CHAPTER TWO

TERRESTRIAL MAMMALS

2.1 Terrestrial mammal fauna of south central Seram

The available information on terrestrial mammals in the Moluccas (excluding bats) reflects the generally depauperate fauna. 25 certain species are known from Seram, including about 15 introduced or domesticated by *Homo sapiens*. Of these, 14 were observed during the course of fieldwork in the Nuaulu area. Because of the larger size of land mammals, relatively few specimens were collected compared with other groups, apart from birds and fishes. Complete specimens were restricted to smaller species, although bone material from larger species was collected when available.

Those certain species reported from Seram, but not observed or collected include the following:

Peramelidae

Rhynchomeles prattorum, Seram island bandicoot

Muridae

Murinae

Rattus ceramicus

Rattus rattus manuselae, house rat (black rat)

Rattus ruber feliceus

Melomys aerosus

Melomys fulgens fulgens

Melomys fraterculus

Nesoromys ceramicus

The difference between the number of species observed and those known zoologically from the entire island may be accounted for by relative geographical distribution, particularly differences between highlands and the coast, and the smaller population sizes of unobserved species. For example, all species listed above, with the exception of *Melomys fulgens*, are known only from specimens obtained in the Gunung Binaiya area, between 1000 and 2000 meters.

A checklist of the land mammals reported from south central Seram is presented in table 2.

TABLE 2 Checklist of terrestrial mammal fauna (excluding bats) recorded in the Nuaulu region of south central Seram.

Species	Ecological Zones 1	2	3	4	Nuaulu glosses
MARSUPIALIA					
Phalangeridae Phalangerinae					
Phalanger orientalis orientalis cuscus	+	+	+	-	**mara kokowe** (♂) **mara osu** (♀)
Phalanger maculatus chrysorrhous, spotted cuscus	+	+	+	-	**mara makinete** (♂) **mara siha** (♀)
INSECTIVORA					
Soricidae					
Suncus murinus murinus house shrew	-	-	+	-	**kusa-kusa**
RODENTIA					
Muridae Murinae					
Rattus rattus rattus house rat; black rat	-	-	+	-	**imanona**
Rattus exulans ephippium Pacific rat	-	-	+	-	**imanona, mnaha**
Mus musculus musculus common mouse; house mouse	-	-	+	-	**mnaha**
Melomys mosaic-tailed rat	-	+	+	-	**imanona ai ukune**

CARNIVORA					
Canidae					
Canis familiaris domestic dog	-	-	+	-	asu
Viverridae Viverrinae					
Viverra tangalunga tangalunga the Malay civet	+	+	+	-	lau
Paradoxurinae					
Paradoxurus hermaphroditus setosus, common palm civet	+	+	+	-	kuha
Felidae					
Felis catus domestic cat	-	-	+	-	mau
PERISSODACTYLA					
Equidae					
Equus caballus horse	-	-	+	-	naitanane
ARTIODACTYLA					
Suidae					
Sus scrofa	+	+	+	-	hahu
Sus celebensis wild pig	+	+	+	-	hahu numte
Sus domesticus domestic pig	-	-	+	-	hahu pale

Cervidae					
Cervus timorensis moluccensis	+	+	-		**maianane**
Bovidae					
Bos Taurus/indicus domesticated cattle	-	-	+	-	**korobou, sapi**
Capra hircus domesticated goat	-	-	+	-	**une-une**

Key: Zone 1 = above 1000 metres, principally montane rain forest; Zone 2 = tropical rain forest; Zone 3 = secondary forest, garden and village areas; Zone 4 = freshwater and swamp forest.

2.2 Nuaulu categories applied to land mammals

2.2.1 marane

The category **marane** corresponds to the genus *Phalanger*,[1] in terms of morpho-syntactic status of nomenclature, classification and semantic reference of the label. It is directly equivalent to AM 'kusu'. Morphologically, behaviourally and ritually it cannot readily be confused with any other animal with which the Nuaulu are familiar. Although the distinction between placental and marsupial is of no significance in Nuaulu ethnozoology, it does not follow that the Nuaulu fail to recognise the difference. It is omnivorous (eating fruits, insects and sometimes small vertebrates) and truly arboreal. In fact, apart from certain introduced domesticated species generally not kept by the Nuaulu (deer, pigs and goats), and perhaps civets, it is the largest mammal and quadruped known to the Nuaulu. In addition, it can be readily distinguished aurally, by smell, and by the taste of the meat.

Although discrimination of cuscus from non-cuscus is a matter for little complication, the internal ordering of the category **marane** is not so clear-cut [see Ellen 1975a: 204, table 1, and related text]. It comprises four terminal categories, corresponding to two quite distinct sexually dimorphic species: [2]

2.2.1.1 **mara kokowe** The term is prohibited in the company of the opposite sex, as it stands metaphorically for the penis. In such circumstances the synonym **mara hanaie** (lit. male **marane**) is used. Black dorsal line present, grey; greyish-brown to white; throat to neck

suffused rufous **msinae** in breeding season: male *Phalanger orientalis orientalis*.

2.2.1.2 **mara osu** Possibly a contraction of **osu nakatu** (cockatoo) or **mara osune**. Black dorsal line present, smaller and darker than **kokowe**; similar colouring but no rufous suffusion: female *Phalanger orientalis orientalis*.

