Topics in the Grammar of Binumarien

Tone and switch reference in a Kainantu language of Papua New Guinea

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List of abbreviations and glosses

auditory (evidential)

allative

adjectiviser

ALLA

AUD

AZR

benefactive BEN com1 comitative 1 comitative 2 com2 COMP completive demonstrative DEM dependent verb DEP different subject DS dual DU durative DUR ELA elative equative EQ far past **FPST** future FUT Η high tone immediacy IMM imperative IMP inalienable INAL IND indicative instrumental **INSTR** INT intensifier L low tone LOC locative n noun NEG negation nominaliser NZR proper noun nprop NPST near past NSBJ non-subject non-specific NSPC plural PLprogressive PROG pronoun pron proximal PROX QUOT quotative (evidential) subject SBJ sequential SEQ singular SG SPC specific same subject SS stative STAT telic TEL verb v

1 Introduction

This thesis aims to present the results of the linguistic fieldwork in Binumarien from September 2018 to January 2019. I describe basic parts of Binumarien phonology and morphology, with a focus on tone in noun phrases and switch reference marking on verbs.

Tone is an understudied topic in the languages of New Guinea. William Foley (1986, 64) writes on tone in Papuan languages: "the languages with the most elaborate accent systems, which, with more detailed analysis, might turn out to be true tone systems, are those of the Kainantu family in the Eastern Highlands". With my analysis on tone in Binumarien, I aim to contribute to a better understanding of tone in Binumarien and in New Guinea as a whole. Due to the scope of this thesis, the tonal analysis is limited to the noun phrase.

Switch reference is an understudied topic of Binumarien grammar, as are most aspects of Binumarien verbal morphology. According to a survey by Roberts (1997, 113), switch reference is marked in many Papuan languages, and perhaps even all languages of the Kainantu-Goroka subgroup, to which Binumarien belongs. Roberts includes Binumarien in his survey, but states: "[i]t is probably the case that this language has SS/DS but it is unclear [...] how it is marked". The objective of the description of Binumarien switch reference morphology in this thesis is to add to the understanding of the Binumarien verb system and its place in the typology of switch reference marking in languages of the world.

The rest of this chapter provides information about the Binumarien community and language, my fieldwork and the database for this study. It concludes with an overview of the content of this thesis.

1.1 Background

1.1.1 The Binumarien language

The Binumarien language is spoken in a place of the same name, which covers several hamlets or villages in one valley. Binumarien is located in Kainantu District, near the easternmost corner of the Eastern Highlands Province of Papua New Guinea (McKaughan 1973). According to Eberhard, Simons, and Fennig (2019), the Binumarien language was spoken by 520 people in 2000. During my fieldwork in 2018, community members reported a number of 1,200 speakers.

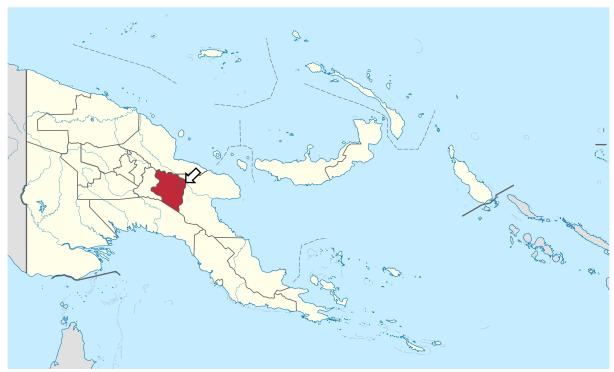
In their own language, the Binumarien people refer to their place as *Afaqinnaasa* and to their language as *Afaqinna ufa.*¹ When Binumarien people speak Tok Pisin, they refer to themselves as 'Binumarien'. According to Oatridge & Oatridge (1973a), the exonym 'Binumarien' was used in Australian administration and is derived from *Pinumareena*, the name of a former Binumarien village.

Oatridge and Oatridge published short articles on Binumarien phonology (1973a), noun affixes (1973b) and final verbs (1965). Bee (1966) wrote a grammar sketch of 27

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¹ *Ufa* means 'talk' or 'language'.

pages based on the findings of Oatridge and Oatridge. The sketch by Bee contains much of the information that was later published in the articles by Oatridge and Oatridge.



Map 1: The Country of Papua New Guinea; the coloured area is the Eastern Highlands Province. The arrow points to the place where Binumarien is spoken.

1.1.2 The Binumarien community

In 1973, McKaughan wrote that Binumarien was spoken by 117 people living in three small villages. Oatridge & Oatridge (1973a) stated that the Binumarien used to be more numerous according to the memory of older people, but tribal fighting and malaria greatly reduced their numbers. Oates (1992) writes that SIL members Desmond and Jenny Oatridge lived in the Binumarien community from 1959 to 1986. They were involved in the development of an orthography for Binumarien and worked on a translation of the New Testament, which was published in 1983. Nowadays, Binumarien is a thriving language. Within the community, people of all ages speak Binumarien. Binumarien is the dominant language in most households, during community gatherings and in church services. Children grow up with Binumarien as their primary language, often together with other languages spoken by family members. Many Binumarien people are fluent in one of the neighbouring languages, especially Gadsup, and in Tok Pisin, the lingua franca and a national language of Papua New Guinea.

Officially, English is the instruction language at school. Children from Binumarien, and some children from nearby villages Atuka and Abonamu, go to school at Ken, a place in the valley of Binumarien. In 2018, a new school building was built that offers classes up to grade eight.

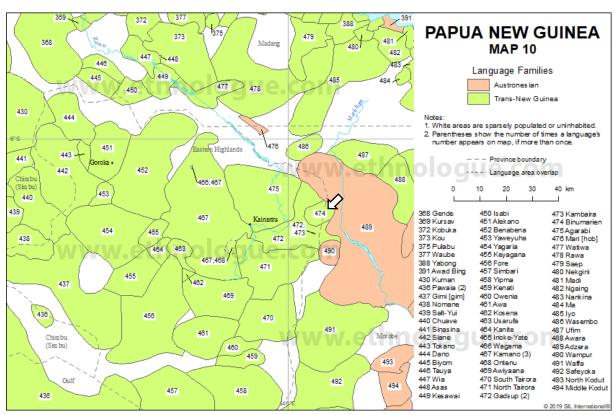
The sweet potato is the main component of Binumarien diet. Yam, taro and bananas and several types of greens are other basic crops that they grow themselves. Binumarien

people regularly hunt in the forest for meat. Some keep pigs and chicken. The main cash crop of the Binumarien people is coffee.

The Binumarien people are protestant Christian. There are five churches in the village, each of a different denomination.

1.1.3 Surrounding and related languages

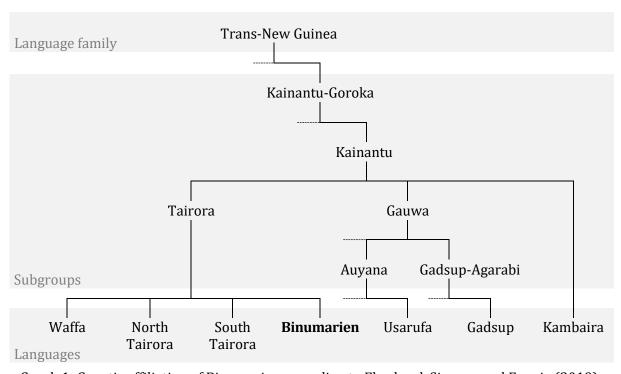
Binumarien is a Papuan language. The term 'Papuan' refers to languages spoken in the Pacific that are not part of the Austronesian family. Not all Papuan languages are genetically related to each other (Foley 1986). The Binumarien language is surrounded by the related language Gadsup in the south and west, and the Austronesian language Adzera in the north and east. The area where Kambaira is spoken borders Binumarien in the southeast, but this language is a nearly extinct (Eberhard, Simons, and Fennig 2019). Binumarien is most closely related to the Tairora languages, a language beyond the Gadsup area in the south (Oatridge and Oatridge 1973a).



Map 2: Binumarien and surrounding languages (Eberhard, Simons, and Fennig 2019). The area with number 474, indicated by the arrow, is where Binumarien is spoken.

Although the classification of many Papuan languages and language groups is yet to be determined, there is consensus on the view that Binumarien belongs to the Tairora branch of the Kainantu languages, members of the Trans New Guinea family (Wurm 1975; Xiao 1990; Hammarström 2012; Pawley and Hammarström 2018). Graph 1 presents the

genetic affiliation of Binumarien as it is classified in Eberhard, Simons and Fennig (2019).² The dotted lines indicate that there are more languages in a subgroup that are not shown here. The graph includes Waffa, North Tairora and South Tairora, the languages that are most closely related to Binumarien. Usarufa is also included, a language of which an extensive tone analysis was done by Bee and Glasgow (1962) and Donohue (1997). In chapter 2.53, we will see that Binumarien shares some tonal features with Usarufa. In addition, the geographically neighbouring languages Gadsup and Kambaira are presented in the graph.



Graph 1: Genetic affiliation of Binumarien according to Eberhard, Simons, and Fennig (2019).

1.2 Fieldwork in Binumarien

I was in Papua New Guinea for approximately five months, from 17 August 2019 to 14 January 2019. For two months, I worked as an intern at the Language Services department at SIL (Summer Institute of Linguistics) in Ukarumpa. This is also the place where I stayed most of my time in Papua New Guinea. As an intern, I gathered data about the Binumarien language and organised literacy activities with the Binumarien community. I extended my fieldwork after the internship, in order to expand the dataset for this thesis. After I left Papua New Guinea, I had two video calls with speakers of Binumarien in March and June 2019 in order to run a last check on some of the data.

During my time in Papua New Guinea, I visited Binumarien six times. In total, I stayed in the village for two months. Binumarien is only 23 kilometres from Ukarumpa as the crow flies, but it is a five- or six-hours journey. I travelled from Ukarumpa to Samera

² The analysis of Pawley and Hammarström (2018) only differs in the position of Kambaira, which they classify as a member of the Tairora subgroup.

Junction by PMV, the local form of public transport, with transfers in Kainantu and Akamore. It is a 2,5-hour hike from Samera to Binumarien. Usually, I would meet people from Binumarien at the market in Akamore, so we could hike to Binumarien together. I stayed with the family of Aka and Sero and their two daughters. Sero is the daughter of Keke, the village elder who worked with me. They had two houses in Kaubanis³ and reserved one for me during my stays. They provided me with food and company.

1.3 Database for this study

The result of the linguistic fieldwork I conducted is a corpus, consisting of recorded texts (audio and video), transcriptions and fieldwork notes. The texts that I refer to in this thesis are stored in the SIL-PNG Language & Culture Archives. The materials in this archive are listed in Table 1. The leftmost column lists the type of materials, followed by a column with the Binumarien speaker or author, the duration or number of pages, and date. The rightmost column present the codes that I use to refer to the materials.

Not all recordings that I made during fieldwork are in the Language & Culture Archives, due to the limited storage space. The recordings that are not in the archive are mainly recordings of elicitation sessions on tone and verbal morphology. They are stored on a private drive. I refer to them as 'Fieldwork notes' in example sentences.

Type of material	Speaker or author	Length	Date	Code
spoken every-day activities 1	Keke	01:36	05-Oct-2018	SEA1
spoken every-day activities 2	Keke	00:45	06-0ct-2018	SEA2
spoken every-day activities 3	Johan	01:16	08-0ct-2018	SEA3
spoken video description ⁴	Keke	04:10	23-Nov-2018	SVD
spoken Frog Story ⁵	Noko	07:55	14-Dec-2018	SFS
spoken elicited sentences 1	Johan	02:20	08-Sep-2018	SES1
spoken elicited sentences 2	Keke	02:08	29-Sep-2019	SES2
spoken elicited sentences 3	Raysen	09:38	01-0ct-2018	SES3
spoken elicited sentences 4	Keke	07:08	02-0ct-2018	SES4
spoken elicited sentences 5	Keke	26:42	06-0ct-2018	SES5
spoken elicited sentences 6	Johan	01:01:51	09-0ct-2018	SES6
spoken elicited sentences 7	Keke	01:03:10	30-Oct-2018	SES7

(Table continues on the next page.)

³ *Kaubanis* is a village in Binumarien. The name means 'cow pen' in Tok Pisin. Villagers reported that the Oatridge family kept cows here.

⁴ Elicited with the online video 'Flying Foxes Vs Freshwater Crocodile' *YouTube*. Retreived June 26, 2019. https://www.youtube.com/watch?v=wi30w-Mk2yQ.

⁵ Elicited with the picture book by Mayer, Mercer. 1969. *Frog where are you?* New York: Dial books for Young Readers.

religious songs	Keke	36:00	17-Nov-2018	RLS
written literacy booklet 1	Adoo	16 pages	1973	WLB1
(ufiniuqa akara 'book of birds') 6				
written literacy booklet 2	Adoo	11 pages	1973	WLB2
(aandau akara 'book of animals')				
written literacy booklet 3	Taraarai	19 pages	1973	WLB3
(doodaani akara 'book of insects')				
written literacy booklet 4	Taraarai	10 pages	1973	WLB4
(ufaana akara 'book of traps')				

Table 1: The Binumarien corpus used in this study.

1.4 Content overview

This chapter provided background information about the Binumarien community and their language. The Binumarien language is a Trans-New Guinea language of the Kainantu subgroup, spoken in the Eastern Highlands Province of Papua New Guinea. I conducted fieldwork in the area from September 2018 to January 2019, which resulted in the corpus that forms the basis for this thesis. For the main part, the texts of this corpus are stored in the SIL-PNG Language & Culture Archives.

Chapter 2 presents segments in the phonology of Binumarien and the structure of syllables. Tone in the Binumarien noun phrase is discussed in chapter 3, starting with the tone patterns of noun roots. This is followed by a description of tone in affixes and compounds, and a discussion on utterance-level prosody. Chapter 4 provides a concise overview of Binumarien clause structure, focusing on the noun phrase and possessive constructions. In chapter 5, the Binumarien switch reference system is discussed. It starts with a discussion of dependent and independent verb forms, followed by an overview of pronominal affixes and verbal morphology, same subject and different subject marking and expressing sequentiality and simultaneousness in dependent verbs. Chapter 6 provides conclusions and suggestions for further research.

The appendices contain two glossed texts and a dictionary. The first text is about birds that live in and around Binumarien, the second is an elicited retelling of the Frog Story. The dictionary in the third appendix contains a list of Binumarien headwords with information in English, and a list of Binumarien affixes. In addition, the appendix provides a list of English entries with a short Binumarien translation.

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⁶ The literacy booklets were in the archive of the literacy department at SIL, Ukarumpa. Keke and I translated them to Tok Pisin. They were published together in a 64 page booklet. Oatridge, Des, and Jenny Oatridge eds. 1973. *Oosana oosana aandau ufa.* Ukarumpa: SIL Press.

2 Phonology

In this chapter, I discuss sequential segments of Binumarien. Tone, being one of the main topics of this thesis, is extensively discussed in chapter 2.5. In this chapter, tone is marked only if relevant in this chapter. Binumarien distinguishes between high tone, indicated with an acute accent, and low tone, which is left unmarked.

2.1 Consonant inventory

Binumarien has thirteen phonetic consonants, as presented in Table 2. The upper row displays the point of articulation, the manner of articulation is in the leftmost column. In this thesis, I use the orthographic conventions, which are rendered between angle brackets.

	Labial	Coronal	Velar	Glottal
Plosives voiceless	р	t	k	? (q)
voiced	b	d		
prenasalised	^m b ⟨mb⟩	ⁿ d ⟨nd⟩		
Fricatives	ф (f)	S		
Nasals short	m	n		
long	m: (mm)	n: (nn)		
Approximants	W	j ⟨y⟩		
Liquids		r ⟨r⟩		

Table 2: Binumarien consonant segments.

Table 3 provides (near) minimal pairs for Binumarien consonants. I included minimal pairs for initial consonants whenever possible, but some consonants in my data occur only intervocalically in minimal pairs. Note that tone is phonemic in Binumarien, which means some of the examples are not exact minimal pairs.

/t/ vs /d/	á t í	a d í
7 07 10 7 007	'family member'	'peel'
/p/ vs /b/	ara p éépoona	sa b ééná
/ p/ vs / b/	'spider'	'type of tree'
/k/ vs /q/	k oofí	q oofí
/K/ V5/4/	'coffee'	'millipede'
lm l vc ln l	á m éesa	á n éesa
/m/ vs /n/	'tail'	'hornbill'
/n / ws /f/	p utaá	f ukaá
/p/ vs /f/	'rotten'	'tobacco'
/+ / vc /c/	t úká	s uká
/t/ vs /s/	'jar for lime powder'	'sour'
/ (h / tre / a /	ikóó	q íkóó
/ Ø_/ vs /q_/	'seed'	'I don't want to'
/Vr/vc/VcV/	duú	dú q ú
/V:/ vs /VqV/	'type of yam'	'my name'

Table 3: (Near) minimal pairs for Binumarien consonants.

The labial fricative $/\phi/$ can be realised both as a bilabial $[\phi]$ and a labiodental [f]. Variation occurs without conditions, even in one speaker. Coronal liquid /r/ may be realised as an alveolar or retroflex tap.

The voiced stops /b/ and /d/ are most likely realised as implosives. Oatridge & Oatridge (1973a) analyse these sounds as preglottalised voiceless stops / 7 p/ and / 7 t/, presumably because the glottis is indeed closed when implosive stops are realised (Greenberg 1970). An argument against analysing preglottalised stops here, is that /b/ and /d/ can occur word-initially; analysing a complex consonant at the beginning of a word is questionable in a language that has no other word-initial complex consonants. In addition, Oatridge & Oatridge seem to represent the voiced quality to /b/ and /d/ in their orthography, rendering them as (b) and (d). My corpus lacks exact minimal pairs for /b/ versus /p/ and /d/ versus /t/, probably because /b/ and /d/ do not occur very often. /b/ hardly occurs word-initially in my corpus, except in loanwords and the exclamatory interjection *boo*.

Liquids /j/ and /w/ do not occur frequently. Oatridge & Oatridge (1973a) state that /w/ mainly occurs in proper names, which corresponds to my findings. The male proper name *Qawaya* serves as an example. /j/ also occurs in question words like *yafee* 'who', *yaifee* 'where' and *yairee* 'when'.

Voiced velar stop /g/ only occurs in loanwords like sugura 'school'. The prenasalised velar stop / $^{\eta}$ g/ is also restricted to loanwords, like saguma 'corn'.

2.1.1 The glottal stop

The glottal stop /?/ is not always realised, especially in fast speech. Oatridge & Oatridge (1973a) stated that younger speakers tended to omit a glottal stop between two long vowels; for example, /faaqóótáná/ 'type of nettle' was pronounced [faaóótáná]. However, the glottal stop still constitutes a phonemic segment in present-day Binumarien. Wordinitially, /?/ is visible because it prevents final vowel deletion of the previous word. This

is illustrated in (1). In fast speech, the last vowel of maana 'this' is elided when followed by a word that starts with a vowel, like ufai in (1a). The last vowel of maana is maintained when followed by a word starting with /?/, like qusa 'short' (1b). The glottal stop is between brackets because it is not always clearly pronounced. The fact that the last /a/ of maana is maintained, demonstrates that qusa starts with a glottal stop.

Intervocalically, /q/ is often not realised, but observable when speakers are asked to whistle the tone pattern of a word. For example, /ai/ in /aika/ 'stick' (2a) is whistled with a long high tone. This contrasts with /kaqi/ in /kaqikaa/ 'small', which is whistled with two short high tones. Correspondingly, /rua/ in $/rua^ndi/$ 'type of frog' is whistled with a rising tone (2b), whereas /uqa/ 'string bag' is whistled as a short level low tone, followed by a short level high tone (2c).

		Spoken word		Whistled tone
(2)	a.	áí ká 'stick'	>	H :-H
	b.	káqí kaa 'small'	>	H-H-L
	b.	r uá ndí 'type of frog'	>	R-H
	c.	uqá 'string bag'	>	L-H

A typical feature of the glottal stop is labialisation. /q/ is labialised when preceded by /u/ and followed by /a/. Thus, /uqá/ 'string bag' is pronounced [uʔwá], /kúáráúqa/ 'pigs' is pronounced [kúáráúʔwa]. Oatridge and Oatridge state /k/ is also labialised between /u/ and /a/, but my data do not support this. /fúka/ 'new' is pronounced [фúka], /musúká/ is [musúk:á], without a labialised /k/.

2.1.2 Complex consonants

Complex consonants are an understudied topic in Binumarien phonology. I do not aim to provide a comprehensive analysis of Binumarien complex consonants in this section, but merely discuss some features as starting points for further research.

2.1.2.1 Prenasalised stops

Binumarien has a labial and an alveolar prenasalised stop, $/^mb/$ and $/^nd/$. They constitute phonetic identities of their own, but also occur as allophones of /f/ and /q/. First, Table 4 provides near minimal pairs to show that the prenasalised stops are phonemic segments in Binumarien.

/f/ vs /mb/	u f á 'talk'	sú mb a type of sweet potato'
/a/wa/nd/	áfú q ákí	áfú nd áná
/q/ vs /nd/	'in the garden'	'thigh'

Table 4: (Near) minimal pairs for Binumarien prenasalised stops.

Second, examples (3) and (4) serve to illustrate that /mb/ and /md/ also appear as allophones of /f/ and /q/ respectively. /finoo/ 'he went' is realised as [mbino:] in fast speech (3).

(3) Maqoo niniiseenoo **mb**inoo.
here nini-i-sa-i-noo fu-i-noo
here go.around.DEP-DUR-SEQ-SS-3SG go-IND-3SG
'He walked here for a while and then he went away.' Fieldwork notes

Similarly, /q/ in *niqafamaseenoo* 'he saw them' is realised as /nd/ in fast speech (4).

(4) ... nindafamaseenoo ...
ni-qafa-ma-sa-i-noo
2/3PL.O-see-COMP-SEQ-SS-3SG
'... he saw them ...' SFS

More research could show in what contexts /mb/ and /nd/ are realised as /f/ and /q/.

2.1.2.2 Preglottalised stops

As discussed in section 2.1, Oatridge & Oatridge (1973a) analyse preglottalised stops /qp/ and /qt/ where I suggest voiced stops /b/ and /d/, which are probably realised as implosives. It is possible however, to analyse both preglottalised stops and implosives. I have several instances where a voiceless /p/ or /t/ seems to be preceded by a glottal stop, e.g. [ku²pěː] 'ant' and [фaɾama²taná] 'type of frog'. Moreover, in some cases nasals also seem to be preglottalised, as in [máː²mándúná] 'type of frog' and [ánâː²naː] 'type of greens'. Preglottalised stops are rare in my corpus; a larger dataset could provide more insights in their occurrence.

2.1.2.3 Long consonants

Oatridge & Oatridge state that /p/, /t/ and /k/ are lengthened intervocalically. This would mean that long plosives are allophones of their short counterparts. In contrast,

length in nasals is phonemic in the analysis of Oatridge & Oatridge.⁷ There are two possible analyses: a) the length of stops is phonemic. However, I have no minimal pairs for any lengthened stop, including nasals. b) Short stops are lengthened under certain conditions. But in my corpus, I could not find conditions for lengthening, like influence from tone or heavy syllables.

To conclude, Binumarien preglottalised stops and long consonants require more research. Perhaps a larger Binumarien dataset combined with knowledge from affiliated languages could provide minimal pairs or conditions for Binumarien complex consonants.⁸

2.2 Vowel inventory

There are eight phonemic vowels in Binumarien, as shown in Table 5.

	Front	Central	Back
Close	i iː ⟨ii⟩		u uː ⟨uu⟩
Mid	eː ⟨ee⟩		o: (oo)
Open		a aː ⟨aa⟩	

Table 5: Binumarien vowel segments.

Table 6 provides (near) minimal pairs for vowel segments.

/i/ vs /a/	áík á	áík í
	'stick'	'nose'
/i/ vs /u/	áík í	áik u
	'nose'	ʻlegʻ

(Table continues on the next page.)

⁷ Length of plosives is not represented in Binumarien orthography, as they were considered allophones of the short variants by Oatridge & Oatridge (1973a). Long nasals are represented with double graphemes: (mm) and (nn).

⁸ Foley (1986) discusses the phonology of Fore, Usarufa and Gadsup, three languages related to Binumarien. These languages have a complex morphophonemic system containing complex consonants, including preglottalised stops. The Fore language has words with a final glottal stop that is not realised in isolation, because words must end in vowels. In context, the glottal stop is realised on the initial segment of the next word. Foley gives the example of *te?té ma-we* 'it is red soil' and *ka:sá: ?ma-we* 'it is new soil'. The glottal stop in *?ma-we* is the final segment of *ka:sá:*. Binumarien may have a similar system, c.f. *aaki arirafa* 'yellow-coloured' and *dundu qarirafa* 'black-coloured'. The /q/ in *qarirafa* might be the final segment of *dundu*.

/a/ vs /u/	t á ká	t ú ká
	'type of frog'	'jar for lime powder'
/a/ vs /aa/	a kú	aa kú
	'dessert banana'	'rain'
/i/ vs /ii/	ák íi qa	ák í qtá
	'head'	'pith'
/u/ vs /uu/	d uú	d ú qú
	'type of yam'	'my name'
/ii/ vs /ee/	már íí qa ⁹	már ée qa
	'I was'	'I took'
/aa/ vs /ee/	áf áa ka	áf ée ka
	'fireplace'	'nit'
/aa/ vs /oo/	úq áá ná	úq óó ná
	'type of bird'	'moon'
/ee/ vs /oo/	oo kárá	ee kárá
	'type of plant'	'white'
/uu/ vs /oo/	d óo	d uú
	'COMP'	'type of yam'

Table 6: (Near) minimal pairs for Binumarien vowels.

2.2.1 Vowel length

The vowels /i/, /a/ and /u/ have long phonemic counterparts. The vowels /e:/ and /o:/ are always long.

With some speakers, I had difficulty hearing the difference between /i:/ versus /e:/ and /u:/ versus /o:/. Furthermore, the distribution of long /e:/ and /u:/ is almost complementary with the distribution of short /i/ and /u/ respectively. The only root with long /i:/ in my data is *akiiqa* 'head'; the only root with /u:/ is *duu* 'type of yam'. Long /i:/ also occurs across morpheme boundaries, for example when durative suffix -i is attached to the verb *maria* 'to be'. However, there are two reasons to assume a phonetic distinction between /i:/ versus /e:/ and /u:/ versus /o:/: a) some speakers make a clear distinction, and b) I have near minimal pairs for both, as provided in Table 6.

In some instances, a long vowel is shortened in my corpus. For example, *ufaana* 'trap' becomes *ufana* when it serves as the semantic head of a compound (e.g. *fuseenufana* 'cassowary trap'; *kuarufana* 'pig trap'). More research is needed in order to find out if the shortening of long vowels occurs more often, in compounds or elsewhere.

2.2.2 Diphthongs

Four diphthongs occur within morpheme boundaries: /ai/, /ia/, /au/ and /ua/. Table 7 provides (near) minimal pairs.

-

⁹ Oatridge and Oatridge state the tone of *mariiqa* per mora is H-H-L-L, but it is rather realised as H-H-M-L. The mid tone is presumably a downstepped high tone. Note however that both tone in verbs and downstep are unstudied topics in Binumarien grammar.

/ee/ vs /ai/	éé kárá	áí ká	
	'white'	'stick'	
/ee/ vs /ia/	oosaas ée na	sía	
	'type of tree'	'not'	
/oo/ vs /au/	ufís óó ná	s áú ná	
	'type of plant'	'pandanus'	
/oo/ vs /ua/	ák óó ná	k úá rá	
	'father'	ʻpigʻ	

Table 7: (Near) minimal pairs for Binumarien diphthongs.

The difference between a diphthong versus two separate vowels divided over two syllables is observable when speakers are asked to whistle the tone pattern of a word. If two vowels are whistled with two separate tones, they belong to two separate syllables. If two vowels are whistled as one tone, they form a diphthong. This is demonstrated in (5). /uwá/ in loanword /winduwáqá/ 'window'¹⁰ is whistled as a short low tone followed by a separate short high tone (5a). /uá/ in /ruándí/ 'type of frog' is whistled as a single rising tone (5b).

Correspondingly, the diphthongs in Table 7 are whistled in a single, uninterrupted tone. *Sianu* 'type of egg' is whistled with a long low tone for /sia/. *Faiqi* 'man' is whistled with a rising tone for /faí/. *Kuara* 'pig' is whistled with a long high tone for /kúá/. *Asausi* is whistled with a long low tone for /sau/.

There are rare instances in my corpus where a short and a long vowel or diphthong follow each other directly, like *fioosa* 'wallaby' and *auqaauqaana* 'type of water strider'. A larger dataset and more information about possible morpheme boundaries within these words could offer additional insights on Binumarien diphthongs.

2.3 Syllable structure

A Binumarien syllable contains one mora in case of a short vowel (light syllable), or two moras in case of a long vowel or diphthong (heavy syllable). Consonants only appear in the onset; in addition, complex consonants only occur intervocalically. In this analysis, both long vowels and diphthongs are represented by a VV structure, because I found no difference in their occurrence. Complex consonants are represented by one C (cf. oondanda 'rainbow' is regarded as VVCVCV). Although the status of preglottalised and

 $^{^{10}}$ In the rest of this thesis, I will render /winduwaqa/ as $\it uinduaqa$, in accordance with Binumarien orthography.

long consonants is unclear, they seem to behave in the same way as single consonants in syllable structures.

Nouns may be overrepresented in my corpus, since my description of tone in the NP required a dataset with many nouns. The verbs in my corpus tend to have a different structure. Most noun roots are trisyllabic; verb roots more often consist of two syllables. Furthermore, noun roots more frequently contain at least one long vowel, whereas many verb roots have only short vowels: CV, VCV and CVCV are structures that regularly occur among frequent verbs. Examples are *qi-* 'say', *iri-* 'hear' and *qafa-* 'see'. Other structures are possible as well, like VVCV or VCVVCV in *naana-* 'laugh' and *ateeka-* 'cut'.

Words with three or more subsequent V's, like *fioosa* 'wallaby' and *iuaaoona* 'type of bird' were not considered, because there are too few of these words to make an analysis.

2.3.1.1 Monosyllabic words

I have no examples of a one-moraic word, i.e. consisting of a V or a CV syllable. *Oo* 'mouth' is the only word that has a VV structure. My dataset contains three words with a CVV structure: *duu* 'type of yam', *doo* 'COMPLETIVE' and the exclamatory interjection *boo*.

