

## A REDESCRIPTION OF *SOLOMYS* ("MUS") *SALAMONIS* RAMSAY.

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It is of interest to note of the "New species of *Mus* from the Island of Ugi, Solomon Group", described in the PROCEEDINGS for 1882 by E. P. Ramsay, then Curator of the Australian Museum, that not only was it the first indigenous rat reported from the group, but actually the second species of non-chiropterous mammal to be recorded as well, although a remarkably varied murine and chiropterous fauna has since been listed from the Solomons.

Representatives of the only marsupial inhabitant, a geographical race of *Cuscus* (*Phalanger orientalis breviceps* Thomas), and the first collection of bats, had previously been obtained during the voyage of 'H.M.S. *Herald*' in 1855 by the famous naturalist John Macgillivray, and Dr. F. M. Rayner, who presented the material to the British Museum.

Apparently the next definite attempt at collecting in the group occurred some twenty-five years later, when, by courtesy of the naval authorities, Alexander Morton, then assistant taxidermist at the Australian Museum, accompanied the punitive expedition on board 'H.M.S. *Cormorant*', despatched in 1881 to investigate tragic happenings in the Solomons.

An excellent collection of birds included striking novelties described in the PROCEEDINGS for 1882, in which Morton also supplied interesting "Notes on the Cruise" and wrote concerning collecting on Ugi Island, near San Christoval in the south-eastern extremity of the group, that "Mammals were very scarce, an opossum, *Cuscus orientalis*, the species common throughout the islands, and a Rat, an undescribed species of *Mus*, being the only species obtained".

In reviewing the important collections of mammals sent to the British Museum by the late C. M. Woodford, C.M.G., following his arrival in the Solomons in 1886, Oldfield Thomas repeatedly misquoted the locality of *Mus salamonis* as being Florida Island, although it is perfectly clear from Ramsay's title and description, as well as Morton's account, that Ugi was the type locality. The implied uncertainty of habitat, coupled with the impossibility of deciding its generic affinities from the brief description, therefore led to the species being generally regarded as of doubtful authenticity.

Although the holotype skin unfortunately disappeared many years ago, careful examination of the "old collection" crania in the Museum resulted in the discovery of the holotype skull, the identity of which is definitely established by comparison with Ramsay's illustrations. The description of the hairless tail showed the animal to be of the arboreal *Uromys* type, and the cranial features now prove it to belong to the closely allied genus *Solomys*, originally provided by Thomas (*Ann. Mag. Nat. Hist.*, (9) ix, 1922, 261) for his *Uromys sapientis* from Ysabel

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\* Contribution from the Australian Museum.



Island, east central Solomons. Also included in the genus is a third species, *S. salebrosus* Troughton (*Rec. Austr. Mus.*, xix (5), 1936, 341-354) recently described from Bougainville Island at the north-western extremity of the group.

It is indeed satisfactory to confirm the status of this interesting species, described in the PROCEEDINGS more than fifty years ago, and to amplify its description in accordance with the needs of modern mammalogy.

#### SOLOMYS SALAMONIS Ramsay.

*Mus salamonis* Ramsay, *PROC. LINN. SOC. N.S.W.*, vii, 1882 (1883), p. 43, Pl. ii (v), figs. 1-7. Ugi Island.

*Diagnosis.*—A pale, grizzled, "light ashy grey", rather harshly furred animal, with the termination of palate and the bullae and other features quite typical of *Solomys*. Differing from the allied forms by its smaller size, decidedly broader and straighter margined interorbital region, and smaller tympanic bullae. Habitat: Ugi Island, near San Christoval, south-eastern Solomons.

*External characters.*—According to Ramsay, "General colour of the fur, of a light ashy grey, somewhat grizzly, and pencilled with black, the base of the hair mouse colour, the tips almost white: long black hairs extending about half an inch beyond the fur, which is slightly harsh to the touch; the tail bare, scaly; the whiskers long, blackish; the ears small, inside grey, on the outside covered with minute hairs."

*Holotype skull.*—Compared with a topotypical skull of *S. sapientis*, possessing all features regarded as typical of the genus, though the narrowing of the mesopterygoid fossa anteriorly is less marked, with a corresponding reduction of the palatal emargination, and the bullae are relatively smaller, less inflated, and more transparent. Interorbital region comparatively broad and straight-sided, the margins not markedly concave as in *sapientis*, or sinuous as in *salebrosus*. Palatal foramina distinctly smaller in the slightly larger skull, and decidedly constricted in their anterior third instead of evenly bowed as in the topotype *sapientis*. Zygomatic plate wider, and broadly convex instead of straight in profile, the upper edge more rounded but not projecting above as in Ramsay's figure.

*Dentition.*—Size and pattern of upper molars quite as in the allied forms, but the lower series differing unusually in being longer and much heavier than the upper row, the greater width being most evident in  $m_3$ , the greatest width of which is 2.9, against 2.6 mm. in the specimen of *sapientis*, while the posterior lamina is 2.1 against 1.6 mm. and obviously larger, giving the lower row a broadly angulate appearance posteriorly.

*Dimensions of holotype, male.*—In spirit, vide Ramsay: Head and body 216; tail 224; pes 44.3; ear, from top of head, 13 mm.

Skull: Greatest length 49; basal length 43.8; zygomatic breadth 28.1; interorbital width 8.9; nasals  $17.8 \times 5.3$ ; palatal length 25.9; palatal foramina  $6.2 \times 2.8$ ; upper molar row 10.4; width of  $m^1$  3; lower row 10.5; bulla, length 5.9, breadth, including meatal tubercle, 6.4 mm.

*Holotype.*—Skull only in existence, registered No. A.11257 in the Australian Museum. Collected about May, 1881, by Alexander Morton, Assistant Taxidermist to the Museum, on Ugi Island, off the northern coast of San Christoval in the Solomons group.

*Comparison with allies.*—The description has been amplified in comparison with *sapientis* because of its intermediate range. Although it is quite possible that examination of a series of skins of *salamonis* might tend to link superficially



the three forms, specific distinction is most advisable at present and appears fully justified by the cranial and dental differences.

Various dimensions indicate that *salamonis* is the smallest form, with smaller and less inflated bullae than either ally, while the interorbital region is comparatively much broader and has almost straight margins, instead of them being evenly concave as in *sapientis*, or sinuous as in *salebrosus*. It agrees with *sapientis* in having the tail longer than the head and body, instead of averaging shorter as in *salebrosus*, but differs from *sapientis* in the comparatively much heavier lower molar row.

*Remarks.*—The members of this genus are apparently the Solomons representatives of the large arboreal *Uromys* of the Aru Islands, New Guinea, and north-eastern Queensland. The habits are evidently similar, as *U. caudimaculata* of the mainland has been reported to knock down and gnaw coconuts in the Cairns district, while Mr. N. S. Heffernan, when District Officer at Ysabel Island, observed of *S. sapientis* that "the big and large-toothed rats, called 'Vanete' by the natives, are wonderfully active and must be almost entirely arboreal as they crack the Ngali (Canarium) nuts and gnaw the coconuts, and are found in trees felled by the natives who eat them".

The habits of *S. salamonis* are doubtless the same, and it is fortunate, in view of the large and varied rat population of the group, that the dense vegetation which led to the development of many arboreal forms in the Solomons may also prevent them affecting the food supplies of the natives, as various species are reported to be doing in parts of New Guinea.

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Troughton, Ellis. 1936. "A redescription of *Solomys* ("Mus") *salamonis* Ramsay." *Proceedings of the Linnean Society of New South Wales* 61, 128–130.

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