

## CHAPTER FOURTEEN

### WORMS, MYRIAPODS, ECHINODERMS AND OTHER RESIDUAL FORMS

The contents of this final chapter are admittedly residual. It covers all those forms which the Nuaulu would recognise as animals, but which so far have not been considered. It includes representatives from the following phyla: ANNELIDA, PLATYHELMINTHES, NEMATODA, ECHINODERMATA and, from among the ARTHROPODA, *CHILOPODA*, *DIPLOPODA* and *MEROSTOMATA*.

No attempt has been made to ascertain the total numbers of species on Seram for these groups, but as with insects and arachnids, only a very few specimens compared with the total number of known species were collected in the field. Nevertheless, they contain all forms commonly encountered and named by the Nuaulu. A checklist of the major forms recognised among these groups and of actual specimens collected in the field is presented in table 23.

#### 14.1 Nuaulu terms applied to worms, myriapods, echinoderms and other residual forms

##### 14.1.1-4 *susue*, *sohane*, *nikonake*, *mnatone*

Worms in the broadest sense represent a covert group which includes platyhelminthes, nematodes and annelids. Endoparasitic worms are seen as the larvae of certain insects, a belief which must be said to constitute a Nuaulu theory of infection. Intestinal nematodes ( *susue*, *sohane* ) are regarded as the metamorphized larvae of fruit-flies ( *mumna* ) and other flies ( *sohane inae* : chapter 17.2.45), which are thought to enter the body through wounds. The distended stomachs of malnourished children are said to be full of *sohane*. The tapeworm ( *nikonake*: *Taenia* spp. ) is also judged to be the product of such a metamorphosis, but ideas tend to be less clear-cut. *Mnatone* are sea-worms, including the well-known palalo worm (*Eunice viridis*). This is harvested annually in large numbers in certain Moluccan villages, such as at Latuhalet on Ambon island, where it is known as 'lawer'.

#### 14.1.5 ai ntone

Lit. 'tree sap'. Large black and white perichaet earthworm which lives in decaying trees, particularly dry bamboo and sago leaf petiole. Alleged to have a dangerous bite, and to be able to enter bodily orifices.

#### 14.1.6 tuaman (i)nae, tua nanae (R.B.)

Lit. 'mother of the earth' and 'child of the earth', respectively. With the exception of those species assigned to the category **ai ntone**, all of the earthworm species encountered by the Nuaulu ( and there are perhaps upwards of 746 known from Seram) are designated by this term (e.g. *Pheretima*, *Pontoscolex* spp.).

#### 14.1.7 sanina, sanna, inae (R.B.)

Applied to all terrestrial and freshwater leeches. These are creatures of the damp forests, particularly of the sago swamp forest, but I have always been surprised by their infrequency on Seram, compared with what one would believe from the standard travellers tales of Borneo. They are rarely encountered in the immediate vicinity of the village, but it is said that if you get a leech in your eye, it may swell up to such an extent as to be a cause of death.

#### 14.1.8 niniane

Centipedes, known in AM as 'kakisaribu'. **Niniane** may be roasted and eaten. Three kinds are recognised. In each case the prefixes **nini** and **ninia** (reported by R.B.) appear to be in free variation.

##### 14.1.8.1 ninia oni, nin ikine

The meaning of **oni** is not known, but it is clearly the same suffix as in **imanine on**, applied to a type of small red wasp (chapter 10.2.31.2). As it is applied to smaller species of *Scolopendra* (*morsitans*), it appears to refer (as with the wasp) at least in part to their relative smallness. **Nini oni** can give a nasty bite, which may occasionally prove fatal. One informant recalled a kinsman who died within 48 hours of being bitten.

##### 14.1.8.2 ninia bunara

If **oni** is an allusion to smallness, then **bunara** must be an allusion to bigness ( c.f. **imanine bunara**; chapter 10.2.31.3). **Bunara** is a toponym for the Nuaulu village and river of the same name (figure 3). Applied to large specimens of *Scolopendra* (e.g. *subspinipes* ).

TABLE 23 Checklist of annelids, echinoderms, myriapods and related forms featuring in Nuaulu terminology and knowledge.

