# A LINGUISTIC SURVEY OF THE UPPER YUAT

John Davies and Bernard Comrie

### INTRODUCTION

The survey of the Upper Yuat described here was made from 25th to 30th June 1979, under the auspices of the Summer Institute of Linguistics by the authors and Leo de Pauls, who flew the Summer Institute of Linguistics helicopter and also recorded geographical and ethnographic information. The helicopter was refuelled at the Nazarene Mission airstrip at Dusin thanks to the co-operation of Rev. and Mrs Daryl A. Schendel. The help of the Officer-in-Charge at Simbai and the many people who helped us with linguistic and ethnographic information was very much appreciated. We wish to thank Richard G. Lloyd of the Summer Institute of Linguistics for his helpful comments on an earlier draft of this paper.

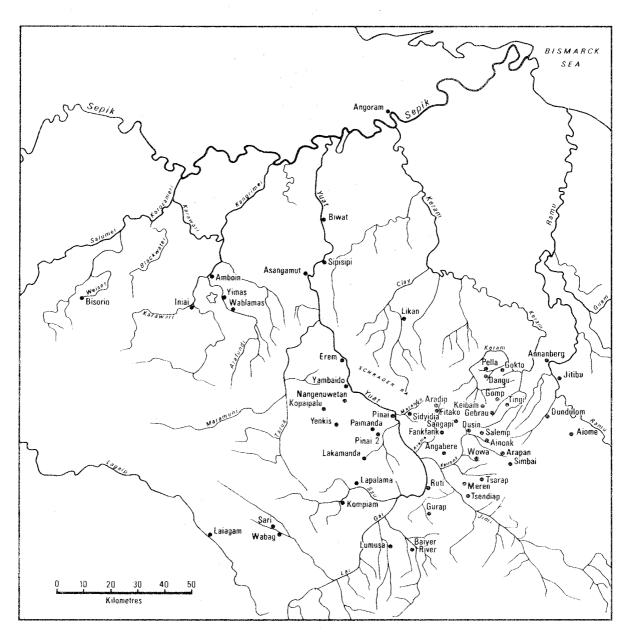
### 2. PURPOSE OF THE SURVEY

The main purposes of the survey were (1) to obtain such information on the Aramo and Pinai languages as would provide the basis for a rather more certain classification of their genetic relationships than has hitherto been possible, and (2) to establish as far as possible the geographical area occupied by speakers of those languages.

Most of the information available on the Aramo, Pinai and Wiyaw languages is contained in Laycock and Z'graggen 1975:758 and Laycock 1975:882 and 884-5. On the basis of the evidence Laycock and Z'graggen suggest that the three languages form a single stock-level Piawi Family with affiliations to the other two Yuat Stocks (Mongol-Langam and Yuat) in a Yuat Super Stock within the Sepik-Ramu Phylum. Laycock points out that 'the data is still so slight that any such reclassification can only be very tentative'.

The status of Wapi was also uncertain, in particular whether or not it was the same language as Pinai. Laycock 1975:882 lists Wapi as an alternative name for Pinai. However, Wurm 1975:469 lists Wapi as an Enga dialect and points out that a number of the people living in the Wapi Census Division are bilingual speakers of Enga and Pinai of the Piawi stock-level Family.

The geographical areas in which Pinai and Wapi (if different from Pinai) are spoken also needed to be clarified. In the map by Laycock of languages of the Sepik Region accompanying Laycock and Z'graggen 1975, Pinai is shown to be spoken on both sides of the Yuat between the Sepik-Enga border and the



Map 1: Yuat River and Lower Sepik tributaries

confluence of the Maramuni with the Yuat. Laycock 1975:884 states that included with Pinai on the map of the Sepik Region languages is the language spoken at Erem, a village on the Upper Yuat. He writes that

whatever language is spoken there is not the same as any of the known languages of the Yuat River, and the distance between the location of this village and the villages of other known languages make it unlikely that the language spoken at Erem is any really "known" language of the area, although it is possible that Erem is a northern village of the Pinai language.

The map of languages of Enga Province in Wurm 1978 indicates that Pinai and Wapi are spoken on opposite sides of the Lai (or Gai) River. In the accompanying tree of the languages of the Trans-New Guinea Phylum, Pinai and Wapi are tentatively included with Waibuk (Wiyaw) and Aramo in the Waibuk Family within the East New Guinea Highlands Stock. Both the map and the tree indicate that the statments are very tentative.

In addition to the material which Laycock, Z'graggen and Wurm refer to, Wiyaw wordlists had been elicited from several native speakers by Davies, Scholz and Tonson of SIL subsequent to Laycock 1975. A list of 70 Aramo words had been obtained by Scholz in 1975, but their reliability was questionable since they were obtained from a Wiyaw. Scholz's list is 40% cognate with our Aramo list (21 out of 53) and 51% cognate with our Wiyaw list (27 out of 53); our Aramo and Wiyaw lists are 37% cognate, whereas the Scholz/Tonson Aramo and Wiyaw lists in Tonson 1976 are 62% cognate.

A secondary purpose of the survey was to investigate the area south of Bisorio and Iniai. Dye, Townsend and Townsend 1968:145ff say that at the village of Iniai on the upper Karawari River and at the village of Bisorio on the upper Korosameri River, two dialects of one language are spoken. They suggest that the Iniai language is a member of the West Central Family of the East New Guinea Highlands Stock. Wurm 1975:469 lists Lembena (Bisorio, Iniai) (sic) as a language of the Enga Sub-Family and in a footnote to this listing on page 518 ibid. refers to Lemben (sic) spoken on the Karawari River and towards the Middle Yuat area, and gives Iniai as an alternative name. The list upon which he bases his remarks shows 43% cognation between Lemben and Enga and he suggests that Lemben may be basically a northern Enga dialect or a language closely related to Enga. Wurm also mentions Laycock's (1973) report that Bisorio is spoken in four villages, one of them Iniai, that it shows close relationship with Nete to the south-west, and that it may be the same language as Lemben. Wurm also mentions that Brennan in personal communication to him identified Lembena (sic) as a separate language from Bisorio. J.M. Bowers in an unpublished map shows the Lembena language area as including Kopaipalu and the area west of Kopaipalu in the Enga Province (the Yalipa Endaka clan) and the area north-west of Kopaipalu on the border of the Enga and Sepik Provinces (the Yalipa Kamanda clan). The map of languages of Enga Province in Wurm 1978 shows Lembena to be spoken in an area which approximates with that indicated on Bowers' map except that the latter is further to the west. The words from a list taken by Bowers at Kopaipalu which have been used in the lexicostatistical comparison are included in the Appendix and this language is referred to as Lembena throughout the rest of this paper.

# 3. PROGRESS OF THE SURVEY

The afternoon of Monday, 25th June and the following morning were spent trying to make contact with the population on the north side of the Yuat between the Arame River and the Marango River and in the Marango and Marenk valleys. Attempts were hindered both by the terrain and the reticence of the people. The area is mountainous and covered with dense forest except for those areas that have been cleared for garden and house sites and kunai patches here and there. Thus a landing was potentially profitable only in those very few places where a level kunai-covered piece of ground was close to a garden or house site. Three such landings were made but no people were contacted.

Following the Yuat northwestwards beyond the Marango River, we observed a vine footbridge crossing the Yuat at 5° 0' S, 143° 58' 30" E and landed at a village 4° 59' 30" S, 143° 57' E. The village was 500 feet above sea level and the people called it Yambaido. The ground in the immediate vicinity of the village was very flat and the people had recently planted coconuts. They called their language Maibi and said it is also spoken at Yenkis and as far as Kompiam and Wabag. A complete SIL Standard Wordlist was taken and a tape-recording of the list was made. We spent the night at Fankfank.

On Wednesday, 27th June we landed sound of the Jimi River and west of the Lai River at 5°6'S, 144°7'30"E and were greeted by two men and later joined by three more men and some women and children. The people called their language Pinai and the place where we were Wakadadap. They said Pinai speakers are on both sides of the Jimi as far as the Sepik Province border, that the eastern border of their territory is the Lai River and that Pinai is spoken at Aperak, both Pinai and Enga at Paimanda and Lakamanda, and Enga only at Rurisau. They said they exchange wives with the Pinai to the north of the Jimi but not with the people east of the Lai (Medlpa). A full wordlist and tape-recording of the list were obtained.

We flew to  $5^{\circ}$  9' S,  $144^{\circ}$  4' E and in the limited time available recorded words from three men and a boy. They called the language Pinai and it is clearly the same language as that recorded at the previous landing. In this paper the two wordlists are referred to as Pinai 1 and Pinai 2 respectively. We spent the night at Fitako.

On Thursday, 28th June our party was augmented by Hepen, who was bilingual in Wiyaw and Aramo, and another young man, who was bilingual in Wiyaw and Kobon and also spoke Papua New Guinean Pidgin. With Hepen's navigational assistance the pilot shuttled us into a grassy area between the Marango and Marenk Rivers (Aramo ['rujə] and [mə'ragia]) at 5° 6' 50" S, 144° 9' 50" E. Thanks to Hepen's communicative ability contact was made with the Aramo and during the course of that day and the following morning a complete wordlist and recording of it were obtained, and also a recording of conversation and music played on a bamboo harp and on pipes made by binding thin bamboo tubes in a triangular form. The forty Aramo men, women and children slept together in a large shelter on the south bank of the Marenk. The shelter was rectangular, built on posts, with earth floor and no walls. The roof had a ridge pole and was thatched with leaves held in place with bamboo strips. We were told that all the Aramo people were present except for one family who were living at the head of the Marango River (and who arrived the following morning). The total number of Aramo we saw was about 50.

On Friday, 29th June a landing was made at  $5^{\circ}$  2' 30" S,  $143^{\circ}$  56' 30" E and a complete wordlist and recording of it were obtained from two men and a boy who called the language Nangenuwetan and the place where we were [awbith]. They said the area was Enga but was now administered from Angoram ([ambainkwə]).

On Saturday, 30th June a landing was made at Erem, 4° 41' S, 143° 56' E, and the village was found to be inhabited by two distinct ethnic groups, a Sepik group and a Highland group who had moved into Erem and the surrounding area 10-15 years ago with the consent of the administration and the Sepik group who were already there. The Sepik group called their language Kyaimbarang and said it was spoken on both sides of the Yuat for two days walk northwards. They mentioned Asangamut as one of the places where their language was spoken. In Laycock 1973:37 the language spoken at Asangamut is called Miyak. The Highlands group said they came from the Enga area and called their language Yariba. Yalipa is the name of the Lembena clans on Bowers' map. Complete wordlists of the two languages were obtained and a recording of part of the Yariba wordlist.

### 4. BASIS OF LEXICOSTATISTICAL ANALYSIS

During the survey complete wordlists were elicited from native speakers of Aramo, Pinai, Nangenuwetan, Maibi, Kyaimbarang and Yariba. For the purposes of comparison and genetic classification, languages spoken in adjacent areas were included in the lexicostatistical comparison. Languages and dialects to the west and south of Pinai and Nangenuwetan and to the south of Maibi were included. The wordlists used were those elicited by Bowers at Kopaipalu in Kompiam subdistrict (referred to as Lembena in this paper) and at Yenkis, also in Kompiam subdistrict (referred to as Wapi in the Table of Cognate Percentages and Appendix), by S. Malakali at Lapalama in Kompiam subdistrict, by K. Maini also at Lapalama (referred to as Lapalama 1 and 2 respectively in the Table and Appendix), by K. Lopa at Laiagam in Lagaip subdistrict, by J. Kapi at Sari in Wabag subdistrict and by Rev. L.A. Cupit at Lumusa in Lumusa subdistrict (referred to as Kyaka in the Table and Appendix). Languages to the east and north of the Aramo were included in the comparison, viz. wordlists taken by John Davies of Wiyaw and Kobon. Languages to the west, north and east of Erem were included, viz. a wordlist of Rao taken by Lyle Scholz at Gokto and five wordlists taken by Wayne Dye of SIL, of Bisorio at Bisorio, of Iniai at Iniai, of Miyak (referred to in Dye's list as Biwat) at Asangamut, of Alfendio (referred to in Dye's list as Arafuni) at Wablamas and of Yimas at Yimas (all in Angoram subdistrict), a list of Alamblak taken by Les Bruce of SIL at Amongabi and finally a list of Bonaro taken at Likan by William Butler of the Pioneer Bible Translators.