2.2.1.3 **mara makinete** Sometimes contracted to **mara inete**. No dorsal line; white body usually spotted but considerable variation in colour; largest cuscus category: female *Phalanger maculatus chrysorrhous* (plate 7).

2.2.1.4 **mara siha** No dorsal line; darkish body usually spotted; dark flanks in contrast to white belly: female *Phalanger maculatus chrysorrhous*.

Generally, informants felt that accurate identification and description required the combination of a number of different types of feature, although standards of relative size and colour were spontaneously offered, but with the caveat that such keys were not a consistently reliable means of identification. Thus, for colour in order of increasing lightness the categories were ordered **osu-kokowe-siha-makinete**; the series also appearing in the same order in terms of increasing size. The circumspection with which such keys were offered indicates a general sensitivity to variation in the distinctive features of cuscus categories. Indeed, except for distinctions such as dorsal line present/dorsal line absent, male genitalia/female genitalia, it would prove exceedingly difficult to describe the differences between cuscus categories purely in terms of contrastive features. In particular, it was stressed that **mara makinete** above all others varied widely in coloration, ranging through black, grey, reddish-brown and white. That such variation is sometimes attributable to age is recognised by Nuaulu informants. This is particularly marked in **mara kokowe,** where there appears to be a consistent terminological distinction between younger forms (or **mara koko putie**) and older forms (**mara koko msinae**), where the younger are distinguished by their generally much whiter and lighter coloration, and the older by a yellow-brown breast. **Mara kokowe** of an intermediate hue are sometimes called **mara makioi,** [3] referring to their mixed (reddish-brown, yellow-brown) coloration. Occasionally animals of indeterminate categories are labelled provisionally as **mara putie** or **mara metene,** referring respectively to specimens of a white or darkish hue, while specimens of **mara kokowe** and **mara siha** showing a rufous suffusion (typical of the breeding season) are at times termed **mara hehue.** The list could be extended, but but as it stands amply demonstrates that despite the plethora of terms, there is no

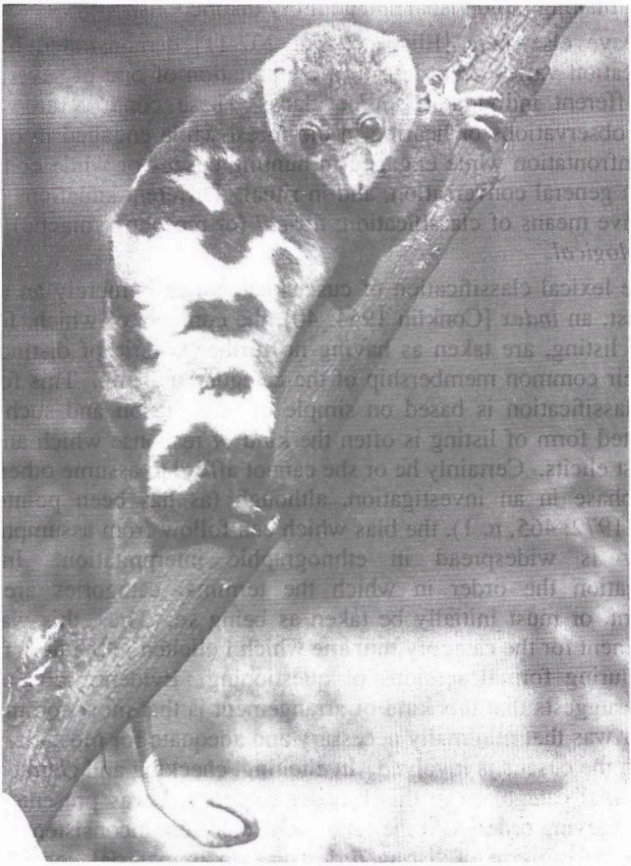


PLATE 7: Spotted cuscus, probably male (**mara makinete**:*Phalanger (Spilocuscus) maculatus*). Photograph reproduced by courtesy of the Zoological Society of London. Print no. 711.

question of any of them being considered as 'natural kinds', so much as descriptions of variant individuals. Predictably, it is the younger immature animals that are the most difficult to identify and irrespective of category these are called **mara porune,** for which restrictions appear not to be so rigidly enforced[4]. In general though, discrimination between adults of these

different categories is regarded as being straightforward and Nuaulu are adept at making rapid visual and auditory distinctions.

I have elsewhere [Ellen, 1975a: 207-11] demonstrated how cuscus classification varies according to a combination of one of several contexts with different individuals and/or clans. These contexts are: occasional chance observations or hearing in the forest while engaged in other activities, confrontation while engaged in hunting cuscus or while consuming its meat, in general conversation, and in ritual. Different situations yield three alternative means of classification: *lexical* (or morpho-syntactic), *ritual* and *morphological*.