Species	Ecological zones				Nuaulu gloss
	1	2	3	4	
<b>COELENTERATA</b>					
- jellyfish	-	-	+	-	<b>nuae huae</b>
<b>PLATYHELMINTHES - flatworms</b>					
<i>Taenia</i> - tapeworm	-	-	-	+	<b>nikonake</b>
<b>NEMATODA -roundworms</b>					
human intestinal parasites	-	-	-	+	<b>susue, sohane</b>
incl. <i>Eunice viridis</i>	-	-	+	-	<b>mnatone</b>
<b>ANNELIDA</b>					
<b>POLYCHAETA</b>	-	-	+	-	<b>mnatone</b>
<b>OLIGOCHAETA -earthworms</b>					<b>tuaman (i)nae</b>
<i>Pheretima (Pheretima) ceramensis</i>	+	-	-	-	
<i>Pontoscolex corethrurus</i>	+	-	-	-	
<b>PERICHAETA</b>	+	-	-	-	<b>ai ntone</b>
<b>HIRUDINEA -leeches</b>	+	-	-	-	<b>sanna</b>
<b>CHILOPODA -centipedes</b>					<b>niniane</b>
<i>Scolopendra morsitans</i>	+	-	-	-	<b>nini oni</b>
<i>Scolopendra subspinipes</i>	+	-	-	-	<b>nini Bunara</b>
	+	-	-	-	<b>nini anane</b>
<b>DIPLOPODA -millipedes</b>					<b>nikenuke</b>
<i>Thyropygus</i> -giant millipede	+	-	-	-	
<i>Rhinocricus</i> -giant millipede	+	-	-	-	<b>nike putie, nike metene, nike msinae</b>
-other millipedes					
<b>MEROSTOMATA -horseshoe crabs</b>					
<i>Limulus moluccensis</i>	-	-	+	-	<b>mimi</b>
<b>ECHINODERMATA</b>					
<b>ASTEROIDEA, OPHIUROIDEA</b>	-	-	+	-	<b>une nuae</b>
- starfish					
different colour phases of e.g.					
<i>Protoreaster nodosus</i>					
<i>Pentaceraster</i>					<b>une msinae, une masakune, une marae, une putie, une metene</b>
prob. incl. <i>Linckia laevigata</i>					<b>une marae</b>

ECHINOIDEA -sea urchin	-	-	+	-	tinene
prob. <i>Echinotrix diadema</i>	-	-	+	-	tine metene
prob. <i>Tripneustus gratilla</i>	-	-	+	-	tine metene
prob. <i>Diadema setosum</i>	-	-	+	-	tine msinae
prob. <i>Diadema saxatile</i>	-	-	+	-	tine msinae
HOLOTHUROIDEA -sea cucumbers, trepan	-	-	+	-	taripan

Key. Zone 1 = terrestrial; zone 2 = freshwater; zone 3 = marine (including intertidal regions); zone 4 = endoparasitic.

#### 14.1.8.3 nini anane

Elicited by R.B. Meaning and reference unclear.

#### 14.1.9 nikenuke

Glossed in AM as 'lekar-lekar' or 'keluwing', and applied by the Nuauulu to all kinds of millipedes. Three kinds are recognised, though not by all adults, and the terms are rarely used in ordinary discourse. In each case the prefixes **nike** and **nikenu** (reported by R.B.) appear to be in free variation.

##### 14.1.9.1 nike putie

Putie = 'white'.

##### 14.1.9.2 nike metene

Metene = 'black'.

##### 14.1.9.3 nike msinae

Msinae = 'red'.

#### 14.1.10 tinene

Sea-urchins. Two types are recognised, but all *ECHINOIDEA* are rare along that part of the south Seramese coast with which the Nuauulu are most familiar.

##### 14.1.10.1 tine metene

Metene = 'black'; Probably includes *Echinotrix diadema* and perhaps also *Tripneustus gratilla*, the eggs of which may be eaten.