Structure	Occurrence	Example
V	none	-
VV	one	oo 'mouth'
CV	none	-
CVV	infrequent	duu 'type of yam'

Table 8: Monosyllabic structures in Binumarien.

2.3.1.2 Disyllabic words

Few words in my dataset have a VCV structure, like *aku* 'dessert banana' and *adi* 'peel'. I have one example of a VCVV word: *ufai* 'wind'. VVCVV, CVCVV and CVVCVV words are a bit more common, like *ainoo* 'fat' and *aanai* 'horn'; *kamaa* 'sweet potato' and *fasau* 'star; *qoomaa* 'torch' and *taafee* 'type of taro'. Disyllabic structures that frequently occur are VVCV, CVCV, CVVCV, as in *aaku* 'rain' and *ooni* 'stone'; *duru* 'bow' and *maqa* 'ground'; *kooqi* 'door' and *feefa* 'arrow'.

Two general patterns are observable here in the syllable structure. First, words consisting of heavy syllables only (VVCVV and CVVCVV) are rare. Secondly, the last syllable tends to be light: VCVV and CVCVV occur less often than VVCV and CVVCV structures (although CVCVV is not uncommon).

¹¹ Note that verb stems do not occur independently and always end in a short vowel.

Structure	Occurrence	Example
VCV	infrequent	adi 'peel'
VVCV	frequent	ooni 'stone'
VCVV	one	<i>ufai</i> 'wind'
VVCVV	infrequent	aanai 'horn'
CVCV	frequent	duru 'bow'
CVVCV	frequent	feefa 'arrow'
CVCVV	frequent	fasau 'star
CVVCVV	infrequent	qoomaa 'torch'

Table 9: Disyllabic structures.

2.3.1.3 Trisyllabic words

Most of the underived nouns in my corpus are trisyllabic. There are many possibilities: words can have only short vowels, like CVCVCV *nunuka* 'sand'. Combinations of long and short vowels also occur often, like *VCVCVV amanee* 'leaf' and VCVVCVV *anaasee* 'woman'.

Three patterns can be observed. As we saw in disyllabic words, words with only heavy syllables are rare. There is one trisyllabic word with only long vowels CVVCVVCVV: naareepaa 'type of casuarina tree'. Secondly, although words with a final heavy syllable are not uncommon, they occur less often than words with a light final syllable. Thirdly, if a word has multiple heavy syllables, they tend to occur together. *Taatuqee* 'red' is the only word in which a short syllable separates two heavy syllables.

Structure	Occurrence	Example
VCVCV	frequent	asumu 'seedling'
VVCVCV	frequent	aakuka 'mosquito'
VCVVCV	frequent	isaaqa 'ginger'
VCVCVV	frequent	amanee 'leaf'
VVCVVCV	frequent	ooqoosa 'cockroach'
VCVVCVV	frequent	anaasee 'woman'
VVCVCVV	none	-
VVCVVCVV	none	-
CVCVCV	frequent	qumura 'rat'
CVVCVCV	frequent	fairaka 'type of tree'
CVCVVCV	frequent	manaaqa 'girl'
CVCVCVV	none	-
CVVCVVCV	frequent	kaakaana 'flying fox'
CVCVVCVV	none	-
CVVCVCVV	one	taatuqee 'red'
CVVCVVCVV	one	naareepaa 'type of tree'

Table 10: Trisyllabic structures.

2.3.1.4 Words with more than three syllables

Words with more than three syllables are not uncommon, but there are too many possible combinations to make an analysis based on my corpus. Moreover, many of these words are names for plants and animals or proper names. The length of the words suggests some may be morphologically complex. Furthermore, there are onomatopoeia among the (animal) names, like *kookooraana* 'chicken' and *feetutareena* 'type of bird' (the sound that a rooster makes is *kookooraaqoo*; the sound of the *feetutareena* is described as *feetutaree*).

2.4 Whistled language

Though beyond the scope of this project, it is interesting to mention that Binumarien speakers use whistled language, which they call *fooka*. Cowan (1976) reports that Binumarien whistled language exists, but it remains unstudied. I found that only men and small children are socially accepted to whistle. Whistled speech is mainly used to communicate short commands over a medium distance. For example, someone can whistle 'fetch the water' to another person outside the house. The whistling pitch is based on the pitch in spoken language.

2.5 Conclusion

Binumarien has fifteen consonantal segments. Voiceless plosives are /p/, /t/, /k/, /?/. The first two have voiced phonetic counterparts /b/ and /d/, probably realised as implosives. There are two voiceless fricatives / ϕ / and /s/, two nasals /n/ and /m/, two approximants /w/ and /j/ and a liquid /r/. Complex consonants include prenasalised /mb/ and /nd/. In addition, some stops may be preglottalised /qp/, /qt/, /qm/, /qn/ and all stops may be long in certain words or contexts; more research may show whether these features are phonemic.

As vowel length is phonemic in Binumarien, there are eight vowel segments: /i/, /iː/, /eː/, /a/, /aː/, /oː/, /u/, /uː/. Diphthongs are /ai/, /ia/, /au/ and /ua/.

Syllables can be light (with a short vowel) or heavy (with a long vowel or diphthong). Consonants only occur in the onset; in addition, complex consonants only occur intervocalically. Words with only heavy syllables are rare, heavy syllables tend to be juxtaposed and the last syllable is light in most cases. Most Binumarien noun roots are trisyllabic, whereas verb stems often have one or two syllables; heavy syllables occur more often in nouns than in verbs.

3 Tone in the Binumarien NP

Binumarien uses pitch to make lexical distinctions. In this chapter, I aim to describe tone in the Binumarien NP. Due to the limited scope of this project, I only discuss tonal patterns in the NP. The complex verb morphology of Binumarien requires more research in order to start a thorough analysis of tonal patterns in verbs.

In accordance with the property-driven approach to tonal typology proposed by Hyman (2006, 2009), I describe the Binumarien tone system in terms of four parameters: obligatoriness, culminativity, metricality and privativity. The mora is the tone bearing unit in Binumarien. High tone moras contrast with low tone moras. Every lexical item has at least and at most one high tone, so the system is obligatory and culminative. The Binumarien system lacks metricality: to my knowledge, there is no hierarchy of strong and weak syllables. The rendering of the tonal patterns in this chapter implies a binary system, as H contrasts with L. However, I would argue that Binumarien distinguishes between high tone moras and toneless moras, which means the system is not binary, but privative. Arguments in favour of an analysis with toneless moras in Binumarien are a) the tone of nominal affixes cannot be determined, since they always receive tone from the root pattern; b) high tone is more prominent than low tone, because it is obligatory on both word and utterance level. For reasons of readability, toneless moras are rendered as they are realised: L.

3.1 Nominal roots

Each mora carries level tone in Binumarien.¹⁴ A short vowel represents one mora, a long vowel or a diphthong represents two moras.¹⁵ Consonants, including nasals, glides and liquids, are non-moraic. In this thesis, diacritics indicate phonemic tone on the level of the mora. Non-marked vowels are low, vowels with an acute accent /'/ are high.¹⁶ Minimal pairs are provided in (6) to demonstrate that tone is phonemic in Binumarien.

 $^{^{12}}$ I suggest that the mora is the tone bearing unit, because level tone is realised on the mora. However, the word can also be considered a tone bearing unit, because it carries the word-level tonal pattern.

¹³ Note however that the high tone in the word-level pattern can be realised on multiple moras.

¹⁴ There may be an exception: one speaker stated *adaka* 'middle' has a rising contour on the second mora: *adǎká*. However, on a second check the speaker reported a low level tone: *adaká*.

¹⁵ A long vowel or diphthong that carries a LH sequence is realised as a rising tone. A long vowel or diphthong that carries a HL sequence is realised as a falling contour.

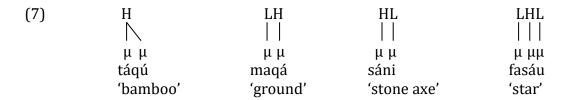
¹⁶ Binumarien orthography differs from the phonetic system in the rendering of tone. Members of the Binumarien community reported that tone used to be indicated with diacritics on all words in the first edition of the Binumarien Bible, but in the latest edition tone is marked only on minimal pairs.

(6) akú ákú 'dessert banana' 'axe haft'

murí múrí 'citrus fruit' 'wart'

nári narí 'they themselves' 'he himself'

Each Binumarien word has a tonal pattern which assigns level tone to the moras. The pattern is rendered in capital letters. 'H' indicates high tone and 'L' indicates no tone, which is realised as low tone by default. There are four tonal patterns in Binumarien: H, LH, HL, and LHL. An example of each pattern is provided in (7). The capital letters show the pitch in the pattern on a word level, which is connected to the mora ' μ '. The acute accents on the words indicate the realisation of high tone.



Most Binumarien words have more moras than level tone sequences. For example, a word with a LH pattern does not necessarily have one low and one high mora. Example (8) illustrates how tonal patterns can be realised. (8a) shows two words with tonal pattern LH. In the bimoraic word *paki* 'gum', the first mora is low, the second mora is high. *Peepeennaana* 'butterfly' has seven moras, of which the first two are low, and the last five are high.

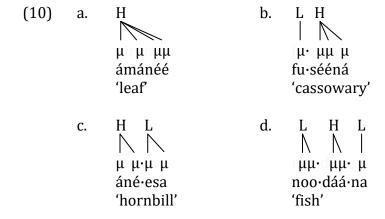
The assignment of tone from the pattern to the moras is not predictable in Binumarien. For example, $eeq\acute{a}$, with two low moras followed by a high mora, means 'banana'. In contrast, $e\acute{e}q\acute{a}$, with one low mora followed by two high moras, is the first person reflexive pronoun 'I myself'. This minimal pair shows that the realisation of tone from the tonal pattern to the mora is lexical. The point where the pitch changes from one level to another is unpredictable.

For the rest of this section, it is helpful to mark the point where the pitch changes with a 'diacritic accent', in correspondence with Hyman (2009). In order to avoid ambiguity with the acute accent on high moras, this accent is rendered as an interpunct '.'. Donohue (1997) uses the term 'accent' for the point where the pitch changes in the Usarufa tone system. Hyman further defines Donohue's 'accent' as 'diacritic accent', in order to avoid

ambiguity with the term 'stress-accent'. This is also the term I prefer. In Hyman's analysis, the term 'accent' only refers to a diacritic mark that indicates the mapping of tone; it does not mark prominence of a mora or syllable, as stress-accent does (Hyman 2006). Binumarien moras do not have a hierarchy of prominence either. The diacritic accent only marks a switch in tonal level. As I will demonstrate, the diacritic accent can occur two times, once, or not at all; in contrast to accent in stress-accent languages, where words have one and only one accented (metrically most prominent) syllable.

Example (9) illustrates the diacritic accent in the word *kooqi* 'door', directly after the second mora.

Words with tonal contour H have no change in tone level, so there is no diacritic accent, as illustrated with *amanee* 'leaf' in (10a). Words with contour LH or HL, like *fuseena* 'cassowary' (10b) and *aneesa* 'hornbill' (10c), have one change in tonal level, so there is one diacritic accent. Words like *noodaana* 'fish' (10d) with contour LHL have two diacritic accents: one for the change from low to high and one for the change from high to low.



Words with tonal pattern H have only one possible realisation: all moras are high. For the other tonal patterns, there are multiple possibilities. Table 11 presents all possibilities for words with two, three, four and five moras. Only the realisations in bold occur in my corpus. For words with up to four moras, almost every possible realisation occurs in my corpus, except for LHHL. For words with five moras, many realisations are lacking in my corpus, especially realisations of the HL and LHL patterns. Presumably, this is not due to a restriction on certain realisations, but rather because a) my corpus contains fewer words with five moras and b) HL and LHL patterns occur less frequent in all words.

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¹⁷ I looked at the realisation of words in isolation for this table.

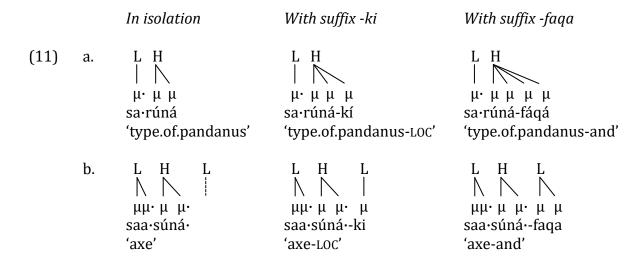
	2μ	3μ	4μ	5μ
Н	НН	ннн	нннн	нннн
LH	LH	LLH	LLLH	LНННН
		LHH	LLHH	LLHHH
			LHHH	LLLHH
				LLLLH
HL	HL	HLL	HLLL	HLLLL
		HHL	HHLL	HHLLL
			HHHL	HHHLL
				HHHHL
LHL		LHL	LHLL	LHLLL
			LLHL	LLHLL
			LHHL	LLLHL
				LHHLL
				LLHHL
				LHHHL

Table 11: Possible realisations of tonal patterns and their occurrence in my corpus (in bold).

In many Binumarien words, the diacritic accent follows the last mora, which means that the last tonal level is not realised. For example, the tonal pattern of *saruna* 'type of pandanus' (11a) is different from that of *saasuna* 'axe' (11b). In isolation, the pattern of both seems LH: both start with low-toned moras and end with high-toned moras. However, if the word carries a suffix, the underlying tonal pattern is exposed. Binumarien affixes receive tone from the root. With the locative suffix *-ki* attached to the root, the underlying pattern of *saruna* appears to be LH indeed, whereas *saasuna* has a LHL pattern. The root *saasuna* carries the first low and the high tone of the pattern and the suffix *-ki* carries the second low tone. The same applies when another suffix is added, like *-faqa* 'and'. ¹⁸

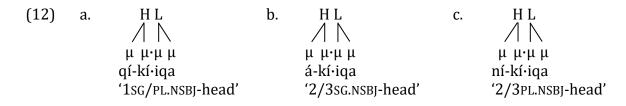
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 $^{^{18}}$ LH words with the attachment point after the last mora sometimes display a different pattern with plural suffix -uqa. Expected would be ufini 'bird' becomes *ufiniuqa, but the high tone is realised only on the last mora: ufiniuqa 'birds'. My data suggest that there is a restriction on diphthongs ending in /u/ regarding a rising pattern: /aú/ and iú/ do not occur.



The phenomenon that the underlying tonal pattern is only exposed when suffixes are attached to the root, occurs in all tonal patterns with a change in pitch level. This means that in many LH pattern words, the H is only realised on suffixes; in many HL and LHL words, the L is only realised on suffixes.

Prefixes of possession, the only nominal prefixes in Binumarien aside from demonstrative prefixes, also receive tone from the root. The tonal pattern of the root is mapped onto the prefix. The inalienable noun akiiqa 'head' is obligatory marked with the non-subject prefix which marks the possessor, like a- '2/3SG.NSBJ'. Akiiqa has a HL pattern, with the diacritic accent after the second mora of the root. This means all prefixes carry high tone, according to the HL pattern, whether the prefix is qi- '1SG/PL.NSBJ' (12a), a- '2/3SG.NSBJ' (12b), or ni- '2/3PL.NSBJ' (12c).



It is impossible to say whether Binumarien affixes have lexical high or low tone, because they always receive tone from the pattern of the root and never occur in isolation.¹⁹ This is an argument in favour of a privative analysis of the Binumarien tone system, rather than a binary analysis. Affixes have no tone, realised as low tone, unless they receive high tone from the root.

In summary, every nominal root has a tonal pattern with at least and at most one high tone. High tone contrasts with no tone, which is realised as low tone by default. The pattern is realised with level tones on the moras. The pattern is not always fully realised within the root; affixes reveal the underlying pattern of that root.

¹⁹ Possibly, there is one exception: question marker *-fee* always has a falling contour, regardless of the stem it is attached to. For a discussion, see section 4.3.1.3.

3.2 Compounds

A compound is a word consisting of multiple roots. For the scope of this thesis, I only discuss compounds consisting of two roots. In Binumarien, as in English, the second root is the semantic head of a compound. However, the first root serves as the prosodic head. This means the compound receives tone from the pattern of the first root. In Binumarien, the last vowel of the first root is elided if the second root starts with a vowel.

(13) illustrates the occurrence of all four tonal patterns in compounds.²⁰ Note that the first root loses the last mora if its last vowel is elided. If the diacritic accent would normally follow the last mora, it now follows the penultimate mora. This means that when the last vowel of *kuara* 'pig' is elided, the diacritic accent follows /kua/ (13c).

		Underlying patterns			Realisation
(13)	a.	H fúsééná 'cassowary'	LH ufaana∙ 'trap'	>	H fúséénúfáná 'cassowary trap'
	b.	LH i∙róósá 'type of bandicoot'	LH ufaana∙ 'trap'	>	LH i∙róósúfáná 'bandicoot trap'
	c.	HL kúárá· 'pig'	LH ufaana∙ 'trap'	>	HL kúárufana 'pig trap'
	d.	LHL aa∙ndá∙u 'animal'	LH ufaana∙ 'trap'	>	LHL aa·ndá·ufana 'animal trap'

In short, the prosodic head of a compound is left. The pattern of the first root is mapped onto the entire compound.

3.3 Adjective-noun combinations

If a noun is modified by an adjective, the pattern of both roots is maintained. For example, the adjective *kaqikaa* 'small' modifies the noun *saqari* 'tree' in (14a). In (14b), the adjective *firaa* 'big' modifies *saqari*. In both sentences, the pattern of both the adjective and the noun is maintained. Note that the high tone in the pattern of *firaa* is not realised here; it would be realised if *firaa* carried a suffix.

²⁰ The long /aa/ in *ufaana* 'trap' is shortened in compounds. The conditions for shortening vowels are unclear to me. As stated in chapter 2, Binumarien vowel length requires more research.

		Underlying patterns			Realisation
(14)	a.	HL kaqi·kaa 'small'	LH sa∙qárí 'tree'	>	HL LH káqí·kaa sa·qárí 'small tree'
	b.	LH firaa∙ 'big'	LH sa·qárí 'tree'	>	LH LH firaa· sa·qárí 'big tree'

In contrast to affixes and compounds, adjective-noun combinations maintain the pattern of both parts. This suggests that the Binumarien word can be defined in terms of the pattern, which means every word has at least and at most one /H/ in its pattern. Roots with affixes and compounds have one pattern and can be considered one word; a combination of a noun and an adjective has two melodies for two words. An analysis of the tone of other word classes is needed to prove that a sequence of high-toned moras is definitional of Binumarien wordhood.

3.4 Tone on utterance level

3.4.1 Obligatory high tone

Binumarien utterances require to have at least one high-toned mora. If all moras in an utterance are realised with low tone, high tone is assigned to the last mora of the utterance. This rule applies to utterances containing only LH words with a diacritic accent after the last mora.

Example (15a) shows that *aaku* is such a word. The root of the word carries low tone because the diacritic accent follows the last mora; the high tone of the pattern is assigned to the locative suffix *-ki*. Example (15b) shows *aaku* in combination with the imperative form of *qafaa* 'see'. The high tone in the pattern of *aaku* is not realised, because there is no mora following the diacritic accent. When we look at the level of the utterance, the rule of obligatory high tone is met in both sentences, because either *-ki* 'LOC' or *qafaa* 'see' carries high tone.

		Underl	ying patterns		Realisation
(15)	a.	LH aaku∙-l rain-L0		>	aaku·kí 'in the rain'
	b.	LH aaku· rain	HL qafa·-a see-IMP	>	aaku∙ qáfá∙a 'look at the rain'

Since the pattern of *aaku* does not assign high tone to the root, there is a potential conflict with the rule of obligatory high tone if *aaku* is in isolation. This problem is solved, because high tone is assigned to the last mora of the utterance (16).

	Underlying pattern		Realisation
(16)	LH aaku∙	>	aakú
	rain		'rain'

(17) demonstrates that the rule of obligatory tone also applies to longer utterances. In (17a), *kupee* 'ant' has no high tone, because there is no mora after the diacritic accent. Furthermore, *kaqikaa* 'small' has high tone, so the rule of obligatory high tone is met. In (17b) however, the high tone in the pattern of both *firaa* 'big' and *kupee* is not realised, which causes a conflict with the rule of obligatory high tone. Therefore, high tone is assigned to the last mora of the utterance, the second /e/ of *kupee*.

		Underlying	g patterns		Realisation
(17)	a.	HL kaqi∙kaa 'small'	LH kupee∙ 'ant'	>	káqíkaa kupee 'small ant'
	b.	LH firaa∙ 'big'	LH kupee∙ 'ant'	>	firaa kupeé 'big ant'

In short, all utterances have at least one high toned mora in Binumarien. If no mora receives high tone from the root pattern, the final mora of the utterance will be high.

3.4.2 Downstep

As in many tone languages (Snider and Leben 2018), the pitch gradually falls on an utterance level in Binumarien. I do not aim to give a complete description of the Binumarien downstep system here, as my dataset only contains information about the prosody of short nominal phrases. But even in these short phrases, the falling contour is evident. High tones have a lower pitch at the end of an utterance, but still higher than low tones in my data. In (18), the diacritics indicate phonemic tone on the moras; the dashes represent the realisation of tone on an utterance level. Examples (18a) and (18b) demonstrate that high tone can be phonetically mid at the end of the phrase. The falling intonation is not due to the lexical pattern: the last two moras are mid, regardless of the order of the roots *taqu* 'bamboo' and *tuka* 'box'. Example (18c) illustrates that high tone can also be realised as mid when it follows a low tone.

(18)	a.	táqú-fáqá túká-fáqá	b.	túká-fáqá táqú-fáqá	c.	qiní saná
		'bamboo and box'		'box and bamboo'		'my taro'

In summary, two mechanisms are at work on the level of the utterance in Binumarien. First, an utterance requires to have at least one high toned mora. If the melodies of the words do not assign high tone to a mora, the last mora of the utterance must be high. Downstep is another mechanism on utterance level. Based on the prosody of short NPs, I conclude that phonemic high tones can be higher at the beginning than at the end of an utterance. More research is needed in order to point out in what contexts the falling contour appears and at what point in the utterance it starts.

3.5 Conclusion

Binumarien has a privative system: high tone /H/ contrasts with no tone /L/. No tone is realised as low tone by default. Every noun in Binumarien has one of four tonal patterns: H, LH, HL and LHL. This means that high tone in Binumarien is obligatory and culminative: there is at least and at most one /H/ in every pattern. Binumarien does not feature metricality.

The tonal pattern is realised with level tones on the moras. The beginning or end of a high tone sequence can be marked with diacritic accents. When the diacritic accent precedes the initial mora or follows the final mora, the pattern is not fully realised within the root. In that case, affixes can help to discover the full pattern, because they receive tone from the pattern of the root.

The tonal pattern is definitional of Binumarien wordhood. A compound or a root with affixes forms one word, with one pattern. A noun-adjective combination involves (at least) two words, each having their own pattern. For compounds, the semantic head is right, but the prosodic head is left. This means the pattern of the first root is mapped onto the entire compound.

There are two mechanisms on the level of the utterance. The first is that there must be at least one high tone in every utterance. If the melodies of words do not assign high tone to a mora, the last mora of the utterance is high. The second mechanism involves downstep. Phonemic high tones are phonetically higher at the beginning of an utterance than at the end of an utterance.

Downstep is a feature of Binumarien that requires more research. Furthermore, this analysis is based on the NP; a study into tone in other domains of the Binumarien language, especially the morphologically complex class of verbs, may provide new insights.

4 Concise overview of Binumarien clause structure

This chapter provides a brief description of Binumarien clause structure, with a focus on the noun phrase. Chapter 5 provides a more detailed description of the Binumarien verb. I will start this chapter with a concise overview of the Binumarien parts of speech, followed by a brief section on the verb phrase. This is followed by an overview of the noun phrase, its nominal morphology and adjectives. Possessive constructions form the last topic of this chapter.

4.1 Parts of speech

There is no comprehensive study to Binumarien speech parts; I briefly discuss the basic classes and their features.

Verbs constitute the most morphologically complex word class of Binumarien. Verbs constitute the head of a verb phrase. Verbs can be modified by a great variety of TAM and person markers. Chapter 5 includes a more detailed description of verbal morphology.

Binumarien free personal **pronouns** have various forms based on person, number, syntactic role and other aspects. Their role in the verb phrase is discussed in section 5.1.2.

The class of **nouns** in Binumarien consists of words that function as the head of a nominal phrase. Nouns have a distinct morphology, which includes demonstrative markers, case markers, number markers, possessive markers and locative markers.

Binumarien has a small class of **adjectives**. They occur before the noun as nominal modifiers and are nominalised in predicate position.

4.2 The verb phrase

Binumarien is a SOV-language. Every Binumarien verb phrase ends in a verb. For example, the subject *faini* 'dog' precedes the verb *finoo* 'he went' in (19).

```
(19) Faini finoo.
faini fu-i-noo
dog go-IND-3SG
'The dog went away.'
```

SES6

The object follows the subject and precedes the verb, as in (20). The utterance starts with *faiqi* 'man', followed by *nandi* 'yam' and *naidanoo* 'he is eating'.

(20) Faiqi nandi naidanoo.
faiqi nandi na-i-da-noo
man yam eat-IND-PROG-3SG
'The man is eating yam.'

SES₆

A clause may start with an object in order to emphasise it, like safaa 'eel trap' in (21).

```
Safaa sia aiqamausa iridaqa.
safaa sia aiqama-usa iri-i-da-qa
eel.trap NEG every-PL know-IND-PROG-2/3PL
'Not everyone knows (how to make) an eel trap.' WLB2
```

If a clause has multiple verbs, the dependent verbs precede the independent verb. This is illustrated in (22): *qafarara*, the telic form of *qafa*- 'see' precedes *fiqa* 'I went'.

(22)	eendaki	eeqa	qinauna	maaqai	mina
	eendaki	eeqa	qi-nau-na	maaqa-i	mi-na
	night	1sg/pl.refl	1sg/pl.nsbj-uncle-nsbj	house-ALLA	DEM-NSBJ
	qafarara	ooqu	fiqa.		
	qafa-irara	ooqu	fu-i-qa		
	see-TEL	go.upwards	go-IND-1SG/PL		
	' at night,	I went up to th	e house of my uncle to	see him'	SEA3

Chapter 5 further discusses verbal morphology and the distinction between dependent and independent verbs.

4.3 The noun phrase

The head of a Binumarien nominal phrase (NP) is a noun, which can be modified by several elements. The modifiers in the NP, like adjectives or possessive pronouns, precede the noun. In addition, a number of affixes can be attached to the noun. I will start this section with a brief discussion of the affixes, followed by a short section on adjectives. Possessive constructions with pronouns and nouns are discussed in section 4.4.

4.3.1 Nominal morphology

Binumarien nouns can be distinguished by a typical set of affixes, including case markers, number markers, possessive markers and various locative markers. I will first describe case marking, then discuss number markers, followed by an overview of nominal suffixes that occur in my corpus. Many of these suffixes have been briefly described by Oatridge & Oatridge (1973). The prefixes on inalienable nouns are discussed elsewhere in this chapter, see section 4.4.2.

4.3.1.1 Case marking

Case marking is obligatory for specific nouns and impossible for non-specific nouns. Specific nouns are proper names and some kinship terms, like a-noo-fa '2/3SG.NSBJ-mother-SBJ' and a-koo-fa '2/3SG.NSBJ-father-SBJ'. In addition, nouns modified by demonstrative prefixes like mi- 'DEM' and maa- 'DEM.PROX' are specific. For singular nouns, there are two case markers: -fa for nouns that function as the subject of a clause; -na for non-subjects. Non-singular nouns are not marked for case (see section 4.3.1.2 for the marking of number).

Example (23) demonstrates that non-specific nouns are not marked for case, like *kuara* 'pig' as a subject in (23a), as a patient (23b), and as a recipient (23c).

(23) a. Kuara nidanoo.
kuara nu-i-da-noo
pig go.around-IND-PROG-3SG
'A pig walks around.'

Fieldwork notes

b. Faiqi kuara qafaidanoo.
faiqi kuara qafa-i-da-noo
man pig see-IND-PROG-3SG.S
'A man sees a pig.'

Fieldwork notes

c. Paqoofa Afaakoona kuara aminoo.
paqoo-fa afaakoo-na kuara a-mi-i-noo
Paqoo-SBJ Afaakoo-NSBJ pig 2/3SG.NSBJ-give-IND-3SG
'Paqoo gave a pig to Afaakoo. Fieldwork notes

When *kuara* is specific, carrying the demonstrative prefix *mi*-, it is marked with subject marker -*fa* if it has the role of subject (24a) or the non-subject marker -*na* if it has the role of object, both patient (24b) and recipient (24c). -*na* is glossed as 'non-subject', because it can also mark the possessor (see section 4.4.2).

(24) a. *Mikuarafa nidanoo.*mi-kuara-**fa** nu-i-da-noo

DEM-pig-**SBJ** go.around-IND-PROG-3SG
'This pig walks around.'

Fieldwork notes

d. Faiqi mikuarana qafaidanoo.
faiqi mi-kuara-**na** qafa-i-da-noo
man DEM-pig-**NSBJ** see-IND-PROG-3SG.S
'A man sees this pig'

Fieldwork notes

c. Paqoofa Afaakoona mikuarana aminoo.
paqoo-fa afaakoo-na mi-kuara-**na** a-mi-i-noo
Paqoo-SBJ Afaakoo-NSBJ DEM-pig-**NSBJ** 2/3SG.NSBJ-give-IND-3SG
'Paqoo gave this pig to Afaakoo.' Fieldwork notes

If a speaker wants to explicitly express the subject role of a non-specific noun, the focus particle *fannoo* is used. *Fannoo* only modifies non-specific nouns that function as the subject of a clause. *Fannoo* usually marks a new subject. This is shown in (25), where the speaker first speaks of one 'man' (*faiqi*, referring to the wasp) and then of 'another man' (*faiqi moo*, any creature that may encounter the wasp). The second man is marked with *fannoo*, in order to indicate that this is the subject of the new clause.

(25)Kookapuna maafa kasau faiqi; faiqi moo fannoo kookapuna fannoo maa-fa kasau faiqi faiqi moo DEM.DIST-SBJ wild wasp man other FOC man sia mina agoondikidanoo. a-qoondi-ki-i-da-noo sia mi-na 2/3sg.nsbj-friend-vbz?-ind-prog-3sg DEM-NSBJ NEG "The wasp is a wild man; another man will not make friends with him." SEA1

In addition to subject marker *-fa* and non-subject marker *-na*, Oatridge and Oatridge (1973b) describe a vocative suffix *-oo*, which does not occur in my corpus.