The wordlists used in the comparison are contained in the Appendix. The number which follows a word indicates that this word is considered to be cognate with such words in the same column as are followed by the same number. Results are set out in the Table of Cognate Percentages.

The principles adopted by Wurm and McElhanon 1975:152 for determining degrees of interrelationships of languages have been followed here in a generalised form:

above 80% cognate - dialects of the same language
below 80% separate languages
50-80% same subfamily
25-50% same family
12-25% same stock
5-12% same phylum

Our citation of lexicostatistical material should not be taken to imply acceptance of this as a secure method of establishing genetic relatedness; rather, it represents a preliminary attempt at establishing an assessment of the degrees of similarity among languages of the area.

Except for Pinai 2, a complete SIL Standard Wordlist was obtained of the languages listed at the beginning of this section, but for the purposes of the comparison a basic list of 116 words selected from this list was used.

# 5. SUGGESTED RELATIONSHIPS

### 5.1. Aramo, Pinai, Nangenuwetan and Wiyaw

Aramo is 68% cognate with Pinai 1 and 70% with Pinai 2, indicating that Aramo and Pinai are distinct languages within the same subfamily. Aramo is 63% cognate with Nangenuwetan and thus a separate language within the same subfamily. Since Nangenuwetan and Pinai 1 are in turn 75% cognate (Pinai 2 82% cognate) these three languages, Aramo, Pinai and Nangenuwetan are members of the same subfamily - the Piana Subfamily. The relationship between Pinai 1 and 2 is 88%, indicating that they are the same language. Further evidence may well show Nangenuwetan and Pinai to be dialects of the same language, which together with Aramo would constitute the Pia Subfamily. The cognate percentage figures involving Wiyaw throw some doubt upon the correctness of the assignment of that language to the same family as Aramo and Pinai - the Piawi Family. That Wiyaw is 37% cognate with Aramo, 33% cognate with Pinai and 29% cognate with Nangenuwetan would support its inclusion in one family with them. However, Wiyaw shares 35% with Kobon and 22% with Kalam, both of the Kalam Family within the East New Guinea Highlands Stock. On balance this evidence supports the assignment of Wiyaw together with Aramo, Pinai and Nangenuwetan to a single family. The fact that one member of each family, Wiyaw and Kobon, share a percentage of cognates which of itself would place them squarely in the same family may well be due to extensive borrowing. The territories of these two language groups are, of course, contiguous.

# 5.2. Enga languages and dialects and Bisorio and Iniai

Yariba, spoken at Erem, is 79% cognate with both Maibi, spoken at Yambaido, and Lembena, as recorded by Bowers at Kopaipalu. Maibi and Lembena in turn share 77% and thus these three languages are at least in the same subfamily within the West Central Family of the East New Guinea Highlands Stock. It is very likely that they are the same language. The recent migration from an Enga area, the correspondence of the name of the language given by the people at Erem — Yariba — with the Lembena clan names, and their statement that their language was also spoken at Yambaido all add support to this hypothesis. Accordingly, the language recorded by Bowers at Kopaipalu, the Highlands language spoken at Erem and the language spoken at Yambaido are all considered to be dialects of the same language — Lembena.

	Iniai	Yariba	Maibi	Lembena	Wapi	Lapalama l	Lapalama 2	Laiagam	Sari	Kyaka	Nangenuwetan	Pinai l	Pinai 2	Aramo	Wiyaw	Kobon	Rao	Kyaimbarang	Miyak	Alfendio	Yimas	Alamblak	Banaro
Bisorio	70	45	46	46	48	47	48	44	42	44	11	11	7	9	5	6	3	2	2	3	0	5	5
Iniai		48	49	47	49	51	50	48	44	44	14	12	10	9	7	5	4	1	1	2	1	5	3
Yariba			79	79	59	59	57	55	52	58	13	13	6	11	10	6	4	2	1	3	0	5	5
Maibi				77	59	60	57	53	51	58	11	10	3	11	8	6	4	3	1	3	0	4	5
Lembena					64	61	59	62	58	62	13	14	9	11	7	6	4	0	0	3	0	5	5
Wapi						90	88	78	78	83	9	8	6	7	6	5	4	1	1	3	1	4	4
Lapalama l							91	83	84	82	9	8	3	9	7	5	4	1	1	3	1	4	4
Lapalama 2								82	82	81	8	8	3	8	6	6	4	1	1	3	1	4	4
Laiagam									86	75	9	10	9	10	7	4	0	0	0	3	1	4	4
Sari										74	9	9	6	10	7	3	0	0	0	3	0	4	3
Kyaka											9	7	3	9	6	5	2	1	1	3	0	4	3
Nangenuwetan												75	82	63	29	16	2	2	2	7	2	6	7
Pinai 1													88	68	33	17	2	1	1	7	2	6	9
Pinai 2														70	36	18	0	0	0	9	3	3	3
Aramo															37	19	2	1	1	7	1	5	10
Wiyaw																35	7	3	3	5	3	4	9
Kobon																	9	1	1	5	3	5	6
Rao																		4	4	0	2	7	11
Kyaimbarang																			81	8	0	4	10
Miyak																				9	3	4	9
Alfendio																					3	3	13
Yimas																						8	2
Alamblak																							5

Table of cognate percentages

With Bisorio and Iniai, the Lembena dialects (Lembena, Yariba and Maibi) share between 45-49%, clearly indicating that they are distinct languages within the same family. The relationship between Wapi (spoken at Yenkis), Lapalama and Kyaka is 83-90%, indicating that they are dialects of the same language -Wapi, Lapalama Enga and Kyaka Enga. When Laiagam Enga and Sari Enga (themselves 86% cognate) are included in the comparison with these dialects, the figures remain at 74% or above. The Lembena dialects share between 51-64% with Wapi, Lapalama Enga, Kyaka Enga, Laiagam Enga and Sari Enga, indicating that the Lembena dialects (Lembena, Yariba and Maibi) belong to the same subfamily as those Enga dialects/languages. Bisorio and Iniai are 70% cognate with one another and both share between 42-51% with Wapi, Lapalama Enga, Kyaka Enga, Laiagam Enga and Sari Enga, showing that Bisorio and Iniai are in the same family as those Enga dialects/languages and the Lembena dialects, viz. the West Central Family of the East New Guinea Highlands Stock. Bisorio is probably the most northern language of the West Central Family and is probably contiguous with Enga to the south and the languages of the Sepik Hill Family to the north. Bisorio may be the same language as Nete.

# 5.3. The Piawi Family and the East New Guinea Highlands Stock

The languages of the Piawi Family, Pinai (and Nangenuwetan), Aramo and Wiyaw, are bounded to the west, south and east by languages of the East New Guinea Highlands Stock. Cognate percentages with those of the languages to the west and south compared in this paper vary between 3-14%. The percentages with the language to the east compared here, Kobon, are 16-35%. This evidence taken together suggests that the Piawi Family should be included within the East New Guinea Highlands Stock. The Wapi lists show only 8% and 6% respectively with Pinai l and 2, which clarifies that Pinai and Wapi (at least the Wapi spoken at Yenkis) are not the same language.

# 5.4. Kyaimbarang

Kyaimbarang, spoken at Erem, is 81% cognate with the language recorded by Dye at Asangamut and no doubt the same language — Miyak. This conclusion is supported by the statement of the people at Erem that their language is spoken on both sides of the Yuat for two day's walk northwards and their specific inclusion of Asangamut, where Dye elicited the Biwat list. Kyaimbarang is 8% or less cognate with all other languages included in the comparison.

### 5.5. Banaro

Banaro is 13% cognate with Alfendio, 11% with Rao, 10% with Kyaimbarang, 9% with Miyak, 7-10% with Pinai, Nangenuwetan, Aramo and Wiyaw and 6% or less with all other languages compared.

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# APPENDIX

	All lists, other tha	than our own (3, 4, 12-17, and 19)	) are reproduced in their original form.	original form.
	Language	hair	head	mouth
1.	Bisorio	yemndidi l	l ibvmek	habu l
2.	Iniai	i'dihi 1	ayumbit 2	ambuľu'tl l
	Yariba	k <sup>X</sup> a'want <sup>h</sup> 2	on'deŋk <sup>h</sup> 3	am'bu£ l
4	Maibi	ka'wande 2		nga'βoŋkʻ 2
5.	Lembena	ingi 1	ondenge 3	ambulu 1
9	Wapi Enga	iti 1	aiumba 2	kambu l
7.	Lapalama Enga l	iti 1	ayomba 2	kaita 3
ά	Lapalama Enga 2	11: 1	alyomba 2	kambu l
9	Laiagam Enga	iři 1	matena 4	kabu l
.01	Sari Enga	۲. اما د اما	aiyomba 2	kaita 3
11.	Kyaka Enga	kyawasi 2	Kyawa 5	kata 3
1.2.	Nangenuwetan	id <sup>j</sup> imu¹da 3	id <sup>j</sup> ibə <sup>l</sup> d <sup>j</sup> ə 6	adu¹sa 4
13.	Pinai l	ldzomu¹da 3	9 32p, oq 12p1	l ej'udem
14.	Pinai 2	udzomo¦da 3	9 3zpoq_1zp1	l el'udem
15.	Aramo	i dzima'da 3	9 ex¦enzpi	ada'∳ənə 4
16.	Wiyaw	jedg³¹Φan 3	jedz <sup>ə †</sup> matç 6	andz <sup>9</sup> ľm∧l 5
17.	Kobon	u'maŋ∧ 4	'nambətg 6	nandzəmən'gan
18.	Rao	ŋint <sup>y</sup> honda 5	nd <sup>y</sup> ət 7	dotumo 6
19.	Kyaimbarang	e∳a¹ziru 6	8 °dcф	¹™baraŋ 7
20.	Miyak	fusib.Yu 6	8 dod	mam∧ľıŋ 7
21.	Alfendio	gabokduma 7	gab∧k 9	mamb∧k 8
22.	Yimas	WOGW! 8	yembel 10	anduk 9
23.	Alamblak	t <sup>h</sup> :'makš / t <sup>h</sup> :'makč 9	'mëƁ∔gat <sup>h</sup> ll	t <sup>h</sup> ingit <sup>h</sup> 10
24.	Banaro	m∧'s <sup>y</sup> in∧₁bεs 1.0	m^!s <sup>y</sup> ; 1	n∧¹maŋ 7