#### 14.1.10.2 tine msinae

**Msinae** = 'red'; Probably includes *Diadema setosum* and perhaps *Diadema saxatile*.

#### 14.1.11 une nuae

**Nuae** is 'sea', and **une** (generally in the reduplicated form **une-une**) is translatable as caterpillar (chapter 10.3). In this context, however, the latter term appears to be a corruption of **one**, meaning 'star', or more remotely **uhune**, 'flower bud'. The first was the only folk-etymology proffered, and is perhaps the most plausible. The AM gloss is 'bintang laut', also meaning 'sea star', and the Nuaulu may be a translation of this or a similar term in Sepa. Five kinds of **une nuae** appear to be recognised, the first four being applied to the different colour phases of *Protoreaster nodosus*, or different colour varieties of *Protoreaster*; although by extension either the terminal labels or the undifferentiated term **une nuae** may be applied to other seastars which are occasionally encountered, such as *Pentaceraster* or *Protoreaster*. I have never known the Nuaulu to eat seastars, or use them for other purposes, as is the case among other coastal peoples of Seram.

##### 14.1.11.1 une msinae

**Msinae** = 'red'.

##### 14.1.11.2 une masakune

**Masikune** = 'yellow'.

##### 14.1.11.3 une putie

**Putie** = 'white'.

##### 14.1.11.4 une metene

**Metene** = 'black'. Elicited by R.B.

##### 14.1.11.5 une marae

**Marae** = 'blue-green'; applied to species such as *Linckia laevigata*.

#### 14.1.12 taripan

Possibly derived from AM, and applied to the many varieties of sea-cucumber, generally known nowadays in AM as 'trepang'. Not common in the inland waters off the south coast of Seram between Elpapatih and Teluti Bay.



#### 14.1.13 nuae huae

Lit. 'fruit of the sea': jellyfish of all kinds.

#### 14.1.14 mimi

Cognate with AM 'mimi', a term which may also be present in various other Central Maluku languages. This horseshoe crab (*Limulus moluccanus*) lives in shallow water along sandy and muddy shores, spending most of its time burrowing; not frequently encountered.

### 14.2 Uses and arrangement of categories

Only sea-urchins in this diverse assortment of invertebrates can be said to in any way constitute a generally recognised source of food, and these are only occasionally eaten. This is partly on account of their local scarcity and partly because the Nuaulu have other historically determined food preferences in the realm of marginal foods. Indeed, the general unwillingness to eat marine invertebrates other than molluscs, and a very rudimentary knowledge of their anatomy and habits, must be directly connected with the inland origins of the Nuaulu. Giant centipedes are sometimes roasted and eaten.

I have noted (14.1.1-3) that worms constitute a covert grouping, with partial connections with certain insects. Additionally, worms, centipedes and millipedes, have classificatory links with snakes, which I have discussed in an earlier chapter (7.3). Echinoderms and jellyfish do not in themselves form a covert group, but they are contrasted with all other forms considered here - with the possible exception of marine worms - by their marine lifestyle. In this sense, their closest links are with the category *ikae* (fish).

## LIST OF ABBREVIATIONS

<i>alt</i>	alternatively
<i>AM</i>	Ambonese Malay
<i>arch</i>	archaic
<i>BM</i>	British Museum (Museum of Mankind), London
<i>CM</i>	Central Maluku
<i>cm</i>	centimeters
<i>D</i>	diameter
<i>H</i>	height
<i>incl</i>	including
<i>Ind</i>	Indonesian
<i>indet</i>	indeterminate
<i>kg</i>	kilograms
<i>L</i>	length
<i>lit</i>	literally
<i>m</i>	meters
<i>n</i>	noun
<i>nr</i>	near
<i>PAN</i>	Proto Austronesian
<i>PCM</i>	Proto Central Maluku
<i>prep</i>	preposition
<i>prob</i>	probably
<i>RB</i>	Rosemary Bolton; in acknowledgement of the source of a term or meaning
<i>sp (spp)</i>	species (plural)
♀	female
♂	male
?	uncertain determination
0	in a diagram indicates a covert category

Reference to specimens in museums and private collections is indicated using round brackets as in the following example: (e.g. BM As. 1.177 and Ellen 1970.617).

