tiomanicus, *Miller.*
70. Ratufa affinis (*Raffles*)
71. Ratufa affinis aureiventer, (*Geoff.*).
72. Ratufa pyrsonota, *Miller.*
73. Sciurus prevosti, *Desm.*
74. Sciurus prevosti humei, *Bonhote.*
75. Sciurus hippurus, *Is. Geoff'r.*
76. Sciurus castaneoventris griseopectus, *Blyth.*
76*a*. Sciurus castaneoventris rubeculus, *Miller.*
77. Sciurus erythraeus, *Pallas.*
78. Sciurus caniceps, *Gray.*
79. Sciurus (caniceps) lancavensis, *Miller.*
80. Sciurus (caniceps) adangensis, *Miller.*
81. Sciurus caniceps epomorphus, *Bonhote.*
82. Sciurus caniceps concolor, *Blyth.*
83. Sciurus bilimitatus, *Miller.*
84. Sciurus (bilimitatus) microrhynchus, *Kloss.*
85. Sciurus vittatus, *Raffles.*
86. Sciurus (vittatus) tenuirostris, *Miller.*
87. Sciurus (vittatus) permangilensis, *Miller.*
88. Sciurus (vittatus) aoris, *Miller.*
89. Sciurus tenuis, *Horsf.*
89*a*. Sciurus tenuis surdus, *Miller.*
90. Sciurus tenuis tahan, *Bonhote.*
91. Sciurus robinsoni, *Bonhote.*
92. Sciurus macclellandi novemlineatus, *Miller.*
93. Funambulus jalorensis, *Bonhote.*
94. Funambulus jalorensis peninsulæ, *Miller.*
95. Funambulus rufigenis belfieldi, *Bonhote.*
96. Rhinosciurus tupaioides, *Gray.*
97. Rhinosciurus, *sp.*
98. Rhinosciurus robinsoni, *Thomas.*
99. Hapalomys longicaudatus, *Blyth.*
100. Chiropodomys gliroides, *Blyth.*
101. Mus vociferans, *Miller.*
102. Mus (vociferans) lancavensis, *Miller.*
103. Mus (vociferans) stridens, *Miller.*
104. Mus ciliatus, *Bonhote.*
105. Mus surifer, *Miller.*
106. Mus (surifer) flavidulus, *Miller.*
107. Mus (surifer) butangensis, *Miller.*
108. Mus (surifer) microdon, *Kloss.*
109. Mus pellax, *Miller.*
110. Mus jerdoni bukit, *Bonhote.*
111. Mus cremoriventer, *Miller.*
112. Mus asper, *Miller.*
113. Mus klossi, *Bonhote.*
114. Mus inas, *Bonhote.*
115. Mus ferreocanus, *Miller.*
116. Mus validus, *Miller.*
117. Mus villosus, *Kloss.*
118. Mus annandalei, *Bonhote.*
119. Mus jalorensis, *Bonhote.*
120. Mus (jalorensis) jarak, *Bonhote.*
121. Mus (jalorensis) tiomanicus, *Miller.*
122. Mus (jalorensis) pannosus, *Miller.*
123. Mus concolor, *Blyth.*
123*a*. Mus pullus, *Miller.*
124. Mus rufescens, *Gray.*
125. Mus griseiventer, *Bonhote.*

SQUIRRELS, RATS, BAMBOO-RATS AND PORCUPINES—(*cont.*)

126. Mus decumanus, *Pallas.*
127. Mus musculus, *Linn.*
128. Gunomys varius, *Thomas.*
129. Gunomys varius varillus, *Thomas.*
130. Rhizomys sumatrensis (*Raffles*).
131. Acanthion brachyurum (*Linn.*).
132. Atherurus macrourus (*Linn.*).
133. Atherurus (macrourus) zygomaticus, *Miller.*
134. Atherurus (macrourus) tionis, *Thomas.*
135. Atherurus (macrourus) terutaus, *Lyon.*
136. Trichys lipura, *Günther.*

ORDER INSECTIVORA.

TREE-SHREWS, GYMNURAS, SHREWS AND FLYING-LEMURS.