4.3.1.2 Number marking

Like case markers, number markers have different forms based on specificity. Marking number is obligatory for specific nouns and optional for non-specific nouns. There are four types of number: singular, dual, group and plural. Table 14 provides all suffixes. Note that for the singular specific forms, the role is also marked: subject (-fa) and non-subject (-na). The non-singular markers seem to attach nouns regardless of their role.

	Singular	Dual	Group	Plural
Specific	-fa, -na	-qanda	-(u)sa ²¹	-sa ²²
Non-specific	-Ø	-qara	-uqaindi	-uqa

Table 12: Binumarien number suffixes on nouns.

Example (26) illustrates the use of the dual marker for a specific noun, *fainiqara* 'two dogs' (26a) and for a non-specific noun *mifainiqanda* 'these two dogs' (26b).

(26) a. Fainiqara faaqaridaqa.
faini-**qara** faaqaru-i-da-qa
dog-**DU.NSPC** shout-IND-PROG-2/3PL
'Two dogs are barking.' Fieldwork notes

(27) b. *Mifainiqanda faaqaridaqa*.
mi-faini-**qanda** faaqaru-i-da-qa
DEM-dog-**DU.SPC** shout-IND-PROG-2/3PL
'These two dogs are barking.' Fieldwork notes

The group suffix marks nouns that refer to a non-singular entity which is considered one group. Examples are *kaakaanauqaindi* '(a swarm of) flying foxes or *kookapunauqaindi* '(a swarm of) bees', *faiqiuqaindi* 'a group of children' and *misauqaindi* 'they together'.

 21 My corpus does not contain many examples, but the distribution seems to be as follows: -usa attaches to nouns ending in /a/; -sa attaches to all other nouns.

²² From my corpus, the exact from of meaning or function of -sa is not clear. It occurs on plural nouns, but also on constructions with a (zero) copula and a first person subject, like *qini duqu Dasi-sa* 'my name is Dasi'.

4.3.1.3 Various suffixes

Nouns can be modified by a variety of suffixes. This section contains two tables with suffixes that occur on nouns, apart from the case and number suffixes in the previous sections. Table 13 lists suffixes that occur on nouns, but also on words from other classes like verbs. The left-most column shows the suffix form, followed by its notion, an example and a short note if necessary.

The analysis of the listed forms as suffixes can be debated. Not only because they are found in combination with words from various classes, but also because they convey a notion that may apply to a whole clause or sentence (like negation and interrogative). A study into the prosody of these forms could show whether they are actual suffixes or should rather be analysed as particles. I have not examined the prosody of all suffixes, but my data suggest that interrogative *-fee* has its own tonal pattern (HL), whereas *-fee* 'or' receives tone from the root it attaches to. This suggests interrogative *-fee* should be analysed as a particle, whereas *-fee* 'or' is a suffix.

Suffix	Notion	Example	Notes
-fau	NEGATION	maana sia saaka-fau	Usually combined with
		this NEG sugarcane-NEG	negative particle sia.
		'this is not sugarcane'	
-fee	INTERROGATIVE	kooqi-fee?	Attaches to the constituent
		door-Q	that is questioned.
		'(is it) a door?'	
	either, or	aakauqa-fee duru-fee	Attaches to every linked
		string.bag-or bow-or	constituent (either or).
		'a string bag or a bow'	
-foora	EQUATIVE	nukuda-ra-foora	Always preceded by -ara
		sand-about-EQ	'about' (see the table on the
		'like sand'	next page).
-kai	only	maqa-mau-kai	
		ground-over-only	
		'only on the ground'	

Table 13: Various Binumarien suffixes that occur on nouns, but also on words from other classes.

Table 14 lists suffixes that only occur on nouns. The fact that these forms only occur directly after nouns (unless another suffix stands in between), suggests that these are actual suffixes. Moreover, I the prosody of -faqa 'and' and ki 'LOC', indicates both are suffixes, because they do not have their own tonal pattern. Instead, they receive tone from the root they attach to, as discussed in section 3.1.

Suffix	Notion	Example	Notes
-ara	about	fuseena-ra qirara cassowary-about talk:TEL 'I am going to talk about the cassowary'	Used in combination with <i>qi</i> - 'speak (about)' or <i>ri</i> - 'be happy (about)'. The first /a/ of the suffix is elided if the root ends in /a/.
-faqa	and	oori-faqa ameesa-faqa nose-and tail-and 'nose and tail'	Attaches to every linked constituent (both and).
-ki	LOCATIVE	nammari-ki water-LOC 'in the water'	General locative. Not only the meaning of 'inside', e.g. akiiqa-ki 'on your head'.
-kina	inside	nammari-kina water-inside 'under water'	
-mau	over	asaana-mau branch-over 'on/over a branch'	Expresses movement on top of something (e.g. walk on ground, over branch, etc.).
-nai	throughout	nanda-ki-nai forest-LOC-throughout 'throughout the forest'	Expresses that something is inside something on various locations. Usually preceded by locative -ki.
-namu	COMITATIVE 1 ²³	ameesa-namu-faqa tail-coм1-and 'with a tail'	Often followed by -faqa 'and'
-ndiri	COMITATIVE2	faini-ndiri dog-com2 'with the dog'	
-nnai	INSTRUMENTAL	qamaqa-nnai hammer-INSTR 'with a hammer'	
-nni / -i	ALLATIVE	Kainantu-nni; Goroka-i Kainantu-ALLA; Goroka-ALLA 'to Kainantu; to Goroka'	-i occurs after /a/; -nni is used in all other cases.
-qari	ELATIVE	uinduaqa-ki-qari window-LOC-ELA 'out of the window'	Always preceded by locative -ki.
-saa	on	ooni-saa stone-on 'on a rock'	Also used in combination with <i>qusa</i> to indicate time: <i>qusa-saa</i> 'in a short time'.

Table 14: Various Binumarien nominal suffixes.

-

²³ The difference between *-namu* and *-ndiri* needs more research. Possibly, *-namu* is used for things that you can take with you (carry a bag, go with 'a heavy heart', bring a child), whereas *-ndiri* is used for companions (travel with someone).

In short, Binumarien has a variety of suffixes that attach to nouns. Apart from case and number markers, these include several locative markers and markers that link two NPs, like *-faqa* 'and' and *-fee* 'or'. Some of the forms presented as suffixes here, might actually be particles, because they function on the level of the clause or sentence. A study into their prosody could show which forms are true suffixes.

4.3.2 Adjectives

The Binumarien class of adjectives is small. When an adjective functions as a nominal modifier, it precedes the noun. In predicate position, adjectives are nominalised and marked for case.

Example (28) illustrates the attributive use of an adjective, which precedes the noun in modifies: *kaqikaa* 'small' is followed by *aiki* 'nose'.

(28) a. Kaqikaa aiki qafa-i-da-noo. small nose see-IND-PROG-3SG 'He sees a small nose.'

Fieldwork notes

In predicate position, adjectives carry a case marker. For example, *kaqikaafa* 'small' carries subject marker *-fa* and precedes *maridanoo* 'he is' (29).

(29) Fafaiaqa kaqikaafa maridanoo.
fafaiaqa kaqikaa-**fa** mari-i-da-noo
papaya small-**sbj** be-IND-PROG-3SG
'The papaya is small.' (Lit. 'The papaya is a small one.') SES5

The fact that adjectives in predicate position carry a case marker, suggests that they are nominalised. In other contexts, adjectives marked for case are the head of a noun phrase. This is illustrated in (30). *Firaa* 'big' carries the subject marker *-fa* to form *firaafa* 'big one'. *Firaafa* is a noun, modified by the possessive pronoun *mina* 'DEM.NSBJ', translated with 'his'.

rufeeka (30)Eefari mifa firaafa maridanoo. mina eefari mi-fa rufeeka firaa-**fa** mari-i-da-noo mi-na lizard DEM-SBI gecko DEM-NSBI big-sbj be-IND-PROG-3SG 'A lizard is like a large gecko.' (Lit. 'The lizard, he is the gecko his big one.') WLB2

Some words that often translate to an adjective in English, have a different morphology than the forms described above. These words do not occur as a modifier of the NP, but only function as predicates. In predicate position, they do not carry case markers. *Kisaaqa* 'long' and *qusa* 'short' belong to this group. An example of *kisaaqa* is given in (31).

(31) Saaka kisaaqa maridanoo.
saaka kisaaqa mari-i-da-noo
sugarcane long be-IND-PROG-3SG
'The sugarcane is long.' (Lit. 'The sugarcane is a long one.') SES5

The fact that these words do not occur in attributive position and do not need to be nominalised with case markers suggests that they are nouns already. This means that *kisaaqa* 'long' and *qusa* 'short' could more literally be translated as 'long one' and 'short one' respectively. More research into the morphology of adjective-like words could show which Binumarien words belong to the class of adjectives and what affixes are used to modify and possibly derive adjectives.

4.3.3 Summary

Specific nouns, i.e. nouns modified by demonstrative prefix *mi-*, proper names and some kinship terms, are marked with case suffixes. Number suffixes are optional. Binumarien has a variety of suffixes to mark other relations on nouns, like location, accompaniment and negation. Adjectives precede nouns in attributive position; they are nominalised in predicate position.

4.4 Possession

Three types of possessive constructions are discussed in this section: constructions with a pronominal possessor, with a nominal possessor and possessive constructions with a predicate.

4.4.1 Pronominal possessor

When the possessor is expressed by a pronoun, the non-subject pronoun or the reflexive pronoun directly precedes the possessed. Table 15 presents the non-subject pronouns and Table 16 shows the reflexive pronouns.

	SG	PL
1	qiní	maasá
2	aní	ínni
3	miná	misá

Table 15: Non-subject	pronouns.
-----------------------	-----------

	SG	PL
1	eeqá	eeqá ²⁴
2	aneenná	ínneeqa
3	narí	nári(qa)

Table 16: Reflexive pronouns

Non-subject and reflexive pronouns seem to be freely interchangeable in possessive constructions. For example, *qini qinauna* (32a), with the non-subject pronoun, and *eeqa qinauna* (32b), with the reflexive pronoun, both translate as 'my uncle'. The function of non-subject and reflexive pronouns in the VP is discussed in section 5.1.2.1.

(32) a. qini qi-nau-na kuara
1SG.NSBJ 1.SG.NSBJ-uncle-NSBJ pig
'the pig of my uncle'

Fieldwork notes

²⁴ The first person plural form is not from my corpus. It is in the Binumarien Bible, Óosana (Genesis) 1:26. Wycliffe Bible Translators. 1983. 'Fúka Moodaanaki Kira Ufa Afaqínaasa Ufa.' *PNG.Bible*. Retrieved May 29, 2019. https://png.bible/bjr/.

b. eeqa qi-nau-na maaqa-i 1SG.REFL 1.SG.NSBJ-uncle-NSBJ house-ALLA 'to the house of my uncle'

SEA3

Inalienable nouns are obligatorily marked with prefixes that express the possessor, wich correspond to the non-subject person markers for verbs (see section 5.1.2). In contrast, alienable nouns cannot be marked with non-subject prefixes. Inalienability is a feature that is lexically determined, but mostly predictable. All kinship terms (e.g. *a-fasaa-fa* '2/3sg.NsBj-big.brother-sBj', *a-noo-fa* '2/3sg.NsBj-mother-sBj') and body parts (e.g. *a-sauku* '2/3sg.NsBj-hand-sBj', *a-iku* '2/3sg.NsBj-leg-sBj') in my corpus are inalienable. *A-uqu* '2/3sg.NsBj-name' is the only inalienable noun that does not refer to kinship or a body part.²⁵ Table 17 presents the non-subject prefixes; each prefix has two forms for different environments.

	Vari	Variants of non-subject prefixes and their context					
1SG/PL	qi-	consonant-initial stems	d-	vowel-initial stems			
2/3sg	a-	stems not beginning with /a/	Ø-	stems beginning with /a/			
2/3PL	ni-	consonant-initial stems	n-	vowel-initial stems			

Table 17: Binumarien non-subject prefixes.

Table 18 demonstrates the use of the non-subject markers on the inalienable nouns *akiiqa* 'head' and *aiki* 'nose'.

	Akiiqa 'head'		Aiki 'nos	se'
1SG/PL	qi -kiiqa	' my/our head'	d -aiki	' my/our nose'
2/3sG	a -kiiqa	'your/her/his head'	Ø-aiki	' your/her/his nose'
2/3PL	ni -kiiqa	'your/their head'	n -aiki	' your/their nose'

Table 18: Examples of non-subject prefixes on inalienable nouns.

Usually, inalienable nouns occur in combination with non-subject pronouns. This is demonstrated in (33), where the non-subject pronoun qini modifies d-auna 'little sister', even though the relation to the first person is already expressed by the non-subject suffix d- in d-auna.

qini dauna
qini d-auna
1SG.NSBJ 1SG.NSBJ-little.sister
'my sister' Fieldwork notes

²⁵ Maaqa 'house' is an exception because it sometimes acts as an alienable noun (e.g. *qinee* \emptyset -maaqai fidaqa 'I go home', without non-subject prefix) and sometimes as an inalienable noun (e.g. qi-maaqa 'my house', with non-subject prefix).

In short, both non-subject and reflexive pronouns are used to refer to the possessor. Inalienable nouns require a non-subject prefix which indicates the possessor; alienable nouns never carry this prefix.

4.4.2 Nominal possessor

A possessive relation between two NPs is expressed by juxtaposition, with the possessor preceding the possessed (34a). If the possessor is specific, which means it needs a case marker, the non-subject suffix attaches. For example, *faini* 'dog' carries the non-subject marker *-na* (34b).

(34) a. eeqamoosa stoora frog story 'the story of the frog'

b. mi-faini-na stoora

DEM-dog-NSBJ story
'the story of this dog'

Like the above possessive construction, compounds are also formed by juxtaposition, as discussed in 3.2. Research into the tonal pattern of the possessive constructions could show if there is a prosodic difference between a compound (which is one word with one tonal pattern) and juxtaposed nouns expressing possession (which could be multiple words with multiple tonal patterns).

4.4.3 Predicative possessive constructions

The word *faqaa*²⁶ expresses possession. Its syntactic and morphological properties are like those of adjectives (section 4.3.2). As a nominal modifier, it precedes the noun, like *(nimuaquqa) faqaa* '(belly-)having' in (35a). In predicate position, *faqaa* is nominalised by a case marker, like *faqaafa* in (35b).

(35) a. Nimuaquqa faqaa anaasee ...
ni-muaqu-uqa faqaa anaasee
2/3PL.NSBJ-belly-PL.NSPC have woman
'Pregnant women ...' (Lit. 'Belly-having women ...')
WLB2

b. firaafa aundura faqaafa ... qiri ... moo aundura faqaa-fa moo qiri firaa-fa log big-SBJ inside have-s_{BI} one **SFS** '... a big hollow tree ...' (Lit. '... a log, a big one, an inside-having one ...')

²⁶ Note the formal similarity with suffix *-faga* 'and, with'.

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SFS

Faqaa has a negative counterpart *siai* 'not having', ²⁷ which occurs in identical constructions. (36) illustrates the use of *siai*, modified by subject marker *-fa* in predicate position.

(36) Mifa asausi siaifa maridanoo.
mi-fa a-sausi siai-fa mari-i-da-noo
DEM-SBJ 2/3SG.NSBJ-hair not.have-SBJ be-IND-PROG-3SG
'He does not have hair.' (Lit. 'He is a not a hair having one.') Fieldwork notes

In short, this section described three constructions that Binumarien employs to express possession. Possessive constructions with pronouns are formed with a non-subject pronoun preceding the possessed noun. Nominal possession is expressed through juxtaposition, with the possessor directly preceding the possessed; inalienable nouns are marked with non-subject prefixes. Possessive predicate constructions are formed with *faqaa*, which can be in attributive or predicate position.

4.5 Conclusion

Verb phrases have a SOV order in Binumarien. Nouns have a distinct morphology, which includes markers for case, number, location, accompaniment and negation. Specific nouns (i.e. nouns modified by the demonstrative prefix *mi*-, proper names and some kinship terms) have different case and number markers than non-specific nouns. Marking case and number is obligatory for specific nouns and optional for non-specific nouns. Case comprises subject (indicating the subject function) and non-subject (used to mark both the patient and recipient role, and the possessor). Number markers distinguish for singular, dual, group and plural. Inalienable nouns are marked with a non-subject prefix that refers to the possessor. Binumarien has a small class of adjectives, which precede the noun in attributive position and are nominalised when they function as predicates. Possession can be expressed with non-subject pronouns, juxtaposition of nouns, and *faqaa* 'having'.

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²⁷ Note the similarity with the negation particle *sia*.

5 Binumarien switch reference marking

In line with Foley (1984) and Roberts (1997), I define switch reference as verbal inflection which indicates whether the subject of the marked verb is the same as that of the following verb or different. Roberts also calls this SS/DS: same subject following or different subject following.

I will start this chapter with a discussion on the basics of Binumarien verbal morphology, including the distinction between dependent and independent verbs, personal pronouns and affixes, the verb stem and the marking of tense, aspect and mood. I will focus on person and tense markers and certain aspectual constructions that occur in combination with Binumarien DS verbs. Then I will describe switch reference in Binumarien, which comprises the marking of SS/DS and ways to express sequentiality and simultaneousness.

5.1 Binumarien verbal morphology

Verbs constitute the most morphologically complex word class in Binumarien. Verbal affixes include markers for tense, aspect, mood (TAM), core arguments and the relation with the subject of the following verb. The notions of TAM and person are often combined into one portmanteau suffix. Vowels of adjacent morphemes are often merged or elided.²⁸

This section by no means constitutes a comprehensive overview of Binumarien verb morphology, but focuses on features that are relevant in the switch reference system, namely the three tenses. Verb forms inflected for switch reference may also carry aspectual and modal markers, but the Binumarien morphology of mood and aspect lacks a thorough analysis. Therefore, I will not discuss modal and aspectual markers in detail, except for progressive and habitual constructions that have a clear relation to simultaneousness marked on SS/DS verbs.

I will start with a description of dependent and independent verb forms, followed by a discussion of pronouns and person affixes, verb stems, vowel changes and TAM marking.

5.1.1 Dependent and independent forms

Like many Papuan languages, Binumarien distinguishes between dependent and independent verbs, also known as medial and final verbs, according to their position in the sentence (Oatridge and Oatridge 1965; Foley 1986). Pawley and Hammarström (2018) describe independent verbs as 'conventional main verbs'. Independent verbs head a sentence that consists of one clause, or they head the final clause in a chain of clauses. Dependent verbs head a non-final clause. This means that a sentence with only a dependent verb is unfinished; an independent verb makes a sentence complete.

In Binumarien, the distinction between dependent and independent verbs is not only syntactic, but also morphological. For example, the person and tense markers which I will

²⁸ Note that tone in Binumarien verbs remains unstudied. This means that some morphemes described in this chapter seem identical but might be different in tone.

describe in section 5.1.4.1 attach only to independent verbs, and switch-reference markers attach only to dependent verbs. Some verbs even have suppletive stems: one for the dependent position, and another for the independent position. Examples are *fua* (independent) and *fifi* (dependent) 'go'; *nua* (independent) and *nini* (dependent) 'go around'.

The distinction between dependent and independent verbs is illustrated in (37). The first sentence has one verb, in independent position: *aridanoo* 'he hits/kills' (37a). This means the clause is complete. The fact that *aridanoo* is independent, can be determined based on two features, one syntactic and the other morphological: a) it is in final position; b) it lacks specific dependent verb markers. The second sentence (37b) contains a verb with the same stem: *aruseenoo* 'he hits/kills'. In this case, the verb is dependent. This is evident from its sentence-medial position, and from the sequential marker -sa, which only attaches to dependent verbs. The sentence in (37b) would not be complete with *aruseenoo* as the only verb; it needs the independent form *naidanoo*.

There are also affixes that occur on both dependent and independent verbs, like certain person markers. This is illustrated in (37b), where third person subject marker *-noo* occurs in both the dependent and independent verb form.

(37)	a.	<i>Mifa</i> mi-fa ^{DEM-SBJ} 'He kills a	kuara kuara pig a pig.'	aridanoo. aru-i-da-noo hit-IND-PROG-38	GG	Fieldwork notes
	b.	<i>Mifa</i> mi-fa ^{DEM-SBJ} 'He kills a	kuara kuara pig a pig and	aruseenoo aru-sa-i-noo hit-seq-ss-3sg eats it.'	naidanoo. na-i-da-noo eat-IND-PROG-3SG	Fieldwork notes

In short, an independent verb is the head of a final clause; a dependent verb is the head of a non-final clause. Every sentence ends with an independent verb. The difference between the two types is not only syntactic, but also morphological: some affixes, like certain person and tense markers, attach to independent verbs only; other affixes, like switch-reference markers, attach to dependent verbs only.

5.1.2 Personal pronouns and person affixes

Binumarien has an elaborate system of personal pronouns and person markers. Forms differ according to person (first, second and third), clusivity (inclusive or exclusive for the first person plural) number (singular, dual, group, plural), location and distance (nearby or far away, above or below), role (subject, non-subject) and emphasis (unmarked, emphasised). There is also a group of reflexive pronouns. Not all forms occur in my corpus, so I cannot present complete paradigms. Table 19 provides an illustration of pronouns marked for location, distance, clusivity and number.

	Pronoun	Gloss	Translation
Location	murufa	3.SG.UP.SBJ	'he up there'
	meemafa	3sg.down.sbj	'he down there'
Distance	muqufa	3sg.dist.sbj	'he over there'
	maafa	3sg.prox.sbj	'he over here'
Clusivity	maasa	1PL.SBJ ²⁹	'we'
	innisaimbaqa	1PL.INCL.SBJ	'you (both PL and SG) and I'
Number	miqanda	3.du.sbj	'they two'
	minamusa	3.GROUP.SBJ	'they as a group'
Emphasis	anee	2sg.sbj	ʻyou'
	aneemma	2sg.sbj.emph	'YOU'

Table 19: Illustration of various Binumarien pronouns.

In the rest of this section, I will only address person, number and role, because these are the factors that influence verbal morphology. As for number, I only discuss singular and plural; plural verb forms can be considered non-singular, which means dual and group pronouns correspond to plural verb forms.

5.1.2.1 Free personal pronouns

Most verb phrases in my corpus contain a pronoun or other explicit subject. However, this is not obligatory; the person roles are usually unambiguous, because person is also marked on the verb.

Binumarien free subject pronouns are presented in Table 20. These are neutral pronouns, i.e. location, distance and clusivity are not specified.

	SG	PL
1	qinéé	maasá
2	anéé	ínnee
3	mifá	misá

Table 20: Subject pronouns.30

Sentence (38) provides an example with the first person pronoun *qinee*, which corresponds to the first person marker *-qa* in *maridaqa* 'I am'.

(38)	Doo,	qinee	maaqai	fidaqa.	
	doo	qinee	maaqa-i	fu-i-da-qa	
	COMPL	1sg.sbj	house-ALLA	be-IND-PROG-1SG	
	'Well, I	am going	home.'		SES2

 29 In Binumarien, marking clusivity is optional. Thus, $maas\acute{a}$ can indicate inclusive and exclusive referents, depending on the context. Innesaimbaqa is used to explicitly convey the notion of inclusivity.

 30 Tone is marked in Table 20, in order to show that the difference in pronunciation between the 1sG and 2PL forms is not just the word-initial /q/ and the length of /n/. The same applies to Table 21.

Furthermore, note that some pronouns, e.g. *mifa*, *maasa* and *misa* are combinations of a demonstrative *mi*- 'DEM' or *maa*- 'DEM.PROX' and a case/number suffix *-fa* 'SBJ' and *-sa* 'PL'.

Non-subject pronouns are presented in Table 21. They can take the role of patient, like *ani* in (39a), and the role of recipient, like *ani* in (39b). Table 22 shows the reflexive pronouns, as demonstrated in (39c) with *aneenna* 'yourself'. Both non-subject and reflexive pronouns are also used as possessive pronouns, as discussed in section 4.4.1.

	SG	PL
1	qiní	maasá
2	aní	ínni
3	miná	misá

	SG	PL
1	eéqá	eéqá
2	aneenná	ínneeqa
3	narí	nári

Table 21: Non-subject pronouns.

Table 22: Reflexive pronouns

(39) a. Aii, sia ani qafeeqa.
aii sia ani qafa-i-qa
EXCL NEG 2SG.NSBJ see-IND-1SG
'O sorry, I did not see you.'

SES4

b. ... qinee narana ani amianaura.
qinee narana ani a-mi-anaura
1SG.SBJ food 2.SG.NSBJ 2/3SG.NSBJ-give-1SG.FUT
'... I will give you food.' Binumarien Bible³¹

c. Qinee eeqa qafaidaqa.
qinee eeqa qafa-i-da-qa
1SG.SBJ 1SG.REFL see-IND-PROG-1SG
'I see myself.' (E.g. in the mirror.)

Fieldwork notes

In short, Binumarien has many free pronominal forms, which differ based on location, distance, clusivity, number and emphasis. The neutral subject, non-subject and reflexive forms were presented in this section. The non-subject forms are used in patient and recipient roles.

5.1.2.2 Person affixes

Independent verbs and most dependent verbs are marked for person. Verbs have one marker for all first persons, singular and plural. The verb form for the second and third person plural is also the same.

In many cases subject person is marked with portmanteau affixes, in which the marking of person and TAM is combined. But there are also subject suffixes that do not specify time. These subject suffixes are presented in Table 23. They are used in progressive forms (section 5.1.4.2) and mark anticipatory subject on dependent verbs (section 5.2).

³¹ My corpus lacks a non-subject pronoun that functions as an indirect object. This example is from the Binumarien Bible, Óosana (Genesis) 23:11. Wycliffe Bible Translators. 1983. 'Fúka Moodaanaki Kira Ufa Afaqínaasa Ufa.' *PNG.Bible.* Retrieved May 29, 2019. https://png.bible/bjr/.

	Subject suffix
1SG/PL	-qa
2SG	-nana
3SG	-noo
2/3PL	-qa

Table 23: Subject person suffixes.

Example (40) demonstrates the use of *-noo* as a third person subject marker, both on the dependent form *usakaseenoo* 'he builds' and the independent form *maqaidanoo* 'it lays'.

(40)Mifa usakaseenoo, minaki anaamu auru usaka-sa-i-noo mi-na-ki mifa anaamu auru build-seq-ss-3sg DEM-NSBJ-LOC DEM-SBJ nest egg magaidanoo. maga-i-da-noo give.birth-IND-PROG-3SG 'It builds a nest, and in that it lays its eggs.'

WLB1

If a verb has an object, it is marked with the non-subject prefix. The prefixes are analysed as non-subject, because they can also attach to inalienable nouns in order to mark the possessor, as discussed in section 4.4.1. The non-subject prefix marks the patient on transitive verbs and the recipient on ditransitive verbs. Each prefix has two different forms, as presented in Table 24.

	Variants of non-subject prefixes and their context						
1SG/PL	<i>qi-</i> consonant-initial stems <i>d-</i> vowel-initial stems						
2/3sg	a-	stems not beginning with /a/	Ø-	stems beginning with /a/			
2/3PL	ni-	consonant-initial stems	n-	vowel-initial stems			

Table 24: Binumarien non-subject prefixes.

Table 25 provides an illustration of verbs with object prefixes. *Arua* 'hit' is a transitive verb, so the prefix refers to the patient: *darinoo* 'he hit me'. *Mia* 'give' is a ditransitive verb, so the prefix refers to the recipient: *(nammari) qiminoo* 'he gave (water) to me'.

	Aaraa 'hit'	32	Mia 'give'	
1SG/PL	qi -minoo	'he gave to me '	d- arinoo	'he hit me '
2/3sg	a -minoo	'he gave to you/her/him '	Ø-arinoo	'he hit you/her/him '
2/3PL	ni -minoo	'he gave to you all/them '	n -arinoo	'he hit you all/them '

Table 25: Examples of non-subject prefixes on verbs.

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³² The example of *araa* 'hit' with non-subject prefixes is from my own data, but was also previously described by Oatridge and Oatridge (1965).

In short, suffixes mark the subject in Binumarien verbs. Object can be marked with non-subject prefixes. In transitive verbs, non-subject prefixes mark the patient; in ditransitive verbs they refer to the recipient.

5.1.3 Verb stems and vowel changes

Binumarien verb stems are divided into three categories according to their final vowel: /i/, /a/ or /u/. This final vowel is modified or elided in certain contexts, as Table 26 illustrates. Suffixes that start with /a/, like the imperative marker -a, do not induce vowel changes. Therefore, the second row of the table presents the full stem of each type. The third row presents first person near past forms, in which the final vowel of each stem is either modified (like /a/ in na- 'eat' with neeqa) or elided (like /u/ in aru- 'hit' with ariqa).

	/i/-stem	/a/-stem	/u/-stem
	qia	naa	arua
Imperative forms (final	qi-a	na-a	aru-a
vowel maintained)	speak-імР	eat-IMP	hit-IMP
	'speak!'	'eat!'	'hit!'
First person near past	qiqa	neeqa	ariqa
forms (final vowel	qi-i-qa	na-i-qa	aru-i-qa
changed)	speak-IND-1sG	eat-IND-1SG	hit-IND-1SG
Changeaj	'I spoke'	'I ate'	'I hit'

Table 26: Verb stem vowel changes.

The elision or modification of vowels only occurs in certain contexts. Table 27 lists the possible sound changes and the contexts in which they occur.

Vowel change	Context
/a/ + /i/ > /ee/	forms marked for IND (forms marked for PROG excluded)
	independent FUT forms
	SS forms
/a/ + /i/ > /ai/	DS forms
	forms marked for PROG
/a/ + /i/ > /a/	independent FPST forms
/a/ + /a/ > /aa/	always
/a/ + /u/ > /oo/	DS FPST forms
/a/ + /u/ > /au/	DS NPST forms
/u/ + /i/ > /u/	always
/u/ + /a/ > /ua/	always
/u/ + /u/ > /u/	always
/i/ + /i/ > /i/	always ³³
/i/ + /a/ > /ia/	always
/i/ + /u/ > /u/	always

Table 27: Vowel changes and their context in Binumarien verbs.

³³ With durative marker -*i*, the /i/ can be lengthened.

In sum, Binumarien verb stems can be divided into three categories according to their final vowels: /i/, /a/ or /u/. The final vowels are not always realised as such, because certain affixes induce the modification or elision of vowels. The specific changes and contexts were listed in this section.

5.1.4 Tense, aspect and mood

Binumarien verbs have an elaborate morphological system to mark tense, aspect and mood. Oatridge & Oatridge (1965) describe most of the morphology discussed in this section; I checked their findings during fieldwork and collected example sentences.³⁴ I will focus on tense in this section, because tense is obligatorily marked in DS verb forms.