be11y	?; 1	ite? 1	riok 2	liŋk^ 2	tomba 3	ingi 2	ingi 2	ingi 2	tombo 3	toomba 3	tomba 3	woltho 3	s ej'ew / e't'ew	wə <sup>1</sup> thə 3	wa <sup>l</sup> thə 3	ham¹b <sup>w</sup> a∲ 4	himbə'namp <sup>h</sup> 4	t <sup>y</sup> alo 5	¹ ndau 6	ndaw 6	guðudík 7	dařbař 8	lyalthuß 9		m^'mů 10
neck	masa l	ma'syedi l	ma¹rewa 2	marə'waŋk^ 2	malewa 2	mange 3	mange 3	mange 3	pedoko 4	mange 3	pendoko 4	hemeje <sup>l</sup> du 5	he¹me:du 5	he¹medo 5	s eby⊁b⋅am¹ad	kalinnt 6	uŋ¹am 7	noty 8	6 ° peq m eq m I	mb <del>i</del> mbat <sup>h</sup> 9	gumbugudžimba 10	manduk <sup>h</sup> 11	¹mëg÷t÷pit <sup>h</sup> 12		m∧'t am 13
ene	-e 1	Yedi l	181	1.61	lee 1	lenge l	lenge l	lenge l	lege 1	lenge l	lenge l	meme'd <sup>j</sup> i 2	məme <sup>1</sup> dzi 2	meme <sup>l</sup> dzi 2	z egem'ezbamam	'momak <sup>h</sup> 2	lamg/ 2	£ ! led	'çıkı 4	stphala 5	nomguamguk 6	džnŋ¹gořnm 7	iningaŘ 8		m^lku 9
nose	1. towi 1	2. ŋyede 2	3. hin¹gara 3	4. iŋ¹garə 3	5. ingala 3	6. lyaa 4	7. lya 4	8. lyaa 4	9. lyn 4	10. iya 4	11. gyee 5	12. nama <sup>†</sup> ga 6	13. nau¹ŋasi 7	14. nama¹gə 6	15. nama¹gə 6	16. haŋi'et <sup>h</sup> 8	17. <sup>1</sup> molu 9	18. lat <sup>h</sup> 10	19. ¹ŋəŋərull	20. ո∧ղջ∣ւդ 11	21. bogok 12	22. t <sup>n</sup> ∧gay 13	23. <sup>1</sup> k <sup>h</sup> ušimit <sup>h</sup> /	¹kʰuč÷m÷tʰ 14	24. mʌ¹ðŋ 15

bird	heda l	ig^ 2	'ska 2	¹eka 2	eka 2	yaka 2	yaka 2	yaka 2	yaka 2	yaka 2	yaka 2	jau't <sup>°</sup> u 3	jau'ço / jau't ho 3	jau¹gu / jau¹thu 3	jau¹thə 3	lja™er3	jaur 3	kəlo 4	hop <sup>j</sup> e 5	wanma 6	ginys 7	bebaľedowi 8	e Šewoûnu,	l <sup>n</sup> gořá 9
шотап	winta l	winy∧ l	win'da l	l ebniw'	winda l	enda l	enda l	enda l	eda l	eŋda l	enda 1	jen¹ej	ja¹ma 2	jam'wa 2	2 eg¹em	m^ 2	num'bi 3	Pendu 4	m <sup>j</sup> e 5	miandu 5	nam 3	nařmel 6	'metit <sup>h</sup> 7	m∧'nek <sup>h</sup> ÷n 8
тап	gay l	alagi? 2	l <sup>k</sup> ari 3	lqari 3	kali 3	akali 3	akali 3	akali 3	akali 3	akali 3	akali 3	na¹ba 4	na¹ba 4	wo'du 5	na'ba 4	'nab/ 4	b÷ 4	duwali 6	aβ <b>∔</b> d 7	abot 7	nuŋgumindža 8	panmeři 9	'yi'maŘ 10	wikhs 3
skin	1. hapay 1	2. imbət <sup>h</sup> ı 2	3. ja'noŋk <sup>h</sup> 3	4. ja'noŋk' 3	5. yanungi 3	6. yanungi 3	7. yanonge 3	8. yanungi 3	9. y∧nugi 3	10. yonge 3	ll. yanenge 3	12. li¹k'a 4	13. rə¹xa 4	14. i'da 5	15. wihi 6	16. juma∦ wtր 6	17. haņ 6	18. mino? 7	19. ¹v÷za 8	20. npusak <sup>h</sup> 8	21. gumbukdea 9	22. nařem 10	23. thigath 11	24. m^¹mbukh3 9

dog winya l	he bites	he sits	he stands
	dzeli 1	p <sup>h</sup> udimali l	?aľamaľe 1
	'ajemen 2	ˈhatar ˈΦir̞ưm l	,hisa'yarem 2
	win a'jom 2	lpilim 1	ıisa'yairem 2
	wona peleme 3	pilimi 1	isakaeleme 2
	nelyame 4	pilyame 1	kalyame 2
7. yana l	nenge 4	petenge 1	katenge 2
	nalanya pingi 4	petenge 1	katenge 2
		petege 1	katege 2
	neŋge 4	petenge 1	katenge 2
	nelyamo 4	petamo 1	karamo 2
	'xaixəyədə 5	heme¹dədə 2	ja γοβa 3
	ja¦dzi 6	hemede'da / hemedə'da 2	mura'da 4
		heme <sup>l</sup> dena 2	ք euap¦eշստ
	jelβiədə 6	hem'dəβə 2	t haha'doβədεni 5
	Z z Z z z z z z z z z z z z z z z z z z	¹hamd∔g <sup>ə</sup> məndə 2	'ambeldua 6
	hau¹amp <sup>n</sup> 8	las÷y∧i mən'd∧∳ 3	u'raɣ∧l mən'd∧∳ 7
	eganda / kui 9/10	sam¹bək 4	8 yeq,me
	lirinen 11	igi¹wari 5	binga'pari 9
	b∧ľanšiľumba 12	isiwa 5	mbingapa 9
	bokoŋdže 13	koľobedžik 6	mawniyab∧Žik 10
	nenamın 14	tandon / tandok 7	yambalak 11
	'k÷witwok 15	'k <sup>h</sup> orgwoß 8	it higwoğ 12
	' <sup>n</sup> dama ' <sup>n</sup> d÷g∧,k <sup>h</sup> as <sup>y</sup> ɛt 16	'ma 'İset 9	'ma t <sup>h</sup> ^'kař^'met 12

sma11	haugiya l	hoyen'dobagi 2	2	9	epana 3	KuK: 4	yakane 5	KuKi 4	yakane 5	yakane 5	ku⊀i 4	9 e6 <sub>1</sub> +1 .es	ged'iged' eg		1886 4 relige wetger   86 3		⊕ro 9	t <sup>y</sup> a'koli 10	11 mepu <del>i</del> mes	sa 11	daboa 12	waydžagen 13	habgi'en <b>;</b> k 14	
big	gauwa 1	andage 2	anindlaine,	an'daiŋgi 2	andai 2	andake 2	andake 2	yale 3	ædake 2	yale 3	andake 2	7 e6 <sub>1</sub> ep <sub>1</sub> em	e6 <sub>ເ</sub> າລີ epew <sub>ເ</sub>		១៩១p,em e6 <sub>1</sub> ារា		3 k <sup>h</sup> ump <sup>h</sup> 5	lowe 6	gasa 7	4 g∧sa 7	5 ayımbo 8		š 7 břot <sup>h</sup> 10	8 "d <sub>m1</sub> 3"3"
stone	hana 1	ana l	2 'ana 1	'anna l	ana l	kana l	kana l	kana 1	kæn 1	kan 1	kana 1	z eɓ¦∔î		z eb <sub>i</sub> ıl	z eb'ıŋ	5 tg 2	<sup>I</sup> k <sup>h</sup> amb∧	kamb <sup>9</sup> 3	⊅ mepu÷m	m÷ndım 4	naŋgum 5	iľubuŋ 6		
road	1. yodo 1	2. asie? 2	3. xa'se / xa'tge 2	4. ka¹se 2	5. kase 2	6. kaita 2	7. kaita 2	8. kaita 2	9. ketini 2	10. kait 2	11. kata 2	12. 'd <sup>j</sup> imot <sup>h</sup> i 3	13. ¹saba dzımuçəmam 3	14.	15. 'diədə 4	16. ¹gan∔m∲ 5	17. <sup>†</sup> andan 6	18. ələdo 7	19. maj 8	20. mayt 8	21. ?induŋ 9	22. yaw 10	23. yilgot <sup>y</sup> ogat <sup>h</sup> 11	24. ' <sup>m</sup> ban 12

ear	hali l	aľet l	a'reŋkʻı	kem¹bau 2	alengenai 1	kali 1	kale 1	kale 1	kal 1	kale 1	kale 1	jene'wad <sup>j</sup> e 3	jenoa dza 3	jenu¹adzı 3	jen¹wa∳e 3	stmintg 4	հչ÷m÷nt <sup>n</sup> 4	lomu 5	ltwan 6	tandu 6	gunduk 7	kwand∧mon 8	y∪mb∔gin'daŋg∔t <sup>h</sup> 9	malkowa 10
ashes	7emu l	'?emo l	pheldamph 2	¹ ƙanga 3	'yanga / petambu 3/2	sumulunga 3	simulanga 3	simulanga 3	itæ kuku 4	<sup>1</sup> yanga 3	pee 2	me¹sɔ 5	ınabo'ra 6		pabr <sup> </sup> t'e 6	gın <sup>1</sup> haui 7	8 emlenn3	bit h o	1 kapi 10	k <sup>h</sup> upi 10	yaŋgayom 11	asıŋ 12	y∔¹gonpam 11	lbit <sup>h</sup> am 9
smoke	syemažu 1	sismuřut l	saga'nəßo 2	'maru l	mutu l	kena 3	kina 3	kena 3	kinæ 3	kena 3	sukwa 2	l (e)peåenm <sub>i</sub>	nabo⁴mo l		nab⊁⁴mw l	દુાn 'haump 4	handu 5	əmþ∧?i 6	m sngu 7	mungu 7	yımweya 8	e unbik	xi'peb÷t <sup>n</sup> 10	låŋm∧ lk <sup>h</sup> us 7
fire	1. siya l	2. sie? 1	3. i'sat(E) 1	4. sa:re l	5. isate 1	6. itate 1	7. ita 1	8. itate 1	9. itæ 1	10. ira 1	ll. isare l	12. pa¹bu 2	13. nabu / nabw 2	14.	15. pa¹b% 2	16. Հեր 3	17. pA\$ 4	18. piut <sup>y</sup> u řo?ai 5	19. m <b>÷</b> n 6	20. m÷n 6	21. yam 7	22. awth 8	23. k <sup>h</sup> ag∔t <sup>n</sup> 9	24. 'an 10

hand	gihaba l	'kiabe l	ki'go 1	kirenge 1	kikonae 1	kingi l	kingi 1	, kingi l	kig 1	kingi l	kingi l	2 ud¹cn	paulbo 2	wobo 2	ne¹sa 3	j.'mak^4	pt¹maŋg∧ 4	mi'gət <sup>n</sup> 5	κ <del>ί</del> τ. 6	g∧ři saŋ <del>p</del> aŋ 6	gořok 6	awgulim 7	tuķth 8	ma¹ågaıřð 6
breast	Pandu 1	?andu? l	an¹du l	'andu 1	andu l	andu l	andu l	andu l	ndu 1	andu 1	anju 1	a'u l	a'u l		a'hu l	ƙau 1	tgi 2	t <sup>y</sup> u 2	mi 3	miřu 3	yidak 4	nnŋay 5	'miŋgat <sup>h</sup> 6	maio 2
tooth	ni 1	nyedi? 1	ne / nĕ 1	'neqnge 1	neenae 1	nenge 1	nenge l	nenge 1	neg 1	nenge l	nenge 1	ad <sup>j</sup> u'ab <sub>x</sub> 2	adzua bə 2	adzua Be 2	jedzı magə 2/3	andz <sup>ə</sup> mak <sup>×</sup> 2/3	meck <sup>n</sup> 3	takok 4	'ŋandu 5	ŋandu 5	ganžik 6	tařingi / mban 7/8	bulčeth / bulšeth 9	m^'d 10
tongue	1. gida 1	2. 'gʌdatɪ l	3. ket 1	4. 'kera 1	5. ketanae 1	6. keke 2	7. keke 2	8. keke 2	9, KEK 2	10.	11. kekenge 2	12. su'wo 3	13. tsu'e / tsu'e 3	14. sju¹ə 3	15. syê / su'ə 3	16. al <sup>ə</sup> ib∧n 4	17. a'Kamp <sup>h</sup> 5	18. ¹nd <sup>V</sup> ito 6	19. ¹mb <sup>j</sup> e 7	20. mpe 7	21. danamayak 8	22. minying 8	23. Ithoğth 9	24. malyonan 8