137. Tupaia ferruginea, *Raffles.*
138. Tupaia ferruginea belangeri, *Wagn.*
139. Tupaia (ferruginea) sordida, *Miller.*
140. Tupaia (ferruginea) pulonis, *Miller.*
141. Tupaia malaccana, *Anderson.*
142. Ptilocercus lowi, *Gray.*
143. Gymnura raffiesi, *Vig. and Horsf.*
144. Hylomys suillus, *Müll. and Schleg.*
145. Crocidura murina (*Linn.*).
146. Crocidura murina cærulea (*Kerr*).
146*a*. Crocidura fuscipes, *Peters.*
147. Crocidura fuliginosa (*Blyth*).
148. Galeopterus temmincki, *Waterhouse.*
149. Galeopterus (temmincki) pumilus (*Miller*).
150. Galeopterus (temmincki) aoris (*Miller*).
151. Galeopterus (temmincki) taylori, *Thomas.*

ORDER CHIROPTERA.

BATS (152-207.)

(*Vide* post pp. 151-161.)

ORDER CETACEA.

WHALES, DOLPHINS AND PORPOISES.

208. Balænoptera indica, *Blyth.*
209. Physeter macrocephalus, *Linn.*
210. Phœcana phœcanoides, *Cuv.*
211. Orcella brevirostris (*Owen*).
212. Steno plumbeus, *Dussumier.*
213. Sotalia sinensis (*Gmel.*).
214. Delphinus delphis (*Erxl*).

ORDER SIRENIA.

DUGONGS.

215. Halicore dugong, *Illiger.*

ORDER EDENTATA.

216. Manis javanica, *Desm.*

A LIST OF THE BATS OCCURRING IN THE PENINSULAR REGION WITH A KEY TO THE GENERA.

By C. BODEN KLOSS.

SO far as I am aware I have enumerated in the following list all the bats known to us at present from the Malay Peninsula and its islands. Whilst, however, on the one hand, further investigation may prove that two or three of the species included will have to be finally omitted, continued collecting will undoubtedly result in further additions to the fauna as we are now acquainted with it, for the geographical distribution of several species occurring in surrounding regions indicates that they should eventually be recorded from the Peninsula also, where a large extent of country, almost untouched, may still preserve forms yet undiscovered.

The keys given have been compiled with reference to Peninsular genera only. There is at present nowhere in the East any collection of Malayan bats sufficiently complete to work out upon it a key to the species.

With regard to the abbreviations used:—

(Miller) following generic titles, refers to the most recent work on the subject. "The Families and Genera of Bats," by Gerrit S. Miller, Jr., 1907.

Blanford.—"The Fauna of British India. Mammalia," by W. T. Blanford, 1891.

Dobson.—"Monograph of the Asiatic Chiroptera," by G. E. Dobson, 1876.

Fas. Mal. Zool.—"Fasciculi Malayenses," of N. Annandale and H. C. Robinson, Zoology, Part 1. Mammals.

P. A. N. S. P.—Proceedings of the Academy of Natural Sciences, Philadelphia.

P. W. A. S.—Proceedings of the Washington Academy of Science.

P. Z. S.—Proceedings of the Zoological Society of London.

A. M. N. H.—Annals and Magazine of Natural History, London.

J. A. S. B.—Journal of the Asiatic Society of Bengal.

P. A. S. B.—Proceedings of the Asiatic Society of Bengal.

J. S. B. R. A. S.—Journal, Straits Branch, of the Royal Asiatic Society.

J. F. M. S. M.—Journal of the Federated Malay States Museums.

CHIROPTERA.

KEY TO THE SUB-ORDERS.

A. Neither nose-leaf nor tragus; margin of ear forming an unbroken ring; mandible with angular process practically absent or broad and low ... ... *Megachiroptera.*

B. Either nose-leaf or tragus, or both; margin of ear interrupted at base; mandible with angular process well developed, long and narrow *Microchiroptera.*

Sub-order MEGACHIROPTERA.

Family PTEROPIDÆ.

KEY TO THE SUB-FAMILIES.