The lexical classification of cuscus categories is merely an undifferentiated list, an *index* [Conklin 1964: 40], the contents of which, for the purpose of listing, are taken as having no further criteria of distinction other than their common membership of the category **marane.** This form of primary classification is based on simple class-inclusion and such an undifferentiated form of listing is often the kind of response which an ethnographer first elicits. Certainly he or she cannot afford to assume otherwise at an initial phase in an investigation, although (as has been pointed out by Heider, 1972: 465, n. 1), the bias which can follow from assumptions to the contrary is widespread in ethnographic interpretation. In such a classification the order in which the terminal categories are given is irrelevant, or must initially be taken as being so. Thus, this was the first arrangement for the category **marane** which I elicited in the field from informants during formal sessions of questioning. Evidence obtained subsequently suggests that this kind of arrangement is that most commonly used, or rather was that minimally necessary and adequate for most circumstances in which the cuscus is involved. In eliciting, checking and counter-checking the terminal categories in this broader category, I was presented with the items in varying orders. At the time such consistent inconsistency suggested that for the purpose of listing order was an immaterial consideration. It should be noted that it is only this arrangement which is actually realised in the morpho-syntactic structure of the category, and it is for this reason that I have labelled it the *lexical* classification.

Cuscus is important in a number of major ritual contexts: male initiations, birth rituals, the great ritual house festival, marriage payments and first fruits ceremonies. But it is only for those clans where **mara makinete** is totemically salient, that we can speak of a *ritual* arrangement, in which this category is contrasted with the remaining three. **Mara makinete** is a primary totem for three, and a secondary totem for four, of the existing ten Nuaulu clans [Ellen 1993: table 6.3]. Thus members of all such clans

consider it to be **monne,** sacred; the consumption of its flesh and slaughter prohibited. Finally. there are two alternative *morphological* arrangements: one based on the grouping of like sexes, one based on the grouping together of members of the same species into an unlabelled 'natural kind'.

From the foregoing it will be evident that cuscus is a significant source of animal protein, in fact the third most important in terms of gram-weight consumed[5]. Cuscus are very occasionally kept as household pets, though they tend to be rather smelly. The half-mandibles of butchered animals are used as borers and gravers.

2.2.2 lau, kuha

These two closely-related, and probably overlapping, categories refer focally and respectively to the civets *Viverra tangalunga* and *Paradoxurus hermaphroditus;* a conclusion based on descriptions given to me of size, behaviour, coloration and general morphological characteristics.[6] The Malay civet, *V. tangalunga,* has not been previously reported from Seram. It is known from Ambon and Buru, to where it was presumably imported for its musk, used as a perfume fixative [see e.g. Gijsels, 1871: 386-7]. Its existence might reasonably be suspected and I am satisfied that evidence collected by me during fieldwork confirms this, bar the provision of actual specimens. *P. hermaphroditus* has probably been present for many millenia and a date of 4000-5000 BP is reported for Timor [Glover, 1986: 159]. **Kuha** is said by some informants to be a type of **lau,** but it is likely that both **lau** and **kuha** are seen as being sufficiently closely related that either might be said to be a type of the other. The fact that there is a great deal of individual and racial variation in the coloration of *P. hermaphroditus* [Pocock, 1933: 014] is likely to increase difficulties in identification.

Civets are only rarely eaten, and **kuha** in particular is considered difficult to hunt. As some young men in Rohua have never seen a **lau** or **kuha** at all, it is perhaps not surprising that I did not manage to obtain any specimens. **Lau** is described as living on the ground with grey/yellow coloration, and with strongly marked black and white tail rings. **Kuha** is described as arboreal. The AM glosses 'tinggalam' and 'musang' (sometimes 'kesturi') are employed to refer respectively to these civets, and the distinction also finds support in the equivalence of AM 'musang' with **kuha** in the language of Piliana in the central highlands. Both civets are said to prey upon cuscus, a matter of some practical concern to Nuaulu.

2.2.3 tui-tui

Tui-tui (for which **makueni** is the more rarely heard perfect synonym) is also glossed as 'musang' by some Nuaulu informants, and is almost certainly onomatopoeic. It is compared with **lau** and **kuha**, and said to be a relatively common animal of the forest floor, reputedly eating (amongst other things) adders and skinks. It is regarded by Nuaulu as stupid as it always comes back to defecate in the same place, and it is this which may account for relative hunting success. In the course of a four month dietary survey I recorded the consumption of 0.44 grams per adult head a day of what was described as **tui-tui,** that is about one percent of the total amount of animal protein consumed. However, I believe this figure to be rather untypical.

Descriptions of this creature certainly suggest affinities with viverrids, though the existence of the term **tui-tui** in the language of Piliana, in addition to terms which gloss the Nuaulu categories **lau** and **kuha,** is evidence for its status as a separate and contrasted form. Informants described **tui-tui** as being similar to **lau,** with large teeth, tail like a cat and fine hair. I retain an open mind as to the identity of this small mammal. Its significance in Nuaulu thought is attested to by a reference in an **auwoti** (war dance) stanza comparing the Nuaulu with the **tui-tui**, neither of which should ever leave the mountains:

Tui-tui helete	The tui-tui descends from the mountains
Helete Nunusaku	Descends from Nunusaku

From this it is tempting to conclude that it might be the marsupial bandicoot *Rynchomeles prattorum.* An alternative possibility is a large forest rat, though this would seem a disappointingly pedestrian candidate.

2.2.4 hahu

The term is used polysemously to refer to Suidae in general, and more specifically *Sus.* There is considerable variation amongst the common wild pigs of the Moluccas, ranging from *S. scrofa* to *S. celebensis,* the former having been dispersed early as a domesticated type and later interbred with *celebensis* [Groves, 1985: 433-6]. All pigs of the *Scrofa* group appear to be feral descendents of individuals carried from island to island by human agency, although recent carbon 14 dates suggest an early appearance for parts of eastern Indonesia. A date of 5,520+ 60 BP has been recorded for a site in Timor [Glover, 1971: 176]. Recently introduced domestic breeds (**hahu pale**: *Sus domesticus*) are known from Christian settlements.