sun yage 1	moon hana l	star haţaţa l	0.20ud moli1
	ana 1 sa'kun(e) 1	adadak i Kui 2	moli 1 'hai 2
	o'gori 2	1 bu.i 2	moga'sara 1/3
	okolo 2	kui 2	mokopale 1/3
	kana l	bui 2	mole 1
	kana l	bui 2	kopa 3
	kana l	bui 2	mole 1
	kæn 1	. bw! 2	mole 1
	kana l	bui 2	mole 1
	kana l	mbui 2	kopa 3
	sok <sup>x</sup> o'ne l	gu 2	du <sup>†</sup> e 4
	tsoxo'no 1	gu'u 2	boila 5
	solkana 1	gu <sup>†</sup> hu 2	jr <sup>i</sup> my6
	rvn 3	'guß∧ 2	WOM: 7
	igay∧n 3	'gaß÷ 2	Khumi 7
	kə'u 4	su'na 3	8 n⊖₁eм
	'gaŋat° 5	lşünşa 3	∯÷ŋga 9
	ŋg∔ŋat 5	šunša 3	yangom 10
	dipar 6	buŋgutšım 2	y umwiya 11
	muliya 7	awak <sup>h</sup> 4	tumbun 12
	'yamit <sup>n</sup> 8	<sup>‡</sup> gun+₩ 2	giribipam 13
	m^! k1 7	۸¹ k ا م ۱ ک	թ Դ <mark>։</mark> Կրոց

	rain	water	tree	root
1.	k <sup>h</sup> iŋk <sup>h</sup> i l	7iba 1	siya 1	p∧ľihi 1
2.	giŋgiʔ 1	i b^2 1	sis 1	yongobidi? 2
3.	ر عماً عهامها / عماً عهاءاً	i'βa / ib'βa l	'isa / 'itga 1	isəra <sup>l</sup> teŋke 3
4.	a'ßere 2	liga 1	lisa l	'ende 4
م	apele 2	ipa l	isa 1	isa pilingi 5
9	apu 2	ipa l	ita 1	kende 4
7.	apu 2	ipa l	ita 1	ita pyanga 6
œ	apu 2	ipa l	ita 1	ita pyanga 6
9.	æyu 2	edæki 2	itæ 1	pig 5
10.	ayu 2	indaki 2		pinge 5
11.	apu 2	ipwa l		isa pingi 5
12.	me¹ga 3	gm 3		ulək <sup>X</sup> obo'duə 7
13.	me¹ga 3	gw 3		mə'na ma'du 8
14.				
15.	ma'ga 3	gm 3	m%'na 2	ıməna¹g÷ 9
16.	ruv 4	ça¹b∧ 4		6 ľibig¹ id
17.	m∧ŋ 3	nink <sup>h</sup> 5		¹k <sup>h</sup> ÷nd∔I 9
18.	9 l e 5	ba l		nəŋ'gələp 10
19.	'marım'⊈əjə 6	'maŋam 6		u'rakən 11
20.	20. maľumроува 6	maŋam 6		'm∔ŋištmb∔ 12
21.	7 014	yım 7		wunda 13
22.	waji 8	arem 8		bin∧ŋ 14
23.	6 / kg nq	'bup <sup>h</sup> am 9		nem'bebm 15
24.	t h win 10	1m3 10	h, kha 8	p^h,kham∧'ng÷n 9

Leaf	meat	fat (grease)	668
1. si'ye yaho l	howa / hu∧mendi 1/2	howa k'adaya 1	heda <del>b</del> a 1
. yoho 1	hown? 1	gadiya 1	∧ba 1
. solme / tgolme 2	min'diŋk^ 2	halβəŋk 2	a¹⊈əŋk l
. 'isæ 'joyo l	mın'diŋk^ 2	a Benge 2	, kora   βaŋge l
. yokonge 1	mindingi 2	apenge 2	apange 1
6. ita yoko 1	minju 2	kapa 2	kapa 1
7. ita yoko 1	minjo 2	kapa 2	kappa 1
8. yoko 1	miju 2	kapa 2	kapa l
9. yok <b>š</b> 1	miไน 2	kap 2	tuk 2
10, yoko 1	minjo 2	karaja 2	yaka tuku 2
ll. isa yoko l	mena 2	kapa 2	kapa 1
12. mu <sup>l</sup> nana 3	ma∙¹mu 3	a <sup>1</sup> xsəbədən 3	ljaut <sup>h</sup> umu¹si 3
13. mə'nana / mən <sup>ə</sup> hana 3	ma¹mũ 3	'jena a'xə 3	jauromo¦si 3
14.	ne'ma 3		
15. mənɐ haˈna 3	f a <sub>l</sub> nf ausf,	ljene haldz* 4	jau't'umu'si 3
16. b∔ ∳an 3	han 'jun 4	han Φat¢ 4	jaur minto 3
17. K <sup>h</sup> n <u>¢</u> 4	, juv 4	mok 5	jaur ¹maŋg∧ 4
18. b∧t <sup>ə</sup> kəli 5	tu'?u 5	tulpelosa 6	kalona 5
19. ¹munda 6	eaka 6	kangaran 7	¹majmuma 6
20. mu andaŋa 6	nšak <sup>h</sup> a 6	k <sup>h</sup> angaľan 7	wanmuma 6
21. edžuwanga 7	gamiya 7	плтмеуа 8	minda 7
22. numbi 8	nangaabut 8	nanAŋ 9	aŋgui 8
23. tholath 9	'nëmp'am 9	¦štb∧pam lO	po'gat 9
24. phylpha 10	^¹ma 3	m^'rð 11	lmo 3

he eats	he gives it to me	he sees	he comes
1.			
2. namaľe 1	nabandi l	'daĭswok <sup>h</sup> 1	heye l
3. nɔˈmanə l	dza / nza / n¹dza 2	η'da l	ja l
4. nene¹rem l	nımıbarəp'd <u>z</u> a 2	nım,barən'da 1	nım,barə'ja ı
5. nengenae l	dilimi 3	deleme l	elimi 2
6. nelyame l	dilyame 3	kandelyame l	epelyame 2/3
7. nenge l	dingi 3	kandenge l	epenge 3
8. nenge l	dingi 3	kandenge l	epenge 3
9. neg l	næb dig 3	kædeg 1	s paga
10. nenge l	naba digi 3	kadege l	epenge 3
ll. nelyamo l	jilyamo 3	kandelyamo l	epelyamo 2/3
12. ja·¹d <sup>j</sup> tminə 2	jena¹banəya 4	2 e <sup>w</sup> gebede <sup>l</sup> ubcm	i.e.i.
13. ja'dzi 2	nilgan əlpa 4	gwa 2	jemo'də 4
14.			
15.  momə <sup>1</sup> dɛʒə 3	n. Benere 4	1 gomə derə 2	≱ ej3b'm3i,
l6. n÷m¹da 4	nine 4	Inong We 2/3	ham¹da_4
17. րւց¹amp <sup>h</sup> 5	namp <sup>h</sup> 5	neŋ'amp <sup>h</sup> 3	au'amp <sup>h</sup> 5
18. nimi 4	¹nəŋkwəkwaŋgəni 6	kənənəngə nhai 4	Ікмалдәрә б
19. qenqen 6	¹munutu ma <b>ç</b> iβe 7	ura 5	ŋɨma 7
20. tšentšentšuba 6	mašuba 7	wudĭa 5	ŋ∔ma 7
21. n∧mbidžik 7	ma 8	dandiyıbe 6	wanbabila 8
22. nenamun 8	anvy 9	nnga day 4	nanayen 9
23. ¹kʰawɛ̈́k̥ 9	'nan: ka'gokwëқ 6	×+it <sup>h</sup> it <sup>w</sup> eß 7	'n'ewêk 10
24. Ima Imbos <sup>y</sup> e <sup>t</sup> 10	'ma ŋ∧'ɲi <sup>t</sup> lo	'ma 'mbit 8	'ma p <sup>h</sup> /'ye <sup>t</sup> 11

*		-	7
a <b>s</b> no1	one	7WO	US DACK
1.	m∧ndi l	iabul	moșali l
2. Yema 1	mAndi 1	јањо 1	mosaľe l
3. re¹ma l	wa'men l	'raman l	mu'sete / mu'tgete l
4. ˈr̥ɛma l	wa <sup>l</sup> men 1	ra'man l	mo'sor' l
5. iema 1	wamena l	lamana l	musalingi l
6. lema 1	mendai l	lapo l	maita l
7. lema l	medai l	lapo l	maita l
8. lema 1	mendai l	lapo l	maita l
9. Ašnato 2	mede l	læps 1	met 1
.o. tilya 3	mendai l	lapoma l	maira l
1. oro 4	mendaki l	lama l	mata l
.2. le¹ma l	2 ebcy·c[¹	¹jadayın 2	s+1 yi / s+1+2
3. nə¹ma l	joro¹də 2	jan'derimi 2	Z eq.ilis
4,			sirilodu 2
15. i'mxdzi l	g eb <sub>l</sub> e	, hege¹naβema'r÷ 3	z eg¦ılıs
16. jim l	wapiŋ¹geΦ 4	jı†mag 'jıŋg™∧ 4	maip <sup>n</sup> 3
17. man l	'wanıŋkənəmb∧ 4	mə <sup>l</sup> h∧∲ 5	4 1/2)
18. mənam l	gegeten <sup>a</sup> 5	карьк 6	
19. uta 5	gajka 6	arawi 7	laçi s
20. wutut <sup>h</sup> oma 5	ŋayk <sup>h</sup> ʌkʰ 6	ajawin 7	<del>b</del> ascma 6
21. yumwin 6	k <sup>h</sup> undapam 7	k <sup>h</sup> undamwin 8	ndžambuk 7
22. wagandit 7	mben 8	yımbumbaği 9	maľdogwa 8
23. ¹nëm÷t h 1	ř÷phath 9	lxoštp / xočip 10	¹moŋg∔t <sup>h</sup> 9
24. 'ma† 1	wone 4	¹ŋɨnʌˈkʰɨn ll	malphuni 10

his leg	?aľuma 1	k <sup>h</sup> ingot <sup>h</sup> e 2	olrink <sup>h</sup> 3	o'ringe 3	olemange 3	paingi 4	moka 5	moko 5	መ <b>ሪ</b> አ አ	moko 5	kimbu 6	7 ub¹cįcye,	7 sb'e / sb'ed	∠ eźpal₁e	7 is empled	фа′let h в	k <sup>n</sup> uk 9		ŋka <sup>m</sup> ba <sup>m</sup> gat° 10	ngamban 10	banamb∧k 11			
his thumb	yo 1	k <sup>h</sup> inŠu∌at 2	relman 3	kin¹doβa 2	lemange 3	kingimange 3	mange 3	mange 3	omag 3	maŋge 3	mange 3	4 e <sup>f</sup> b'isiq <sub>i</sub>	4 ox <sub>l</sub> asau	δ oxesau,	s eq <sub>l</sub> eqefam <sup>i</sup>	mam÷nd 6	'mam÷nt h 6		mianma 7	k <sup>h</sup> aliba 8	gapagoda 9	naŋgʌ'im 10	m∔ma p¹l'pab÷t h 11	
his forehead	wonu l	onote 1	wε¹naβa l	wena'βont' l	wenopande 1	enomba l	enomba 1	yonomba 1	maten 2	langalu 3	enamba l	mena <sup>i</sup> xa 4	mɛnaxa¹ra 4	men'axa 4	milgwo 4	'maig wat h 4	nambə'le l		mak+ 5	mbak <sup>h</sup> 5	nuŋ¹gwig∧b∧k 6	t umbagam 7	num'bik÷t <sup>h</sup> 8	
his shoulder	l. ganowa l	2. ořate 2	3. ¹k'enawa l	4. ¡kɛna¹waŋkʻ l	5. kenawange 1	6. lapangu 3	7. lapangu 3	8. latuya 4	9. eyškšde 5	10. laraia 4	11. lange 3	12. a¹s¢∙d <sup>j</sup> ə 6	13. asie dze 6	14. jasi'edze 6	15. a'si 6	16. ga¹got <sup>n</sup> 7	17. son'doŋ 8	18.	19. <sup>I</sup> qkanaŋ 9	20. ganaŋ 9	21. <sup>l</sup> gigig∧mba 10	22. n∧mbunum 11	23. t÷nim¹b∧ <del>g</del> at <sup>h</sup> 11	