A. Tongue moderate; inner margin of nostril projecting; upper surface of mandibular symphysis forming conspicuous angle with alveolar line ... ... *Pteropinæ.*

B. Tongue very long; no projecting margin to nostril; upper surface of mandibular symphysis parallel with alveolar line ... ... *Kiodotinæ.*

Sub-family PTEROPINÆ.

KEY TO THE GENERA.

A. Neck and shoulders much more warmly coloured than rest of back: size larger, head and body much more than 150 mm. ... *Pteropus.*

B. Neck and shoulders not more brilliant than rest of back: size smaller, head and body always less than 150 mm.

a. Five upper and six lower cheek-teeth aside *Rousettas.*

b. Four upper and five lower cheek-teeth aside.

a^1. Two pairs of lower incisors ... ... *Cynopterus.*

b^1. One pair of lower incisors.

a^2. Tail present; rostrum nearly straight above ... ... *Ptenochirus*

b^2. Tail absent; rostrum strongly concave above ... ... *Megærops.*

Genus PTEROPUS (Miller, p. 56).

152. Pteropus edulis, *Geoff.*

Pteropus rampyrus, Linn.

Blanford, p. 259. Dobson, p. 20.

Throughout the Peninsular area except the islands of Tioman, Pemangil and Aor.

152*a*. Pteropus nicobaricus, *Fitzinger.*

Blanford, p. 260. Dobson, p. 17.

A female Fruit-bat from Great Redang Island, off Tringanu, has been identified by Bonhote (P.Z.S., 1900, p. 875) as *P. nicobaricus*, and the species is therefore included. Further confirmation is desired. *P. condorensis*, Peters, another dark Fruit-bat, may eventually be discovered.

152*b*. Pteropus medius, *Temm.*

Pteropus giganteus, Brünnich.

Blanford, p. 257. Dobson, p. 18.

Miller (P.A.N.S.P., 1898, p. 316) doubtfully refers a young adult female from Trang to this species. Not otherwise recorded.

153. Pteropus (hypomelanus) lepidus, *Miller*.

Miller, P.W.A.S., 1900, p. 237.

Islands of Tioman, Permangil and Aor.

154. Pteropus (hypomelanus) tomesi, *Peters*.

Tomes, P.Z.S., 1858, p. 536.

A single male in the Selangor Museum from Pulo Rumpia, off the mouth of the Perak River, has been thus identified by Andersen.

Genus ROUSETTAS (Miller, p. 54).

155. Rousettas amplexicaudata (*Geoff.*).

Xantharpyia amplexicaudata, Blanford, p. 26.

Cynonycteris amplexicaudata, Dobson, p. 29.

The Peninsula.

Genus CYNOPTERUS (Miller, p. 47).

156. Cynopterus montanoi, *Robin*.

Cynopterus marginatus (Geoff.); Thomas, P.Z.S., 1886, p. 73; Blanford, p. 263; Dobson, p. 24.

Cynopterus sphinx (Vahl.); Bonhote, P.Z.S., 1900, p. 875; Fas. Mal. Zool. vol. I., p. 14.

The Peninsula and Islands.

157. Cynopterus angulatus, *Miller*.

Miller, P.A.N.S.P., 1900, p. 316.

The Peninsula (type from Trang). Doubtfully distinct from the preceding species: smaller and projection at base of outer margin of ear pointed.

Genus PTENOCHIRUS (Miller, p. 51).

158. Ptenochirus lucasi (*Dobson*).

Cynopterus lucasi, Dobson, A.M.N.H., August, 1880, p. 163.

Thomas, A.M.N.H., 1898, p. 361; Bonhote, P.Z.S., 1900, p. 875.

The Peninsula and Singapore.

Genus MEGÆROPS (Miller, p. 51).

159. Megærops ecaudata (*Temm.*).

Cynopterus ecaudatus, Dobson, p. 29; Bonhote, Fas. Mal. Zool. vol. I., p. 15.

The Peninsula; Bidor, South Perak.

Sub-family KIODOTINÆ.

KEY TO THE GENERA.