In its wider sense **hahu** (plate 8) also includes the categories **hahu numte** and **hahu nihu.** The first of these, distinguished by the Nuaulu by its larger tusks and wartiness, probably refers to pigs of the *Sus celebensis* group. The second is said to have existed on Seram in former times and, though mythical (since the Nuaulu have no evidence that it did once exist on Seram), it may be associated in Nuaulu thought with the babirusa, *Babyroussa babyroussa,* known from the nearby island of Buru.

Wild pig is by far the most important source of animal protein in Nuaulu diet, constituting some 30 percent of the total weight consumed. It is hunted by individuals or groups, with spear, bow-and-arrow, trap and - when available - breech loading rifles. Pork may be brought back to the village either raw or ready-roasted. Tails (**hahu etute**) are removed when animals are butchered, attached to a length of rattan or thread and hung as a charm round the necks of young children to ward off ill health [Ellen, 1993: plate 1.6h]

My impression is of a high density of wild pig in Seramese forests, due to only slight pressure through hunting, restricted as it is to animist and - to a lesser extent - Christian groups. In this respect, the irregular migration of pigs in search of fruits is not of particular importance to Nuaulu hunters, although they are aware of it. It is well known that certain places are rich in potential pig foods. Hunters have a thorough knowledge of foods eaten by wild pigs, and use this to their advantage. The fruits of *Canarium indicum* and other *Canariums*, *Terminalia catappa*, *Jatropha curcas*, *Quercus molucca* and *Ficus altissima,* and the leaves of *Adenostemma lavenia* and *Laportea decumana* are said to be particularly favoured. They are also said to eat the faeces of cassowaries, though I have no information which might suggest that it is considered a delicacy.

Pigs often raid gardens, rooting around for tubers (especially taro and sweet potato) and fruits. Their deleterious effects may be countered by traps, but fencing is not employed widely. The Nuaulu occasionally fatten pigs, but there is no tradition of domestication and breeding. Of the few cases that I observed in the field, piglets had been acquired live when their sows had been trapped or caught in a hunt. Often, such pigs are slaughtered before they are mature, due to their high nuisance rating. They are not penned, but are allowed to roam free and forage on vegetation and domestic growth in the village area or on its periphery. Sometimes they are fed on the refuse produced in the processing of sago. On Seram, domesticated pigs are only kept in Christian villages, where they may be penned, systematically fed and bred, or allowed to roam free.

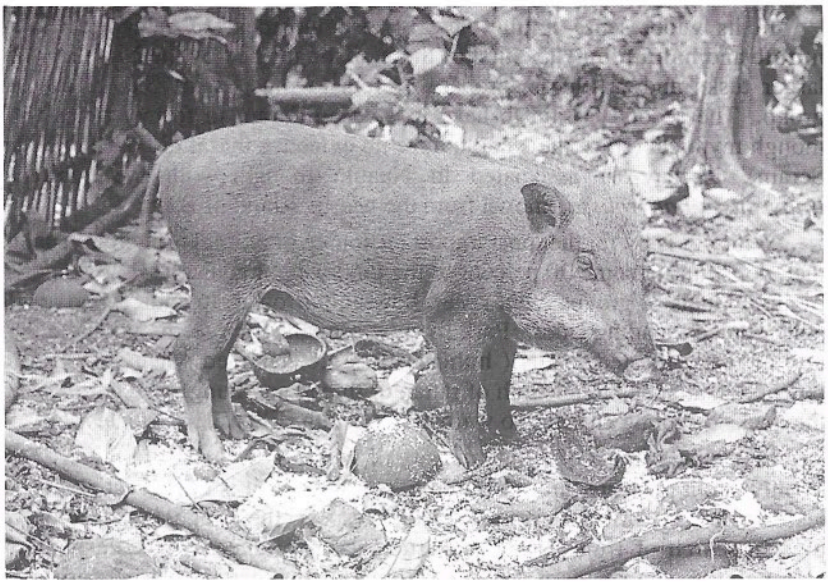


PLATE 8: Tame pig (**hahu**:*Sus scrofa*)being fed on coconut waste, Rohua: 1 February 1981 (neg. 81-4-10a).

PLATE 9: Resting on boulders of a dry river-bed while hunting with dogs: 1 April 1970 (neg. 70-4-5).

The general ritual and symbolic significance of pigs is linked to their membership of the category **peni,** discussed in chapter 4 of the *Cultural Relations of Classification*, and briefly below (2.3). In addition, because of the Islamic proscription on pork consumption, the close proximity of Nuaulu to Muslim settlements, and because many Moluccan Muslims fear ritual contamination from anything connected with pigs, the pig has become a focal symbol of Nuaulu identity. Pig grease is rubbed over the bodies of men for certain major rituals, a practice which serves to accentuate this latter purpose.

2.2.5 maianane

This term is used unambiguously to refer to *Cervus timorensis moluccensis,* the Moluccan deer, but may also be employed to cover other breeds of deer that have been introduced into Seram. Nuaulu distinguish between small deer with immature antlers (**maianane tanapaku**) and older deer with large and mature antlers (**maianane mainihune**). **Maianane tanapaku** generally refers to the first pair of antlers, consisting of irregular and asymmetric single branches without ramifications, but may also be extended to the second pair which may also consist of single branches, but which normally have four points (2+2). **Maianane mainihune** usually refers to animals with the third pair of antlers and invariably six points (3+3).