5.1.4.1 Tense

Binumarien has three tenses: far past, near past and future tense. The far past tense is used for events that occurred more than two days ago; the near past tense is used for events that occurred today, yesterday or the day before yesterday. Future tense denotes events that will occur from the moment of speaking onwards. Binumarien lacks specific present tense markers. The progressive marker *-da*, which will be discussed in section 5.1.4.2, is used to denote actions that are ongoing at the moment of speaking.

Table 28 shows the far past suffixes on independent verbs, for each type of verb stem. The first person suffix *-qiafana* can be reduced to *-qia* in fast speech. The second and third person singular forms are identical.

	Pers.	/i/-stem	/a/-stem	/u/-stem
		qiqia(fana)	naqia(fana)	ariqia(fana)
1SG/PL	-qia(fana)	qi-i-qia(fana)	na-i-qia(fana)	aru-i-qia(fana)
		'speak-IND-1SG.FPST'	'eat-IND-1SG.FPST'	'hit-IND-1SG.FPST'
		qinau	nanau	arinau
2SG	-nau	qi-i-nau	na-i-nau	aru-i-nau
		'speak-IND-2SG.FPST'	'eat-IND-2SG.FPST'	'hit-IND-2SG.FPST'
		qinau	nanau	arinau
3SG	-nau	qi-i-nau	na-i-nau	aru-i-nau
		'speak-IND-3SG.FPST'	'eat-IND-3SG.FPST'	'hit-IND-3SG.FPST'
		qiqau	naqau	ariqau
2/3PL	-qau	qi-i-qau	na-i-qau	aru-i-qau
		'speak-IND-2/3PL.FPST'	'eat-IND-2/3PL.FPST'	'hit-IND-2/3PL.FPST'

Table 28: Independent far past indicative verb forms; 'pers.' is 'person marker'.

Example (41) illustrates the use of the second/third person plural marker -qau in rakiqau 'they fought'. Note that plural verb forms can be considered non-singular, which means that nouns marked with a dual or group affix, like fasiqaqara 'two men', correspond to a plural verb form.

³⁴ Many of the aspectual and modal markers Oatridge & Oatridge (1965) describe do not occur in my corpus, but when I asked speakers about the forms, they confirmed these forms exist and were able to create sentences with them.

43

(41)	qaara	fasiqaqara	rakiqau
	qaara	fasiqa-qara	raki-i-qau
	two	men-DU	fight-IND-2/3PL.FPST
	'two me	en fought'	

Table 29 presents the near past suffixes for independent verbs of each stem type.

	Pers.	/i/-stem	/a/-stem	/u/-stem
		qiqa	neeqa	ariqa
1SG/PL	-qa	qi-i-qa	na-i-qa	aru-i-qa
		'speak-IND-1SG.NPST'	'eat-IND-1SG.NPST'	'hit-IND-1SG.NPST'
		qinana	neenana	arinana
2SG	-nana	qi-i-nana	na-i-nana	aru-i-nana
		'speak-IND-2SG.NPST'	'eat-IND-2SG.NPST'	'hit-IND-2SG.NPST'
		qinoo	neenoo	arinoo
3SG	-noo	qi-i-noo	na-i-noo	aru-i-noo
		'speak-IND-3SG.NPST'	'eat-IND-3SG.NPST'	'hit-IND-3SG.NPST'
		qia	neea	aria
2/3PL	-a	qi-i-a	na-i-a	aru-i-a
		'speak-IND-2/3PL.NPST'	'eat-IND-2/3PL.NPST'	'hit-IND-2/3PL.NPST'

Table 29: Independent near past indicative verb forms; 'pers.' is 'person marker'.

Example (42) illustrates the use of third person singular marker -noo in finoo 'he went'.

The independent verb forms inflected for future tense are presented in Table 30.

	Pers.	/i/-stem	/a/-stem	/u/-stem
		qianaura	naanaura	aruanaura
1SG/PL	-anaura	qi-anaura	na-anaura	aru-anaura
		'speak-1sg.fut'	'eat-1sg.fut'	'hit-1sg.fut'
		qinnara	neennara	arinnara
2SG	-innara	qi-innara	na-innara	aru-innara
		'speak-2sg.fut'	'eat-2sg.fut'	'hit-2sg.fut'
		qiannoo	naannoo	aruannoo
3SG	-annoo	qi-annoo	na-annoo	aru-i-da-noo
		'speak-3sg.fut'	'eat-3sg.fut'	'hit-3sg.fut'
		qifara	neefara	arifara
2/3PL	-ifara	qi-ifara	na-ifara	aru-ifara
		'speak-2/3PL.FUT'	'eat-2/3PL.FUT'	'hit-2/3PL.FUT'

Table 30: Independent future verb forms; 'pers.' is 'person marker'.

A future tense form like *mifa aruannoo* can be translated with 'he will kill', but also with 'he wants to kill'. Sentence (43) provides an example of third person singular marker *-annoo* in 'taikaannoo'.

SFS

(43) Aiqama ainaina qusasaa taikaannoo. aiqama ainaina qusa-saa taika-annoo every thing short-on finish-3sg.fut 'Everything will end in a short time.'

RLS1

In short, Binumarien independent verbs inflect for far past tense (more than two days ago), near past tense (up to two days ago) and future tense.

5.1.4.2 Aspect

Binumarien has several constructions to express how the action described by a verb extends over time. For example, repetition of the verb stem denotes repeated action (e.g. *fifi fifi fifi fifi fifiiufanoo* 'they went there again and again'). I only studied two features that are relevant for the discussion of SS/DS verbs. First, I will discuss the suffixes in the form of -i. Then I will describe progressive or habitual constructions with the progressive marker -da and with the verb *maria* 'be'.

There are three suffixes in the form of -i, each with a different meaning, of which one has an aspectual notion. I would like to differentiate between them here. First, the durative aspect marker -i, indicates that an action takes place over a longer period of time (e.g. *diriiqee* 'they are hanging'). It can be lengthened in order to stress the long duration. Second, the indicative marker -i marks all verbs that describe a situation or fact. It was present in all forms that were described in the previous section. Third, there is the same subject marker -i, the use of which is further explained in section 5.2.1.

Actions that have a long duration can be described by constructions with the progressive suffix -da and with the verb maria 'be'. I will first discuss -da. As seen in section 5.1.4.1, Binumarien has no specific suffix to denote present tense. The progressive suffix -da can be used to denote actions that is ongoing at the moment of speaking. Table 31 lists progressive forms for all stem types. The progressive marker follows the indicative marker -i and precedes the person markers. Unlike many other Binumarien person markers, the person markers following -da do not include a notion of tense. They correspond to neutral subject person markers, as discussed in section 5.1.2.2.

	Pers.	/i/-stem	/a/-stem	/u/-stem
		qidaqa	naidaqa	aridaqa
1SG/PL	-qa	qi-da-qa	na-i-da-qa	aru-i-da-qa
		'speak-IND-PROG-1SG.NPST'	'eat-IND-PROG-1SG.NPST'	'hit-IND-PROG-1SG.NPST'
		qidana	naidana	aridana
2SG	-na	qi-i-da-na	na-i-da-na	aru-i-da-na
		'speak-IND-PROG-2SG.NPST'	'eat-IND-PROG-2SG.NPST'	'hit-IND-PROG-2SG.NPST'
		qidanoo	naidanoo	aridanoo
3SG	-noo	qi-i-da-noo	na-i-da-noo	aru-i-da-noo
		'speak-IND-PROG-3SG.NPST'	'eat-IND-PROG-3SG.NPST'	'hit-IND-PROG-3SG.NPST'
		qidaqa	nidaqa	aridaqa
2/3PL	-qa	qi-i-da-qa	na-i-da-qa	aru-i-da-qa
		'speak-IND-PROG-2/3PL.NPST'	'eat-IND-PROG-2/3PL.NPST'	'hit-IND-PROG-2/3PL.NPST'

Table 31: Independent verb forms with progressive marker -da; 'pers.' is 'person marker'.

Sentence (44) provides an example of the progressive marker -da in nidanoo 'they go around', in which the speaker talks about an event that happens at the moment of speaking.

```
(44)
                 kasoo
                          kaakaana
                                      uqanna
                                                  nukudarafoora
           Sia
                          kaakaana
                                                 nukuda-ara-foora
                 kasoo
                                      uqanna
           sia
                 stop
                          flying.fox
                                      really
                                                  sand-about-EQ
           NEG
           nidaga.
           ni-i-da-qa
           go.around-IND-PROG-2/3PL
           'A huge lot of flying foxes, like grains of sand, are flying around.'
                                                                                SVD1
```

The suffix -da does not only denote actions that occur at the moment of speaking; it is also used as a habitual marker. Example (45) describes the behaviour of a certain bird in three sentences. The actions described in these sentences do not occur at the moment of speaking, but they take place regularly.

(45)	<i>Mifa</i> mi-fa ^{DEM-SBJ}	namma namma along.th	ndunna	nidanoo nu-i- da - go.aroui	noo	rog- 3sg	<i>Saqari</i> saqari tree	<i>qaqamma</i> qaqamma fruit
	naidanoo na-i- da -n eat-IND-P 'It goes a	ioo rog- 3sg	Oonaak ooni-aa stone-si ong the riv	kara-i	<i>auru</i> auru egg tree fru	O	da-noo th-IND- PR (og- 3sg
	between	rocks.'						WLB1

The verb *maria* 'be' can be used in the same contexts as *-da*. For example, the progressive aspect of *fua* 'go' can be expressed with two constructions that describe the same situation: with the progressive marker *-da* or with the verb *maria* (46).

```
(46) Nammariki fidanoo / fimarinoo.
nammari-ki fu-i-da-noo / fu-i-mari-i-noo
water-LOC go-IND-PROG-3SG go-IND-PROG-3SG
'He is walking at the river.' Fieldwork notes
```

Maria is also used to describe habitual actions. In sentence (47), the dependent verb *naida* 'it eats' is followed by the independent verb *maridanoo* 'it is'. The form of *maria* indicates that the action of eating is habitual. Interestingly, both verbs also carry the progressive suffix *-da*. More research could show whether there is a subtle difference in notion when either *-da* or *maria* or both are used.

(47) Aararaifanoo mina amaneekai naida aarara-ifa-noo mi-na amanee-kai na-i-da be.hungry-3SG.NPST.DS-3SG DEM-NSBJ leaf-only eat-IND-PROG

maridanoo.
mari-i-da-noo
be-IND-PROG-3SG
'When it is hungry, it eats its leaves only.'

WLB3

In short, the indicative suffix, the durative suffix and the same subject suffix all have the form of -i. Constructions with progressive marker -da or the verb maria 'be' describe actions that extend over a longer period of time. They have a progressive or habitual notion.

5.1.4.3 Mood

Binumarien has a variety of verbal suffixes that mark counterfactuality, likelihood and obligatoriness of an event. For example, the suffix -aqaana marks an action that should have happened, but did not (e.g. aruaqaana 'he should have killed'). These notions of modality are often combined with person, number and tense into one portmanteau suffix. Binumarien may also have optional evidential markers (Oatridge and Oatridge 1965; Bee 1966).

5.1.5 Summary

The Binumarien verb system is morphologically complex. Dependent or sentence-medial verb forms are morphologically different from independent or sentence-final verb forms; each type is distinguished by a certain set of affixes. Binumarien has free personal pronouns, non-subject prefixes and subject suffixes. The combination of certain affixes results in the merging or elision of several vowels, as listed in 5.1.3. There is a great variety of tense, aspect and mood markers, which I briefly touched upon in this section. For the discussion of switch reference, it is important to know that Binumarien has three tenses: far past, near past and future. Constructions with the progressive marker *-da* or the verb *maria* 'be' are used to describe actions that extend over a longer period.

5.2 Switch reference marking

In this section, I describe SS/DS marking and ways to express simultaneousness and sequentiality in Binumarien dependent verbs. Languages with SS/DS inflection minimally provide a binary choice: the subject of the next verb is either the same as that of the marked verb, or it is not. For either option, there is one suffix: a SS marker or a DS marker (Pawley and Hammarström 2018). The Binumarien system is more complex. As I will explain in this section, SS forms have a SS marker, but DS verb forms are marked with a specific subject person marker, which inflects for tense. Both SS and DS forms can be marked with an anticipatory subject suffix, which marks the subject of the following verb. Marking sequentiality or simultaneousness is possible both in SS and DS forms. There is a special marker for sequentiality: -sa. Simultaneousness is expressed through stative constructions with progressive marker -da in SS forms, or with maria 'be' in DS forms. If a

sentence has multiple dependent verbs, all are marked for switch reference in Binumarien. In sum, the SS/DS marking on dependent verbs can be represented as follows, with optional markers between brackets.

```
SS: verb stem (+SEQ) +SS (+PROG) (+anticipatory subject)
```

DS: verb stem (+SEQ / +ss +be) +DS subject +anticipatory subject

5.2.1 Same subject

If a dependent verb has the same subject as the next verb, it is marked with the ss suffix -*i* plus an anticipatory subject marker. Sentence (48) presents an example in which a dog bites a bird, and then the dog runs away; *faini* 'dog' is the subject of both *amiseenoo* 'he gave' and *sandanau* 'he ran'. *Amiseenoo is a dependent verb form, and *sandanau* is the independent verb form which makes the sentence complete. *Amiseenoo* carries the ss marker -*i* to mark that both verbs have the same subject. The neutral person marker -*noo* anticipates the third person of *sandanau*.

```
(48)
             Faini
                     fannoo
                                ufini
                                        ukaga
                                                 amiseenoo,
             faini
                     fannoo
                                ufini
                                        ukaqa
                                                 a-mi-sa-i-noo
             dog
                     FOC
                               bird
                                        bite
                                                 2/3.SG.NSBJ-give-SEQ-SS-3SG
             sandanau.
             sanda-i-nau
             run-IND-3SG.FPST
             'A dog bit a bird and ran away.'
                                                                        Fieldwork notes
```

Note that tense in (48) is only marked on the independent verb form: *sandanau* carries the third person far past tense marker *-nau*. When we change the tense of this sentence to the near past (49a) or future (49b), the dependent verb form *amiseenoo* remains the same; only the independent verb *sandaa* 'run' inflects for tense.³⁶

(49)Faini fannoo ufini ukaqa amiseenoo, a. faini fannoo ufini ukaga a-mi-sa-i-noo dog FOC bird 2/3.SG.NSBJ-give-SEQ-SS-3SG bite sandeenoo. sanda-i-noo run-IND-3sG Fieldwork notes 'The dog bit the bird and ran away.'

³⁵ The transitive form of 'bite' is expressed by *ukaga amia* in Binumarien, more literally 'bite-give'.

³⁶ It is possible however to indicate tense on *mia* 'give' by combining two independent verb forms: *ukaga ami-nau* sanda-nau 'he bit and he ran away.'

```
b.
     Faini
            fannoo
                        ufini
                                ukaga
                                         amiseenoo,
     faini
             fannoo
                        ufini
                                ukaqa
                                         a-mi-sa-i-noo
     dog
             FOC
                        bird
                                bite
                                         2/3.SG.NSBJ-give-SEQ-SS-3SG
     sandaannoo.
     sanda-annoo
     run-IND-3SG.FUT
     'A dog will bite a bird and run away.'
                                                                Fieldwork notes
```

Although the anticipatory subject is marked in most ss verbs in my corpus, it is left out sometimes, especially in chains with multiple dependent verbs. Semantically this is not problematic, since the role of the referents is already clear from subject suffixes on the next verb. For example, *qumarasee* 'grab' and *narusee* 'kill them' have no anticipatory subject marker, but the subject of the verbs is clear from the third person marker *-noo* on the independent verb *naidanoo* (50).

(50)	akaqausa	qumarasee,	narusee,	naidanoo.
	akaqa-usa	qumara-sa-i	n-aru-sa-i	na-i-da- noo
	some-PL	grab-seq-ss	2/3pl.nsbj-kill-seq-ss	eat-IND-PROG-3sG
	' they grab s	SVD		

In short, same subject verbs carry a same subject marker -*i* and an optional anticipatory subject marker. The anticipatory subject marker is often left out in chains of multiple dependent verbs.

5.2.2 Different subject

If a dependent verb has a different subject than the following verb, it carries a suffix to mark its own subject, followed by a suffix to mark the subject of the next verb. The subject markers for the DS verb itself are different from the subject markers on independent verbs. Example sentence (51) contains the verb forms *amufanoo* 'he gave him' and *sandanau* 'he ran'. *Faini* 'dog' is the subject of *amufanoo*; *sandanau* has a different subject (in this case, the subject of *sandanau* is taken to be the only other referent in the sentence, namely *ufini* 'bird'). Both referents are represented in the markers on *amufanoo*: the third person near past marker *-ufa* refers to the dog as the subject of the verb itself; the anticipatory third person marker *-noo* refers to the bird, as the bird is the subject of the following verb *sandanau*.

³⁷ Some stative verb forms described by Oatridge and Oatridge (1965) have subject person markers that correspond exactly to the subject person markers in DS forms. More research is needed to show the relation between both subject markers.

(51)Faini fannoo ufini ukaqa amufanoo, faini fannoo ufini a-mi-ufa-noo ukaqa 2/3.SG.NSBJ-give-3sG.FPST.DS-3SG dog FOC bird bite sandanau. sanda-i-nau run-IND-3SG.FPST 'A dog bit a bird and it ran away.' Fieldwork notes

The subject marker for DS verbs -ufa denotes far past tense, as the gloss in (51) indicates. If the tense of this sentence is changed to the near past (52a) or future (52b), not only the independent verb form inflects, but the dependent verb form changes as well.

(52)	a.	<i>Faini</i> faini dog	fannoo fannoo FOC	<i>ufini</i> ufini bird	<i>ukaqa</i> ukaqa bite	<i>amifanoo,</i> a-mi- ifa -noo 2/3.SG.NSBJ-give- 3s G.	npst.ds -3sg
		-			n away.'		Fieldwork notes
	b.	<i>Faini</i> faini dog	fannoo fannoo FOC	<i>ufini</i> ufini bird	<i>ukaqa</i> ukaqa bite	aminanoo, a-mi- ina -noo 2/3.SG.NSBJ-give- 3s G.	fpst.ds -3sg
		sandaannoo. sanda-annoo run-IND-3SG.FUT 'A dog will bite a bird and it will run away.'				Fieldwork notes	

Table 33, Table 34 and Table 35 on the next pages provide DS verb forms for the far past, near past and future tense respectively. For each stem type, an example is provided with an anticipatory subject marker, the third person suffix *-noo*. All DS verb forms in my corpus are marked with an anticipatory subject marker, so this is obligatory. Note that each form can be combined with one of the four anticipatory subject markers, depending on the subject of the next verb. Table 32 illustrates the anticipatory subject markers on the third person dependent form *aruafa* 'he killed'.

	Example	Translation
1SG/PL	Mifa aruafa- qa , qinee sandeeqa.	He killed and I ran.
2sg	Mifa aruafa- na , anee sandaananoo.	He killed and you ran.
3sg	Mifa aruafa- noo , mifa sandeenoo.	He killed and he(DS) ran.
2/3PL	Mifa aruafa- qa , misa sandeea.	He killed and they ran.

Table 32: Examples of Binumarien anticipatory subject marking for all persons.

In short, SS constructions are formed with a SS marker; DS forms are constructed with a subject person suffix that is used for DS specifically. This suffix also indicates tense. Marking the anticipatory subject is optional in SS constructions and obligatory on DS verbs.

	Sa	/i/-stem	/a/-stem	/u/-stem
		qiafananoo	naafananoo	aruafanoo
1sg/PL	-afana	qi-afana-noo	na-afana-noo	aru-afa-noo
		'speak-1sg/PL.FPST.DS-3sg'	'eat-1sg/PL.FPST.DS-3sg'	'hit-1sg/pl.FPsT.Ds-3sg'
		qunanoo	noonanoo	arunanoo
2sg	-una	qi-una-noo	na-una-noo	aru-una-noo
		'speak-2sg.FPST.DS-3sg'	'eat-2sg.FPsT.Ds-3sg'	'hit-2sg.FPsT.Ds-3sg'
		qufanoo	noofanoo	arufanoo
3sg	-ufa	qi-ufa-noo	na-ufa-noo	aru-ufa-noo
		'speak-3sg.FPST.DS-3sg'	'eat-3sg.FPsT.Ds-3sg'	'hit-3sg.npsT.ds-3sg'
		qufanoo	noofanoo	arufanoo
2/3PL	-ufa	qi-ufa-noo	na-ufa-noo	aru-ufa-noo
		'speak-2/3PL.FPST.DS-3SG'	'eat-2/3PL.FPST.DS-3SG'	'hit-2/3PL.FPST.DS-3SG'

Table 33: Far past different subject verb forms.

	DS	/i/-stem	/a/-stem	/u/-stem
		qunanoo	naunanoo	arunanoo
1sg/PL	-una	qi-una-noo	na-una-noo	aru-una-noo
		'speak-1sg/PL.NPST.DS-3sg'	'eat-1sg/pl.npsr.ds-3sg'	'hit-1sg/pl.npsT.ds-3sg'
		qiananoo	naananoo	aruananoo
2sg	-ana	qi-ana-noo	na-ana-noo	aru-ana-noo
		'speak-2sg.nPsT.DS-3sg'	'eat-2sg.nPsT.Ds-3sg'	'hit-2sg.npst.ds-3sg'
		qifanoo	naifanoo	arifanoo
386	-ifa	qi-ifa-noo	na-ifa-noo	aru-ifa-noo
		'speak-3sg.nPsT.Ds-3sg'	'eat-3sg.nPsT.Ds-3sg'	'hit-3sg.NPsT.DS-3sg'
		qiafanoo	naafanoo	aruafanoo
2/3PL	-afa	qi-afa-noo	na-afa-noo	aru-afa-noo
		'speak-2/3PL.NPST.DS-3SG'	'eat-2/3PL.NPST.DS-3SG'	'hit-2/3PL.NPST.DS-3SG'

Table 34: Near past different subject verb forms.

	DS	/i/-stem	/a/-stem	/u/-stem
		qiananoo	naananoo	aruananoo
1sg/PL	-ana	qi-ana-noo	na-ana-noo	aru-ana-noo
		'speak-1sg/PL.FUT.DS-3sg'	'eat-1sg/PL.FUT.DS-3sg'	'hit-1sg/PL.FUT.DS-3sg'
		qinanoo	nainanoo	arinoo
2sg	-ina	qi-ina-noo	na-ina-noo	aru-ina-noo
		'speak-2sg.Fur.bs-3sg'	'eat-2sg.Fur.Ds-3sg'	'hit-2sg.fur.ds-3sg'
		qinanoo	nainanoo	arinanoo
3sg	-ina	qi-ina-noo	na-ina-noo	aru-ina-noo
		'speak-3sg.Fur.ds-3sg'	'eat-3sg.Fur.Ds-3sg'	'hit-3sg.FUT.Ds-3sg'
		qifanoo	naifanoo	arifanoo
2/3PL	-ifa	qi-ifa-noo	na-ifa-noo	aru-ifa-noo
		'speak-2/3PL.FUT.DS-3SG'	'eat-2/3PL.FUT.DS-3SG'	'hit-2/3PL.FUT.DS-3SG'

Table 35: Future different subject verb forms.

5.2.3 Sequentiality and simultaneousness

Many Papuan languages that mark switch-reference have ways to indicate whether the actions indicated by subsequent verbs occur sequentially or simultaneously (Roberts 1997). In Binumarien, sequentiality is expressed with the suffix -sa. There is no specific marker for simultaneousness, but stative forms with the verb *maria* 'be' or the progressive marker -da are often used when multiple actions take place at the same time.

5.2.3.1 Sequentiality

Sequential suffix -sa indicates that the action described by the marked verb is prior in time to the event described by the following verb. Marking sequentiality is obligatory on same subject verbs. It immediately follows the stem and only attaches to dependent verbs. On same subject verbs, -sa is followed by the SS marker -i and optionally by anticipatory subject markers. Example sentence (53) contains three verbs marked with -sa that refer to sequential events: arusee 'we kill', asukusee 'we skin' and nifaaqauqusee 'we make decorations of them'.

(53)	<i>Maasa</i> maa-sa DEM.PROX.PL	<i>mina</i> mi-na DEM-NSBJ	arusee, aru- sa hit- s eQ	-i	<i>asukusee,</i> asuku- sa -i skin- seQ -ss	<i>minanai</i> mi-na-nai DEM-NSBJ-INSTR	
	nifaaqauquse ni-faaqa-auq	u -sa- i		idi idi	<i>raidaqa.</i> ra-i-da-qa		
	2/3pl.nsbj-bo	ody-work- s ı	EQ-SS	song	sing-IND-PF	ROG-1PL.S	
	'We kill them, skin them, make decorations wit					em and	
	perform dan	ces.'					WLB1

Example (54) demonstrates that -sa also occurs on dependent verbs that are followed by a verb with a different subject. Again, -sa follows the verb stem immediately.

(54)	Ukaqa	nimisaifaqa,	eendaki	sia	
	ukaqa	ni-mi- sa -ifa-qa	eendaki	sia	
	bite	2/3PL.NSBJ-give-SEQ-2/3PL.FUT.DS-2/3PL	night	NEG	
	uqanna	faiqaidaqa.			
	uqanna	faiqa-i-da-qa			
	truly	sleep-IND-PROG-2/3PL.S			
	'When th	ney bite, you really will not sleep at night.'	38	WI	LB3

Marking sequentiality seems to be obligatory for SS verbs and optional for DS verbs. The sequential suffix -sa in the SS form amiseenoo is obligatory (55a); the verb form would be ungrammatical if the suffix were omitted. (55b) provides a comparable sentence containing a DS verb without -sa. This is grammatical, even though SS marking is possible on DS verbs, as (54) illustrated.

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³⁸ The 2/3PL can be used as a generic form in Binumarien, like English 'you'.

(55)Faini fannoo ufini ukaqa amiseenoo, a. faini fannoo ufini ukaqa a-mi-sa-i-noo dog bird FOC bite 2/3.SG.NSBJ-give-SEQ-SS-3SG sandeenoo. sanda-i-noo run-IND-3SG.NPST 'The dog bit the bird and ran away.' Fieldwork notes b. Faini fannoo ufini ukaga amifanoo, faini fannoo ukaqa a-mi-ifa-noo ufini

faini fannoo ufini ukaqa a-mi-ifa-noo dog FOC bird bite 2/3.SG.NSBJ-give-3SG.NPST.DS-3SG sandeenoo.
sanda-i-noo
run-IND-3SG.NPST
'The dog bit the bird and it ran away.'

Fieldwork notes

A certain group of verbs in my corpus does not have -sa as a sequential marker, but -ra. Interestingly, these are all verbs of movement. The verbs are listed in Table 36.

Verb stem	Verb stem with -ra	Translation
ani-	anira-	'come (towards speaker)'
aiqa-	aiqara-	'go (away from speaker)'
fiqa-	fiqara-	'overtake'
mama-	mamara-	'carry'
oonu-	oonira-	'go upward'
ooru-	oorura-	'go downward'
uru-	urura-	'come upward'
umu-	umura-	'come downward'

Table 36: List of verbs with -ra in dependent forms.

Sentence (56) provides an example of the verb *urureeqa* 'I came upward', which carries the sequential marker *-ra* because the following verb *maraidaqa* 'I am taking/learning' refers to an action later in time.

(56)	<i>Papua Niu Gininni</i>	urureeqa,	<i>Afaqinna</i>
	papuaniugini-nni	uru- ra -i-qa	afaqinna
	Papua.New.Guinea-ALLA	come.upward-SEQ-IND-1SG	Binumarien
	ufa maraidaqa. ufa mara-i-da-qa talk take-IND-PROG-1SG 'I came to Papua New Gui Binumarien language'	nea and (now) I am learning	; the SES7

There is also a group of verbs that requires the completive suffix -ma before a sequential marker can be attached to it. These verbs share a semantic feature: they are atelic, i.e. they refer to actions without an endpoint. Sequential marker -sa refers to an action that happens before another action, which means the first action has an endpoint.

Therefore, -ma must attach to atelic verbs in order to complete the action, before -sa can attach.

Verb stem	Verb stem with -ma	Translation
na-	nama-	'eat'
qafa-	qafama-	'see'
qi-	qima-	'say'
saika-	saikama-	'work'

Table 37: List of verbs in my data taking -ma before sequential marker -sa.39

Example (57) illustrates the use of completive suffix -*ma* preceding sequential suffix - *sa* in the atelic verb *naa* 'eat'.

(57)	Kuara	aminanoo,	namaseenoo,	
	kuara	a-mi-ina-noo	na- ma -sa-i-noo	
	pig	2/3.sg.nsbj-give-2sg.fut.ds-3sg	eat-comp-seq-ind-3sg	
	innooqa	iannoo.		
	innooqa	a-annoo		
	swell-3	SG.FUT		
	'When y	ou give it to a pig, it eats (it) and i	t will become fat.'	WLB2

In short, sequentiality is marked with suffix -sa, or -ra on verbs of motion, on both ss and DS verbs. Sequential markers are obligatory for SS verbs and optional for DS verbs. They follow the stem immediately, except in certain verb stems that are atelic in meaning; those stems need completive suffix -ma in order to carry a sequential suffix.

5.2.3.2 Simultaneousness

Simultaneousness is expressed through progressive marker -da on SS verbs and through a construction with the verb maria 'be' for DS verbs. -da and maria cannot be considered simultaneous markers as such, because they also occur in combination with the sequential marker -sa. Instead, attaching -da or maria to a verb stem gives the event a stative notion, which can be used when events occur simultaneously.

Example (60) contains two simultaneous actions with one subject: a dog barks and climbs at the same time. *Faaqaridanoo* 'he is barking' carries the progressive marker *-da* in order to express that the dog is in a state of barking, during which the climbing takes place.

³⁹ This list only contains verbs with *-ma* that occur more than once in my data.

55

In (59), *maria* 'be' attaches to *raki*- 'fight' in order to express a situation in which people were in a state of fighting. This is followed by the verb form with a different subject, *nindafeeqa* 'I watched them'. The second action takes place at the same time as the fighting.