## LIST OF REFERENCES

- Amir, H. and J. Wind 1978: The nature reserves of Way Mual and Way Nua, central Seram, Maluku. *Field Report* 8, FO/JNS/73/013.
- Anon. 1908: Gouden beeldje (Civa) van Amahei. *Notulen van de Algemeene en Bestuursvergaderingen van het Bataviaasch Genootschap van Kunsten en Wetenschappen* 46, 67, lxi.
- Barnes, R. 1989: *The ikat textiles of Lamalera: a study of an eastern Indonesian weaving tradition* (Studies in South Asian Culture 14). Leiden: E. J. Brill.
- Bemmel, A.C.V. van 1948: A faunal list of the birds of the Moluccan islands. *Treubia* 19, 323-401.
- Bemmel, A.C.V. van and K. H. Voous 1953: Supplement to the faunal list of the birds of the Moluccan Islands. *Beaufortia* 4, 32 1-7.
- Bentham Jutting, W. S. S. van 1959: Rumphius and malacology. In *Rumphius memorial volume*. (ed.) de Wit, H. C. D. Baarn: Hollandia N. V.
- Berlin, B., D. Breedlove and P. Raven 1974: *Principles of Tzeltal plant classification : an introduction to the botanical ethnography of a Mayan-speaking people of the highland Chiapas*. New York: Academic Press.
- Bowler, J. and J. Taylor 1989: An annotated checklist of the birds of the Manusela National Park, Seram (birds recorded on the Operation Raleigh expedition). *Kukila* 4, (1-2), 3-29.
- Brown, C. H. 1984: *Language and living things: uniformities in folk classification and naming*. New Brunswick, New Jersey: Rutgers University Press.
- Bulmer, R. N. H. and M. Tyler 1968: Karam classification of frogs. *Journal of the Polynesian Society* 77, 333-85.
- Bulmer, R. 1968: Worms that croak and other mysteries of Karam natural history. *Mankind* 6, 621-639.
- Bulmer, R. 1969: *Field methods in ethno-zoology with special reference to the New Guinea highlands* (Mimeographed). Port Moresby: University of Papua and New Guinea.
- Bulmer, R. N. H. and J. I. Menzies 1972-3: Karam classification of marsupials and rodents. *Journal of the Polynesian Society* 81-82, 1,4 472-499, 86-107.
- Bulmer, R. N. H. and J. I. Menzies 1972-3: Karam classification of marsupials and rodents. *Journal of the Polynesian Society* 81-82, (1), 472-



499, (4), 86-107.

Bulmer, R. N. H. 1974: Memoirs of a small game hunter: on the track of unknown animal categories in New Guinea. *Journal d'Agriculture tropicale et de Botanique appliquée* **21**, 79-99.

Bulmer, R. N. H., J. I. Menzies and F. Parker 1975: Kalam classification of reptiles and fishes. *Journal of the Polynesian Society* **3**, 267-308.

Burkill, T. H. 1935: *A dictionary of the economic products of the Malay peninsula* (2 volumes). London: Crown Agents for the Colonies.

Cooley, F. L. 1962: *Ambonese adat: a general description* (Cultural Report Series **10**). New Haven, Conn: Yale University Southeast Asia Studies.

Darlington, P. J. 1957: *Zoogeography: the geographical distribution of animals*. New York: Wiley.

Diakonoff, A. 1959: Rumphius as an entomologist. In *Rumphius memorial volume*. (ed.) de Wit, H. C. D. Baarn: Hollandia N. V.

Ekris, A. van 1864-5: Woordenlijst van eenige dialecten der landtaal op de Ambonische eilanden. *Mededeelingen van wege het Nederlandsch Zendeling-genootschap* **9**, 109-136.

Ellen, R. F. 1972: The marsupial in Nuaulu ritual behaviour. *Man* **7**, 223-38.

Ellen, R. F. 1973: *Nuaulu settlement and ecology: an approach to the environmental relations of an eastern Indonesian community*. Unpublished thesis submitted for the degree of Doctor of Philosophy in the University of London.

Ellen, R. F. 1975: Variable constructs in Nuaulu zoological classification. *Social Science Information* **14**, 201-28.

Ellen, R. F. 1975: Non-domesticated resources in Nuaulu ecological relations. *Social Science Information* **14**, 5 51-61.

Ellen, R. F., A. F. Stimson and J. Menzies 1976: The content of categories and experience. The case for some Nuaulu reptiles. *Journal d'Agriculture Tropicale et de Botanique Appliquée* **24**, 3-22.

Ellen, R. F., A. F. Stimson and J. Menzies 1976: Structure and inconsistency in Nuaulu categories for amphibians. *Journal d'Agriculture Tropicale et de Botanique Appliquée* **23**, 125-38.