Wild deer is the fourth most important source of animal protein in Nuaulu diet, constituting some 12 percent of the total weight consumed. Like pig, it may be hunted by individuals or groups, though it is generally caught by single hunters. The same weapons are used in hunting deer as in hunting pigs, and the meat is prepared and cooked in a similar way. The deer population of Seram is large and individuals and herds up to 20 strong are commonly found brousing on shrubs and herbs in coastal groveland secondary growth.

The deer is not domesticated, although occasionally young animals may be captured and sold to non-Nuaulu as pets or as meat. It has been suggested by Wallace, 1962 (1869): 300 that the deer was originally introduced into Seram by Muslims, who still keep the animals and who consider the meat a great delicacy. Presumably, the wild stock originated from tame deer which were deliberately allowed to run feral or which escaped from captivity. Indeed, importation into islands previously uninhabited by deer appears to have taken place frequently in the archipelago. For example, *Cervus timorensis moluccensis* has been imported into the Obi group (1930), the Aru islands (from Seram, 1855) and the western part of the Onin

peninsula of New Guinea (from Seram, 1913). Following Valentijn, 1724-26, Van Bemmel [1949] suggests that the deer of Amboina are the descendents of seventeenth century imports of *Cervus timorensis rusa* from Java and *Cervus timorensis macassaricus* from Sulawesi. There are no known archaeological remains of deer from the Moluccas, although prehistoric remains dating from the last 700 years are known from Timor [Glover, 1986] and from Sulawesi after 3500 BP [Glover, personal comm.].

Like pigs, deer are part of the wider Nuaulu category **peni**, from which they derive much of their ritual significance; that is, not as deer specifically, but as **peni**. Non-food uses of deer include the making of drumskins (**tihane unte**) from the hide (e.g. B.M. AS. 1.177 and Ellen 1970.617), the use of young antlers either singly (B.M. AS. 1.9) or in pairs attached to the cranium as househooks (Ellen 1993: plate 1.6b). These latter are known as **tanapaku** and the term for young deer - **maianane tanapaku** - would appear to be derived from this usage, since **paku** are also pins or pegs, particularly the wooden variety used for construction purposes. Large antlers (**sepi-sepie**) are sometimes sold and are an ingredient in certain Chinese medicines. Gimlette, 1971 [1915]: 56 reports that deer antler may be an ingredient in the magical prescriptions of peninsular Malays, but I have come across no similar applications in the Moluccas. The white fur and attached hide from the back of the ear is used to make ear ornaments (**maianane tina totue**) worn by men (e.g. B.M. As.1 233).

2.2.6 asu

This term is used unambiguously to refer to the dog, *Canis familiaris*. It is fully domesticated on Seram, although bitches give birth to their litters in nearby forest and puppies generally have to be brought back to the village if they are to survive or not run wild. There are some wild dogs (**asu manene**), which have probably escaped from domestic stock. Domesticated dog is known archaeologically elsewhere in Indonesia from around 3000 BP (e.g. from Timor [Glover, 1986: 205]).

The Nuaulu have a further sub-category of dog, **asu nau,** which is contrasted with ordinary domestic dogs. This was described to me as a large 'forest dog' which once existed but which is now extinct. **Nau** is 'divination' and **nau one** means 'the beginning', generally 'the beginning of the world', 'the creation'.

Domestic dogs are used primarily for hunting (plate 9), but they also serve to guard dwellings and act as scavengers of household waste. They will occasionally eat small vermin. In hunting they may be used singly or in groups. In Rohua each household had an average of three dogs, good

hunting dogs being selected as young puppies, and named. Weak, diseased and imperfect dogs are weeded out through sheer starvation. Dogs cannot be killed, except on payment of a fine, and even a dog that has been wounded in the chase will be left to die a 'natural' (that is a *good*) death. Occasionally, hunting dogs which are diseased or wounded will be given treatment, the knowledge of which is vested in particular individuals and clans. An annotated abstract from my fieldnotes [1975-2-37] underscores Nuaulu attitudes to dogs well:

> Numapena mentioned to me today that he has three scruffy dogs (**asu hoine:** 'eczema dogs') - no doubt the rump of the litter - which have been biting his children. He is anxious to dispose of them. With some trepidation, and after turning the matter over in his mind for some days, he has now killed them. He took the carcases to the dry river bed of the Yoko, where he discarded them. Having done this he made three models of dogs from sago leafstalk (**tope**). These he took into the forest and set on poles near the spot where he had thrown the dogs, as if they were **wate** (scare charms). These, he says, are **asu siaie,** and he performed the magical **ye ruhu asu** procedure to assuage the anger of Anahatana and the spirits of the dogs.

I was told that dog may occasionally be eaten, but I suspect that this is only as a last resort, or on special occasions, and then only with special permission from the ancestors. I never witnessed its consumption during fieldwork, a situation which contrasts markedly with the Ambonese. Preference is said to be given to forest dogs.