Sobwill  sobwill  olither 2  olither 2  dadama 1  dadama 1  dadama 1  bolingi 2  kuli 4  tanjama 7  ambara 8  yath 9  kth kup am 10  mail 11  mai	his heart	his bone	his blood	wing
o'ithe? 2  o'rigge 2  we 3  o'rigge 2  wenge 3  ta'joyo 4  wuli 4  kuli 4  tayoko 4  tayoko 4  tayoko 4  tayoko 4  tayi 4  tali 6  galia 5  joldu 5  galia 5  joldu 5  galia 5  han 6  ambawa 7  ambawa 7  ambala 1  an'li 11  ma'len 11	styeli 1	SOBW! 1	guguba 1/2	papagala l
molgs 1       holgs 3         colingi 2       wenge 3         colingi 2       wenge 3         kuli 4       tayoko 4         kuli 4       tayi 4         soldu 5       gelja 5         joldu 5       gelja 5         joldu 5       gelja 5         janth 5       han 6         janth 6       han 6         joldu 5       gelja 5         janth 7       ambara 7         amēu 7       ambara 7         amēu 7       ambara 7         amēu 7       ambara 7         a 3/6       ?ežumbak / džumpa 8       ?and 18         /6       daynum 9       yath 9         /6       ttpiğ 10       ma'li kup am 10         ma'li 11       ma'li bu 11	enbʌľutʰ l	oľit <sup>h</sup> s? 2	d∧d∧ma l	pab∧ytšid∧? l
o'ringe 2  wenge 3  kuli 4  tajoko 4  tayoko 4  tayoko 4  tajoko	tgan'gari	hon¹go 3	WE 3	peßə <sup>l</sup> ʁaŋkʻ 1
olingi 2 wenge 3  kuli 4 taeyoko 4  kuli 4 tayoko 4  kuli 4 tayoko 4  kuli 4 taiyoko 4  kuli 4 tanjama 4  jo'du 5 ge'ja 5  ge'ja 5  jo'du 5 ge'ja 5  amēu 7 ambara 7  ambara 7  ambara 7  ambara 7  ambala 7  anbala 7  anbala 7  anbala 7  anbala 7  anbala 7  anbala 10  ma'ill 11  ma'bun 11	∳ara¹ringe 1	o'ringe 2	ta'joyo 4	фефа'үалде l
kuli 4 tayoko 4  kuli 4 tayoko 4  kuli 4 tayoko 4  kuli 4 taiyoko 4  ta	lipe l	olingi 2	wenge 3	ing: 2
kuli 4 tayoko 4  kuli 4 tayoko 4  kuli 4 taiyoko 4  kuli 4 taiyoko 4  kuli 4 taiyoko 4  kuli 4 taiyoko 4  taiy	mona 2	Kuli 4	taeyoko 4	yaka kingi 2
kuli 4 tayoko 4  kuli 4 tayoko 4  kuli 4 taiyoko 4  kuli 4 taiyoko 4  kuli 4 taiyoko 4  kuli 4 taiyoko 4  taiy	mona 2	kuli 4	tayoko 4	pepa l
kuli 4	mona 2	kuli 4	tayoko 4	pepa 1
kuli 4  kuli 4  tanjama 4  tanjama 4  tanjama 4  jo'du 5  jo'du 5  jo'du 5  ga'ja 5  hap 6  hap 8  2xondi 8  /6  daynum 9  ti'puk 10  ma'ill  ma'ill  ma'bu 11	mởn 2	kuli 4	teyők 4	papa l
kuli 4 tanjama 4  jo'du 5  jo'du 5  ge'ja 5  ga'ja 5  jant <sup>h</sup> 5  amæu 7  amæu 7  ambara 8  yat <sup>h</sup> 9  ti'pug 10  ma'ill  ma'bun 11	mona 2	kuli 4	taiyoko 4	pap l
3 jo'du 5 a't'ayi 4 jo'du 5 ge'ja 5 je'də 5 ga'ja 5 jant <sup>h</sup> 5 han 6 amφu 7 ambara 7 amφu wa 7 ambala 7 ayt h 9 t+'pu¾ 10 k+'k'upham 10 m∧'i 11 m∧'bın 11	mona 2	Kul: 4	tanjama 4	papake l
jo'du 5  jo'du 5  je'də 5  jant <sup>h</sup> 5  han <sup>6</sup> le 6  am⊕u 7  ambara 7  ambara 7  ambala 7  ayat <sup>h</sup> 9  t‡¹pı& 10  mʌ¹² 11  mʌ¹²bın 11	llibi'mage 1/3	5 ub¹cį	a <sup>l</sup> tʻayi 4	g epexnw <sub>i</sub> ns
je¹də 5   jant h 5   jant h 5   jant h 5   ambu 7   ambara 7   ambara 7   ambara 7   ambala 7   ambara 7   ambala 7   ambala 7   γαt h 9   t t pικ 10   m l 11   m l 11   m l 11	mada¹magə 3	joldu 5	gelja 5	Г† •——
je¹də 5 ga¹ja 5 han 6 han 6 han 6 han 6 han 9aβe 2/5/6 ampuwa 7 ambara 9 yath 9 yath 9 kt¹pığı0 kt²lkhup amı0 mʌ¹åıı	modolmage 3			
jant <sup>h</sup> 5 hap 6 le 6 hap¹gaβe 2/5/6 amΦu 7 ambara 7 ampawa 7 ambala 7 a 3/6 ?ežιmb∧k / džιmpa 8 ?∧ndi 8 /6 daynım 9 yat <sup>h</sup> 9 tネ¹pığı0 kɨ¹kʰup amı0	mede mage 3	5 eb¹3į́	gaļas	jau₁thə¹∲i l
le 6	məndəmak <sup>X</sup> 3	jant <sup>h</sup> 5	hap 6	wobite 4
Φοron 4  φοron 4  ampara 7  ampawa 7  ampawa 7  ambala 7  gupudžik manga 3/6 ?ežimbok / džimpa 8 ?ondi 8  wubundambin 5/6 daynim 9 yat h 9  'mařbiğ 7  mařbiğ 7  mo'wo <sup>0</sup> α, řð 8  mo'li 11  mo'bin 11	, məndə mangan 3	9 =	han'gaße 2/5/6	aw <sup>l</sup> an 5
#oroŋ 4 ampu 7 ampuwa 7 ampawa 7 ambala 7 gupudžik maŋga 3/6 ?ežtmbʌk / džtmpa 8 ?ʌndi 8 wubundambiŋ 5/6 dayntm 9 yat <sup>h</sup> 9 'mařbuǯ 7 třptǯ 10 mʌ'wo¹qʌ,řð 8 mʌ'i 11 mʌ'btn 11				
yındampu 5 ampuwa 7 ambala 7 gupudžik manga 3/6 ?ežimbok / džimpa 8 ?ondi 8 wubundambin 5/6 daynım 9 yat 9 'mařbiқ 7 třipiқ 10 ki'k up am 10 mo'wolqo, řð 8 mo'i 11	Φoron 4	am∲u 7	ambara 7	k'a'k'amba 6
guթudžik manga 3/6 ?ežumb∧k / džumpa 8 ?∧ndi 8 wubundambin 5/6 daynım 9 yat 9 'mařbığ 7 t÷¹pığ 10 k+¹k³up am 10 m∧¹wo <sup>0</sup> q∧,řð 8 m∧¹i 11	yındampu 5	ampuwa 7	ambala 7	wanm∧k <sup>n</sup> ÷ka 6
wubundambiŋ 5/6 daynım 9 yat <sup>h</sup> 9 'mařbığ 7 t÷'pığ 10 k†'k <sup>h</sup> up'am 10 mʌ'wo <sup>ŋ</sup> qʌ,řở 8 mʌ'i 11	gupudžik maŋga 3/6	/ dž umpa	?\ndi 8	dəngona 7
'mařbíğ 7 třípíğ 10 k†'k <sup>1</sup> up <sup>l</sup> am 10 mʌ'wo <sup>1</sup> gʌ,řð 8 mʌ'i 11 mʌ'bɪn 11	wuðundambiŋ 5/6	daynum 9	yat <sup>h</sup> 9	nambonum 8
m^' i 11 m^'bun 11		t÷¹puǯ 10	k∔¹k¹up am 10	¹bu⊁nat <sup>h</sup> 9
	24. ma'wo <sup>n</sup> ga <sub>l</sub> řð 8	m^! 11	m^¹bin ll	'gořa ma's <sup>y</sup> ð 10

tail	his father	his mother	brother (older, of man)
1. kombo 1	salige l	7ama 1	gauwa l
2. eře? 2	abo 2	ama l	yawng∧e l
3. E <sup>†</sup> t'əŋk′ 2	t <sup>s</sup> aiŋk 3	en'deŋk 2	jaŋ¹goŋkʻ l
4. ¹ringe 2	tai.'aŋge 3	En <sup>1</sup> dEnge 2	jaŋ <sup>l</sup> gonge l
5. etenge 2	taengenae 3	endengenae 2	
6. yaka kenge 3	takange 3	endangi 2	yangonge l
7. etenge 2	takange 3	endangi 2	yangoge 1
8. etenge 2	takange 3	endangi 2	wamba yangoge l
9. eteng 2	t nkage 3	endeng 2	keminig 2
10. erenge 2	takange 3	endaiŋge 2	kaiminingi aingi 2
11. konali 4	takane 3	endangi 2	yangone l
12. jau't'u g∞'∳ɔ 5	a'ba 2	ma'ma l	hegi <sup>l</sup> ago 1/3
13. b <sup>w</sup> u¹⊈ɔ 5	a¹ba 2	ma'ma l	ma'mõ ⊈
14.	a'ba 2		
15. jau,t'⇔bu'∳ə 5	lat'ila 3	mə <sup>1</sup> gə l	mede'hege 3
16. htmbə'dzaī 6	वर्षेट्ठ 3	mam l	na'bət <sup>h</sup> 5
17. dzol 6	baę 2	¹am÷ l	mam 4
18.			
19. açi / tangu 7/8	wawa 4	anaga / anaɣa 3	uŋgja l
20. asık <sup>h</sup> / laŋgum 7/8	wawa 4	anak a 3	wuŋgyak l
21. gunumwa 9	widžik 5	ama l	obwa ayımbowa 6
22. bip 10	abin 2	ŋay 4	kapen 7
23. ¹gu⊁bënt <sup>h</sup> 11	yi¹bem∔Ř 2	milmemit h l	na'jëm÷Ķ 8
24. mʌˈ <sup>ŋ</sup> gun 9	ŋʌ'at þe 6	ŋʌ'amʌřo l	ŋ∧[ລໍ່໑