Ellen, R. F. 1978: The contribution of H.O. Forbes to Indonesian ethnography: a biographical and bibliographical note. *Archipel* **15**, 135-159.

Ellen, R. F. 1978: Restricted faunas and ethnozoological inventories in Wallacea. In *Man and nature in Southeast Asia*. (ed.) Stott, P. H. London: School of Oriental and African Studies.

Ellen, R. F. 1978: *Nuaulu settlement and ecology: an approach to the environmental relations of an eastern Indonesian community* (Verhandelingen van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde 83). The Hague: Martinus Nijhoff.

Ellen, R. F. 1983: Semantic anarchy and ordered social practice in Nuaulu personal naming. *Bijdragen tot de Taal-, Land- en Volkenkunde* 139, 18-45.

Ellen, R. F. 1984: Trade, environment and the reproduction of local systems in the Moluccas. In *The Ecosystem Concept in Anthropology* (AAAS Selected Symposium 92). 163-204, (ed.) Moran, E. F. Boulder CO: American Association for the Advancement of Science.

Ellen, R. F. 1985: Patterns of indigenous timber extraction from Moluccan rain forest fringes. *Journal of Biogeography* 12, 559-587.

Ellen, R. F. 1986: Microcosm, macrocosm and the Nuaulu house: concerning the reductionist fallacy as applied to metaphorical levels. *Bijdragen tot de Taal-, Land- en Volkenkunde* 142, (1) 1-30.

Ellen, R. F. 1988: Foraging, starch extraction and the sedentary lifestyle in the lowland rainforest of central Seram. In *Hunters and gatherers 1: history, evolution and social change*. (eds.) Ingold, T., D. Riches and J. Woodburn. London: Berg.

Ellen, R. F. 1988: Ritual, identity and the management of interethnic relations on Seram. In *Time past, time present, time future: essays in honour of P. E. de Josselin de Jong* (Verhandelingen van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde 131). 117-135, (eds.) Moyer, D. S. and H. J. M. Claessen. Dordrecht-Providence: Foris Publications.

Ellen, R. F. 1991: Nuaulu betel chewing: ethnobotany, technique and cultural significance. *Cakalele* 2 (2), 1-25.

Ellen, R. F. 1993: *The cultural relations of classification: an analysis of Nuaulu animal categories from central Seram*. Cambridge: Cambridge University Press.

Forbes, H. O. 1885: *A naturalist's wanderings in the eastern archipelago: a narrative of travel and exploration from 1878 to 1883*. London: Sampson Low, Marston, Searle and Rivington.

Gathorne-Hardy (Lord Medway), G. 1978: *The wild mammals of Malaya (peninsula Malaysia) and Singapore*. Kuala Lumpur: Oxford University Press.

Gijssels, A. 1871: Grondig verhaal van Amboyna, 1621. *Kroniek van het Historisch Genootschap, Utrecht* 27, 348-394, 397-444, 450-494.