(59) Rakimariafaqa nindafeeqa.
raki-i-**mari**-afa-qa ni-qafa-i-qa
fight-IND-**be**-2/3PL.NPST.DS-1SG 2/3PL.NSBJ-see-IND-1SG
'As they were fighting, I watched them.' SES6

The fact that *maria* and *-da* do not mark simultaneousness in itself, is demonstrated by the fact that they can occur together with *-sa*. Example (60) describes flying foxes that come to the river, see crocodiles in the water and turn around. *Qafamasaidaqa* 'having seen' is marked with sequential marker *-sa* because seeing the crocodiles happens before the flying foxes turn around. It is also marked as a stative verb with *-da*, to indicate that the flying foxes are in a state of having seen the crocodiles.

(60) ... akaqausa qafamasaidaqa, qeerairiridaqa.
akaqa-usa qafa-ma-**sa**-i-**da**-qa qeeraira-i-da-qa
some-PL see-COMP-**SEQ**-SS-**PROG**-2/3PL
'... having seen (them), some turn around.' SVD

Sentence (61) provides an example of a construction in which sequential marker *-sa* and *maria* 'be' are combined. It is a description of a bird that chases people to protect its eggs. The verb *maqasee* 'it gives birth' is marked with the sequential marker *-sa*, and also part of a stative construction with *maria* 'be'. Then follows the verb form *oonuraafanoo* 'they go upward', which describes an event that happens after the first verb. The function of *maria* is not to denote simultaneousness, but to indicate that there is the state of having laid the eggs. After laying the eggs, the next event takes place.

(61)Auru magasee marifaga, faiqi **mari**-ifa-qa auru maqa-**sa**-i faigi give.birth-**SEQ**-SS be-3sg.NPST.DS-2/3PL man egg oonuraafanoo, nifaqeemarifa. oonu-ra-afa-noo ni-afaga-i-mari-ifa go.upward-SEO-2/3PL.NPST.DS-3S.GS 2/3.NSBI-chase-IND-be-3SG.NPST.STAT 'When it (the bird) has laid its eggs and people go upward, it (the bird) chases them (the people).' WLB1

In short, sequentiality is expressed with the suffix -sa in Binumarien. There is no specific marker for simultaneousness, but stative forms with the verb maria 'be' or the progressive marker -da are used to indicate that the action described by the marked verb is simultaneous to the action described by the following verb.

5.2.4 Summary

Same subject is expressed with SS marker -i. Different subject is expressed with subject person markers that only occur on DS verb forms. DS subject markers inflect for tense. It is

possible to leave out the marking of the anticipatory subject in ss constructions; this is common in chains of multiple ss verbs For DS verbs, marking the anticipatory subject is obligatory. Sequentiality is expressed through -sa, or -ra in motion verbs; it is obligatorily marked on SS verbs, and optionally on DS verbs. The sequential suffix follows the verb stem immediately, except in atelic verbs, which need the completive suffix -ma before the sequential suffix can attach. Simultaneousness is expressed with stative constructions. The progressive marker -da is used to mark stativity in SS verbs; DS verbs stative constructions are formed with maria 'be'.

5.3 Conclusion

This chapter described the switch-reference system in Binumarien verbs. It started with a basic description of Binumarien dependent and independent verbs, pronouns, morphophonological features and TAM marking. In a chain of clauses, independent verbs head a final clause; dependent verbs head a non-final clause.

Dependent verbs carry switch reference markers: markers that indicate whether the subject of the following verb is the same or different. If a verb is followed by a verb that has the same subject, the first verb carries a same-subject marker which follows the verb stem immediately. If a verb is followed by a verb that has a different subject, the first verb is marked with a person subject suffix that is different from the subject markers on final verbs. The DS person subject suffix inflects for tense. The subject of the second verb can be marked on the first verb with an anticipatory marker. The anticipatory subject marker is optional on SS verbs and obligatory on DS verbs.

The last part of this chapter described constructions that indicate whether the action described by the dependent verb occurs in sequence or simultaneously with the next verb. The sequential marker -sa (or -ra for motion verbs) indicates that the action described by the marked verb occurs before the action described by the following verb. Marking sequentiality is obligatory on SS verbs and optional on DS verbs. Some atelic verbs require the completive suffix -ma before the sequential marker can attach. Simultaneousness is expressed through stative constructions. A stative construction is formed with the progressive marker -da in SS forms, or the verb maria 'be' in DS forms.

6 Conclusions

In this last chapter, I discuss the final conclusions of this study and topics that require further research.

Chapter 1 provided an introduction to the Binumarien community and language, my fieldwork and the resulting corpus.

Binumarien phonology was described in chapter 2. The phoneme inventory consists of fifteen consonant segments and eight vowel segments. Complex consonants includes at least prenasalised stops; the phonemic status of long consonants and preglottalised stops requires further research. Length is phonemic in vowels. Consonants only occur in the onset. Syllables do not need an onset. Short vowels represent one mora; long vowels and diphthongs represent two moras. One mora constitutes a light syllable; two moras constitute a heavy syllable. The shortest Binumarien word has two moras. Words with only heavy syllables are rare. Within roots, heavy syllables are often juxtaposed, and the last syllable tends to be light. Most Binumarien nouns consist of three syllables, whereas verbs often have one or two syllables.

Chapter 3 describes tone in the Binumarien NP. The Binumarien tone system is privative: high tone contrasts with no tone; the latter is realised as low tone by default. This means the system has two tonal levels: H and L. There are four patterns for noun roots: H, LH, HL and LHL. The pattern is realised on the mora. Both the pattern and the assignment of tone from the pattern to the mora are lexical. Each root has at least and at most one high tone, which means the Binumarien system is both obligatory and culminative. However, culminativity can be debated: the high tone in the word pattern can result in a sequence of multiple high moras. The Binumarien system does not exhibit metricality. Affixes receive tone from the pattern of the root. In many cases, the full pattern of the root is only realised when affixes are attached. The root pattern defines a Binumarien word: a compound or a root with affixes forms one word, with one pattern; a noun-adjective combination involves (at least) two words, each having their own pattern. For compounds, the semantic head is on the right, but the prosodic head is on the left. This means that the pattern of the first root is mapped onto the entire compound. On the level of the utterance, two mechanisms are at work. The first is that every utterance requires at least one high toned mora. If the underlying patterns of roots do not assign high tone to a mora, the last mora of the utterance is high. The second mechanism involves downstep. Due to the small phrases in my dataset, it is impossible to provide a comprehensive analysis of Binumarien downstep, but my data suggest that phonemic high tones are phonetically higher at the beginning of an utterance than at the end of an utterance. Research into the tone of other word classes (most notably the morphologically complex class of verbs) and utterance level prosody is required to make a comprehensive analysis of the Binumarien tone system.

Chapter 4 provides an overview of Binumarien clause structure, focusing on the NP. Verb phrases have a SOV order in Binumarien. Binumarien nominal morphology includes markers for case, number, location, accompaniment and negation. Case suffixes mark subject and non-subject and attach to specific nouns, which are nouns modified by the

demonstrative prefix *mi*-, proper names and some kinship terms. The marking of number (dual, group or plural) is obligatory on specific nouns and optional on non-specific nouns. Inalienable nouns are obligatorily marked with a non-subject prefix that refers to the possessor, alienable nouns are not marked for possession by prefixes. Binumarien has a small class of adjectives, which precede the noun in attributive position and are nominalised in predicate position. Possession can be expressed with non-subject pronouns, with the juxtaposition of nouns and with the adjective *faqaa* 'having'.

Chapter 5 describes verbal switch reference marking in Binumarien. The morphology of Binumarien verbs is complex. Person, tense, aspect and mood are expressed through (portmanteau) affixes. Sentence-medial or dependent verbs are morphologically distinct from sentence-final or independent verbs. The morphology of dependent verbs indicates whether the subject of the marked verb is the same as the subject of the following verb. Same-subject is expressed with suffix -i, which follows the verb stem immediately. Different subject is marked with subject suffixes that are formally different from subject suffixes on final verbs. The DS subject suffixes inflect for tense. Anticipatory subject markers refer to the subject of the following verb; they occur word-finally on both ss and DS forms and are obligatory only for DS forms. Binumarien has a sequential marker -sa (or -ra for a number of motion verbs), which indicates that the action described by the marked verb occurs before the action described by the following verb. Marking sequentiality is obligatory for SS forms and optional for DS forms. Simultaneousness is expressed through stative forms. Stativity is indicated by the progressive suffix -da in SS forms, and by constructions with the verb maria 'be' in DS forms.

In conclusion, this study provides a basic analysis of Binumarien phonology and nominal morphology. Moreover, it contributes to the understudied topic of tone in Papuan languages with a description of tone in the Binumarien NP according to the latest developments in tonal typology. In addition, the switch reference marking system of Binumarien is described and placed in typology. Further research could shed light on the Binumarien tone system outside the NP and its relation to surrounding and affiliated languages. Binumarien verbal morphology deserves a thorough analysis in order to understand the language itself and to gain insight in the complex verb systems that occur in many Papuan languages.

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Appendix 1: Book of birds

Ufiniuqa akara 'Book of Birds' is a booklet with information on various birds that live in and around Binumarien. It was written by Adoo, a speaker of Binumarien, edited by Des and Jenny Oatridge and published by the SIL Printing Department in Ukarumpa, Papua New Guinea, in 1973. As for the numbering of glossing lines, every topic (i.e. every bird) starts with a new number. Spelling and interpunction are represented as in the original booklet.

(1) a. Quapunara qirara.

quapuna-ara qi-irara type.of.owl-about speak-TEL 'I am going to talk about the quapuna owl.'

b. Quapuna asooqa ufini maridanoo.

quapuna asooqa ufini mari-i-da-noo type.of.owl elder bird be-IND-PROG-3SG 'The quapuna is a bird of the elder.'

c. Sia kumaara fasiga anaasee neemariafa.

sia kumaaraa fasiqa anaasee na-i-mari-afa NEG youngster man.PL woman eat-IND-be-2/3PL.NPST.STAT 'Young men and women do not eat it.'

d. Mifa nanauraki faigaidanoo.

mi-fa nanaura-ki faiqa-i-da-noo DEM-SBJ type.of.tree-LOC sleep-IND-PROG-3SG 'It sleeps in the nanaura tree.'

e. Faasaana eendaki aana nidanoo ...

faasaana eendaki aana nu-i-da-noo day night road go.around-IND-PROG-3SG 'Day and night, it goes around, ...'

f. ... mina oori qusa afu firaafa ...

mi-na oori qusa a-fu firaa-fa DEM.ACC beak short 2/3sg.NSBJ-eye big-SBJ '... its beak is short, its eyes are big, ...'

- g. ... asausi aadara arirafa maridanoo. a-sausi aadara aru-ira-fa⁴⁰ mari-i-da-noo 2/3SG.NSBJ-hair brown hit-AZR-SBJ be-IND-PROG-3SG '... and its feathers are coloured brown.'
- h. Doo miufana taikeenoo.
 doo mi-ufa-na⁴¹ taika-i-noo
 COMP DEM-talk-NSBJ end-IND-3SG
 'Okay, this talk is finished.'
- (2) a. Noonafeesoonara qirara.
 noonafeesoona-ara qi-irara
 type.of.bird-about speak-TEL
 'I am going to talk about the noonaafeesoona bird.'
 - b. Noonaafeesoona ufini mina anukafaqa ...
 noonafeesoona ufini mi-na a-nuka-faqa
 type.of.bird bird DEM-NSBJ 2/3SG.NSBJ-neck-and
 'The noonaafeesoona bird its neck and ...'
 - c. ... aikufaqa kisaaqa maridanoo. a-iku-faqa kisaaqa mari-i-da-noo 2/3.NSBJ-leg-and long be-IND-PROG-3SG '... legs are long.'
 - d. *Mifa nammandunna nidanoo.*mi-fa nammandunna nu-i-da-noo
 DEM-SBJ along.the.river go.around-IND-PROG-3SG
 'It goes around along the river.'
 - e. Saqari qaqamma naidanoo.
 saqari qaqamma na-i-da-noo
 tree fruit eat-IND-PROG-3SG
 'It eats fruit from trees.'
 - f. Oonaakaarai auru maqaidanoo.
 ooni-aakara-i auru maqa-i-da-noo
 stone-side-ALLA egg give.birth-IND-PROG-3SG
 'It lays its eggs next to stones.'

⁴⁰ Colours are often expressed with the verb *arua* 'hit' in Binumarien, like *aadara arirafa maridanoo* 'it is brown-hit'. For a study, see Hage, Per and Hawkes, Kristen. 1975. 'Binumarien Color Categories'. *Ethnology* 14 (3): 287-300.

 $^{^{41}}$ It is unclear why the non-subject marker -na is used, because miufana seems to be the subject of this sentence. My corpus also contains examples with a subject marker: doo, miufa-fa taikeenoo.

g. Doo miufafa qusa maridanoo.

doo mi-ufa-fa qusa mari-i-da-noo COMP DEM-talk-SBJ short be-IND-PROG-3SG 'Well, this talk is short.'

(3) a. Karoondara qirara.

kaaroonda-ara qi-irara type.of.owl-about speak-TEL 'I am going to talk about the karoondara owl.'

b. Karoonda ufini maridanoo.

kaaroonda ufini mari-i-da-noo type.of.owl bird be-IND-PROG-3SG "The karoonda is a bird."

c. Mifa eendaki nimarifa.

mi-fa eendaki nu-i-mari-ifa

DEM-SBJ night go.around-IND-be-3SG.NPST.STAT
'Day and night, it goes around.'

d. Fasaana mifa sagari aundurai keegafinoo faigaidanoo.

fasaana mi-fa saqari aundura-i keeqa-fu-i-noo faiqa-i-da-noo day DEM-SBJ tree inside-ALLA go.into-go-IND-3SG sleep-IND-PROG-3SG 'During the day, it goes into the inside of a tree and it sleeps.'

e. Mifa faiqi kuqirariafanoo, kai ufa qidanoo.

mi-fa faiqi kuqi-irara-i-afa-noo kai ufa qi-i-da-noo DEM-SBJ man die-TEL-?-2/3PL.NPST.DS-3SG only talk speak-IND-PROG-3SG 'Only when a person is going to die, it makes a sound.'

f. Sia kumaara fasiga anaasee neemariafa.

sia kumaaraa fasiqa anaasee na-i-mari-afa NEG young man.PL woman eat-IND-be-2/3PL.NPST.STAT 'Young men and women do not eat it.'

g. Ufinifa asooqa fasiqa anaasee kai ...

ufini-fa asooqa fasiqa anaasee kai bird-SBJ elder man.PL woman only 'It is a bird that only elderly men and women ...' h. ... neemaria ufinifa maridanoo. ufini-fa mari-i-da-noo na-i-mari-a eat-IND-be-2/3PL bird-SBI be-IND-PROG-3SG

'... eat.'42

Manda ufini auka ufina maridanoo.

manda ufini auka ufini mari-i-da-noo bird poison bird be-IND-PROG-3SG

'It is a bad bird, a poison bird.'

j. Doo mina oosana migimminoo maridanoo.

doo oosana migi-mmi-noo⁴³ mari-i-da-noo be.like.that-INT-3SG be-IND-PROG-3SG COMP DEM-NSBI nature 'Well, its nature is like that.'

(4) a. Nukunara girara.

nukuna-ara qi-irara type.of.bird-about speak-TEL

'I am going to talk about the nukuna bird.'

b. Nukuna mifa kaasau patuga maridanoo.

nukuna mi-fa kaasau patuga mari-i-da-noo bird-SBI DEM-SBI wild duck be-IND-PROG-3SG

'The nukuna bird is a wild duck.'

c. Mifa nammandunna nidanoo ...

nammandunna nu-i-da-noo mi-fa DEM-SBJ along.the.river go.around-IND-PROG-3SG

'It swims around along the river and ...'

d. ... nammarikinaa andanda naidanoo.

nammari-kina andanda na-i-da-noo

water-inside grass eat-IND-PROG-3SG

"... eats aquatic plants."

e. Mifa maani mararanaki auru magaidanoo.

mi-fa maani mara-ira-na-ki maga-i-da-noo auru

DEM-SBJ uneven.ground take?-AZR-NSBJ-LOC give.birth-IND-PROG-3SG

'It lays its eggs on ground that it has made uneven.'

⁴² This construction, which seems a relative clause, only occurs once in my corpus. *Ufini* 'bird' is marked with subject suffix -fa; ufinifa precedes and follows the relative clause.

⁴³ Oatridge and Oatridge (1965) state that *-mmi* is an 'intensifier', which younger speakers do not use. My corpus hardly contains -mmi apart from combinations with the verb migi.

f. Magaseenoo rukamuseenoo nifiqeenoo ...

maqa-sa-i-noo rukamu-sa-i-noo ni-fiqa-i-noo give.birth-seq-ss-3sg break-seq-ss-3sg 2/3pl-gather-ss-3sg 'It gives birth and breaks open and gathers them (the chicks) ...'

g. ... nammandunna nidanoo.
nammandunna nu-i-da-noo
along.the.river go.around-IND-PROG-3SG
'... and swims around along the river.'

h. Mina afaaqafaqa asausifaqa ...

mi-na a-faaqa-faqa a-sausi-faqa DEM-NSBJ 2/3SG.NSBJ-body-and 2/3SG.NSBJ-hair-and 'Its body and feathers ...'

i. ... patuqa fooqaafa kai maridanoo.
 patuqa fooqaa-fa kai mari-i-da-noo duck similar-SBJ only be-IND-PROG-3SG
 '... are just like a duck's.'

j. Doo mina oosana miqimminoo maridanoo.

doo mi-na oosana miqi-mmi-noo mari-i-da-noo compl dem-nsbj nature be.like.that-int-3sg be-ind-prog-3sg 'Well, its nature is like that.'

(5) a. Qafuanara qirara.

qafuana-ara qi-irara bird.of.paradise-about speak-TEL 'I am going to talk about the bird of paradise.'

b. Qafuana mifa afaaqauqira ufini maridanoo.

qafuana mi-fa a-faaqa-auqu-ira ufini mari-i-da-noo bird.of.paradise DEM-SBJ 2/3SG.NSBJ-body-work-AZR bird be-IND-PROG-3SG 'The bird of paradise is a decorated bird.'

c. Kaqikaafa mina aratiri ...

kaqikaa-fa mi-na aratiri small-SBJ DEM-NSBJ bird.tail 'It is small and its tail ...' d. ... idauruarafoorairafa maridanoo' ida-auru-ara-foora-ira-fa mari-i-da-noo fire-flame-about-LIKE-AZR-SBJ be-IND-PROG-3SG '... is like flames of fire.'

e. *Mifa saqari qaqammafaqa saunafaqa naidanoo.*mi-fa saqari qaqamma-faqa sauna-faqa na-i-da-noo
DEM-SBJ tree fruit-and pandanus-and eat-IND-PROG-3SG

'It eats the fruit of trees and pandanus.'

f. *Mifa saqariki faiqaidanoo.*mi-fa saqari-ki faiqa-i-da-noo
DEM-SBJ tree-LOC sleep-IND-PROG-3SG
'It sleeps in a tree.'

g. Minaki kai auru maqaidanoo.

mi-na-ki kai auru maqa-i-da-noo DEM-NSBJ-LOC only egg give.birth-IND-PROG-3SG 'In just that (same tree), it lays its eggs.'

h. Maasa mina arusee asukusee ...

maasa mi-na aru-sa-i asuku-sa-i 1PL.S DEM-NSBJ hit-SEQ-SS skin-SEQ-SS 'We kill it, skin it, ...'

i. ... minanai nifaaqauqusee idi raidaqa.

mi-na-nai ni-faaqa-auqu-sa-i idi ra-i-da-qa DEM-NSBJ-INSTR 2/3PL.NSBJ-body-work-SEQ-SS song sing-IND-PROG-1SG/PL '... decorate ourselves with it and perform a dance.'

j. Doo mina oosana miqimminoo maridanoo.

doo mi-na oosana miqi-mmi-noo mari-i-da-noo COMP DEM-NSBJ nature be.like.that-INT-3SG be-IND-PROG-3SG 'Well, its nature is like that.'

(6) a. Feetutareenara qirara.

feetutareena-ara qi-irara type.of.bird-about speak-TEL 'I am going to talk about the feetutareena bird.'

- b. Feetutareena mifa kaqikaa ufini maridanoo. feetutareena mi-fa kaqikaa ufini mari-i-da-noo type.of.bird DEM-SBJ small bird be-IND-PROG-3SG 'The feetutareena bird is a small bird.'
- c. Mifa aukuana ufini maridanoo. mi-fa aukuana ufini mari-i-da-noo DEM-SBJ Christmas bird be-IND-PROG-3SG 'It is a Christmas bird.'
- d. Saikamasee qumaquafanoo mifa ...
 saika-ma-sa-i qumaqu-afa-noo mi-fa
 clean.garden-MA-SEQ-SS plant-2/3PL.NPST.DS-3SG DEM-SBJ
 'When we clean the gardens and plant (crops), it ...
- e. ... aiqama qafuqakiaqa nidanoo. aiqama qafuqa-ki-aqa nu-i-da-noo every garden-LOC-all go.around-IND-PROG-3SG '... flies around in every garden.'
- f. Satisaa quqanoonidanoo ...
 sati-saa uqa-noo nu-i-da-noo
 tree.trunk-on go.downward-3sG go.around-IND-PROG-3sG
 'It sits down on a tree trunk ...'
- g. ... mifa anaamu usakaseenoo minaki auru maqaidanoo.
 mi-fa anaamu usaka-sa-i-noo mi-na-ki auru maqa-i-da-noo
 DEM-SBJ nest build-SEQ-SS-3SG DEM-NSBJ-LOC egg give.birth-IND-PROG-3SG
 '...and builds his nest and lays its eggs in it.'
- h. Saqari qaqamma naidanoo.
 saqari qaqamma na-i-da-noo
 tree fruit eat-IND-PROG-3SG
 'It eats tree fruit.'
- i. *Mifa iaqarooka ufa qidanoo.*mi-fa iaqarooka qi-i-da-noo
 DEM-SBJ dawn speak-IND-PROG-3SG
 'It makes sound at dawn.'

- j. "Feetutaree feetutoo piririri" qidanoo. feetutaree feetutoo piririri qi-i-da-noo feetutaree feetutoo piririri speak-IND-PROG-3SG "Feetutaree feetutoo piririri" it says.'
- k. Nari auqu raidanoo.

nari a-uqu ra-i-da-noo 3SG.REFL 2/3.NSBJ-name sing-IND-PROG-3SG 'It sings its own name.'

- l. Doo mina oosana miqimminoo maridanoo.
 doo mi-na oosana miqi-mmi-noo mari-i-da-noo
 COMP DEM-NSBJ nature be.like.that-INT-3SG be-IND-PROG-3SG
 'Well, its nature is like that.'
- (7) a. Koofanara qirara.
 koofana-ara qi-irara
 type.of.bird-about speak-TEL
 'I am going to talk about the koofana bird.'
 - b. Koofana oorifaqa ameesafaqa kisaaqa ... koofana oori-faqa ameesa-faqa kisaaqa type.of.bird snout-and tail-and long 'The beak and tail of the koofana bird are long, ...'
 - c. ... mifa dundu qarira ufini ... mi-fa dundu aru-ira⁴⁴ urini DEM-SBJ black hit-AZR bird '... it is a black coloured bird, ...'
 - d. ... mifa Sausasinai firaa safasasaa maridanoo. mi-fa Sausasina-i firaa safasa-saa mari-i-da-noo DEM-SBJ Sausasina-ALLA big mountain-on be-IND-PROG-3SG '... and it lives on the big mountain Sausasina.'
 - e. Saqari qaqamma naidanoo.
 saqari qaqamma na-i-da-noo
 tree fruit eat-IND-PROG-3SG
 'It eats tree fruit.'

44 The origin of the /q/ in *qarira* is unknown. See 2.1.2.2 for a discussion.

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f. Kasaana amaneeki faiqaidanoo.

kasaana⁴⁵ amanee-ki faiqa-i-da-noo type.of.wild.pandanus leaf-LOC sleep-IND-PROG-3sG 'It sleeps in the leaf of a wild pandanus.'

g. Minaki anaamu auquseenoo auru maqaidanoo.

mi-na-ki anaamu auqu-sa-i-noo auru maqa-i-da-noo DEM-NSBJ-LOC nest work-SEQ-SS-3SG egg give.birth-IND-PROG-3SG 'It that, makes its nest and lays eggs.'

h. Doo miufana taikeenoo.

doo mi-ufa-na taika-i-noo COMP DEM-talk-NSBJ finish-IND-3SG 'Well, this talk is finished.'

(8) a. Fasaara girara.

fasaa-ara qi-irara type.of.bird-about speak-TEL 'I am going to talk about the fasaa bird.'

b. Fasaa afaaqauqira ufini ...

fasaa a-faaqa-auqu-ira ufini type.of.bird 2/3sg.nsbj-body-work-azr bird "The fasaa bird is a decorated bird ..."

- c. ... mifa numasana qaqammafaqa umeerana anoonafaqa naidanoo ...
 mi-fa numasana qaqamma-faqa umeera anoona-faqa na-i-da-noo
 DEM-SBJ type.of.liane fruit-and type.of.tree juice-and eat-IND-PROG-3SG
 '... it eats fruit of the numasana liane and drinks juice of the umeera tree ...'
- d. ... mina ameesa kaqikaafa kisaaqa mina asausi...
 mi-na ameesa kaqikaa-fa kisaaqa mi-na a-sausi
 DEM-NSBJ tail small-SBJ long DEM-NSBJ 2/3.NSBJ-hair
 '... its tail is small and long, its feathers ...'
- e. ... aaki arirafa qumisa arirafa ...
 aaki aru-ira-fa qumisa aru-ira-fa
 yellow hit-AZR-SBJ red hit-AZR-SBJ
 '... are yellow, red ...'

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⁴⁵ Perhaps related to *kasau* 'wild'.

- f. ... saqaramanee arirafa maridanoo. saqari-amanee aru-ira-fa mari-i-da-noo tree-leaf hit-AZR-SBJ be-IND-PROG-3SG '... and green.'
- g. Mifa titiraki faiqaidanoo. mi-fa titira-ki faiqa-i-da-noo DEM-SBJ type.of.branch-LOC sleep-IND-PROG-3SG 'It sleeps on a titira branch.'
- h. *Minaki auru maqaidanoo.*mi-na-ki auru maqa-i-da-noo

 DEM-NSBJ-LOC egg give.birth-IND-PROG-3SG
 'It lays its eggs in it.'
- i. Doo miufana taikeenoo.
 doo mi-ufa-na taika-i-noo
 COMP DEM-talk-NSBJ finish-IND-3SG
 'Well, this talk is finished.'
- (9) a. Rireetanara qirara.
 rireetana-ara qi-irara
 type.of.bird-about speak-TEL
 'I am going to talk about the rireetana bird'
 - b. Rireetana kaqikaa ufini ...
 rireetana kaqikaa ufini
 type.of.bird small bird
 'the rireetana is a small bird; ...'
 - c. ... afeedana kaqikaafa uqanna maridanoo. a-feedana kaqikaa-fa uqanna mari-i-da-noo 2/3SG.NSBJ-tibia small-SBJ truly be-IND-PROG-3SG '... its legs are really small.'
 - d. Mifa saqari qaqammafaqa doodaanifaqa naidanoo.
 mi-fa saqari qaqamma-faqa doodaani-faqa na-i-da-noo
 DEM-SBJ tree fruit-and insect-and eat-IND-PROG-3SG
 'It eats tree fruit and insects.'

- e. *Mifa maqa rakeeiranaki anaamu auquseenoo ...*mi-fa maqa rakee-ira-na-ki anaamu auqu-sa-i-noo

 DEM-SBJ ground break-AZR-NSBJ-LOC nest work-SEQ-SS-3SG
 'It makes a nest on prepared ground ...'
- f. ... aiqama ufiniuqa nisausi tatiimareenoo ...
 aiqama ufini-uqa ni-sausi tatu-i-i-mara-i-noo
 all bird-PL 2/3PL.NSBJ-hair pull.out-DUR-DUR-take-IND-3SG
 '... pulls out the feathers of all birds ...'
- g. ... mini ufiqiseenoo minasaa auru maqaidanoo.
 mini ufiqi-sa-i-noo mi-na-saa auru maqa-i-da-noo
 bring make.bed-seq-ss-3sg dem-sbj-on egg give.birth-ind-prog-3sg
 '... brings them to make a bed and lays eggs on it.'
- h. Mifa aiqama ufiniuqa ufa iridanoo ...
 mi-fa aiqama ufini-uqa ufa iri-i-da-noo

 DEM-SBJ every bird-PL.NSPC talk know-IND-PROG-3SG
 'It knows the language of all birds ...'
- i. ... ufa akoofasa maridanoo.
 ufa a-koo-fa-sa mari-i-da-noo
 talk 2/3sg.nsbj-father-sbj-?⁴⁶ be-IND-PROG-3sG
 '... he is a clever language man.'
- j. Doo mina oosana miqimminoo maridanoo. doo mi-na oosana miqi-mmi-noo mari-i-da-noo COMP DEM-NSBJ nature be.like.that-INT-3SG be-IND-PROG-3SG 'Well, its nature is like that.'
- (10) a. Kukumara qirara.

 kukuma-ara qi-irara

 type.of.bird-about speak-TEL

 'I am going to speak about the kukuma bird.'
 - b. Kukuma kaqikaaqoo firaa ufini maridanoo. kukuma kaqikaa-qoo firaa ufini mari-i-da-noo type.of.bird small-? big bird be-IND-PROG-3SG 'The kukuma bird is a medium-sized bird.'

⁴⁶ *Akoofa* can be translated as 'father' but also as 'owner'. The meaning of *-sa* is unclear.

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- c. Mina oorifaqa aratirafaqa⁴⁷ qusa maridanoo. mi-na oori-faqa aratiri-faqa qusa mari-i-da-noo DEM-NSBJ snout-and bird.tail-and short be-IND-PROG-3SG 'Its beak and tail are short.'
- d. Nandaki moomoo maridanoo.
 nanda-ki moo-moo mari-i-da-noo
 forest-LOC one-one be-IND-PROG-3SG
 'There are many of them in the forest.'
- e. Anaamu auqirara idaara raqamareenoo munuseenoo ...
 anaama auqu-irara idaara raqa-mara-i-noo munu-sa-i-noo
 nest work-TEL stick break.down-take-SS-3SG carry.away-SEQ-SS-3SG
 'In order to make a nest, it breaks off sticks, takes them and carries them away, ...
- f. ... rusiiseenoo minasaa auru maqaidanoo. rusi-i-sa-i-noo mi-na-saa auru maqa-i-da-noo put.together-DUR-SEQ-SS-3SG DEM-NSBJ-on egg give.birth-IND-PROG-3SG '... puts twigs together and on them it lays eggs.'
- g. Mina oosana doo taikeenoo.
 mi-na oosana doo taika-i-noo
 DEM-NSBJ nature COMP finish-IND-3SG
 'Well, (the information about) its nature is finished.'
- (11) a. *Qaaroosaana ufa.*qaaroosaana ufa
 type.of.bird talk
 'Talk about the qaaroosaana bird.'
 - b. Qaaroosaana fannoo mifa afai afeeka ...
 qaaroosaana fannoo mi-fa a-fai afeeka
 type.of.bird FOC DEM-SBJ 2/3SG.NSBJ-tooth strong
 'The qaaroosaana bird, it has strong teeth, ...'
 - c. ... kaaqa ooni akuqu neemarifa maridanoo.
 kaaqa ooni akuqu na-i-mari-ifa mari-i-da-noo
 very.much stone crack eat-IND-be-3SG.NPST-STAT be-IND-PROG-3SG
 '... it even cracks and eats stones.'