sister	пате	big	cassowary
1.		mena l	layma l
2. imaľinge? l		mena? 1	?aymv l
3. p'ima'reŋk l	ngenk 1	ja¹waŗe 2	$k^{\times}$ a'wan 2
4. pima¹renge l	z eli <sup>n</sup> qi	ja'ware 2	ka¹wəne 2
5.	genge l	yaowale 2	kawaune 2
6. kikingi 2	kenge l	mena l	laima l
7. pimalenge 1	kenge l	mena l	laima l
8. pimalenge l	kenge l	mena l	laima l
9. pimalege l	keng.1	mena l	lem 1
10. pimalenge aingi l	kenge l	mena l	laima l
11. kakinyi 2	kingi l	mena l	lamya l
12. n∔m¹jai 3	a'tgaßəde 3	je'n* 3	'jawaga 3
13. numa <sup>l</sup> i 3	me¹i 4	je'nə 3	do'dza 4
14.		s en¦3j	
15. nu <sup>i</sup> me 3	nabamı¹he 4	je¹n* 3	4 ejwob¹
16. mə'hənt <sup>h</sup> 4	h/mp <sup>h</sup> 5	han 4	dau <sup>l</sup> ain 4/5
17. ¹ap÷ 5	himp <sup>h</sup> 5	k anto 4	wainŋ 5
18.			
19. çami 6	wuŋ 6	Ber 5	karim 6
20. baľustkisami 6		be e 5	k <sup>n</sup> aĭim 6
21. namb∧layk 7		yay 3	gayıma 6
22. abak <sup>n</sup> 8		n Amuľan 6	awa 5
23. 'm÷nda'řem÷t <sup>h</sup> 9	'yubat <sup>h</sup> 7	7 × + 634	¹bënd÷go∦t <sup>h</sup> 7
24. ŋʌˈnagʌ dom 10	m^! ye 4	'k <sup>h</sup> +p 8	1 <sup>m</sup> bon 8

Ü	wallaby	flying fox	rat	frog
1. ₩	was∧la l	sınabiya 1		
2. ai	amayndzoľok 2	sinawis 1	andabi l	godi 1
3. K	ku'ri 3	∣arəŋ¹gauŋk 2	maŋˈgir 2	moŋk 2
4.	4 eje	'kamjə 3	maŋˈgiri 2	'monge 2
5. <u>K</u>	kuliya 3	kamya 3	mangili 2	monge 2
9	mapuna 5	saima 4	koka 3	monge 2
7. m	mapuna 5	saima 4	koka / konai 3	monge 2
8	mapuna 5	simbunaiya 4	koka 3	monge 2
9. s	sibi 6	kepya 3	kŏne 3	m <mark>ó</mark> ge 2
10. s	.O. saa 6	tindi 5	yuwi 4	moŋgi 2
11. m	mapona 5	kamye 3	wui 4	mungi 2
12. k	u¹gia 3	dx 1gx 6	jed <b>z</b> ına¹ba 5	sau 3
13. K	k <sup>h</sup> uri'a / xuri'a 3	9 eb <sub>l</sub> ep	9 o <sup>x</sup> , op	sa¹u 3
14.				
15. s	ilipia 6	9 eb¦ep	9 em_ y   ©p	sau 3
16. W	'ulra 7	lgaunu∧ 2	daiu 6	hamb <sup>w</sup> u¹m∧ł 4
	wal 7	'waimant <sup>h</sup> 7	hagila 7	baŋ 5
18.				
19. m	"bid° 8	ljaŋgu 8	di'digasa 8	'çamu 6
20. B	bit 8	yaŋguŋa 8	didigasa 8	samok <sup>n</sup> 6
21. g	gwiand∧k 9	ауипдиап 8	gundugway 9	magay 2
22. W	22. wařkabwi 10	g Ambwi 9	giga 3	k'uk <sup>n</sup> alak / k <sup>n</sup> alayn 7
23. W	/iř÷¹gė̃b÷ķ 10	6 \$/२़ाq <u>३</u> 6,	ˈmëŋg∔ʤ 2	ko'kwat <sup>n</sup> 7
24. p	phiths 8	t <sup>h</sup> t¹ <sup>9</sup> g÷n 10	khiwoka 10	h'kht p'a'ke 8

snake	taro	sugarcane	ham
1. boya 1	sawi l		
2. maľu <del>b</del> aysi 2	asdaľi 2	idn? 1	kawi 1
3. jan'dar 3	mã 3	'hira 1	je¹βε <b>r</b> a 2
4. jan'daire 3	mã 3	'jira 1	i naßo 3
5. yandale 3	maa 3	ilya 1	inapo 3
6. kanopate 4	maa 3	lyaa 1	amu 4
7. konopate 4	maa 3	lyaa 1	amu 4
8. kanopate 4	maa 3	iyaa 1	amu 4
	mæ 3	lyæ 1	
10. kanoparo 4	lipano 4	lya 1	amu 4
11. kau 4	maa 3	lyee 1	amu 4
12. nak <sup>h</sup> u¹ma 5	nu¹bu 5	sw¹ya 2	elsi 5
13. nax∞¹ma 5	s od¹en	silra 2	dzula 6
14.			<b>,</b>
15. nak <sup>h</sup> a'ma 5	ny¹bw 5	silpa 2	he <sup>l</sup> si 5
16. kas 6	大神の	ham¹paŋ 3	ha!w÷4 7
17. ge 7	m÷ 3	<b>b</b> +A	∳ont h 8
18.			
19. majgasak 6		pamu 5	β÷η 9
20. maygasak <sup>h</sup> 6		nyamu 5	wajak 10
21. ambun 8	gwinyaŋ 7	wt 6	
22. wagan 9		mayŋi 7	
23. nan'dëm∔t <sup>h</sup> 10	'muk'op'at' 8	mưšřņgit <sup>h</sup> 8	'mašpat <sup>h</sup> 11
24. n¹k¹un s	'mak <sup>h</sup> a 3/8	e miy¹	1k <sup>h</sup> em 12

banand	sweet notato	ar.b	net baa
			Ct. a seri
1. k'aya 1	oliya 1		nu l
2. haya? 1	any∧? 2	un? 1	n <sub>e</sub> n
3. <sup>1</sup> xaja 1	ma'bu / ma'βu 3	We 1	nữ / nu l
4. kaja l	'maßu 3	we 1	nữ l
5. kaeya l	mapu 3	wau 1	winda nuu l
6. saya l	mapu 3	wau l	nuu l
7. saeya l	mapu 3	waa l	nuu yanga 1
8. saya l	kasepalya 4	waa l	enda nuu l
9. se 1	ena 2	ua l	nu l
10. sai 1	mapu 3	wya 1	mandi 2
ll. kyaya l	kwa i 5	wau tombyuwa 1	nyuu 1
12. i¹d÷ 2	1,011 5	tʻub'jawa 1	jo¹gu 3
13. h+'d+ / +'d+ 2	ja¦si 6	ju'əswobo'xa l	jo¹gu 3
14.			
15. h <b>y</b> ¹dw 2	k² wo¹i 5	ι a <sub>l</sub> nί	jo <sup>r</sup> g <sup>w</sup> u 3
16. ham $^1$ J $^{\wedge}$ 2	kuwai 5	ju l	jauŋkwə 3
17. ¹k¹aņ∔m l	mante 7	rul,	'wan÷mp 4
18.			
19. 'içaŋ 4	guquara 8	çikajma 2	majmben 5
20. nšaŋ 4	sisipaľak <sup>h</sup> 8	m÷ndimaŋ 3	maymban 5
21. gay 1		mundum 3	wayl 6
22. moyen 5		kunambwi 4	yaw <del>g</del> ut <sup>h</sup> 3
23. ¹gëni <del>g</del> at <sup>h</sup> 6	'mašpat <sup>h</sup> 9	xo'daŘč/š 5	'yogit <sup>h 3</sup>
24. <sup>1</sup> kai 1	'sYonniphare 8	phiảm 6	k <sup>h</sup> ^¹tuŋ 7

wind	p <sup>c</sup> om¹bua l ∯ombu¹ai l pumbuwai l	poo lelyame 1 pyapo 1 po 1	pý l popo l porambajya l	so'mö 2 sı'mõ 2 sı'mũ 2	handal 4 handal 4 wasaao 5	wubilim 5 waĭi 6 'wibëŘt <sup>h</sup> 5 k <sup>ħ</sup> ^'wò 7
<i>mountain</i> hadi 1 adi 1	man'da <u>x</u> 2 'sa.u 3 mandaka 2	yuu sau 3 sau 3 sau 3	mænda 2 manda 2 yuu kyau 3	me'th+ 2 ma'xo 2 ja'dau.ə 4	lmang∧ ⊕+t h 2 n∧ lil∧ 5 räm 6	lam 6 bunduŋ 7 nʌmbuk 8 kɨmɪɲ'čɛ̃bɨtʰ 9
earth yugAngi l yu l	ipu'ri / iΦu'ri 2 iβu'ri 2 ipuli 2	yuu 1 yuu 1 yuu 1	yu l yu l yuu l	me'ga 3 mega'n∔ 3 me'gapı. 3 m*'m*n 3	lmanga 3 lmanan 3 lmangika 4	mašik <sup>h</sup> a 4 ?umwia 5 andi 5 b÷btp¹čëb÷t <sup>h</sup> 6 ¹ <sup>n</sup> do <sup>p</sup> / ¹ <sup>m</sup> b÷ŋ 7
house 1. anda 1 2. anda? 1	3. <sup>†</sup> anda l 4. <sup>†</sup> anda l 5. anda l	6. anda 1 7. anda 1 8. anda 1	9. ænd l 10. anda l 11. anda l	12. ja'be 2 13. ja'be 2 14. ja'be 2 15. ja'be 2	16. ¢am 3 17. ŗam 3 18.	20. mpot h 4 21. yaw 2 22. nam 3 23. <sup>1</sup> k hupč/š 5 24. <sup>1</sup> t h <sub>†</sub> ŋ 6

	night	white	black	red
1:				-
5	iwete? 1	hak E2 1	dumu 1	dad∧ma l
ů,	wau'gat 2	k'ε'waŋk'l	wam'boŋkʻ2	mamo'yoŋk'/
				mamon'gonk <sup>6</sup> 2
4.	wau¹gwar 2	ke'wange 1	wam'buŋkʻ2	¹∳oŋge 2
5	wokate 2	kewange l	wambungi 2	momokonge 2
9	kuka 3	kewa lenge 1	pumbuti 3	kone 2
7.	kukuma 3	kewa lenge l	pubuti 3	popo 3
œ	kukuma 3	kewalapae l	pumbuti 3	kalupae 3
9	9. kuku 3	kæke 1	pŏbet 3	kæte pyæpe 3
10.	kukuma 3	kyolapae 1	pubuti 3	kate pyapae 3
11.	kukwa 3	kakepame l	pupuri 3	kone 2
12.	12. uγ¹majəthaya 4	olo'gu 2	talbaxədə 4	⊅ ej¹wh
13.	seno¹bi.a 5	t <sup>h</sup> a'ra / ga'ra 3	3 e!! / e!ih	gei.a'xa 5
14.				geia <sup>l</sup> xa 5
15.	ma'gamə'di.εβə 6	gwaj.a'xe 4	bı¹diβm 6	ge <sup>l</sup> axa <sub>l</sub> dənə 5
16.	lguv 'wadia 7	aßle 5	'dzidzißara 7	lpale 6
17.	17. simp h 8	gunt <sup>h</sup> 6	¹⊕÷r÷ 8	Jaki 6
18.				
19.	19. uχwan 9	kərja 7	6 шсвісм	∳imea 7
20.	wuk an 9	k n lak 7	6 шобісм	
21.	mimbugan 9/11	k <sup>n</sup> and∧gaya 8	yımbiya? 10	
22.	wut h 9	yařažigin 9	wořgobidagın 11	
23.	yi'⊎uŋk∔t <sup>h</sup> 10	lga'pëm÷t h 10	këğ't hat h 12	
24.	'¦m 8/11	۸۱yè 11	1p hep 13	ma¹nuP 8