2.2.7 mau

This term, clearly onomatopoeic, refers to the domesticated cat, *Felis domesticus,* in particular the introduced European variety with the well-known (at least in southeast Asia) 'knotty-tail'. It is occasionally found in Nuaulu villages, where it is used to keep down vermin. It is not eaten, although to do so is not expressly forbidden.

2.2.8 une-une

The term refers to the domesticated goat, *Capra hircus.* The reduplicated form suggests an onomatope. It is possible that goats were only introduced to Seram in any number with Islam. On the other hand, Glover [1986: 205] has reported its regular occurrence on Timor from 3500 BP. Goats were present in Java by the mid-ninth century AD, probably of western Asiatic origin.

Goats were never found in Nuaulu villages until the late nineteen-eighties, and in fact their consumption and rearing is regarded as **monne** (forbidden). This is undoubtedly linked to their strong identity with Islam providing a means of symbolically relating to the village of Sepa which for many years has politically dominated the Nuaulu clans of south Seram. Goats are kept in small flocks in all Muslim settlements, where its meat is consumed on special occasions and is the supreme animal of sacrifice. Seen this way, the contrast *pig : goat* is part of a wider symbolic opposition between Sepa (standing for Islam generally) and the Nuaulu [Ellen, 1988b].

2.2.9 naitanane

This term refers to horses of all breeds (*Equus caballus*), whether introduced by Europeans from European stock, or whether derived from elsewhere. Valentijn reports 50 to 60 horses in Amboina in the latter part of the seventeenth century, many of them imported Javanese saddle-horses used for Dutch administrators and by local worthies, some of which were imported by Javanese and Macassarese [Kraneveld, 1959: 147]. Considerable numbers were introduced at the end of the last century by the Dutch, for military and administrative purposes, and large numbers of coastal and some mountain paths were specifically designated *paardenpad* or 'horse paths' (see e.g. sheet VIII of the 1922 1.100,0 map of Seram, *Topografische Inrichting*, Batavia).

The term **naitanane** is not obviously a recent introduction and it is possible that horses were introduced into Seram, and more generally to the Moluccas, before the second half of the nineteenth century. At the present time there are a small number of ponies in south Seram owned by non-Nuaulu peasants who use them for transporting, in particular, copra. Official statistics [Statistik Tahunan, 1974: 38] claim that between 1971 and 1973 there were no horses in the entire Central Moluccas. Although this is certainly incorrect, the numbers are clearly very small.

Horses are not, and have never been, kept or eaten by the Nuaulu, although consumption is not forbidden.

2.2.10 sapi

This term, from the Malay, refers to domestic cattle, *Bos taurus indicus*. Cows are now kept in small numbers by a few Nuaulu households (plate 10), and by other people on Seram. In 1973 the total number of cattle in the central Moluccas was reported at 11,494 head, having almost doubled in the preceding three years [Statistik Tahunan, 1974: 38]. In parts of the Moluccas (especially Ambon, Lease and Banda) cattle have been imported since

the seventeenth century, although little provision has ever been made for the local increase of stock. By as early as 1663 there appears to have been uncontrolled breeding among escaped stock, which were then the object of institutionalised hunting [Kraneveld, 1959: 148].

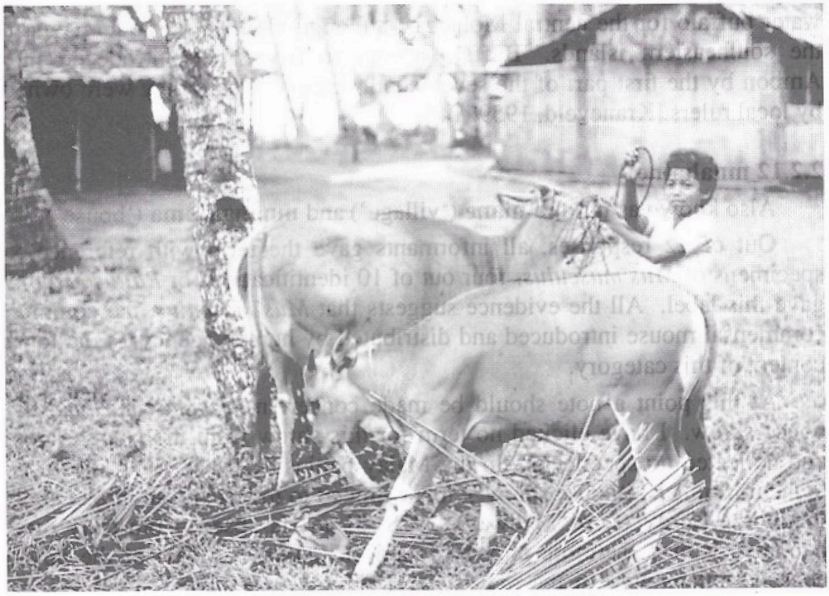


PLATE 10: Cows belonging to Komisi Somori, Rohua: 26 July 1975 (neg. 75-2-19).

The Nuaulu may consume beef, but I have not yet witnessed a slaughter. It is likely that they are far more important as a source of cash. They are not used for milk. The stock seems to be from recently introduced strains under government supervision. Stock-raising is being encouraged by the provincial administration.