A. A claw on index-finger; tail rudimentary ... *Kiodotus*.

B. No claw on index-finger; tail distinct ... *Eonycteris*.

GENUS KIODOTUS (MILLER, p. 70).

160. KIODOTUS MINIMUS (*Geoff.*).

Carponycteris minima, Blanford, p. 265.

Macroglossus minimus, Dobson, p. 34.

Bonhote, P.Z.S., 1900, p. 875; Fas. Mal. Zool. vol. I., p. 15.

The Peninsula, Patani and North Perak.

GENUS EONYCTERIS (MILLER, p. 69).

161. EONYCTERIS SPELÆA, *Dobson*.

Blanford, p. 266. Dobson, p. 33.

The Peninsula.

SUB-ORDER MICROCHIROPTERA.

KEY TO THE FAMILIES.

A. Nose-leaf absent, tragus present.

a. Second bone of middle finger folded back towards the upper surface of the wing in repose; tail perforating its membrane on the upper surface, or considerably produced beyond a much truncated membrane ... *Emballonuridæ*.

b. Second bone of middle finger extended in repose: tail contained within membrane or very little produced beyond it ... ... *Vespertilionidæ*.

B. Nose-leaf present.

a. Tragus absent ... ... *Rhinolophidæ*.

b. Tragus present ... ... *Nycteridæ*.

FAMILY EMBALLONURIDÆ.

KEY TO THE SUB-FAMILIES.

A. Tail slender, much longer than the slender legs and emerging above near the margin of the narrow membrane; index finger with two distinct joints; upper incisors weak; postorbital processes absent ... *Rhinopominæ*.

B. Tail slender, much shorter than the slender legs and emerging above near the centre of the broad membrane; index finger with no joint; upper incisors weak; postorbital processes present ... ... *Emballonurinæ*.

C. Tail stout, not shorter than the stout legs and produced far beyond the membrane, which it leaves at the margin; index finger with one indistinct joint; upper incisors strong: postorbital processes absent ... ... *Molossinæ*.

Sub-family RHINOPOMINÆ.

Genus RHINOPOMA (Miller, p. 81).

162. Rhinopoma microphyllum, *Geoff.*

Blanford, p. 351. Dobson, p. 174.

Rhinopoma hardwickii, Gray; Cantor, J.A.S.B., 1846.

The Peninsula, Ghirbi.

Sub-family EMBALLONURINÆ.

KEY TO THE GENERA.

A. Two pairs of upper and three pairs of lower incisors; size smaller, head and body less than 50 mm. ... ... *Emballonura.*

B. One pair of upper and two pairs of lower incisors; size larger, head and body more than 75 mm. ... ... *Taphozous.*

Genus EMBALLONURA (Miller, p. 86).

163. Emballonura peninsularis, *Miller.*

Miller, P.A.N.S.P., 1898, p. 323.

Bonhote, Fas. Mal. Zool., vol. I., p. 18.

? Emballonura semicaudata, Blanford, p. 345.

The Peninsula and Singapore (type from Trang).

Genus TAPHOZOUS (Miller, p. 93).

164. Taphozous melanopogon, *Temm.*

Blanford, p. 347. Dobson, p. 167. Flower, P.Z.S., 1900, p. 349.

The Peninsula; Islands of Langkawi, Penang and Singapore.

165. Taphozous longimanus, *Hardwicke.*

Blanford, p. 348. Dobson, p. 170.

Taphozous longimanus albipennis, Thomas, A.M.N.H., ser. 7, vol. II., p. 246.

The Peninsula.

166. Taphozous saccolæmus, *Temm.*

Blanford, p. 350. Dobson, p. 172. Cantor, J.A.S.B., 1846.

The Peninsula, Penang, Singapore.

167. Taphozous affinis, *Dobson.*

Dobson, A.M.N.H., 1875, p. 232.

Dobson, p. 173.

A single example from Singapore is recorded by Ridley (J.S.B.R.A.S., No. 31, p. 104).

Sub-family MOLOSSINÆ.

KEY TO THE GENERA.