⁴⁷ Aratira is a spelling mistake according to Keke; it should be aratiri 'bird's tail'.

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d. Mifa nandaki nidanoo.

mi-fa nanda-ki nu-i-da-noo DEM-SBJ forest-LOC go.around-IND-PROG-3SG 'It flies around in the forest.'

- e. Akaqa saqari qaqamma nanoo nida qafaifanoo ...
 akaqa saqari qaqamma na-noo⁴⁸ nu-i-da qafa-ifa-noo
 some tree fruit eat-3sG go.around-ss-PROG see-3sG.NPST.DS-3sG
 'As it eats some tree fruit, it flies around and looks (around), ...'
- f. ... sia amuaqu qumbiqaifanoo ... sia a-muaqu qumbiqa-ifa-noo NEG 2/3sg.NSBJ-belly fill-3sg.NPST.DS-3sg '... its belly is never filled, ...'
- g. ... doo nammarinni fidanoo nammariki ooni naidanoo.
 doo nammari-nni fu-i-da-noo nammari-ki ooni na-i-da-noo
 COMP water-ALLA go-IND-PROG-3SG water-LOC stone eat-IND-PROG-3SG
 '... well, it goes to the water and eats stones in the water.
- h. *Oondaaniuqa suqusaidanoo akuqu naidanoo.*oondaani-uqa suqu-sa-i-da-noo akuqu na-i-da-noo
 gravel-PL.NSPC pick-SEQ-SS-PROG-3SG crack eat-IND-PROG-3SG
 'It picks up gravel and cracks and eats.'
- i. Neemarifanoo amuaquifanoo ...
 na-i-mari-ifa-noo a-muaqu-ifa-noo
 eat-IND-be-3SG.NPST.DS-3SG 2/3SG.NSBJ-belly-3SG.NPST.DS-3SG.
 'Having eaten its belly round, ...'49
- j. ... doo quiqasee qaqamaree fidanoo.
 doo quiqa-sa-i aqama-ra-i fu-i-da-noo
 COMP leave-SEQ-SS fly-SEQ-SS go-IND-PROG-3SG
 '... it leaves and flies away.'
- k. Doo mifa aiqama eendirana iaqarana...
 doo mi-fa aiqama eendi-ira-na iaqa-ira-na
 COMP DEM-SBJ every dusk-AZR-NSBJ? dawn-AZR-NSBJ?
 'Well, every day and night, it...

⁴⁸ When the stem of *naa* 'eat' is immediately followed by a person marker, it functions as a dependent verb that refers to an event simultaneous with the event described by the next verb. This construction, without the SS marker -*i*, does not occur often in my corpus, and speakers stated it was not acceptable for most verbs.

⁴⁹ It seems that the noun *amuaqu* 'belly' is used as a verb here. This rarely occurs in my corpus.

1. miqikaimminoo nidanoo.

miqi-kai-mmi-noo nu-i-da-noo be.like.that-only-INT-3SG go.around-IND-PROG-3SG '... does just like that and goes around.'

m. Oonifaqa namasaidanookai nidanoo.

ooni-faqa na-ma-sa-i-da-noo-kai nu-i-da-noo stone-and eat-COMP-SEQ-SS-3SG-only go.around-IND-PROG-3SG 'It just eats stones and goes around.'

n. Doo qaaroosaana ufa taikeenoo.

doo qaaroosaana ufa taika-i-noo COMP type.of.bird talk finish-IND-3SG 'Well, the talk about the qaroosaana bird is finished.'

(12) a. Fuseenara girara.

fuseena-ara qi-irara cassowary-about speak-TEL 'I am going to speak about the cassowary.'

b. Fuseenara firaa ufini maqamau kai nidanoo.

fuseena-ara firaa ufini maqa-mau kai nu-i-da-noo cassowary-about big bird ground-over only go.around-IND-PROG-3SG 'The cassowary is a big bird that only lives on the ground.'

c. *Aiqama saqari qaqamma nambiqaidanoo.* aigama saqari qaqamma na-figa-i-da-noo

every tree fruit eat-collect-IND-PROG-3sG

'It collects and eats the fruit of every tree.'

d. Sia unusee naidanoo.

sia unu-sa-i na-i-da-noo NEG chew-SEQ-SS eat-IND-PROG-3SG 'It does not chew when it eats.'50

e. Anukaki akara rirafa aiku kisaaqa ...

a-nuka-ki akara ri-ira-fa a-iku kisaaqa 2/3sg.nsbj-neck-loc paint paint-AZR-sbj 2/3sg.nsbj-leg long 'In its neck are colours, its legs are long, ...'

⁵⁰ More literally: 'it does not chew and then eat'.

- f. ... arakooma asausi kisaaqa araana aukuka aukuka irafa ... a-rakooma asausi kisaaqa araana auku-ka-auku-ka-ira-fa 2/3sg.nsbj-buttocks hair long feces cut-nzr-cut-nzr-Azr-sbj '... its tail feathers are long and striped with feces ...'
- g. ... afeedana kisaaqa mifa saqari firaana aumooku ...
 a-feedana kisaaqa mi-fa saqari firaa-na aumooku
 2/3SG.NSBJ-tibia long DEM-SBJ tree big-NSBJ tree.trunk
 '... its legs are long and on a large tree trunk ...'
- h. ... auru maqaidanoo. auru maqa-i-da-noo egg give.birth-IND-PROG-3SG '... it lays eggs.'
- i. Doo miufana taikeenoo. doo mi-ufa-na taika-i-noo COMP DEM-talk-NSBJ finish-IND-3SG 'Well, this talk is finished.'
- (13) a. Nakipurunara qirara.

 nakipuruna-ara qi-irara

 type.of.bird-about speak-TEL

 'I am going to speak about the nakipuruna bird.'
 - b. *Nakipuruna amiqira ufini afaaqa qumbiqarafa ...*nakipuruna amiqi-ira ufini a-faaqa qumbiqa-ira-fa
 type.of.bird good-AZR bird 2/3sg.NSBJ-body fill-AZR-SBJ
 'The nakipuruna bird is a good bird, full of meat; ...'
 - c. ... mifa anusaa maridanoo. mi-fa anu-saa mari-i-da-noo DEM-SBJ mountain.range-on be-IND-PROG-3SG '... it lives on the mountain range.'
 - d. Nupuki qaqamma naidanoo saqariki faiqaidanoo.
 nupuki qaqamma na-i-da-noo saqari-ki faiqa-i-da-noo
 type.of.tree fruit eat-IND-PROG-3SG tree-LOC sleep-IND-PROG-3SG
 'It eats the fruit of the nupuki tree.'

- e. Saqariki faiqaidanoo minaki auru maqaidanoo.
 - saqari-ki faiqa-i-da-noo mi-na-ki auru maqa-i-da-noo tree-LOC sleep-IND-PROG-3SG DEM-NSBJ-LOC egg give.birth-IND-PROG-3SG 'It sleeps in a tree; in that, it lays its eggs.'
- f. Doo miufana taikeenoo.

doo mi-ufa-na taika-i-noo COMP DEM-talk-NSBJ finish-IND-3SG 'Well, this talk is finished.'

(14) a. Deena ufa qirara.

deena ufa qi-irara hummingbird talk speak-TEL 'I am going to tell something about the hummingbird.'

b. Deena fannoo mifa kaaga nanda amasasa gimarifa.

deena fannoo mi-fa kaaqa nanda amasasa qi-i-mari-ifa hummingbird FOC DEM-SBJ very.much forest enjoy speak-IND-be-STAT 'The hummingbird, it really enjoys the forest.'

c. Kaaga nandara rimarifa.

kaaqa nanda-ara ru-i-mari-ifa very.much forest-about be.happy-IND-be-STAT 'It is really happy about the forest.'

d. Miginoo niniifanoo eendifanoo ...

miqi-i-noo nini-ifa-noo eendi-ifa-noo bi.like.that-IND-3SG go.around.DEP-3SG.NPST.DS-3SG dusk-3SG.NPST.DS-3SG 'It is like that, goes around, and when dusk falls, ...'

e. ... kaqi miqoo saqari asaidasaafee ...

kaqi miqoo saqari asaida-saa-fee nothing there tree twig-on-or '... just there on a the twig of a tree or ...'

f. ... sanda amuqusaafee quqamafi faiqeenoo ...

sanda amuqu-saa-fee quqa-mafi faiqa-i-noo rope bud-on-or sit.down-spend.the.night sleep-SS-3SG '... on a liane bud it sits down for the night and sleeps, ...'

g. ... iaqamaqaifanoo findimaqeenoo ... iaqa-maqa-ifa-noo findi-maqa-i-noo

 $dawn\text{-}B\text{EN}^{51}\text{-}3\text{SG.NPST.DS-3SG} \quad get.up\text{-}B\text{EN-IND-3SG}$

'... when it dawns, it gets up, ...

h. ... nandarunna kaqi fifau oonuree anireeinoo ...

"... inside the forest it just goes and comes, ..."

i. ... nidanoo nanda fusakinoo ...

nu-i-da-noo nanda fusaki-i-noo go.around-ss-prog-3sg forest rejoice-ss-3sg '... it goes around and rejoices in the forest, ...'

j. ... maafa maana migimarifa ...

maa-fa maa-na miqi-i-mari-ifa
DEM.PROX-SBJ DEM.PROX-NSBJ do.like.that-IND-be-STAT
'... it does like this and that, ...'

k. ... kaaqa nanda fusakirara rimarifa.

kaaqa nanda fusaki-irara ru-i-mari-ifa very.much forest rejoice-TEL be.happy-IND-be-STAT '... it really wants to rejoice in the forest and is happy.'

1. Doo deena ufa taikeenoo.

doo deena ufa taika-i-noo COMP hummingbird talk finish-IND-3SG 'Well, the talk about the hummingbird is finished.'

(15) a. Difusa ufa girara.

difusa ufa qi-irara type.of.bird talk speak-TEL 'I am going to tell something about the difusa bird.'

b. Difusa oosana maaqiminoo maridanoo.

difusa oosana maaqi-mmi-noo mari-i-da-noo type.of.bird nature be.like.this-INT-3s.GS be-IND-PROG-3s.GS 'The nature of the difusa bird is as follows.'

 $^{^{51}}$ In my corpus, words with -maqa were translated as 'for him/her/them', so I tentatively glossed them as BENEFACTIVE.

⁵² Kaqi fifau was translated with 'only' or 'just'. I cannot give a complete analysis, but it seems to contain the elements kaqi 'small/nothing' and -fau 'NEGATION'.

⁵³ This suffix only occurs once in my corpus. I have no information about its use in respect to other locative markers.

- c. *Mifa nandaki nidanoo ...*mi-fa nanda-ki nu-i-da-noo

 DEM-SBJ forest-LOC go.around-IND-PROG-3SG
 'It goes around in the forest ...'
- d. ... keera qaqamma naidanoo. keera qaqamma na-i-da-noo type.of.tree fruit eat-IND-PROG-3S.GS '... eating the fruit of the keera tree.'
- e. Minafaqa akaqa saqari qaqammafaqa naidanoo. mi-na-faqa akaqa saqari qaqamma-faqa na-i-da-noo DEM-NSBJ-and some tree fruit-and eat-IND-PROG-3S.GS 'This and the fruit of some other tree it eats.'
- f. Neemarifanoo, misaqarina qaqamma qumiqaraifanoo ...⁵⁴
 na-i-mari-ifa-noo mi-saqari-na qaqamma qumiqara-ifa-noo
 eat-IND-be-3SG.NPST.DS-3SG DEM-tree-NSBJ fruit devour-3SG.NPST.DS-3SG
 'While it eats, it devours the tree fruit and ...'
- g. ... mifa anaadoonni anidanoo. mi-fa anaadoo-nni ani-i-da-noo DEM-SBJ old.garden-ALLA come-IND-PROG-3SG '... it comes to an old garden.'
- h. *Animaridanoo ...*ani-i-mari-i-da-noo
 come-IND-be-IND-PROG-3SG
 'Having arrived, ...'
- i. ... faiqi eeqa qaqaasana qumuaramasaidanoo ... faiqi eeqa qaqaasa-na qumuara-ma-sa-i-da-noo man banana unwrapped-NSBJ STEAL-COMP-SEQ-SS-PROG-3SG '... it steals unwrapped bananas of people and ...'
- j. ... nanoo nidanoo. na-noo nu-i-da-noo eat-3sG go.around-IND-PROG-3sG '... eating, it flies around.'

⁵⁴ Note that the subject of the next verb is the same, contrary to what the DS subject marker suggests. Perhaps the clause *misaqarina qaqamma qumiqaraifanoo* should be seen as a side note that does not influence the SS/DS marking on *neemarifanoo*. A translation could be: 'when it has eaten (that is, when it has devoured the fruit of this tree), it comes to an old garden'.

k. Doo maana miqimarifa maridanoo.

doo maa-na miqi-i-mari-ifa mari-i-da-noo comp dem.prox-nsbj be.like.that-IND-be-3sg.npst.stat be-IND-prog-3sg 'Well, it is like this.'

l. Kaaqa qumuarimarifa afai sani tiafa.⁵⁵

kaaqa qumuara-i-mari-ifa a-fai sani tia-fa very.much steal-IND-be-3sg.NPST.STAT 2/3sg.NSBJ-tooth stone.axe huge-SBJ 'It actually steals, the snaggletooth.'

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 $^{^{55} \}textit{Afai sani tiafa}$ 'huge stone axe tooth' is slang for someone with ugly teeth.

Appendix 2: Frog Story

This Binumarien sample text was elicited with the picture book 'Frog, where are you?' by Mercer Meyer. The story was recorded, translated and transcribed with Noko, a native speaker of Binumarien. The recording has a duration of 7:55 minutes.

Throughout the story, now and then a DS verb is used when the next verb has the same subject, and the other way around. I will indicate this in the gloss line in superscript: 'DS>SS' means that a DS form is used where I expect an SS form. I assume the 'incorrect' use of SS/DS is due to the fact that the speaker improvised while telling the story. Often, the mistake is repaired by adding a new phrase with another referent or by repeating the same verb, with correct SS/DS marking the second time.

This story contains many words which convey notions of location, distance and directionality. Binumarien has an elaborated system with many forms that combine these notions. An example is *maramiri* which combines with verbs of perception (*qafaa* 'see', *iria* 'hear') in my corpus, with the perceived object being above the subject. As no descriptive analysis on these words in Binumarien has been done yet, I will suffice with a general gloss, like 'sense.above'.

- (1) Moo kari maafaiqifa ...
 moo kari maa-faiqi-fa
 one time DEM.PROX-boy-SBJ
 'Once, this boy ...'
- (2) ... nari maaqaki fainifaqa maridanoo, ...
 nari maaqa-ki faini-faqa mari-i-da-noo
 3SG.REFL house-LOC dog-and be-IND-PROG-3SG
 '... was in his house with his dog; ...
- (3) ... eeqamoosa maraseenoo rakisimarinau.
 eeqamoosa mara-sa-i-noo rakisi-i-mari-i-nau
 frog take-SEQ-SS-3SG look.after-IND-be-IND-3SG.FPST
 '... he took a frog and looked after him.'
- (4) Buturaki eeqamoosa uaqeedanoo, ...
 butura-ki eeqamoosa uaqa-i-da-noo
 bottle-LOC frog watch.over-IND-PROG-3SG
 'He watched over the frog in a bottle and ...'

- (5) ... nari fainifaqa minaki rakisida, ...
 nari faini-faqa mi-na-ki rakisi-i-da
 3SG.REFL dog-and DEM-NSBJ-LOC look.after-SS-PROG
 '... while he was watching over him with his dog, ...'
- (6) ... eendakina mariiufanoo, faiqararinoo, ...
 eendaki-na mari-i-ufa-noo faiqa-irara-i-noo
 night-Loc be-DUR-3SG.FPST-DS-3SG sleep-TEL-IND-3SG
 '... at night, he wanted to sleep and ...'
- (7) ... ooru nari beetasa sandaaqi nari faini sakaseenoo, ...
 ooru nari beetasa sandaaqi nari faini saka-sa-i-noo
 go.upward 3SG.REFL bed upside 3SG.REFL dog carry-SEQ-SS-3SG
 '... he carried his dog onto the bed and ...'
- (8) ... faiqaqeeufanoo, eeqamoosa fannoo ... faiqa-qee-ufa-noo eeqamoosa fannoo sleep-?-3SG.FPST.DS-3SGS frog FOC '... he slept and the frog ...'
- (9) ... buturakiqari afu atuqaseenoo, uriqareenoo, ... butura-ki-qari a-fu atuqa-sa-i-noo uri-qara-i-noo bottle-LOC-ELA 2/3SG.NSBJ-eye open-SEQ-SS-3SG upwards-move-SS-3SG '... opened the lid and moved it off the bottle and ...'
- (10) ... nammarinni sandanau.
 nammari-nni sanda-i-nau
 water-ALLA run-IND-3SG.FPST
 '... ran to the water.'
- (11) Eendaki miqanda faiqaqeeufanoo, nammarinni sandoofanoo, ...
 eendaki mi-qanda faiqa-qee-ufa-noo nammari-nni sanda-ufa-noo
 night DEM-DU.SPC sleep-?-3SG.FPST.DS-3SG water-ALLA run-3SG.FPST.DS-3SG
 'The two slept at night and he (the frog) ran to the water and...'
- (12) ... iaqoofanoo, kananaana findifi ...
 iaqa-ufa-noo kananaana findi-fu-i
 dawn-3sg.fpst.ds-3sg morning get.up-go-ss
 '...dawn came, and in the morning they get up and ...'

- (13) ... qafoofanoo, sia eeqamoosa fannoo buturaki marinau.
 qafa-ufa-noo sia eeqamoosa fannoo butura-ki mari-i-nau
 see-3sg.fpst.ds-3sg neg frog foc bottle-loc be-IND-3sg.fpst
 '...look and there is no frog in the bottle.'
- (14) Aiqaree fufanoo, nari fainifaqa qafeenoo, ...
 aiqa-ra-i fu-ufa-noo nari faini-faqa qafa-i-noo
 go.away-SEQ-SS go-3SG.FPST.DS-3SG 3SG.REFL dog-and see-IND-3SG
 'he (the boy) went away and looked with his dog ...'
- (15) ... "yaifee fiifoo" qimasee, tautufindifufanoo, ...
 yaifee fu-ii-foo qi-ma-sa-i tautu-findi-fu-ufa-noo
 where go-?-QUOT say-COMP-SEQ-SS be.startled-get.up-go-3SG.NPST.DS-3SG
 '... "where did he go?" they asked and startled they got up and went ...'
- (16) ... qafoofanoo, sia buturaki marinau. qafa-ufa-noo sia butura-ki mari-i-nau see-3sg.fpst.ds-sg neg bottle-loc be-IND-3sg.fpst '... and looked and he (the frog) was not in the bottle.'
- (17) Umureenoo, mina faini fannoo ...

 umu-ra-i-noo mi-na faini fannoo
 come.down-SEQ-SS-3SG DEM-NSBJ dog FOC
 'When he (the dog) had come down, the dog ...'
- (18) ... buturaki akiiqa aususeenoo, ...
 butura-ki a-kiiqa a-usu-sa-i-noo
 bottle-LOC 2/3SG.NSBJ-head 2/3SG.NSBJ-put.inside-SEQ-SS-3SG
 '... put his head in the bottle ...'
- (19) ... udiraifanoo, sia minaki marifanoo, ...
 udira-ifa-noo sia mi-na-ki mari-ifa-noo
 sniff-3sg.npst.ds-3sg neg dem-nsbj-loc be-3sg.npst.ds-3sg
 '... sniffed and he (the frog) was not in there, ...'
- (20) ... qafaifanoo, mifa nari sooqakina qafaifanoo, ... qafa-ifa-noo mi-fa sooqa-kina qafaifanoo see-3sg.NPST.DS-3sg DEM-SBJ shoe-inside see-3sg.NPST.DS-3sg '... he saw; and he (the boy) looked inside his shoe and ...'

- (21) ... sia eeqamoosa fannoo minaki keeqanoo, marinau.
 sia eeqamoosa fannoo mi-na-ki keeqa-noo mari-i-nau
 NEG frog FOC DEM-NSBJ-LOC go.inside-3SG be-IND-3SG.FPST
 '... the frog had not gone inside it.'
- (22) Nariqa maaqakiqari kananaana raudamakufaqa, ...
 nariqa maaqa-ki-qari kananaana rauda-maki-ufa-qa
 3PL.REFL house-LOC-ELA morning come.out-?-3SG.FPST.DS-2/3PL
 'In the morning, they came out of their house, ...'
- (23) ... umureeqa, mifainifa ...
 umu-ra-i-qa mi-faini-fa
 come.down-SEQ-SS-2/3PL DEM-dog-SBJ
 '... they came down and this dog ...'
- (24) ... mibuturanaki akiiqa ususeenoo, ...
 mi-butura-na-ki a-kiiqa usu-sa-i-noo
 DEM-bottle-NSBJ-LOC 2/3SG.NSBJ-head put.inside-SEQ-SS-3SG
 '... put his head inside this bottle and ...'
- (25) ... eeqamoosara qafai, siaifanoo, ...
 eeqamoosa-ara qafa-iss>ds siai-ifa-noo
 frog-about see-ss NEG-3sg.NPST.DS-3sg
 '... looked for the frog and saw he did not have it...'
- (26) ... aaree, marifanoo, uinduaqakiqari ...
 aara-i mari-ifa-noo uinduaqa-ki-qari
 call-SS be-3SG.NPST.DS-3SG window-LOC-ELA
 '... he called; out the window ...'
- (27) ... nari eeqamoosa aaraifanoo, siaufanoo, ...
 nari eeqamoosa aara-ifa-noo sia-ufa-noo
 3SG.REFL frog call-3SG.NPST.DS-3SG NEG-3SG.FPST.DS-3SG
 '... he called his frog and he (the frog) was not there and ...'
- (28) ... miqanda "yaifee fiifoo" qimasee, ...
 mi-qanda yaifee fu-ii-foo qi-ma-sa-i
 DEM-DU.SPC where go-?-QUOT speak-COMP-SEQ-SS
 '... the two said "where did he go" and ...'

- (29) ... randee marufanoo ...
 randa-i mari-ufa-noo^{DS>SS}
 search-SS be-2/3PL.FPST-DS-3SG
 '... as they were searching ...
- (30) ... kananaana umumarida, randee marufanoo, ... kananaana umu-mari-i-da randa-i mari-ufa-noo morning come.down-be-IND-PROG search-SS be-2/3PL.FPST-DS-3SG '... in the morning they came down, and as they were searching ...'
- (31) ... faini fannoo uinduaqakiqari faini fannoo uinduaqa-ki-qari dog FOC window-LOC-ELA '... out the window, the dog ...'
- (32) ... mibuturanaki akiiqa ususeenoo, ...
 mi-butura-na-ki a-kiiqa usu-sa-i-noo

 DEM-bottle-NSBJ-LOC 2/3SG.NSBJ-head put.inside-SEQ-SS-3SG
 '... had his head inside this bottle and ...'
- (33) ... raudamakufanoo, aqufufanoo, ...
 rauda-mak-ufa-noo aqu-fu-ufa-noo
 break-?-3sg.fpst.ds-3sg go.downward-go-3sg.fpst.ds-3sg
 '... came out and fell and ...'
- (34) ... maqasaa butura fannoo andaana rufanoo, ...
 maqa-saa butura fannoo andaana ru-ufa-noo
 ground-on bottle foc shatter fall-3sg.fpst.ds-3sg
 '... the bottle fell to pieces on the ground; ...'
- (35) ... nari fainiara qamuqusufanoo, ...
 nari faini-ara qamuqusa-ufa-noo
 3SG.REFL dog-about heart-3SG.FPST.DS-3SG
 '... he (the boy) felt sorry for his dog and ...'
- (36) ... umu nari faini rafususeenoo, ...
 umu nari faini rafusu-sa-i-noo
 come.down 3sg.Refl dog lift-seq-ss-3sg
 '... (having come) down, he picked up his dog and ...'

- (37) ... amooqanaidanoo, miqanda ... amooqana-i-da-noo mi-qanda kiss-IND-PROG-3SG DEM-DU.SPC '... kissed him and the two ...'
- (38) ... nari eeqamoosara randarara, doo fiqau.
 nari eeqamoosa-ara randa-irara doo fu-i-qau
 3PL.REFL frog-about search-TEL COMP go-IND-2/3PL.FPST
 '...went out to search their frog.'
- (39) Nandakina "yaifee fiifoo" qimaseeqa, ...
 nanda-kina yaifee fu-ii-foo qi-ma-sa-i-qa
 forest-inside where go-?-QUOT speak-COMP-SEQ-SS-2/3PL
 'In the forest, they said "where did he go" and ...'
- (40) ...mina aqaaraqa fimariqau.
 mi-na aqaara-qa fu-i-mari-i-qau
 DEM-NSBJ follow.footprints-2/3PL go-IND-be-IND-2/3PL.FPST
 '... they followed the footprints and went away.'
- (41) Nandaki aqaaraqa fifiiufaqa, ...
 nanda-ki aqaara-qa fifii-ufa-noo
 forest-LOC follow.footprints-2/3PL go-2/3PL.FPST.DS-3SG
 'Following the footprints, they went in the forest and ...'
- (42) ... oonu qafoofanoo, kookapunauqaindi marufanoo,...
 oonu qafa-ufa-noo kookapuna-uqaindi mari-ufa-noo
 go upward see-2/3PL.FPST.DS-3SG bee-GROUP.NSPC 2/3PL.FPST.DS-3SG
 '... looked up and there was a swarm of bees and ...'
- (43) ... mina faini fannoo ... mi-na faini fannoo DEM-NSBJ dog TOP '... his dog ...'
- (44) ... kookapunauqaindi marufanoo qafamaseenoo, ... kookapuna-uqaindi mari-ufa-noo qafa-ma-sa-i-noo bee-GROUP.NSPC be-2/3PL.FPST.DS-3SG see-COMP-SEQ-SS-3SG '... saw that there was a swarm of bees and ...'

- (45) ... kookapuna afairida marufanoo, ... kookapuna afairi-i-da mari-ufa-noo bee bark-IND-PROG be-3SG.FPST.DS-3SG '... while he barked at the bees, ...'
- (46) ... mina akoofa fiqaree fufanoo, ...
 mi-na a-koo-fa fiqa-ra-i fu-ufa-noo
 DEM-NSBJ 2/3SG.NSBJ-father-SBJ pass-SEQ-SS go-3SG.FPST.DS-3SG
 '... his master overtook him and went away and...'
- (47) ... mifainifa oonumara kookapuna afairi marufanoo, ...
 mi-faini-fa oonu-mara kookapuna afairi mari-ufa-noo

 DEM-dog-SBJ go.upward-? bee bark be-3sg.fpst.ds-3sg
 '... while this dog looked upward and was barking at the bees, ...'
- (48) ... mifaiqifa oonu qumara aamara qafamaseenoo, ...
 mi-faiqi-fa oonu qumara aamara qafa-ma-sa-i-noo
 DEM-child-SBJ go.upward rat hole see-COMP-SEQ-SS-3SG
 '...this child saw a rat hole up there and ...'
- (49) ... minakina marameema eeqamoosara aaraidanoo, ...
 mi-na-kina marameema eeqamoosa-ara aara-i-da-noo
 DEM-NSBJ-inside downward frog-about call-IND-PROG-3SG
 '... inside that (hole) he called down to the frog, ...'
- (50) ... mina aamara mifoora qimaseenoo, ...
 mi-na aamara mi-foora qi-ma-sa-i-noo
 DEM-NSBJ hole DEM-EQ speak-COMP-SEQ-SS-3SG
 '... as if he thought it would be his hole, and ...'
- (51) ... akiiqa minaki aususeenoo, ...
 a-kiiqa mi-na-ki a-usu-sa-i-noo
 2/3sg.nsbj-head DEM-nsbj-loc 2/3sg.nsbj-put.inside-seq-ss-3sg
 '... he put his head inside and ...'
- (52) ... marameema eeqamoosa aareemarufanoo, ...
 marameema eeqamoosa aara-i-maru-ufa-noo
 downward frog call-IND-be-3SG.FPST.DS-3SG
 '... while he was calling down to the frog, ...'

- (53) ... faini fannoo mirinni kookapuna afairidanoo maridanoo, ... faini fannoo mirinni kookapuna a-fairi-i-da-noo mari-i-da-noo dog FOC above? bee 2/3SG.NSBJ-bark-IND-PROG-3SG be-IND-PROG-3SG '... the dog looked up and was barking at the bees; ...'
- (54) ... anaamu usakasee marufanoo, anaamu usaka-sa-i maru-ufa-noo nest build-SEQ-SS be-2/3PL.FPST.DS-3SG '... they built a hive and lived there and...'
- (55) ... mifaiqifa oonu maridanoo, ...
 mi-faiqi-fa oonu mari-i-da-noo
 DEM-child-SBJ go.upward be-IND-PROG-3SG
 '... while this child was up there, ...'
- (56) ... miaamarakina marameema oori upeekaseenoo, ... mi-aamara-kina marameema oori upeeka-sa-i-noo DEM-hole-inside downward snout put.inside-SEQ-SS-3SG '... he put his face down inside this hole and ...'
- (57) ... eeqamoosa aareemarufanoo, ...
 eeqamoosa aara-i-mari-ufa-noo
 frog call-IND-be-3sg.FPST.DS-3sg
 '... called the frog and ...'
- (58) ... qumura fannoo minakiqari urureenoo, ...
 qumura fannoo mi-na-ki-qari uru-ra-i-noo
 rat FOC DEM-NSBJ-LOC-ELA come.upward-SEQ-SS-3SG
 '... a rat came out of it and ...'
- (59) ... mifaiqanaaqina ooraiki ukaqamufanoo, ... mi-faiqi-anaaqi-na oori-aiki ukaqa-a-mi-ufa-noo DEM-child-baby-NSBJ snout-nose bite-2/3SG.NSBJ-give-3SG.FPST.DS-3SG '... bit the little child's nose and ...'
- (60) ... minakiqari findifi tautumafi faaqarufanoo, ...
 mi-na-ki-qari findi-fi tautu-ma-fi faaqaru-ufa-noo
 DEM-NSBJ-LOC-ELA get.up-? be.startled-COMP-? shout-3SG.FPST.DS-3SG
 '... he (the boy) got up from it, startled, and shouted and...'