2.2.11 korobou

This term is now used interchangeably with **sapi** to refer to domestic cattle and appears to be the older and more frequently employed of the two. Like **sapi** it is derived from AM (in this instance, 'kerbau', meaning 'water buffalo', *Bos bubalus*), evident from the voiced stop 'b' not found in contemporary Nuaulu. Official statistics [Statistik Tahunan, 1974: 38] list no water buffalo for the central Moluccas, although there are large numbers in the southeastern islands. Buffalo appear to have been introduced into Ambon by the first part of the seventeenth century, where they were owned by local rulers [Kraneveld, 1959: 146].

2.2.12 mnaha(ne)

Also known as **mnaha niane** ('village') and **mnaha numa** ('house').

Out of 22 responses, all informants gave the term with reference to specimens of *Mus musculus;* four out of 10 identifications of *Rattus exulans* gave this label. All the evidence suggests that *Mus musculus,* the common commensal mouse introduced and distributed by human agency, is the focal content of this category.

At this point a note should be made concerning *Suncus murinus,* the house shrew. I have elicited no term for this shrew from the Nuaulu area, and collected no specimens. In the Malay peninsula, where it is known as 'cencurut rumah' ('house shrew'), it is confined to towns and suburban areas [Gathorne-Hardy (Lord Medway), 1978: 3] and is absent from truly rural habitats. It may therefore only be found on Seram in a few of the larger coastal settlements. In the animal terminology of peninsular Malays one form of shrew, *Crocidura fuliginosa,* is known alternatively as 'cencurut hutan' ('forest shrew') and 'tikus pahit' ('bitter mouse/rat'), suggesting their perceived close relationship and perhaps occasional conflation of shrews and mice. It is possible that the Nuaulu might, without difficulty, include it within the category **mnaha,** especially if it is called 'tikus' in AM; but see also 2.2.16.

2.2.13 imanona

Six out of 10 informant responses indicated the focal content of this category as *Rattus exulans.* Four specimens of *Rattus* sp. were also identified by the term. The category also probably includes *Rattus rattus,* a form introduced by human agency, *Rattus ruber,* and sometimes *Mus musculus* (see 2.2.17). By and large, though, it refers to forest forms living in the village and garden area. It is commonly associated with banana trees. *Rattus norvegicus* is generally restricted to large coastal settlements, and

may not be known to the Nuaulu.

2.2.14 imanona ai ukune

No specimens collected or identified, but the adjectival qualifier (**ai ukune** = 'tree top', 'far forest') and informant descriptions of a brightly-coloured ochraceous tree-living animal, with a long naked tail, suggest *Melomys fulgens,* or possibly *M. aerosus, M. fraterculus, Nesoromys ceramicus,* or any combination of these four related species. It is said to often occupy the same trees as the fruit bat *Pteropus melanopogon* (**nota sapane**).

I have a single report of **imanona ai ukune** having been eaten.

2.2.15 mirine

This ground-living murid, known in AM as 'kuning' (yellow) is described as having a white underside, dark brown fur yellowing along the sides, a brown-red tail, and as being similar to **imanona.** Some informants say that it is a type of **imanona.** It is eaten by **tui-tui,** monitor lizards and snakes. In turn, it is said to eat crickets, bananas and leaves of forest trees, but not tubers and other common garden crops.

Mirine is possibly a synonym for **imanona ai ukune** (the latter being simply descriptive), in which case its content is identical. Alternatively, it may represent a contrasting species of *Melomys,* or perhaps *Nesoromys.*

2.2.16 kusa-kusa

This term is possibly of AM origin, and in peninsular Malay 'kusa-kusa' refers to grass-fodder supplied to domesticated animals. For the Nuaulu it refers to a rarely-seen murid or perhaps the shrew *Suncus murinus.* It is said that if a **kusa-kusa** asks for fire, you must give it to him.

2.2.17 The relationship between various categories for murids

Mnaha and **imanona** appear to represent two polar types within a broader semi-covert category. Different rats and mice are placed along a scale **mnaha** <--------> **imanona,** and their designation as either depends on the informants view as to whether an animal is 'more **mnaha'** or 'more **imanona'.** Such an interpretation is supported by informant variation in applying terms to specimens, as indicated in table 3.

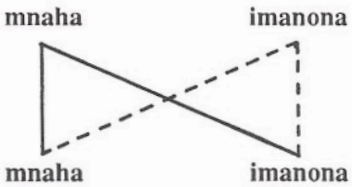
Size seems generally unimportant as a distinguishing feature, although some informants claimed that **imanona** was as a rule larger than **mnaha.** On this basis, immature specimens of what might otherwise be considered as

TABLE 3 Species identifications compared with Nuaulu categories applied to 31 murid specimens

	unidentified rat	*Mus musculus*	*Rattus exulans ephippium*	*Rattus* sp. (prob *rattus*)	Total
mnaha (ne)	1	21	2		24
mnaha niane/numa		1	2		3
imanona	2		6	3	11
Number of informant responses	3	22	10	3	38
Number of specimens	2	22	6	1	31
No identification provided			1		1

imanona may be labelled **mnaha.** Many of the other morphological features appear to be unimportant, and the major criterion of distinction appears to be habitat. Thus **imanona** was sometimes described as **mnaha wesie.** However, it seems that the focal characteristics of the respective categories are reasonably definite, such that **imanona ai ukune, mirine** and **kusa-kusa** were sometimes described as 'types of' **imanona.** To a certain extent, this picture resembles peninsular Malay use of 'tikus' for all kinds of murids: *Mus* then becomes 'tikus terkecil' and *Rattus rattus,* 'tikus rumah'; *Rattus exulans,* 'tikus kecil' and *R. norvegicus,* 'tikus mondok' [Gathorne-Hardy (Lord Medway), 1978].