short	'mũnə l mũ l	տսս 1 muu 1 mu 1 muu 1	muu 1 t'ε'Φε 2 t <sup>h</sup> ε'Φε / ςε'Φε 2 mo'xo 1/5 maJeΦ 1/2 u'JeΦ 2	pareka 3 koko'pen 4 ma'k'up 5
Long	ron'doŋk l ron'doŋk' l londonge l	ionde 1 londe 1 londe 1 lõnde 1 ogonya 1	onde 1  mx gi 2  me rt 2  me rw 2  mt  2  mt  1	papjgaça 3 pap∧gasa 3 k <sup>h</sup> undapam 4 gɔŋgʌľʌk <sup>h</sup> i 5 'yukaŘ <sup>y</sup> 6 p <sup>h</sup> ^'s <sup>y</sup> i <sup>k</sup> 3
good	kam'wan 1 ke'aŋk <sup>°</sup> 2 imoya 3	epe 4 epe 4 keyange 2 Ep 4 epe 4	keyange 2 gwajiga 5 gwope'xa 5 gwope'xa 5 larije,dana 6 'wainga 7	ana¢uaŗi 9    xiba 10   Yeban 11
green 1.	sedebinge  K <sup>×</sup> ayaru.  Kakaru <sup>1</sup> a  kakange 2	<ol> <li>6. sakapae 2</li> <li>7. sakapae 2</li> <li>8. sakapae 2</li> <li>9. sækape 2</li> <li>10. sakapae 2</li> </ol>	<ol> <li>kyakapae 2</li> <li>x&gt;mo'xomo 3</li> <li>xomo'xomo 3</li> <li>k'ama'k'ama<sub>i</sub>xa 3</li> <li>ik'ama'k'ama<sub>i</sub>xa 3</li> <li>ik'amighm 3</li> <li>ik'amigh'k'amigh 3</li> </ol>	19. tɨrɨŋ 4 20. woŋot <sup>h</sup> 4 21. 22. 23. ¹nambëmɨn ¹dëğp ʰam 5 24.

heavy	cold	warm, hot	014
1.			
2.			
3. ¹k'endaıβirum l	հւդ¹gjarem l	¹hanıβirım l	wam'bəŋk′1
4. kenda¦βιηkʻl	laßəßijrim 2	l mijiβiene¦	wam'baŋ $k^{'}$ 1
5. kenda pilimi l	apu pilimi 2	ani pilimi l	wambange l
6. kenda pilyame 1	kupa pilyame 2	itata 2	wambetae l
7. kenda l	kupu 2	itaita 2	wambaketae l
8. kenda l	kupa 2	itaita 2	wambeketae l
9. kendate l	yap 2	itæta pipe 2	wabatæke l
10. keda 1	kupa 2	itaita 2	wabake l
ll. kenda l	kupwa pilyamo 2	isesa pilyamo 2	wambarae l
12. mu¹t'a·ɣədə 2	s ebeyex'amas	c epexcq,ch	ma'duaβə 2
l3. mə¹rarədə 2	epexap <sub>l</sub> exau'	ha'bəxədə 3	ma'duabəxəm 2
14.			
15. me¹bə 2	i sihaßa 4	g eqeuleden'	z aβeop¦em
16. may¹waii 2	'g∔dzəra 5	¹∳∧bəra 4	Ith 3
17. ¹mar∧ g∧∳ 2	¦juŋʌnbʌ 6	¹∳əmb∧ŋ 4	2 vdebnvn'
18.			
19. <sup>1</sup> gagriwa 3	a tarawa 7	kugurə 5	jançik <sup>o</sup> 4
20. ŋg∔k <sup>h</sup> ĭiba 3	aľuwak 7	mang∧gat 5	
21. mik <sup>h</sup> yamba 4	ləa / yımba 7/8	yambaŋa 6	
22. t∧ŋgɛd∧k <sup>h</sup> i 5	tařak <sup>n</sup> andagan 9	wubik <sup>h</sup> andagan 7	madnyi 5
23. kořigiwět <sup>h</sup> 6	gën÷ŋg÷t hewt h lo	k+kha get th 5	'yat ÷k÷t <sup>h</sup> 4
24. It hobais 17 7	'Yam 11	't om 8	¹wa n∧₁m÷n 6

m 2 3 3 7 7 7 Pthji 9	new	һирш	what?	who?
k ugag 1 bilare 1  kemb <sup>M</sup> a 1 hen 'pirim 2  kupale 1 bangenaipe 3  balo silyamo 1 akisi 4  longo 2 aki? 4  malu 3 aki 4  alibama'dgum 3  iru 6  nan na'hnn 7  ngaçakamanan 7 gatewej 8  h; 7  mundak 8  thalmēgth / punji 9  'tholi 9  'thol nan 10	1.			
kupale 1 hi-are 1 kmpale 1 hen 'pirim 2 kupale 1 bangenaipe 3 balo silyamo 1 akisi 4 longo 2 aki 4 longo 2 aki 4 malu 3 anung 5 longo 2 aki 4 malu 3 malu 3 au aki 4 malu 4 au aki 4 malu 5 au aki 4 malu 6 au aki 4 malu 1 au aki 5 m	2.			
1	3. we'neŋk'ı	K'ußər 1	bi'are 1	'nıg'haina / nikajnə l
kupale 1 bangenaipe 3 balo silyamo 1 akisi 4 longo 2 aki 4 longo 2 aki 4 malu 3 malu 3 malu 3 malu 3 aki 4 malu 6 aki 4 malu 3 aki 4 malu 3 aki 4 malu 6 aki 4 malu 3 aki 4 malu 3 aki 4 malu 6 aki 4 malu 8 aki 4 malu 3 aki 4 a	4. we¹neŋkʻ l	'kembwa 1	'men 'piţim 2	nt <sup>1</sup> kaina 1
balo silyamo 1 akisi 4 longo 2 malu 3 lóngò 2 anung 5 longo 2 aki 4 malu 3 malu 6 liru 6 nan na'han 7 ngaqakamənən 7 gatewej 8 lbökɨm 9 lbökɨm 9 lya'man 10 's'iman 10	5. wenenge l	kupale 1	bangenaipe 3	kaina l
longo 2  malu 3  lóngo 2  aki 4  malu 3  malbrdenej 4  ajibayem 3  maplkwodene 4  ixajiβem 3  maplkwodene 4  ixajiβem 3  maplkwodene 4  ixajiβem 3  aga ma.u 6  licu 6  nan nelh∧n 7  ngaçakamenen 7  gatewej 8  hi 7  mundak 8  thaimeeth ptnji 9  ithop lo  's'iman lo	6. enenge l	balo silyamo l	akisi 4	apipi 2
malu 3 longo 2 longo 2 malu 3 malu 4 iaibama'dgum 3 malu 6 licu 6 nan na'han 7 ngaqakamanan 7 gatewej 8 h; 7 mundak 8 tha'mëgtth / punji 9 'tho'lo	7. enenge l	longo 2	aki? 4	api? 2
Syng5 2 anung 5 aki 4 aki by 4 aj'bayam 3 modama'by 4 iaibama'dgımi 3 mithk <sup>a</sup> mthga man'da 5 aan a.u 6 anun a'hwn 7 agaçakamanan 7 agatewej 8 albëkim 9 th <sup>a</sup> 'man 10 's'iman 10	8. enenge l	malu 3	aki 4	api 2
aki 4 malu 3 malu 3 malbkdɛnej 4 aj'bayəm 3 modəma'bx 4 iaibama'dʒımỡ 3 minhk³mingə mən'da 5 'iru 6 nan nə'hʌn 7 ngaqakamənən 7 gatɛwej 8 h; 7 mundak 8 t ha'mɛ̃gith / pınji 9 'thoplo	9. eneng l	lŏngŏ 2	anung 5	æpi 2
malu 3  malbrdenej 4  aj'bayəm 3  modəma'br 4  iaibama'dgımr 3  maß'kwodənə 4  ixaj'ßɛm 3  m+ŋk³m+ŋgə mən'da 5  licu 6  nan nə'hʌn 7  ngaçakamənəŋ 7  gatɛwej 8  h; 7  mundak 8  thaimëətth / pupji 9  thop lo	10. enege 1	longo 2	aki 4	api 2
malbydenej 4 aj'bayem 3 modema'by 4 jaibama'dg.um~x 3 map!kwodene 4 ixaj'pem 3 mitjk <sup>2</sup> mitje men'da 5 laga ma.u 6 licu 6 nan ne'h∧n 7 ngacakamenen 7 gatewej 8 h; 7 mundak 8 tha'mëgith / punji 9 itho 10 's'iman 10	ll. enenge l	malu 3	ak: 4	api 2
maglkwodene 4 ixajlgem 3  maglkwodene 4 ixajlgem 3  mithk <sup>a</sup> mthge men'da 5 laga ma.u 6  licu 6  licu 6  nan ne'h∧n 7  gatewej 8  h; 7 mundak 8  t <sup>h</sup> a'mëgtt <sup>h</sup> / ptrji 9  tt <sup>h</sup> o <sup>p</sup> 10  ts'iman 10	12. <sup>1</sup> ja•n 2		e mėyed¹įe	'nanoxom l
maßlkwodene 4 ixajlßem 3  mink <sup>a</sup> minge men'da 5 'aga ma.u 6  liru 6 nan ne'han 7  ngaçakamenen 7 gatewej 8  h; 7 mundak 8  thalmëetth/punji 9  thop lo	13. xo¹mo 3	modema'b's 4		'ainoxom 1
mæβlkwɔdənə 4 ixajˈβɛm 3 gʌmˈgʌmʌ 3 mɨŋk²mɨŋgə mənˈda 5 ˈaga ma.u 6 guˈsʌn 5 ˈiɾu 6 nan nəˈhʌn 7 anigə 6 nan nəˈhʌn 7 gatɛwej 8 nɨbikɨm 9 tʰaˈmɛ̈gɨtʰ/ pupji 9 'ŋgom 3 ltʰoʰ 10 's'iman 10	14.		ı	
gulsan 3 mink mindak 8  hadumak h 7  loga a a a a a a a a a a a a a a a a a a	15. mæt'əβə 4	maβ <sup>1</sup> kwodene 4	ixaj¹βem 3	na <sub>l</sub> βajnə <sup>l</sup> βam l
gu'san 5 liru 6 nan na'han 7 ban 4 aniga 6 ngaqakamanan 7 gatewej 8 'nani 5 handumak <sup>h</sup> i 7 mundak 8 thandumak <sup>h</sup> i 7 a'mërith / punji 9 'prëgek	16. gam'gama 3	m∔ŋk <sup>ə</sup> m∔ŋgə mən'da 5	laga ma.u 6	lgalobax 3
apiga 6 Janif 5 Jagaqakamənən 7 gatewej 8 Janif 5 Janif 5 Janigə 6 Janif 5 Janigə 6 Janif 9 Janigə 1 Janigətt 1 Jethji 9 Janif 9 Janif 9 Janigət 1 Janigət 1 Janif 9 J	17. gu¹s∧n 5	liru 6	nan na¹h∧n 7	ban 4
apiga 6 ngaqakamənən 7 gatewej 8 'nani 5 hani 6 hani 9 hani 6 hani 9 hani 6 hani 6 hani 7 hani 6 han	18.			
k <sup>h</sup> andumak <sup>h</sup> i 7 mundak 8 n÷b'řit <sup>h</sup> 8 'bëk÷m 9 t <sup>h</sup> a'mëg÷t <sup>h</sup> / pınji 9 'přëgeŘ ' <sup>19</sup> gom 3 't <sup>h</sup> o <sup>p</sup> 10 's <sup>y</sup> iman 10	19. anigə 6		gatewej 8	¹nan÷ 5
k <sup>h</sup> andumak <sup>h</sup> i 7 mundak 8 n∔b'kit <sup>h</sup> 8 'bëk∔m 9 t <sup>h</sup> a'mëg∔t <sup>h</sup> / pıŋji 9 'pKëgeқ '¹gom 3 't <sup>h</sup> o 10 'aman 7	20.			
k <sup>h</sup> andumak <sup>h</sup> i 7 mundak 8 n∔b'řit <sup>h</sup> 8 'bëk∔m 9 t <sup>h</sup> a'mëg÷t <sup>h</sup> / pıŋji 9 'přëgeқ <sup>19</sup> gom 3 't <sup>h</sup> o <sup>p</sup> 10 's <sup>y</sup> iman 10	21.			
n÷b'řit <sup>h</sup> 8 lbëk÷m 9 t <sup>h</sup> a'mëg÷t <sup>h</sup> / punji 9 lpřëgekş l <sup>n</sup> gom 3 lt <sup>h</sup> o <sup>p</sup> 10 's <sup>Y</sup> iman 10 'aman 7	22. k <sup>h</sup> andumak <sup>h</sup> i 7	mundak 8		
' <sup>1</sup> gom 3 't <sup>h</sup> o <sup>p</sup> 10 's <sup>y</sup> iman 10	23. n∔⊌l⊁it <sup>h</sup> 8	¹ bëk∔m o	tha'mëgith / pupji 9	Přigež 6
	24. <sup>i n</sup> gom 3	1thop 10	†s <sup>y</sup> iman 10	laman 7