A. Ears more or less united on forehead before eyes; body clothed with hair; two pairs of lower incisors ... ... *Chærephon.*

B. Ears widely separated; body essentially naked; one pair of lower incisors ... ... *Cheiromeles.*

Genus CHÆREPHON (Miller, p. 244).

168. Chærephon plicatus (*Buchanan*).

Nyctinomus plicatus, Blanford, p. 354; Dobson, p. 183.

Nyctinomus tenuis, Horsf., Cantor, J.A.S.B., 1846.

The Peninsula and Singapore.

169. Chærephon johorensis (*Dobson*).

Dobson, P.A.S.B., Jan., 1873. Dobson, p. 183.

A single specimen is known from South Johore.

Genus CHEIROMELES (Miller, p. 249).

170. Cheiromeles torquatus, *Horsf.*

Dobson, p. 177. Flower, P.Z.S., 1900, p. 350.

Peninsula; Singapore and Penang.

Family VESPERTILIONIDÆ.

KEY TO THE SUB-FAMILIES.

A. Tail shorter than head and body ... ... *Vespertilioninæ.*

B. Tail not shorter than head and body ... ... *Kerivoulinæ.*

Sub-family VESPERTILIONINÆ.

KEY TO THE GENERA.

A. Only one pair of upper incisors ... ... *Pachyotus.*

B. Two pairs of upper incisors.

a. Upper and lower cheek-teeth six aside ... *Myotis.*

b. Upper and lower cheek-teeth five aside.

a^1. Fifth finger only slightly longer than the largest bone of fourth and middle fingers ... ... *Pterygistes.*

b^1. Fifth finger longer than the largest and next bone together of fourth and middle fingers.

a^2. Outer upper incisor curved backwards *Pipistrellus.*

b^2. Outer upper incisor curved outwards... *Glischropus.*

c. Upper and lower cheek-teeth four and five aside, respectively.

a[1]. Skull noticeably flattened, occipital depth less than one-third greatest length; outer upper incisor level with inner ... ... *Tylonycteris*.

b[1]. Skull not noticeably flattened, occipital depth more than one-third geatest length; outer upper incisor directly behind inner *Hesperoptenus*.

GENUS PACHYOTUS (MILLER, p. 219).

171. PACHYOTUS KUHLI (*Leach*).

Nycticejus kuhli, Blanford, p. 320.

Scotophilus temminckii, Dobson, p. 120.

Peninsula and Islands.

172. PACHYOTUS CASTANEUS (*Horsf.*).

Nycticejus kuhli, Flower, P.Z.S., 1900, p. 346.

Scotophilus castaneus, Bonhote, Fas. Mal. Zool., vol. I., p. 17.

Peninsula and Penang.

GENUS MYOTIS (MILLER, p. 200).

173. MYOTIS HASSELTI (*Temm.*).

Vespertilio hasselti, Blanford, p. 330; Dobson, p. 126.

The Peninsula.

174. MYOTIS ADVERSUS (*Horsf.*).

Vespertilio adversus, Blanford, p. 330; Dobson, p. 128; Hanitsch, Rep. Raffles Mus. and Libr., 1897, p. 11.

Singapore.

175. MYOTIS OREIAS (*Temm.*).

Vespertilio oreias, Dobson, Cat. Chir. B.M., p. 305.

Singapore.

176. MYOTIS MURICOLA (*Temm.*).

Vespertilio muricola, Blanford, p. 337; Dobson, p. 134.

The Peninsula, Penang and Singapore.

177. MYOTIS EMARGINATUS (*Geoff.*).

Vespertilio emarginatus, Dobson, p. 142. Bonhote, P.Z.S., 1900, p. 876.

The Peninsula, Biserat (Bonhote).

GENUS PTERYGISTES (MILLER, p. 207).

178. PTERYGISTES NOCTULA (*Schreb.*).

Vesperugo noctula, Blanford, p. 308; Dobson, p. 88.

The Peninsula and Singapore.

Genus PIPISTRELLUS (Miller, p. 204).

179. Pipistrellus abramus (*Temm.*).

Vesperugo abramus, Blanford, p. 313; Dobson, p. 97.