- (61) ... faini fannoo muqunni kookapuna arirarimarufanoo, ... faini fannoo muqunni kookapuna aru-irara-i-mari-ufa-noo dog FOC there bee hit-TEL-IND-be-3SG.FPST.DS-3SG '... the dog over there wanted to attack the bees; ...'
- (62) ... faaqaridanoo saqarimau akaree marinau.
 faaqaru-i-da-noo saqari-mau akara-i mari-i-nau
 shout-IND-PROG-3SG tree-over climb-SS be-IND-3SG.FPST
 '... he shouted and climbed in the tree.'
- (63) Kookapuna anaamu fannoo rakeemakufanoo, ...
 kookapuna anaamu fannoo raka-i-maki-ufa-noo
 bee nest FOC break-SS-?-3SG.FPST.DS-3SG
 'The beehive broke and ...'
- (64) ... maqasaa aqufufanoo, ...
 maqa-saa aqu-fu-ufa-noo
 ground-on go.downward-go-3sg.fpst.ds-3sg
 '... fell on the ground.'
- (65) ... faini fannoo qafeenoo rufiaseenoo, ... faini fannoo qafa-i-noo rufia-sa-i-noo dog foc see-SS-3SG be.afraid-SEQ-SS-3SG 'The dog saw it, got afraid and ...'
- (66) ... narakoofinai sandanau.
 nari-a-koo-fa-ina-i sanda-i-nau
 3SG.REFL-2/3SG.NSBJ-father-SBJ-?-ALLA run-IND-3SG.FPST
 '...ran to his master.'
- (67) Sandeemarufanoo, ... sanda-i-mari-ufa-noo be-3sg.FPST.DS-3sg 'While he ran ...'
- (68) ... minakoofa miqooqari qafoofanoo, ...
 mi-na-a-koo-fa miqoo-qari qafa-ufa-noo
 DEM-NSBJ-2/3SG.NSBJ-father-SBJ there-ELA see-3SG.FPST.DS-3SG
 '... his master saw from there ...'

- (69) ... saqari akaqa marufanoo, ...
 saqari akaqa mari-ufa-noo
 tree hole be-3SG.FPST.DS-3SG
 '... there was a tree hole and ...'
- (70) ... minaki eeqamoosa saqarimau makaranau.
 mi-na-ki eeqamoosa⁵⁶ saqari-mau m-akara-i-nau⁵⁷
 DEM-NSBJ-LOC frog tree-over ?-climb-IND-3SG.FPST
 '... from there the frog climbed in the tree.'
- (71) Akaramafinoo, qafoofanoo, ...
 akara-ma-fu-i-noo qafa-ufa-noo
 climb-COMP-GO-IND-3SG see-3SG.FPST.DS-3SG
 'He climbed and saw ...'
- (72) ... saqari akaqa marinau. saqari akaqa mari-i-nau tree hole be-IND-3SG.FPST '... there was a tree hole.'
- (73) Minaki oonumarida, ...
 mi-na-ki oonu-mari-i-da
 DEM-NSBJ-LOC go.upward-be-IND-PROG
 'While he was in it up there, ...'
- (74) ... eeqamoosara nameera qidanoo, aareemarufanoo, ...
 eeqamoosa-ara nameera qi-i-da-noo aara-i-mari-ufa-noo
 frog-about call speak-IND-PROG-3SG call-IND-be-3SG.FPST.DS-3SG
 '... calling the frog, while he called, ...'
- (75) ... saqari akaqaki minakiqari karoonda firaafa ... saqari akaqa-ki mi-na-ki-qari karoonda firaa-fa tree hole-LOC DEM-NSBJ-LOC-ELA type.of.owl big-SBJ '... in a hollow tree, out of it, a big owl, ...'
- (76) ... saqaraundurai mariufa, raudamaki, ... saqari-aundura-i mari-i-ufa rauda-maki tree-inside-ALLA be-DUR-3SG.FPST.STAT come.out-? '... that lived inside the tree, came out and ...'

 56 *Eeqamoosa* 'frog' should be *faiqi* 'child' here, since the child climbs the tree. I did not have the chance to ask the storyteller, but another speaker agreed on the correction.

⁵⁷ The "filler m" does not seem to convey meaning. It occurs in fast speech, mostly on final verbs.

- (77) ... miqoo akaqasaa uqamafufanoo, ...
 miqoo akaqa-saa uqamafi-ufa-noo
 there hole-on sit.down-3sg.fpst.ds-3sg
 '... sat down there in the opening and...'
- (78) ... mifaiqifa maramiri mina qafeenoo, tautumakufanoo, ... mi-faiqi-fa maramiri mi-na qafa-i-noo tautu-maki-ufa-noo⁵⁸

 DEM-child-SBJ sense.above DEM-NSBJ see-SS-3SG be.startled-?-3SG.FPST.DS-3SG '... this child looked up, saw it and was scared and ...'
- (79) ... rafusakinoo, maqasaa aqufinau.
 rafusaki-i-noo maqa-saa aqu-fu-i-nau
 climb.down-SS-3SG ground-on go.downward-go-IND-3SG.FPST
 '... climbed down on the ground.'
- (80) Anaaqiannaindari aqufufanoo, ...
 a-naaqianna-indari aqu-fu-ufa-noo
 2/3sg.NSBJ-back-on? go.downward-go-3sg.FPST.DS-3sg
 'He fell on his back and ...'
- (81) ... faini fannoo aiqaroofanoo, ...
 faini fannoo aiqa-ra-ufa-noo
 dog FOC go.away-SEQ-3SG.FPST.DS-3SG
 '... the dog went away and ...'
- (82) ... kookapunauqaindi afaqee, ukaqa amufanoo, ... kookapuna-uqaindi afaqa-i ukaqa a-mi-ufa-noo bee-GROUP.NSPC chase-SS bite 2/3SG.NSBJ-give-3SG.FPST.DS-3SG '... the swarm of bees chased and stung him and ...'
- (83) ... aiqaree sandanau.
 aiqa-ra-i sanda-i-nau
 go.away-SEQ-SS run-IND-3SG.FPST
 '... he ran away.'
- (84) Mifaiqifa saqarikiqari rafusaki aqufinoo, ...
 mi-faiqi-fa saqari-ki-qari rafusaki aqu-fu-i-noo
 DEM-child-SBJ tree-LOC-ELA climb.down go.downward-go-SS-3SG
 'This child climbed down from the tree and ...'

involuntary action: raudaa 'come out, break', rukaa 'break' and tautua 'be startled'.

⁵⁸ The meaning of the suffix *-maki* is unclear to me, but it seems to occur on verbs that denote

- (85) ... mifaiqifa ... mi-faiqi-fa DEM-child-SBJ '... this child, ...'
- (86) ... saqarikiqari rafusaki aqufinoo marufanoo, ...
 saqari-ki-qari rafusaki aqu-fu-i-noo mari-ufa-noo
 tree-LOC-ELA climb.down go.downward-go-SS-3SG be-3SG.FPST.DS-3SG
 '... as he climbed down from the tree, ...'
- (87) ... ufini fannoo minakiqari anireenoo, qafoofanoo, ...
 ufini fannoo mi-na-ki-qari ani-ra-i-noo qafa-ufa-noo
 bird FOC DEM-NSBJ-LOC-ELA come-SEQ-SS-3SG see-3SG.FPST.DS-3SG
 '... a bird came out of it and looked and ...'
- (88) ... tautumakufanoo maqufinau.
 tautu-maki-ufa-noo m-aqu-fu-i-nau
 be.startled-?-3sg.fpst.ds-3sg ?-go.downward-go-IND-3sg.fpst
 '... he (the boy) was scared and went down.'
- (89) Mifaiqifa sandee ufiniara rufiamaree, ...
 mi-faiqi-fa sanda-i ufini-ara rufia-ma-ra-i
 DEM-child-SBJ run-SS bird-about be.afraid-COMP-SEQ-SS
 'This child ran, being afraid of the bird, ...'
- (90) ... aiqaree oonimau makaranau.
 aiqa-ra-i ooni-mau m-akara-i-nau
 go.away-SEQ-SS stone-over ?-climb-IND-3SG.FPST
 '... he went away and climbed on a stone.'
- (91) Oonimau akareenoo ...
 ooni-mau akara-i-noo
 stone-over climb-ss-3sG
 'He climbed on the stone and ...'
- (92) ... meerai oonakiiqai oorureenoo, ...
 meerai ooni-a-kiiqa-i ooru-ra-i-noo^{ss>DS}
 on.top stone-2/3sg.NSBJ-head-ALLA go.upward-SEQ-SS-3sg.S
 '... went up to the very top of the rock and ...'

- (93) ... maaqinni mataaqausa maaqai moo aandau ...
 maaqinni mataaqa-usa maaqa-i moo aandau
 over.here Westerner-GROUP.SPC house-ALLA one animal
 '... over here was an animal from the land of Westerners ...'
- (94) ... diaafee qimariana. Aanai fannoo ...
 diaa-fee qi-i-mari-ana aanai fannoo
 deer-Q speak-IND-be-2SG.STAT horn FOC
 '... that you call deer; its antlers ...'
- (95) ... maaqinni oonu anaaqiannai marufanoo, ...
 maaqinni oonu a-naaqianna-i mari-ufa-noo
 over.here go.upward 2/3sg.NsBJ-back-ALLA be-3sg.FPST.Ds-3sg
 '... were over here towards his back and ...'
- (96) ... oonu mifa saqari amara mifoo qimasee, ...
 oonu mi-fa saqari amara mi-foo qi-ma-sa-i
 go.upward DEM-SBJ tree forked.stick DEM-QUOT speak-COMP-SEQ-SS
 '... he (the boy) went up and thought that it was a tree branch; ...'
- (97) ... oonisaa kikiqamafifanoo, ...
 ooni-saa kikiqi-amafi-ifa-noo
 stone-on stand.up-?-3sg.NPST.DS
 '... he stood on the stone and ...'
- (98) ... mina aanaindauru uaqee marinau.
 mi-na aanai-ndauru uaqa-i mari-i-nau

 DEM-NSBJ horn-around look.out-SS be-IND-3SG.FPST
 '... holding its antlers, he was looking out.'
- (99) Faini fannoo narakoona udiramammaree, ...
 faini fannoo nari-a-koo-na udira-ma-mma-ra-i
 dog FOC 3SG.REFL-2/3SG.SBJ-father-NSBJ sniff-COMP-?-SEQ-SS
 'The dog smelled his master ...'
- (100) ... miqoo aniree qafoofanoo, ...
 miqoo ani-ra-i qafa-ufa-noo
 there come-SEQ-SS see-3SG.FPST.DS-3SG
 '... and came there and saw and ...'

- (101) ... mina akoofa oonisaa akaranoo, ...
 mi-na a-koo-fa ooni-saa akara-noo
 DEM-NSBJ 2/3SG.NSBJ-father-SBJ stone-on climb-3SG.S
 '... his master, while climbing the stone, ...'
- (102) ... miaanaina uquseenoo, kikiqinoo marufanoo, ...
 mi-aanai-na uqu-sa-i-noo kikiqi-i-noo mari-ufa-noo^{ds>ss}
 DEM-horn-NSBJ work-SEQ-SS-3SG stand.up-ss-3SG be-3SG.FPST.DS-3SG
 '... held this antlers and was standing; ...'
- (103) ... mifaqifa saqari asaana mifoora mina aanai uquseenoo, ... mi-faiqi-fa saqari asaana mi-foora aanai uqu-sa-i-noo DEM-child-SBJ tree branch DEM-EQ horn work-SEQ-SS-3SG '... this child held its antlers like a tree branch and ...'
- (104) ... kikiqinoo marinau. kikiqi-i-noo mari-i-nau stand.up-SS-3SG be-IND-3SG.FPST '... was standing.'
- (105) Diaa fannoo maramiri irifanoo, faiqi fannoo ...
 diaa fannoo maramiri iri-ifa-noo faiqi fannoo
 deer FOC sense.above hear-3sg.NPST.DS-3sg child FOC
 'The deer sensed something above and the child ...'
- (106) ... mina aanaisaa oonu akaramafufanoo, ...
 mi-na aanai-saa oonu akara-ma-fu-ufa-noo
 dem-nsbj horn-on go.upward climb-COMP-go-3SG.FPST.DS-3SG
 '... climbed up his antlers ...'
- (107) ... uqaseenoo, rufiamareenoo, sandee, ...
 uqa-sa-i-noo rufia-ma-ra-i-noo sanda-i
 leave-SEQ-SS-3SG be.afraid-COMP-SEQ-SS-3SG run-SS
 '... and he (the deer) went away and was afraid and ran and ...'
- (108) ... mifaiqina maramaari aanaisaa kookoombaara mamareenoo, ...
 mi-faiqi-na maramaari aanai-saa kookoombaara mama-ra-i-noo
 DEM-child-NSBJ go.upward horn-on take.on.shoulders carry-SEQ-SS-3SG
 '... carried this child on his antlers to ride ...'

- (109) ... sandanau. sanda-i-nau run-IND-3SG.FPST '... and ran away.'
- (110) Sandee fifiiufanoo, qaaqanasaa oonureenoo, ...
 sanda-i fifii-ufa-noo qaaqana-saa oonu-ra-i-noo
 run-SS go-3SG.FPST.DS-3SG mountain-on go.upward-SEQ-SS-3SG
 'He ran and went up a mountain, ...'
- (111) ... maanisaa nammari maaminni mumimarufanoo, ...
 maani-saa nammari maaminni m-umu-i- mari-ufa-noo
 landslide-on water down.below ?-come.downward-SS-BE-3SG.FPST.DS-3SG
 '... on a slope, and there was water down below and ...'
- (112) ... qaaqana qafaisaa oonureenoo, ...
 qaaqana qafai-saa oonu-ra-i-noo
 mountain side-on go.upward-SEQ-SS-3SG
 '... he went up on the side of the mountain, ...'
- (113) ... mifainisandiri midiaafa oonureenoo, ...
 mi-faini-sa-ndiri mi-diaa-fa oonu-ra-i-noo
 DEM-dog-?-COM2 DEM-deer-SBJ go.upward-SEQ-SS-3SG
 '... together with this dog this deer went up and then ...'
- (114) ... mifaiqina aanaisaa kookoombaariranakai afaimamufanoo, ...
 mi-faiqi-na aanai-saa kookoombaari-ira-na-kai afaimamu-ufa-noo
 DEM-child-NSBJ horn-on take.on.shoulders-AZR?-NSBJ?-only drop.off-3SG.FPST.DS-3SG
 '... dropped off the child that just rode on his antlers, ...'
- (115) ... meemai nammarikina maqufinau.

 meemai nammari-kina m-aqu-fu-i-nau
 down.there water-INSIDE ?-go.downward-go-IND-3SG.FPST
 '... and he (the child) fell down there in the water.'
- (116) Nari fainindiri anaaqiannaindari ooqurama ...
 nari faini-ndiri a-naaqianna-indari ooqu-rama
 3SG.REFL dog-COM2 2/3SG.NSBJ-back-on? go.downward-?
 'With his dog he went down on his back and ...'

- (117) ... nammarikina aqufufanoo, nari fainindiriqara ...
 nammari-kina aqu-fu-ufa-noo nari faini-ndiri-qara
 water-inside go.downward-go-3sg.fpst.dog-com2-do
- (118) ... doo nammari maqufinau.
 doo nammari m-aqu-fu-i-nau
 COMP water ?-go.downward-go-IND-3SG.FPST
 '... well, he fell in the water.'
- (119) Aqufufanoo, ...

 aqu-fu-ufa-noo
 go.downward-go-3sg.FPST.DS-3sg
 'He fell, ...'
- (120) ... mifa nammariki aqufufanoo, ...
 mi-fa nammari-ki aqu-fu-ufa-noo
 DEM-SBJ water-LOC go.downward-go-3SG.FPST.DS-3SG
 '... he fell in the water and ...'
- (121) ... nari fainikai kookoombaara mamareenoo, ...
 nari faini-kai kookoombaara mama-ra-i-noo
 3SG.REFL dog-only take.on.shoulders carry-SEQ-SS-3SG
 '... he just took his dog on his shoulders, ...'
- (122) ... nari faini kookoombaara mamaree nammariki fidanoo, ...
 nari faini kookoombaara mama-ra-i-noo nammari-ki fu-i-da-noo
 3SG.REFL dog take.on.shoulders carry-SEQ-SS-3SG water-LOC go-IND-PROG-3SG
 '... he carried his dog on his shoulders and as he walked in the water ...'
- (123) ... aaqoo uqasee irufanoo, mina eeqamoosa fannoo ...
 aaqoo uqa-sa-i iri-ufa-noo mi-na eeqamoosa fannoo
 ear put-SEQ-SS hear-3SG.FPST.DS-3SG DEM-NSBJ frog FOC
 '... he strained his ear and listened and his frog, ...'
- (124) ... nammarikiqari ufa qiufanoo, iriseenoo, ...

 nammari-ki-qari ufa qi-ufa-noo iri-sa-i-noo
 water-LOC-ELA talk speak-3SG.FPST.DS-3SG hear-SEQ-SS-3SG
 '... out of the water, made a sound; and he (the boy) heared it and ...'

- (125) ... nari faini qimaminoo, "ireedakai kasoo iannee, ...
 nari faini qi-ma-a-mi-i-noo ireedakai kasoo iannee
 3SG.REFL dog speak-COMP-2/3SG.NSBJ-give-SS-3SG silently stop do.IMP.QUOT?
 '... told his dog "just be silent, stop, ...'
- (126) ... eeqamoosa ufa miridaqa ...
 eeqamoosa ufa m-iri-i-da-qa
 frog talk ?-hear-IND-PROG-3SG
 '... I hear the sound of the frog, ...'
- (127) ... eeqamoosa mufa qidaqiifoo" qimasee, ...
 eeqamoosa m-ufa qi-i-da-qi-i-foo qi-ma-sa-i
 frog ?-talk speak-IND-PROG-AUD-?-QUOT speak-COMP-SEQ-SS
 '... I hear the frog make a sound" he said and ...'
- (128) ... ireedakai nari faini qimamufanoo, ... ireedakai nari faini qi-ma-a-mi-ufa-noo silently 3SG.REFL dog speak-2/3SG.NSBJ-COMP-give-3SG.FPST.DS-3SG '... he told his dog to be silent and ...'
- (129) ... "eeoo" qimasee, ireedakai qaaraiqi-qara; ...
 eeoo qi-ma-sa-i ireedakai qaaraiqi-qara
 yes speak-COMP-SEQ-SS slilently two.persons-DU.NSPC
 '... "yes", he said, as both of them (are) silent; ...'
- (130) ... miqoo moo qiri firaafa aundura faqaafa ...
 miqoo moo qiri firaa-fa aundura faqaa-fa
 there one log big-SBJ inside having-SBJ
 '... over there a big hollow tree ...'
- (131) ... nammari qafainni marufanoo, ...
 nammari qafai-nni mari-ufa-noo
 water side-ALLA be-3SG.FPST.DS-3SG
 '... was on the riverbank and ...'
- (132) ... minakiqari ufa qufanoo, iriseenoo, ...
 mi-na-ki-qari ufa qi-ufa-noo iri-sa-i-noo
 DEM-NSBJ-LOC-ELA talk speak-3SG.FPST.DS-3SG hear-SEQ-SS-3SG
 '... out of it, he (the frog) made a sound, they hear, and ...'

- (133) ... nari fainifaqa sandeeufanoo, oonureenoo, ...
 nari faini-faqa sanda-i-ufa-noo oonu-ra-i-noo
 3SG.REFL dog-and run-?-3SG.FPST.DS-3SG go.upward-SEQ-SS-3SG
 '... with his dog, he ran, he went up, ...'
- (134) ... nammariki ireedakai oonuree, qafoofanoo, ...
 nammari-ki ireedakai oonu-ra-i qafa-ufa-noo
 water-LOC silently go.upward-SEQ-SS see-2/3PL.FPST.DS-3SG
 '... in the water they silently went up and saw ...'
- (135) ... eeqamoosa qisafaaqiqarafaqa nariqa faiqinamufaqa eeqamoosa qisafaaqi-qara-faqa nariqa faiqi-namu-faqa frog couple-DU.NSPC-and 3PL.REFL child-COM1-and '... a frog couple and their children, ...'
- (136) ... mina eeqamoosa fannoo misafaqa oonumarifanoo, ...
 mi-na eeqamoosa fannoo mi-sa-faqa oonu-mari-ifa-noo
 DEM-NSBJ frog FOC DEM-PL-and go.upward-be-3sg.NPST.DS-3sG
 '... and his frog was there with them; ...'
- (137) ... ireedakai miqirinasaa ... ireedakai mi-qiri-na-saa silently DEM-log-NSBJ-on '... silently, on this log ...'
- (138) ... maramaaqi anuka raraunuquseenoo, ...
 maramaaqi anuka raraunuqu-sa-i-noo
 stretch.neck.upward neck stretch.neck-SEQ-SS-3SG
 '... he (the boy) stretched his neck and ...'
- (139) ... niqafoofaqa, ...
 ni-qafa-ufa-qa
 2/3PL.NSBJ-see-3SG.FPST.DS-2/3PL
 '... saw them ...'
- (140) ... misauqaindi maaqinni marufanoo, ...
 mi-sa-uqaindi maaqinni mari-ufa-noo
 DEM-PL-GROUP.NSPC over.here be-3sg.FPST.DS-3sg
 '... as they were here, ...'

- (141) ... nindafamaseenoo, qafoofanoo, ...
 ni-qafa-ma-sa-i-noo qafa-ufa-noo
 2/3PL.NSBJ-see-COMP-SEQ-SS-3SG see-3SG.FPST.DS-3SG
 '... he saw them, he saw and ...'
- (142) ... mina eeqamoosa fannoo misa qambaanai marufanoo, ...
 mi-na eeqamoosa fannoo mi-sa qambaana-i mari-ufa-noo
 DEM-NSBJ frog foc DEM-PL middle-ALLA be-3SG.FPST.DS-3SG
 '... his frog was among them; ...'
- (143) ... "oo mai animaridanoofee" qimaseenoo, ...
 oo mai ani-i-mari-i-da-noo-fee⁵⁹ qi-ma-sa-i-noo
 EXCL here come-IND-be-IND-PROG-3SG-Q speak-COMP-SEQ-SS-3SG
 '... "oh, you came to this place" he said and ...'
- (144) ... nari eeqamoosa qafoofanoo, ...
 nari eeqamoosa qafa-ufa-noo
 3SG.REFL frog see-3SG.FPST.DS-3SG
 '... he saw his frog and ...'
- (145) ... mina eeqamoosa fannoo maramiri nari qafeenoo, ...
 mi-na eeqamoosa fannoo maramiri nari qafa-i-noo
 DEM-NSBJ frog FOC sense.above 3SG.REFL see-SS-3SG
 '... his frog looked up, saw him and ...'
- (146) ... naanaidaraufanoo, afiqamareenoo, ...
 naanaidara-ufa-noo afiqa-mara-i-noo
 laugh-3sg.FPST.DS-3sg collect-take-ss-3sg
 '... he (the frog) laughed and he (the child) picked him up and...'
- (147) ... doo mina maaqai fidanoo, ...
 doo mi-na maaqa-i fu-i-da-noo
 COMP DEM-NSBJ house-ALLA go-IND-PROG-3SG
 '... well, while he (the child) went to his home ...'
- (148) ... misara doo mariaqee qimasee, ...
 mi-sa-ara doo mari-aqa-ee⁶⁰ qi-ma-sa-i
 DEM-PL-about COMP be-IMP.PL-Q speak-COMP-SEQ-SS
 '... he said to them well, goodbye, ...'

⁵⁹ The interrogative suffix *-fee* is sometimes used to mark direct speech, in the same way as the quotative suffix *-foo. -fee* has *-ee* as an allomorph in certain contexts (Oatridge and Oatridge 1965). ⁶⁰ *Doo, mariaqa* 'well, you stay' is a phrase commonly used to say goodbye in Binumarien.

- (149) ... asauku uqeerasee, "eeqa eeqamoosa afiqeeqee" ...
 a-sauku uqa-ira-sa-i eeqa eeqamoosa afiqa-i-qa-ee
 2/3sg.nsbj-hand put-?-seq-ss 1sg.refl frog collect-IND-1sg-q
 '... he waved his hand, "I pick up my frog;" ...'
- (150) ... misauqaindi murunni miqirinasaa ooqufaaqee idaqa, ...
 mi-sa-uqaindi murunni mi-qiri-na-saa ooqu-faaqa-i i-da-qa
 DEM-PL-GROUP.NSPC up.there DEM-log-NSBJ-on go.downward-sit-SS ?-PROG-2/3PL
 '... as they sat down together up there on the log, ...'
- (151) ... marameeqa misa niqafaida, ...
 marameeqa mi-sa ni-qafa-i-da
 look.in.the.distance DEM-PL 2/3PL.NSBJ-see-SS-PROG
 '... they looked in the distance and ...'
- (152) ... misa ni-manda-i-qa ainufaqa ...
 mi-sa ni-manda-i-qa ainu-ufa-qa
 DEM-PL 2/3PL.NSBJ-say.goodbye-SS-2/3PL say.farewell-2/3PL.FPST.DS-3SG
 '... said goodbye and farewell and...'
- (153) ... doo uqaseeqa, nimaaqa fiqau.
 doo uqa-sa-i-qa ni-maaqa⁶¹ fu-i-qau
 COMP leave-SEQ-SS-2/3PL 2/3PL.NSBJ-house go-IND-2/3PL.FPST
 '... well, they (the child, dog and frog) left and went home.'
- (154) Nari eeqamoosa afiqamaree, ...
 nari eeqamoosa afiqa-mara-i
 3SG.REFL frog collect-take-SS
 'He picked up his frog and ...'
- (155) ... nari fainifaqa fifiiufanoo, ...
 nari faini-faqa fifii-ufa-noo
 3SG.REFL dog-and go-3SG.FPST.DS-3SG
 '... he went away with his dog, ...'
- (156) ... nari maaqai oonureenoo, ...
 nari maaqa-i oonu-ra-i-noo
 3SG.REFL house-ALLA go.upward-SEQ-SS-3SG
 '... he went to his home, ...'

⁶¹ It is unclear why *maaga* 'house' carries no allative marker, like *maagai* in (156).

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- (157) ... kaifaa mibuturanaki mareeqee uqaseenoo, ... kaifaa mi-butura-na-ki mara-i-qee uqa-sa-i-noo again DEM-bottle-NSBJ-LOC take-SS-? put-SEQ-SS-3SG '... put (him) in the bottle again and ...'
- (158) ... rakisimarinau.
 rakisi-i-mari-i-nau
 watch.over-IND-be-IND-3SG.FPAST
 '... watched over him.'
- (159) Doo eeqomoosa stoorafaqa mifaiqinafaqa mifainina stoora ...
 doo eeqamoosa stoora-faqa mi-faiqi-na-faqa mi-faini-na stoora
 COMP frog story-and DEM-child-NSBJ-and DEM-dog-NSBJ story
 'Well, the frog story, and the story of this child and this dog ...'
- (160) ... maaqoo mini taikeenoo. Doo.
 maaqoo mini taika-i-noo doo
 here toward.here finish-IND-3SG COMP
 '... ends here. That was it.'

Appendix 3: Binumarien dictionary

This Binumarien dictionary was created with the software tool Fieldworks Language Explorer (FLEx). It contains around 900 Binumarien entries and is the result of the fieldwork I conducted for this thesis. The dictionary starts with a list of Binumarien entries, which provides grammatical information, an English translation and an example sentence if available. The example sentences are from my corpus; I shortened them sometimes for reasons of clarity. The wordlist is followed by a list of Binumarien affixes with an English translation or gloss. The appendix concludes with a list of English entries and a short Binumarien translation; this list does not contain inflectional affixes.

Tone patterns are given whenever available: the level tones are indicated with capital letters that follow the entry; the point of pitch change is indicated in the entry with an interpunct $\cdot\cdot$. Entries of nouns that have an obligatory case suffix are presented with the subject suffix -fa. Inalienable nouns are listed with the second/third person singular non-subject prefix a-. They carry the label 'INAL', followed by the first person form. Entries of verbs are in the imperative form. Nouns, pronouns and verbs are labelled with n, npro or v respectively. Words that are not labelled for their word class require further research.

Note that this dictionary is by no means comprehensive, and that many entries require further information. For example, *afauru* 'lip' might be an inalienable noun, marked with the non-subject suffix *a*-, as most body parts. And *unu* 'chew' may be a verb, as its meaning suggests. But my corpus does not provide information on the alienability of *afauru*, or on the word class of *unu*, so this information is not registered in this dictionary.