three	sebo 1	tebo? 1	t <sup>'</sup> εβω'man l	't <sup>n</sup> epho'mana 1		tepo 1	tepo 1	tema 1	tepš i	tepo 1	nding 1 tema 1	ıpʻiga'nabaβιm 2	Janderim Фi'la 3			2	3 mas <sup>a l</sup> mandog 5	məˈhau nəˈgaŋ 5		2	alilaŋgwam 6	gumayŋ 7	y∧mbľendu <del>b</del> at 8	: ::
not			na <sup>l</sup> βirım l	'na'βirim l	na (nenge) nae	nae 1	daa l	daa l	dæ 1	daana 1	verb + na + ending	Xalwobede 2	2 elemex,			euepleθel:ex,	aun wu¹h∧ç÷la 3	-an- infix 4		aβa məməţə¹sewa				1
11nf			t'um'baram l	thum¹baram 1	tumbaileme 1	tumbilyamo 1	tubatae 1	tumbilyamo 1	tumbæte 1	tubou / tubas 1	simbualyamo 2	2 ed escw	z ei ew			z euepiegel, oklese		andzəman 'sauump' 3		'məmərə¹sewa 4				-C
wet	1.	2.	3. oyeβarem l	4. ¡¡Bəˈβirum l	5. tombeleme 2	6. tombe lelyamo 2	7. tombe 2	8. tombe 2	9. tɔmbe læpe 2	10. tobelapae 2	11. tombe letamo 2	12. 'gw'drn∧ 3	13. t <sup>h</sup> a₁raxə'də /	raraxə'də 4	14.	15. <sub>l</sub> asə <sup>l</sup> məyw 5	16. ¹gogora 6	17. is 7	18.	19. <sup>m</sup> bapawa 8	20.	21.	22.	ح.

ys hears			n lage, lage lage lage lage lage lage lage lage	m 1 j <sup>w</sup> a 2	2 wilimi 3	elyamo 2 silyamo 4	elyamo 2 singi 4	singi 4	Špa lelyamš 2 singi 4	2 singi 4			je¹ram 6		2 elep, mc, b	manə 'jadəmdax 4 'nonu mən'da 8		hag'amp's 'aßdi nag'amp' 8		' <sup>n</sup> gətewej 6 bə <sup>1</sup> jalə 9		-	bìyanandıt <sup>n</sup> 10		+ >
no he says		nabit 1	waiten 2 piten 1	wai 2 Pirim 1	wai 2 lame 2	daa 3 lelya	daa 3 lelya	daa 3 lenge 2	dæ 3 Špa l	daaluma 3 lege 2	daa 3 letamo 2	'wamo 2 qʻa'∳am 3	wamữ 2 Φa 3		wə <sup>1</sup> hoo 2	'wuhn rila 2		'wasn 2 haŋ'a		₽.	k ay 5	?awunda 6	gayak <sup>h</sup> 5	ni'ga / ni'ge 5 ki'b'	
four	1. tumeda 1	2. tugumndn 1	3. ¡kiɣimu¹nen 1/2	4. ¹k <sup>h</sup> iru¹mena 1/2	5. kipakita 2	6. kitumende 1/2	7. kitumende 1/2	8. kitama 1/2	9. kitპmend 1/2	10. ketomende 1/2	11. kisima 1/2	12. <sub>r</sub> naba¹mabəm 3	13. agai'na 4	14.	15. nas'k <sup>w</sup> a 5	16. ¹m <sup>w</sup> oihaq m∧s	'm'Voihaq mas 6	17. mə'hau mə'hau 6	18.	19. <sup>l</sup> angadaçjaj 7	20. ang∧dasım 7	21. ցստաγդ 2	22. ma'nma'om 8	23. 'xosbilgošup 9	

he dies	it burms	he hits	he laughs
1.			
2.			
3. 'wedzə 'maroyə 'maram l	'işat' ıεŗεm l	'p'erem 1	'ngierem l
4. ma:tam l	i'na:pam l	' <del>ф</del> а 1	¹ŋgia l
5. meleme 1	isate teleme l	neleme 2	gii yelene l
6. Kumilyamo 1/2	telyamo 1	pilyamo 3	gii kaelyamo l
7. Kuoningi 2	doko tenge 1	pingi 3	gii kaenge l
8. Kumingi 2	tenge 1	ping 3	giingi l
9. kumi(n)g 2	Šngž tε(n)g 1	pi(n)g 3	gi ke(n)g l
10. kumigi 2	ita tege l	pigi 3	gii kaego l
11. kumulyamo 1/2	isare telyamo l	pilyamo 3	gilyamo 1
12. <sup>1</sup> mɔwə 3	'pab* ha'wəxəbə 2	p jep¦eχp	i'xamo∧ l
13. mo¹we 3	s eban'	na,xarə'də 5	ixa'moa'də l
14.			
15. mɔˈbə / ˈmɔbə dənə 3	fene 3	s elel'elelp <sub>'</sub> eu	I ejej'eþeomax,i
16. 'wara mən'da 4	'jin÷ŋk <sup>ð</sup> mən'da 4	∳al <sup>9</sup> mənda 6	ji'mom <sup>a</sup> nda 2
17. 'umamp <sup>h</sup> 5	'mıkangamp <sup>h</sup> 5	∳ay'amp h	mə'h∧l gamp <sup>h</sup> 3
18.			
19. s∔¹ŋginma 6	m÷nə wuma 6	¹p'ajwa 7	lgewa 4
20.			
21.			
22.			
23. ¹nogweğ 7	pu'newët <sup>h</sup> 7	1t hat wers 8	niŋ¹git <sup>w</sup> •Ř 1
24. 'ma 'kre <sup>t</sup> 8	¦aŋ mı'njot 8	¹ma '¦t 9	'ma 'krė̇̀′s¹et 5

<i>thou</i> nimba l		he ogo 1	<pre>we two (excl.) nalimba 1</pre>	you two
n tm² nam¹	num'barə l nam'bara l	marayar 2 1 <sup>m</sup> bara 2	nartm bare 1  p <sup>h</sup>  raga 2	
nimbała l emba l imba l	- 1 -	bala 2 baa 2 baa 2	nalimbala 1 nalimba 1	njimbala 2 nyakamba 3
emba l		baa 2 baa 2	naimba l neb l	nyakamba 3 nyakæb 3
eba l emba	. 1	baa 2 baa 2	naliba l nambwa l	nyakaba 3 nakamba 3
naga 2 na ga 2	7 7	jemə'naba 3 je'də 4	nanı'gagim 3 ınanəgari'mi 3	'yəna'bayim 4
naga'd <del>i</del> x nan 2/3 ne 4	γ Χ	i'na: 5 au'naŋ 6 'nıße 7	i'naβa,dəm 4 ji'd∧m 5 hol 6	handogaβ 'm∧s 'k'ale 6
ndin 5 ndin 3 nan 3		lqat∔k 8 wunu 9 dugugwi 10 nak <sup>h</sup> 11	am'ba ara'wın 7 ambalawim 7 K <sup>h</sup> undamwin 8	lpa·rawun 7 biyedawim 8
с <u>.</u> 4 г		rek 12   ma 13	në 9 ເລີ່ <sup>ງ</sup> gວ່ເລີ່ກ 10	الا المقاما الأاقوائا

they two	we (pl. excl.)	you (plural)	they (plural)
1,			•
2. nismb∧ 1	nanima? 1	yaĭamba l	pidowa 1
3. <sup>1</sup> raman 2	'nanimbere 1	pa·m'barə 2	ma'raβənıdaγədəıtat 2
4. 'pa:m'bara l	2 uimeji∳¹ ebejo¹	'na:mbara 'Фirəmin 2	¹pa:mbara ⊕i'om 3
5. nyonolapu 3	nanimbala 1	nyonombu 2	ombu 4
6. nyakamba 4	naima l	nyakama 3	nyakama 5
7.	naima 1	nyakama 3	dokaita 6
8. dolapo 3	naimba l	nyakama 3	dutupa 7
9. Xiæp 3	nem l	nyakæm 3	utup 7
10. nyalaba 3	naima l	eba 4	nyalama 8
li. nakamba 4	namwa l	nakama 3	nakama 8
12. ja¹nabaɣim 5	nanı'ga ja'mayin 'duən <sup>ə</sup> ı	pildja 5	ej idababi 9
l3. įjianderi <sup>i</sup> mi 5	nanə'ga l	ni¹ga / nig¹ya 5	jemona¹ba 9
14.			
15.	laßi 3		
16.	'anin 4		րiŋ 10
17. <sup>I</sup> k <sup>h</sup> ale 6	hon 5	'k'ale 6	'k <sup>h</sup> ale 11
18.			
19. 'Bara 'arawın 7	am¹ba o∉op° 6	'βara 'ŋajk∔k 7	am'ba çΦqp°12
20. angaľam balanšu	nye 7	aŋguľan baľanšu wopok 8	balanšu aľidam 13
aľawin 7			
21.	k <sup>h</sup> umayŋ 8		
22.	yibæ 9		
23. lřep 8	ากะัก 1	nikëm 9	ř:m 14
24. <sup>In</sup> da <sup>I</sup> nin 9	اغ 10	'nu 10	'nda 15

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