The Peninsula, Jalor; Singapore; Penang.

180. Pipistrellus imbricatus (*Horsf.*).

Vesperugo imbricatus, Dobson, p. 93; Flower, P.Z.S., 1900, p. 34.

The Peninsula, Malacca.

181. Pipistrellus tenuis (*Temm.*).

Vesperugo tenuis, Dobson, p. 98.

Kirivoula tenuis, Cantor, J.A.S.B., 1846.

Penang.

182. Pipistrellus ridleyi, *Thomas*.

Thomas, A.M.N.H., ser. 7, vol. i., p. 361.

Selangor (type from Kepong).

Genus GLISCHROPUS (Miller, p. 205).

183. Glischropus tylopus (*Dobson*).

Vesperugo tylopus, Dobson, P.Z.S., 1875, p. 473. Dobson, p. 114.

The Peninsula, Jalor (Bonhote, P.Z.S., 1900, p. 876).

Genus TYLONYCTERIS (Miller, p. 212).

184. Tylonycteris pachypus (*Temm.*).

Miller. P.A.N.S.P., 1898, p. 321.

Vesperugo pachypus, Blanford, p. 307; Dobson, p. 115.

The Peninsula, Trang (Miller).

Genus HESPEROPTENUS (Miller, p. 211).

185. Hesperoptenus blanfordi, *Dobson*.

Vesperugo blanfordi, Dobson, J.A S.B., xlvi., p. 312; Blanford, p. 317.

The Peninsula, Selangor, Johore (Anderson, Cat. Mam. Ind. Mus., pt. 1, p. 133).

186. Hesperoptenus tomesi, *Thomas*.

Thomas, A.M.N.H., ser. 7, vol. xvi., p. 575.

The Peninsula (type from Malacca).

Sub-family KERIVOULINÆ.

Genus KERIVOULA (Miller, p. 232).

187. Kerivoula picta (*Pallas*).

Blanford, p. 339. Dobson, p. 146.

Kirivoula picta, Cantor, J.A.S.B., 1846.

The Peninsula; Penang (Cantor).

188. Kerivoula minuta, *Miller.*

Miller, P.A.N.S.P., 1898, p. 321.

The Peninsula (type from Trang).

189. Kerivoula bicolor, *Thomas.*

Thomas, A.M.N.H., ser. 7, vol. xiv., p. 199.

The Peninsula (type from Jalor).

Family RHINOLOPHIDÆ.

key to the sub-families.

A. A distinct antitragus markedly separated by a notch from the outer margin of the ear; upper and hinder nose-leaf pointed; six lower cheek-teeth aside ... ... *Rhinolophinæ.*

B. A slight antitragus not separated by a notch from the outer margin of the ear; upper and hinder nose-leaf not pointed; five lower cheek-teeth aside ... ... *Hipposiderinæ.*

Sub-family RHINOLOPHINÆ.

Genus RHINOLOPHUS (Miller, p. 108).

190. Rhinolophus malayanus, *Bonhote.*

Bonhote, Fas. Mal. Zool., vol. i., p. 15.

Andersen, P.Z.S., 1905, vol. ii., p. 89.

The Peninsula (type from Jalor).

191. Rhinolophus stheno, *Andersen.*

Andersen, P.Z.S., 1905, vol. ii., p. 91.

The Peninsula (type from Selangor); Penang Island.

192. Rhinolophus affinis superans, *Andersen.*

Andersen, P.Z.S., 1905, vol. ii., p. 104.

Rhinolophus affinis, Horsf. Miller, P.A.N.S.P., 1898, p. 319; Blanford, p. 274; Dobson, p. 47.

The Peninsula, Trang and Pahang (type).

193. Rhinolophus refulgens, *Andersen.*

Andersen, P.Z.S., 1905, vol. ii., p. 124.

The Peninsula, Selangor and Perak (type from Gunong Ijau).

194. Rhinolophus minor, *Horsf.*

Blanford, p. 276; Dobson, p. 50.