- Gimlette, J. D. 1971 [1915]: *Malay poisons and charm cures*. Kuala Lumpur: Oxford University Press.
- Glover, I. C. 1971: Prehistoric research in Timor. In *Aboriginal man and environment in Australia*. (eds.) Mulvaney, D. J. and J. Golson. Canberra: Australian National University Press.
- Glover, I. C. 1986: Archaeology in eastern Timor, 1966-67. *Terra Australis*, 11, Canberra: Department of Prehistory, Research School of Pacific Studies, Australian National University.
- Gonda, J. 1973: *Sanskrit in Indonesia*. New Delhi: International Academy of Indian Culture.
- Greshoff, M. 1902: *Rumphius gedenkboek, 1702-1902*. Haarlem: Koloniaal Museum.
- Groves, C. P. 1985: On the agriotypes of domestic cattle and pigs in the Indo-Pacific region. In *Recent advances in Indo-Pacific prehistory*. (eds.) Misra, V. N. and P. Bellwood. Leiden: E. J. Brill.
- Heekeren, H. R. van 1958: *The bronze-iron age of Indonesia* (Verhandelingen van het Koninklijk Instituut voor Land-, Taal- en Volkenkunde 22). 's-Gravenhage: Martinus Nijhoff.
- Heider, E. R. 1972: Probabilities, sampling and ethnographic methods: the case of Dani colour names. *Man (N. S.)* 7, 3 448-66.
- Hembree, E. D. 1980: Biological aspects of the Cetacean fishery at Lamalera, Lembata. 1428.
- Holthuis van Bentham, L. B. 1959: Notes on pre-linnean carcinology (including the study of Xiphosura) of the Malay archipelago. In *Rumphius memorial volume*. (ed.) de Wit, H. C. D. Baarn: Hollandia N. V.
- Hunn, E. 1975: A measure of the degree of correspondence of folk to scientific biological classification. *American Ethnologist* 2, (2) 309-27.
- Hunn, E. 1976: Toward a perceptual model of folk biological classification. *American Ethnologist* 3, (3), 508-24.
- Hunn, E. 1977: *Tzeltal folk zoology: the classification of discontinuities in nature*. London: Academic Press.
- Iskandar, T. 1970: *Kamus dewan*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Jensen, A. E. 1939: *Hainuwele: Volkserzählungen von der Molukken Insel Ceram* (Ergebnisse der Frobenius Expedition 1937-1938 in die Molukken und nach Holländisch Neu-Guinea 1). Frankfurt am Main: Klostermann.
- Kraneveld, F. C. 1959: Rumphius and veterinarian science in the eastern archipelago. In *Rumphius memorial volume*. (ed.) de Wit, H. C. D. Baarn:



Hollandia N. V.

Macdonald, A. A., J. E. Hill, D. J. Kitchener, L. Charleton, Boeadi and R. Cox n.d.: *The mammals of Seram, with notes on their biology and local usage*. Unpublished: Manuscript.

Majnep, I. S. and R. Bulmer 1977: *Birds of my Kalam country*. Auckland: Auckland University Press, Oxford University Press.

Nolthenius, A. B. T. 1935: *Overzicht van de literatuur betreffende de Molukken, 2 (1922-1933)*. Amsterdam: Molukken-Instituut.

Peeters, A. 1979: Nomenclature and classification in Rumphius's 'Herbarium Amboinense'. In *Classifications in their social context*. (eds.) Ellen, R. F. and D. Reason. London: Academic Press.

Pocock, R. I. 1933: The civet cats of Asia. *Journal, Bombay Natural History Society* 26, 423-449, 629-656.

Rand, A. L. and E. T. Gilliard 1967: *Handbook of New Guinea birds*. London: Weidenfeld and Nicolson.

Ribbe, C. 1889: Betrage zur Lepidopteren-Fauna von Gross-Ceram. *Iris, Deutsche Entomologische Zeitschrift* 2, 187-265.

Ribbe, C. 1892: Ein Aufenthalt auf Grosz Seram. *Jahresberichte des Vereins fur Erkunde* 22, 129-216.

Rouffaer, G. P. and H. H. Juynboll 1914: *De batik-kunst in Nederlandsch-Indie en hare geschiedenis op grond van materiaal aanwezig in 's Rijks Etnographisch Museum en andere openbare en particuliere verzamelingen in Nederland*. Haarlem: Kleinmann.

Rubenkoning, J. A. 1959: Preface. In *Rumphius memorial volume*. (ed.) de Wit, H. C. D. Baarn: Hollandia N. V.

Ruinen, W. 1928: *Overzicht van de literatuur betreffende de Molukken (1550-1921)*. Amsterdam: Molukken Instituut.

Rumphius, G. E. 1741 [1705]: *D'Amboinsche Rariteitkamer*. Amsterdam: Third Impression.

Sachse, F. J. P. 1907: *Het eiland Seran en zijne bewoners*. Leiden: Brill.

Salvadori, T. 1880-82: Ornitologia della Papuasias e delle Molucche. *Memorie della Regio Accademica della Scienze di Torino* 33 (1-3).

Schafer, E. H. 1967: *The vermilion bird: Tang images of the south*. Berkeley and Los Angeles: University of California Press.

Siebers, H. C. 1930: Aves. Fauna Buruana. *Treubia* 7, 165-303.

Statistik Tahunan 1974: *Maluku Dalam Angka*. Ambon: Kantor Sensus dan Statistik Propinsi Maluku.