Looked at taxonomically, the more inclusive category may be occasionally verbalised as **mnaha** and occasionally as **imanona,** depending on context:



In its more specific sense, that is in contrast to **mnaha**, **imanona** may be partitioned into two further categories: **imanona ai ukune** (perhaps including all other forest rats) and residual **imanona**, ordinary village rats.

2.2.18 ruka

Glossed in AM as 'kera', a term which in peninsular Malay applies specifically to *Macaca fascicularis* [Gathorne-Hardy (Lord Medway), 1978]. Monkeys occasionally occur on Seram, as pets in major settlements, where they may have been introduced by rajas (as in other parts of Indonesia) or travellers and sailors, but not in Nuaulu villages. All available historical and archaeological data suggest that they have never been endemic to the island. They feature in some Nuaulu myths and stories.

The monkeys with which the Nuaulu are most familiar are possibly the long-tailed macaque (*Macaca irus*) and the Celebes macaque (*Macaca maurus*). *Cynopithecus niger*, the crested Celebes macaque, is found in Bacan to the north, where it was probably introduced by human agency. This monkey may also be known to the Nuaulu.

2.2.19 gaja

This term was applied to descriptions of the asiatic elephant (*Elephas maximus*), known only to the Nuaulu through its reputation, verbal descriptions and graphic representations. From AM 'gaja'.

2.2.20 rompa

Rosemary Bolton has recorded this term (from the 'domba') for sheep. There are no sheep on Seram and this almost certainly recent lexical introduction (perhaps since 1970) may owe something to Christian biblical allusion.

2.2.21 maisan

Rosemary Bolton [personal comm.] reports that two different Nuaulu informants applied the term to 'lion' and 'tiger'. In my experience Nuaulu refer to these unencountered creatures using AM 'singa' and 'harimau' respectively, though it is possible that **maisan** is used as a general-purpose label for various strange and exotic beasts with which they are not familiar. On one occasion **maisan** was applied to descriptions of an elephant, otherwise **gaja**. The term **maisan** appears to be from 'macan', in Javanese and other Indonesian languages the word for tiger.

2.3 More inclusive categories for mammals

There is no general term remotely corresponding to English MAMMAL, and Cecil Brown's suggestion [Brown, 1984: 227] that **peni** might be a pseudo- or proto-mammal term is misleading. Some aspects of this complex ritually salient category are treated extensively in chapter 4 of *The Cultural Relations of Classification*. There are only two terms which indicate clearly the existence of larger categories dividing up the phylogenetic space for MAMMAL. The first is **marane.** The second is **mnahane,** which in its most inclusive sense is used for all murids. There are also certain *ad hoc* juxtaposed uninomials which bring together various large mammalian quadrupeds with a perceived resemblance: **sapi-korobou, hahu-maianane** and **lau-kuha**.

Notes to Chapter 2

1 The taxonomy of the family Phalangeridae has recently [Macdonald et al, n.d.] been revised, such that *Phalanger maculatus* becomes *Spilocuscus maculatus*. For the sake of consistency with earlier publications, and because this revision only came to my attention fairly late on in the preparation of this monograph, I have retained the older nomenclature here.

2 In the field specimens were examined both alive and dead, in the course of hunting expeditions, prior to preparation for eating in the village and in the ritual context of male initiation ceremonies. It is difficult to estimate accurately how many separate specimens were examined during the course of the first eighteen months' fieldwork, but judging from records kept for household consumption of cuscus it must have been in the region of 65 animals. For a period of four months I kept a male *Phalanger orientalis* in captivity, which gave me an opportunity to

observe some of its habits at close quarters and served as a useful aid in discussing cuscus natural history with informants. Unfortunately, due to bulk and difficulties in transportation, only one spirit specimen was subsequently examined by the Natural History Museum in London, a young male *P. orientalis orientalis*. Four skulls of specimens identified by the Nuaulu were examined following the 1975 field trip.

3 **Mara makioi** is prohibited as food for a **kapitane**, although I am unsure whether this restriction applies to all clans.

4 **Mara porune** was contrasted by some informants with **mara onate,** and this usage appears to apply to all four terminal adult categories. Although **onate** can accurately be glossed as 'large, big', **porune** cannot be glossed simply as 'little, small' (**ikine**), despite the fact that in contrast to **onate** this must be one of its referents. It is a genus-specific term, being used for no other animal, and is therefore similar to such English folk usages as 'cygnet' or 'lamb'. However, in certain contexts the term was used to differentiate an individual from any one of the four adult forms. The reason for this appears to be that the characteristics (which are basically in terms of size and fur coloration) are not always visibly apparent in younger members of the genus.

5 A detailed description of hunting practices has been published elsewhere [Ellen, 1972]. In that account I discuss some common cuscus habitats. I would now wish to add to the places mentioned *Ficus, Canarium* and *Durio* trees, whose leaves they eat. Further details on the dietary significance of cuscus and other animals are provided in chapter 6.3 of *The Cultural Relations of Classification.*

6 This statement supersedes an earlier erroneous claim that the Nuaulu terms **lau** and **kuha** refer to *Rhynchomeles* [Ellen, 1972: 225; Ellen, 1975a: 203].