The Peninsula, Batu Caves, Selangor (Thomas, A.M.N.H., ser. 7, vol. i., p. 361), Biserat (Bonhote, Fas. Mal. Zool., vol. i., p. 16).

195. Rhinolophus sedulus, *Andersen.*

Andersen, A.M.N.H., ser. 7, vol. xvi., p. 247.

The Peninsula, Pahang.

196. Rhinolophus trifoliatus, *Temm.*

Blanford, p. 272; Dobson, p. 41; Miller, P.A.N.S.P., 1898, p. 319.

Andersen, A.M.N.H., ser. 7, vol. xvi., p. 249.

The Peninsula and Singapore.

197. Rhinolophus luctus, *Temm.*

Blanford, p. 270; Dobson, p. 39; Andersen, A.M.N.H., ser. 7, vol. xvi, p. 251.

The Peninsula and Singapore.

198. Rhinolophus cœlophyllus, *Peters.*

Blanford, p. 272; Dobson, p. 53.

Andersen, A.M.N.H., ser. 7, vol. xvi., p. 651.

The Peninsula, Kedah.

Sub-family HIPPOSIDERINÆ.

KEY TO THE GENERA.

A. Foremost part of nose-leaf not divided ... *Hipposideros.*

B. Foremost part of nose-leaf divided into two distinct lappets ... ... *Cœlops.*

Genus HIPPOSIDEROS (Miller, p. 109).

199. Hipposideros diadema (*Geoff.*).

Blanford, p. 284; Dobson, p. 64. Andersen, A.M.N.H., ser. 7, vol. xvi., p. 499.

The Peninsula, Jalor (Bonh., P.Z S., 1900), Johore (Thomas, P.Z.S., 1886), Penang (Cantor).

200. Hipposideros armiger debilis, *Andersen.*

Andersen, A.M.N.H., ser. 7, vol. xvii., p. 37.

Hipposideros armiger, Hodgson; Blanford, p. 283.

Phyllorhina armigera, Dobson, p. 64.

The Peninsula (type from Province Wellesley); Penang Island (Cantor, J.A.S.B., 1846).

201. Hipposideros galeritus, *Cantor.*

Cantor, J.A.S.B., 1846, p. 183; Blanford, p. 287.

Phyllorina galerita, Dobson, p. 69.

The Peninsula: Singapore and Penang (type).

202. Hipposideros larvatus (*Horsf.*).

Blanford, p. 288. Miller, P.A.N.S.P., 1898, p. 319.

Phyllorhina larvata, Dobson, p. 68.

The Peninsula; Penang (Cantor, J.A.S.B., 1846).

203. Hipposideros bicolor (*Temm.*).

Blanford, p. 289; Flower, P.Z.S., 1900, p. 343.

Phyllorhina bicolor, Dobson, p. 70.

The Peninsula; Penang and Singapore.

204. Hipposideros stoliczkanus (*Dobson*).

Phyllorhina stoliczkana, Dobson, p. 61; Dobson, P.A.S.B., 1871, p. 106.

Penang Island (type).

Genus Cœlops (Miller, p. 113).

205. Cœlops robinsoni, *Bonhote.*

Bonhote, J.F.M.S.M., 1908, p. 4.

The Peninsula (type from Gunong Tahan).

Family NYCTERIDÆ.

KEY TO THE GENERA.

A. Tail long; nose-leaf slight, consisting of a deep facial groove bordered by expansions of skin; premaxillaries present ... ... *Nycteris.*

B. Tail absent; nose-leaf distinct, long and erect; premaxillaries absent ... ... *Megaderma.*

Genus Nycteris (Miller, p. 101).

206. Nycteris javanica, *Geoff.*

Blanford, p. 295; Dobson, p. 79.

The Peninsula, Malacca (Andersen, Cat. Mamm. Ind. Mus. pt. 1, p. 122), Jalor (Bonh., Fas. Mal. Zool. vol. I., p. 17).

Genus Megaderma (Miller, p. 103).

207. Megaderma spasma, *Linn.*

Blanford, p. 294; Dobson, p. 79.

The Peninsula; Penang and Singapore.

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