Binumarien - English

A a

adeedi nearby.

aa·da LH n fuzz (on plant).

aa·dana LH dry sagari aadanaki in a dry tree adi LH n skin, peel. qimaraa aadana usidanoo "my mouth is dry" I adiafaa v taste good adiafaa midanoo it tastes am thirsty. good. aadara brown mina asausi aadara maridanoo its adusa n empty peel, empty skin oo, adusa uganna feathers are brown. maridanoo "oh, he is skin only" oh, he is really aakaara n side oonaakaarai auru magaidanoo it lays its eggs between stones maa-aakarana afa n dead leaf. marifa he lives on this side. afaafusina n type of bird. aaka-qa LH n bush. afaaqa [INAL qifaaqa] n body afaaqa aakauqa n small string bag (bilum). qumbigarafa fat, full of meat. aaki yellow mina asausi aaki arirafa maridanoo afa·i HL [INAL qifai] n tooth afai sani tiafa "large its feathers are yellow. stone axe tooth" snaggletooth. aaku LH n rain aaku firaafa heavy rain aaku afaimaqua v drop off. dunoona drizzle see also: rua. afairia v shout, bark mifainifa kookapuna aakua v carry on shoulders daakua! carry me! afairimarufanoo... as this dog is barking at the aa·kuka· LH n mosquito. bees... afagaa v chase faigi oonuraafanoo nifageemarifa a·amara HL n hole aranaamara anus ooaamara mouth. it chases people that come by. Afa·qi·nnaa LHL nprop Binumarien Afaqinna ufa aa·na LH n road. Binumarien language Afaqinnaasa Binumarien aana·i LH [INAL daanai] n horn, claw (of a crab). place. aa·ndau LH n white hair. afaqiqara n married couple. aa·nda·u LHL n 1, animal 2, meat. afaqua v remove, take out. aanoo angry qinee aanoo midaqa I am angry. afaqumaraa v catch (in trap) compound of Aaooe·eooqa HL nprop 1. Aaooeeooqa afaqua, maraa. (Binumarien village) 2. Aaooeeooga (Binumarien afasa·afa HL [INAL qifasaafa] n older brother. family clan). afauru n lip. aaqa nearby. afeedana n tibia. aaqaa v miss, shoot wrong qapooki qumura sia aaqeennara you won't miss a rat in a trap. afe·eka HL strong mina afai afeeka maridanoo its teeth are strong. aaqoo HL [INAL daaqoo] n ear aaqoo siaifa "he has no ears" he knows nothing, he is crazy aagoo afeeka· LH n nit. aunirafa "his ears are closed" he is deaf, he is crazy. afeenana n kangaroo. aaraa v call eegamoosara aaraidanoo he calls the afeeqaa v push. afianaa v urinate. aararaa v be hungry daararaidanoo I am hungry. afiri [INAL qifiri] n forehead. aateena n river mouth. afoodu plough. abee maybe abee mifa qimariannoo...? maybe he afu H [INAL qifu] n 1. eye sia afukai qafaanee you is talking ...? cannot see it just with your eyes 2. lid (of jar) adaaqia v help qini dadaaqia! help me! afu atuqaa! open the lid! adaka LH n middle, tree stem. afuma n island. adasa· LH n greens. afundana H n thigh.

afundi stink *kaaqa* afundimarifa maridanoo he really stinks.

afuru night.

aii interj exclamation of regret, sorry aii, sia ani qafeeqa oh sorry, I didn't see you.

aiaqee n exclamation of regret, sorry 'aiaqee' qimamaqaidaqa, sia maridanoo "I say sorry to you, it is not there" I apologise, there is nothing left.

aika H n stick ruakairira aika peddle.

aiki H [INAL daiki] n nose.

ai·ku HL [INAL qiku] n leg, foot.

ainaina n 1. thing maafa nana ainainee? what kind of thing is this? anee ufa kai qidana, ainaina sia auqeemariananoo you are only talking, you don't do anything mandainaina bad thing, evil 2. family qini qikoona ainaina my father's family.

ai·no·o LHL n fat.

aiqaa v 1. go away faini aiqaree sandanau the dog ran away 2. send mina akoofa aiqeenoo his father sent him.

ai·qa·ma LHL every, each aiqama saqari every tree aiqamausa everyone.

aireeqa n trap in a tree.

aka·naana HL n emergency back door.

akaqa₁ LH some akaqa saqari qaqamma some tree fruit akaqafa maqaki maridanoo some (of them) live in the ground akaqausa several, few (of them).

akaga₂ n hole sagari akaga tree hole.

akaqa₃ H [INAL qikaqa] *n* younger brother.

akara paint, write see also: ria.

akaraa v climb saqariki akaramafinoo he climbed in a tree.

akararumaa v write down compound of akara, rumaa.

aki·iqa HL [INAL qikiiqa] n head.

akoofa H [INAL qikoofa] *n* **1.** father *qini qikoona* anoofa the mother of my father **2.** boss, owner mifainina akoofa the owner of this dog **3.** male mifainifa akoonafee anaaseefee? is this dog a male or a female?

akoona·iqi LH [INAL qikoonaiqi] n boy.

akoonnana LH *n* thumb, big toe *qisauku* akoonnana my thumb.

akooqakaa boring.

aku· LH ripe *eeqaku aku qarafa maridanoo* the banana is ripe.

akumu H n shoulder.

akuqu crack oondaaniuqa suqusaidanoo, akuqu naidanoo picking up stones, it cracks and eats them.

amaa v hinder.

amaakir·i HL n tongue.

amaana H n religion amaana maaqa house of worship, church.

amaana moona n stomach.

amaaqini H n chin.

amana 1. can, be able to amanee mifa sarariannoofee? will she be able to play? 2. enough, alright amana, sia minara iria it's allright, don't worry about it 3. try kaqikaaqoo amanamasee qafaa! try a bit and see!

amanee H n leaf.

amanna weak.

ama·qi· LHL n meat.

amara n forked stick, forked branch.

amasasa see: asasa. ameema n hill, slope.

ameemaanai n aside, next to kamuqkamuna fannoo saaka ameemaanai maridanoo the passion fruit is next to the sugarcane.

ame·esa HL n tail ani akiiqaki ameesa maridanoo you have a tail on your head.

ami·qi HL good, beautiful yeroofanoo amiqirafa maridanoo the yellow one is nice.

ammuqu n bud.

amoonduna n top of head.

amooni H n type of fern.

amuaaqa upside ani amuaaqa aqufinoo "it climbs your upside" it climbs on you.

amuaqu [INAL qimuaqu] *n* belly *amuaqu faqaa* pregnant.

amudaani H n bone akiiqa amudaani skull aqaasana amudaani rib cage.

amunna H n cloth, clothes.

anaadoo n old garden.

anaaku [INAL qinaaku] *n* grandfather *qineeqa ninaakuna amiaqa* let's give it to our grandfather.

anaakumaaka n daughter-in-law.

ana·ama HL n breast.

ana·amu HL n nest, hive, web, casing kookapuna anaamu beehive soofa anaamuki upeekaa! put the soap in the box!

anaanu n handle uqa anaanu the handle of a string bag. ana-aqi HL n baby, small child manaaga anaagi baby girl faiqi anaaqi human baby kuara anaaai piglet. anaaqianna n back (body part). ana aqnaa HL n type of greens (aibika). anaasee H 1. n woman fasiqa anaasee people 2. female mifainifa akoonafee anaaseefee? is this dog a male or a female? anasa·afa HL n older sister. anaufa [INAL qinaufa] n uncle. anaukoo [INAL qinaukoo] n parent. andaana n burrow gumura andaana rat hole. andanda· HL n grass. andeeqaa right, good eendimarifanoo aiqama ufa fannoo andeegaa taikeenoo when it became night, all talk ended right (arguments were over). andoorandoora wide trausasisa andoorandoora midanoo the trousers are wide. a-nee LH pron 2sg.sbj. anee nna LH pron 2SG.REFL. ane esa HL n hornbill. a·ni LH pron 2SG.NSBJ. ania v come mifa oonuree aniree... he comes and anindiri pron IDU.SBI. annaama H n liver. annai right (direction) asauku annai right hand. anniamma LH (Tok Pisin) n onion, scallion. anoofa H [INAL qinoofa] n mother qini qinoona akoofa the father of my mother. anoona LH 1. milk, juice umeerana anoona naidanoo it drinks the juice of the umeerana liane 2. river anoonai ooqufiqa I went down to the river. anu n mountain range mifa anusaa maridanoo he lives on the mountain range. anuka LH n neck mina anuka kisaaga maridanoo its neck is long. anunnu n nymph (insect). anuqua v go slowly. Anutufa n God Anutufa naríkai iridanoo only God himself knows.

apata· LH n skin sagarapata bark (tree).

api-pe-e LHL n peel.

aqaa v fly. aqaara v follow footprints aiku aqaaraa! follow the footprints! agama. LH n seed, fruit. agamana n string agamanannai maaga usakaseenoo maridanoo it (the spider) builds its house with strings. aqamaraa v fly, take off doo, quiqasee, aqamaree, fidanoo wel, it left, took off and went away compound of aqaa, maraa. agini H n forehead. aqnuma not ripe fafaiaga agnuma maridanoo the popaya is not ripe. aqoondi n friend anee aqoondi maridanoo you are her friend sia mina aqoondikidanoo you will not become friends with him. agoori n knee. aqoosa H n wing. agu 1. go downward, fall nammarikina magufinau he fell into the water 2. throw nammariki aqusaafanoo... they threw it into the water... aqumara throw down compound of aqu, maraa. aqumia v close, seal. araana n feces see also: qaa. ara·da LH [old-fashioned] n tadpole see also: kapaqioona. araisaga n garden waste dump. arananda n belly. ara-pee-poona LHL n spider (that makes webs). araqandaaraqa n type of pandanus. arageemu n buttocks. aratir·i HL n bird's tail. arikinaa *n* type of tree. aroosaana n type of bird. arua v hit, kill mifa kuara arinoo he killed a pig miganda para aridaga "they two kick ball" they play ball ginee gitaga arirara iridaga I know how to play the guitar. arumu n river source. asaana. HL n branch. asaaqai left (direction). asa·ata HL n elbow. asaida n twig. asakadi n nail, claw narasakadiki narasakadiki idaga they (animals) hold each other's claws. asasa enjoy, be happy ginee asasa midaga I am

happy.

asa·uku HL [INAL qisauku] *n* hand, arm *asauku qimia!* "give me your hand!" shake hands with me!

asau·si· LHL [INAL qisausi] n hair akiiqa asausi head hair afu asausi eyebrow ufini asausi feather

asooga LH n elder.

Asooqa Amudaani nprop Asooqa Amudaani, place near a cave where ancestors were buried compound of asooqa, amudaani.

asukua v skin maasa mina arusee apata asukusee minannai dukaanaa fufidaqa we kill it, skin it and make a drum of its skin.

asukuna dark.

asumu LH n seedling, baby faini asumu puppy.

asuru· LH n small, high cloud.

ata·aka HL n fireplace.

ataatoo [INAL qitaatoo] n grandmother.

ataufaka H *n* **1.** backbone **2.** frame of an oblong roof.

ateekaa v cut (across the width) sisisa fannoo akiiqasausi ateekaidanoo the scissors cut the hair.

ati n 1. piece 2. (family) member qini atiuqa Gorokai maridaga my family lives in Goroka.

atiqara sideways.

atuka· LH n 1. root, base 2. Atuka, Gadsup village near Binumarien.

atuna n old nest.

atuqaa v open *mifa buturakiqari afu atuqanau* he opened the lid off the bottle.

auka poison see also: auku₂.

auku₁ cut mina akiiqasausi aukinoo he cut his hair.

auku₂ poison see also: auka.

aukuana n 1. year mifa sikisa aukuana faqaafa maridanoo she is six years old 2. Christmas.

aukunu n tear qini daukunu umidanoo "my tears come down" I am crying.

aumooku n tree trunk.

aumu·ru HL n heap.

auna [INAL dauna] n younger sister ani auna maridanoo, sia arua! it is your little sister, don't hit her!

au·ndai HL n lung.

a·undura LH n inside qini daundura fannoo amiqi midanoo "my inside is good" I am happy.

aupuraa v hurt.

auqaa v 1. do, make mifa nanainaina auqaidanoofee? what is he making? 2. wash see: nammarauqaa.

auqaauqaana n type of waterstrider.

auqu [INAL duqu] *n* name *qini duqu Paqoosa* my name is Paqoo.

auqua v make, work mifa anaamu auquseenoo, auru maqaidanoo it makes a nest and lays eggs.

auru₁ H n egg *minaki auru maqaidanoo* in that, it lays its eggs.

auru₂ n flame ida auru flame of fire.

aururu H n upper arm.

ausu put inside.

aututu n dry leaf.

Bb

ba·rainna· LHL (Tok Pisin) *n* (bamboo) blind. ba·taqa· LHL (Tok Pisin) *n* avocado. beeta (Tok Pisin) *n* bed. **bo·o** HL *interj* exclamation of surprise. **butura** (Tok Pisin) *n* bottle.

D_d

dafari n type of flower.

damuna n broom.

daparana n type of bird.

dapu n shrubs qinee dapu aamaraki keeqaanaura I will go inside the hole in the shrubs. dauni soon, fast dauni uqanna maana paqurinaranoo you will meet this person very soon.

deeda ready qinee kuara arirara deeda qidaqa I am ready to kill a pig.

deena n hummingbird.

deepi *n* blessing moo deepi maridanoo it is a blessing.

didinna n type of grasshopper.

difusa n type of bird.

dimaa v urinate.

dinni other side dinni dinni both sides.

diri hang kaakaanauqaindi saqari asaanai diriiqee maridaqa the flying foxes are hanging on tree branches.

do·o HL COMP doo, maria! "you stay!" goodbye!

doodaani H *n* small insect *mifa doodaani naidanoo* it eats insects.

do·ofee HL okay, goodbye.

doo:na LH n mud.

dudeeqi n bright star.

dufi dufi thanks.

dukaa·na·a LHL n drum (kundu).

du·na HL tomorrow duna kananaana maniannoo he will come tomorrow morning.

du·nda LH n ashes.

dundu black *mifa dundu qarira ufini* it is a black bird.

dundu qaridafa n type of black fern.

duru n bow duru feefa bow and arrow.

du·u LH *n* type of yam.

Еe

eefari n lizard.

ee·feeda LH n kunai grass.

eekara H 1. white 2. cockatoo.

eemboona· LH n type of plant.

ee·nda LH *n* yesterday *eenda Paqoofa sugurai finoo* yesterday, Paqoo went to school.

ee·ndaki LH night eendaki(fee)! goodnight!

eendi dusk aiqama eendirana iaqarana all day and night.

eendimari (late) afternoon *eendimari!* good afternoon!

eeneemari *n* early afternoon *eeneemari!* good afternoon!

ee·o·o LHL yes eeoo, qinee maqoo faiqeeqa yes, I slept here.

eeqa· LH n banana.

e-eqa LH pron ISG/PL.REFL.

eeqaku n dessert banana eeqaku qarirafa yellow.

eeqamoosa LH n frog.

ee·ri·maana LHL n earwig.

F f

faa-fisa LH n type of greens (aibika).

faandi n eel.

faaqarua v shout moomoo kari mifa faaqaridanoo he shouts many times.

faaqee sit down misauqaindi miqirinasaa ooqufaaqee idaqa they sit down on this log.

faasaana n day faasaana eendaki day and night.

fadi n type of rat.

fafa later, anon ani anaakufa fafa aanoo qiannoo your grandfather will be angry.

fafaiaga (Tok Pisin) n popaya.

faifi spend the night nandaki faifiqa saikiqa I spent the night in the forest and prepared a garden.

faini LH n dog.

faiqa v sleep, live saqariki faiqaidanoo he sleeps in a tree qinee maqoo faiqaidaqa I live here.

faiqi· LH n child kumaaraa faiqi son manaaqa faiqi daughter.

fa-iqi LH [PL fasiqa] n 1. man fasiqa anaasee people faiqi firaafa important man, elder 2. person mifa faiqi kuqirariafanoo kai ufa qidanoo it only makes a sound when a person is going to die.

faira·ka HL n type of tree.

fakara flaking skin.

fakeendanda amuna n type of white flower.

fannoo FOC tarika fannoo akaqafa maqaki maridanoo some ants live in the ground.

faqaa be with, have *qinee qaaramoo faiqi faqaasa* maridaga I have three children.

faga·ana LH n spear.

fara-fuari LH n type of bird.

faramaqtana · LH n type of frog.

fasa period saika fasa the period of prepairing new gardens.

fasaa· LH n type of bird.

fa·sa·u LHL n star. fasiqa see: faiqi.

fataa v scrape.

fatika slide.

fau-faari LH n fly (insect).

feefa· LH n arrow duru feefa bow and arrow.

feemu n type of dish (like bread).

feetutareena n type of bird.

fidi chug out.

fidika *n* **1.** blood **2.** family member *fidikauqa* family members.

fifau nothing *mifa fifau sandeenoo* he ran away for nothing *kaqi fifau maridanoo* nothing happens.

findi go up, get up *kananaana findifi qafanau* in the morning, he got up and looked.

fi·nika LH v type of tree.

fio·osa LH n wallaby.

fiqaa₁ v gather nari eeqamoosa afiqamareenoo he picked up his frog.

fiqaa₂ v overtake, pass mina akoofa fiqaree finau his owner passed him.

fiqa·ura HL n type of small, brown frog.

fiqu fiqu round mifa fiqu fiqu qirafa it is round.

firaa· LH big, large firaa saqari big tree kaqikaqoo firaa medium-sized Paqoofa minara firaaqoo naanaidara qidanoo Paqoo laughs hard at him.

firimbiri LH n pumpkin.

fooka. LH n whistled speech.

foonimbooniri oscillate.

fooqaa be similar, the same *mina asausi patuqa* fooqaafa maridanoo its feathers are like a duck's.

foo·rina HL n type of pandanus

fua [DEP fifi] v go sia kaqikaqi fidanoo he does not go fast.

fufua v manufacture *Kirisimasasaa faiqi aireequfana fufidaqa* at Christmas, men make a tree trap.

fu·ka HL new.

fuka·a LH n tobacco manda fuka marihuana.

fusakia v rejoice *nanda fusakinoo nidanoo* it flies around and it rejoices in the forest.

fu·seena LH n cassowary.

futura see: butura.

Gg

gitaqa (Tok Pisin) n guitar qinee gitaqa arirara iridaqa I know how to play the guitar see also: arua, piripunna.

Ιi

iaqa v dawn aiqama eendirana iaqarana all day and night.

i·da LH n fire see also: qaa, qaania.

idaaqira something good idaaqira ufana maridanoo it is a good trap.

idaara n supporting stick.

idi song, dance maasa idi raidaqa we perform a dance see also: raa.

i·du LH n type of betelnut (kawiwi).

idunaura n lime powder.

ikiraqaa v cry, weep Paqoofa ikiraqaidanoo faaqaridanoo Paqoo cries and shouts iki manda iki uqanna raqeenoo he cried badly, he cried really hard.

ikoo H n seed.

ima·aku HL n calf of leg.

indaku n shovel.

indinda shiver mifa indindimarifa he shivers.

indufu dig.

indumu n type of reed.

inna·aruna LH n sky innaaruna qidanoo "the sky speaks" it is thundering.

i-nnee HL pron 2PL.SBJ.

i-nneeqa HL pron 2PL.REFL.

i-nni HL pron 2PL.NSBJ.

inniqara pron 2DU.NSBJ.

innisaimbaga pron IPL.INCL.

innooqaa 1. swell ukaqa nimisaifanoo minifaaqafa innooqaidanoo the body they have bitten swells 2. grow up.

iraa v ask iraa miria! ask and you know!

iree aree *n* very slowly iree aree uqasee finoo very slowly he leaves and goes away.

ireeda slowly *mifa ireedakai findifinoo* he got up and went away slowly.

iria v hear, know, give thought mifa qiniara iridaqifaqa he hears me mifa qiniara iridanoo he knows me amana, sia minara iria it's allright, don't worry about it.

irirasu [literary] n ladder see also: rataqa.

iroosa n type of bandicoot.

isaaqa· LH n ginger.

iuaaoona n type of bird.

Κk

kaakaana n flying fox.

kaaqa afai tiafa kaaqa ukaqeemarifa its giant teeth bite hard.

kaasau wild.

kaatu n type of plant.

kadiaru n fishing worm.

kadida· LH n charcoal.

kadidaki n burned piece of land.

kafaa again Jenuarinaki kafaa anirandee eeqa maqusai fuanaura in January, I will come back and then I will go to my country.

kafeedara brown samaada kafeedara aandau firaafa the cuscus is a big brown animal.

kai only fuseena maqamau kai nidanoo the cassowary only goes around on the ground.

kaifaa see: kafaa.

kama become, grow doo, eeqamoosa anaaqi kamafinoo nidanoo well, the frog baby grows up and goes around.

kama·a LH n sweet potato.

kambiqaa v grow (crops).

kamuqkamuna n passion fruit.

kana·naana LH morning kananaana! good morning!

kapaqioona n tadpole see also: arada.

kapusa n type of bamboo.

kaqi small, nothing *kaqi* fifau maridanoo nothing happens.

kaqi·kaa HL small kaqikaa ufini a small bird kaqikaqoo firaa medium-sized.

kaqi kaqi hurry kaqi kaqi ia! hurry up!

kara (Tok Pisin) n car.

karasa (Tok Pisin) n grass.

kari time aiqama kari forever moo kari once moomoo kari many times.

karoonda n type of owl.

kasaana n type of wild pandanus.

kasaapaa n oblong wings (insect).

kasaasa H n type of tree.

kasikasi make noise.

kasoo stop sia kasoo a huge lot.

kasooqia v smoke (cooking) idasaa kasooqamaseeqa naidaqa we smoke it above a fire and eat it.

kauauaqa n type of plant.

keefaadi n mango.

keendi· LH n store.

keeqa go inside oonaamarai keeqafinoo faiqaidanoo it goes inside a cave and sleeps.

keera *n* type of tree.

Kena *n* Ken, place in Binumarien where the school is located.

kikiqia v stand oonisaa kikiqinoo marinau he was standing on a stone.

kikoona n swing (seat).

Kirisimasa (Tok Pisin) n Christmas.

Kirisinanamu n Southern Cross (constellation).

ki-saaqa LH long afai kisaaqa maridanoo its teeth are long kisaaqa qaaqana a high mountain.

koodide-ena LH n type of frog.

koofana n type of bird.

koofi (Tok Pisin) n coffee.

kookapuna n bee, wasp.

kookooma LH n dust.

kookoombaaraa carry on shoulders.

kookooraana *n* **chicken** *kookooraana fannoo 'kookooraqoo' qinau* the rooster said 'cock-adoodle-doo'.

koomaana *n* pouch *mina* anaaqi akoomaanaki maridanoo its young is in a pouch.

kooqaa v not (feel) like, not enjoy *firaaqoo* akooqaidanoo he really does not like it.

koo·qi LH *n* door *kooqi titaa!* close the door! *kooqi atuqaa!* open the door!

kootana H n type of plant.

kuara· HL n pig.

ku·fisa· LHL n bean.

kuinna (Tok Pisin) n queen.

kukee hide.

kukuma n type of bird.

kumaaraa LH young, youngster *kumaaraa faini* young dog.

kupee · n ant.

kuqaa true kuqaa?! really?!

kuqua v die anee arunafa munu kuqinoo you shot it and it died there.

kuraa v raise, erect.

kurusa kurusana n stone axe.

kurusaa v chop, cut (wood).

M_m

maami down below.

maani *n* landslide, place where the ground is uneven.

maaqa• HL n house Paqoona maaqai aniqa I came to the house of Paqoo aqtunafaqa maaqa traditional house amaana maaqa house of worship, church.

maaqanda pron ISG.DU.

maaqi over there.

maaqitina other side.

maaqoo here.

maa·sa LH pron 1. IPL.SBJ 2. IPL.NSBJ.

maatina here.

madaana outside.

madaapee n rubbish heap.

madika· LH n large hole, pond noodaana madika fish pond.

mafisaa v pull back, shudder.

manaaqa HL n girl manaaqa anaaqi baby girl.

manda₁ bad mandainaina bad thing, evil.

manda₂ say goodbye misa nimandeeqa ainufaqa... he told them goodbye and farewell...

mandirana n rainwater pond.

manika before.

maparoona n type of plant.

ma·qa LH n ground

maqa· maaqa LH n country, world see also: ma·qa.

maqaa₁ v walk.

maqaa₂ v give birth, lay (eggs) minasaa auru maqaidanoo on that, it lays its eggs.

Maqaanoonaa *nprop* Maqaanoona (Binumarien family clan).

maqannaa country see also: maqa.

maqee LH today.

magoo here.

magusa n 1. ground around the house 2. place.

maraa v 1. take minamusa marasee neeqa they took a tomato and ate it qaara uqoona maraseeqa... "two months taken" two months ago... 2. learn Afaqinnaa ufa maraidaqa I am learning the Binumarien language.

Maraqufa nprop Holy Spirit.

mararana landslide.

maria v be, stay eeqaku akuqarafa maridanoo the banana is ripe qinee mariananoo, mifa mariannoo if I stay, he will stay aneefee maridanee? "you stay, don't you?" how are you?

mataaqa (Tok Pisin) n Westerner, white person.

mataqooma LH n cuscus.

mee something like that, maybe.

meeqa there.

meerai on top of.

mia v give Paqoofa Afaakoona mikuarana aminoo Paqoofa gives this pig to Afaakoona asauku qimia! "give me your hand!" shake hands with me! mina ukaqa mia! bite him!

mi-fa LH pron 3SG.SBJ.

mi·na LH pron 3SG.NSBJ.

minamusa IGROUP.

mindari this place.

mini bring here.

miganda 3DU.SPEC.

miqi v be like that, do like that miqi qifanoo, mifa miqimminoo he speaks like that, and the other does like that.

migoo there.

mirinni above.

mirigoo above.

mi·sa LH pron 1. 3PL.SBJ 2. 3PL.NSBJ.

moo 1. [precedes noun] one 2. [follows noun] other nana moo? what else? moona amia! give it to somebody else!

moo·da·a LHL one modaafa finoo one person went away moodaa moodaa some, several.

mooka weird, crazy anee mooka mimariananoo you're being weird

moomoo many see also moo.

moona LH n day after tomorrow see also moo.

Mooseena Saunu [lit. "Moses' stick"] nprop Orion's belt (constellation).

muna. HL n smoke ida muna smoke of fire.

muna·na HL n type of plant.

munana n smoke of a new garden.

munu bring away.

muqu there.

muree LH n type of bandicoot (entirely black).

muri H n wart.

mu·ri LH n lemon, orange.

muru carry.

mu·suka· LHL n kitchen knife.

Nn

naa v eat, drink, smoke qinee sanguma naidaqa I am eating maize anoona naidanoo he is drinking juice.

naakunda n rope to make fire.

naanaa v laugh misa naanaidara qidaqa they are laughing mifa qumee naanaidara qidanoo he laughs stealthily.

naanaana n type of grasshopper.

naaqnaa·toona HL n type of waterstrider.

naaree·paa HL n type of casuarina tree.

naaru forever naaru naaru forever and ever.

naaruqaa old.

nafaasa n cheek.

nafisa· LH n coconut.

nakipuruna n type of bird.

nameera call mifa eeqamoosara nameera qidanoo he calls the frog.

nammandunna n along the river.

nammarauqaa v wash nammarauqarara anoonai ooqufiqa I went down to the river in order to wash (myself) compound of nammari, auqaa.

na·mmari LH n water.

nammarifa n female (women are traditionally given river names) Saraqa nammarifa (the woman) Sarah see also: nammari.

namuqaa fighting, trouble namuqaakama nimaqeemarifa maridanoo he makes trouble everywere.

nana what nana ainainee? what (sort of) thing (is
 it)?

nanaree why nanarau why not.

nanaura *n* type of tree.

nanda· HL n forest.

nandafa n male (men are traditionally given forest or bird names) Abaramma nandafa (the man) Abraham see also: nanda.

nandi n yam.

naqeera LH n cucumber.

narana food.

na·ri₁ LH pron 3SG.REFL.

na·ri₂ HL pron 3PL.REFL.

narusootupi n large type of bee.

nauma how much, how many nauma faini faqaafee maridanee? how many dogs do you have?

naur aiqi HL n elder man.

nianai far.

niaqa v miss kaakaanauqaindi kai niaqaida maridanoo, sia qumaraidanoo he misses the flying fox, he just does not catch it.

ni·mmuru LH n grass, weed.

noo·da·ana LHL n fish.

noonaafeesoona n type of bird

nua [DEP nini] v go around mifa aiqama qafuqakiaqa nidanoo it flies around in all the gardens.

nukuda· HL *n* sand *nukudarafoora* "like grains of sand" countless.

nukuna n type of wild duck.

numasa n type of liane.

numma· HL n louse.

nunuka · HL n type of mosquito.

nupuki n type of tree.

00

oo exclamation of surprise.

0.0 HL *n* mouth see also: aamara.

oo·kara LH n type of plant.

oombura n deep forest.

Oonafai nprop Oonafai mountain compound of ooni, afai.

oo·namu LH n cloud.

oondaani · HL n gravel.

oondanda: HL n rainbow.

ooni · HL n stone, rock.

ooni-da HL n stone oven compound of ooni, ida.

Oonikuradana nprop Oonikuradana, Binumarien village compound of ooni, kuraa.

oonu go upward.

ooqa first qinee ooqa faiqi maridaqa I am the firstborn child.

ooqai before ooqai maaqoo marunnana, sia maraqinnaranoo I was here first, you cannot throw me out ooqai mifa marunaki he was here before see also: ooqa.

o·oqoosa LH n cockroach.

ooqu downwards anoonai ooqufiqa I went down to the river.

ooraiki n snout, face compound of oori, aiki.

ooreeqa *n* type of cuscus.

oori n snout, mouth, face mina oori qusa its beak is short (of a bird) narooriki narooriki idaqa they (animals) touch noses oori runusee uqasee finoo his face fell and he went away see also: runua.

ooru upwards qimaaqa oorufiqa I went up to my house.

oorufana LH n type of pandanus.

oosaa·se·ena LHL n type of tree.

oosafarana LH n type of cook banana.

oo·sana HL n 1. nature mina oosana miqimminoo maridanoo its nature is like that 2. base 3. reason nana oosanaree anianoofee? for what reason did he come? 4. beginning 5. Genesis (first book of the Bible).

o·otoo·ma LHL n type of tree.

P p

paadura n type of wild banana.

padaku stuck upeekaseenoo, minaki padaku inoo maridanoo he went inside and got stuck in it.

padi padi everything and anything, whatever.

pai·pana· LHL n knife, machete.

pakaasina n flying squirrel.

paki· LH n gum.

pandaaqa H n grasshopper.

Papua Niu Gini nprop Papua New Guinea Papua Niu Gininni oorufiqa I came to Papua New Guinea.

paquria v meet, come across sia maana paqurinaranoo you will not find him here.

para (Tok Pisin) n ball miqanda para aridaqa "they two kick ball" they play ball see also: arua.

para·ndaa HL (Tok Pisin) n balcony

parainna see: barainna.

pa·soo·so·ona HLHL n type of spider.

patu (Tok Pisin) n duck.

pee-peennaana LH *n* butterfly.

Pinumaa·re·ena LHL nprop 1. Pinumaareena (Binumarien family clan) 2. Wantun river (the river that flows through Binumarien valley) 3. Pinumaareena (former Binumarien village).

pirai (Tok Pisin) n game miqanda tinna pirai idaqa they play a tin throwing game.

piripunna n guitar see also: gitaqa.

Piririqutuna nprop Piririqutuna mountain.

poopooda n not feel well.

Poopooqainda nprop Poopooqainda mountain.

poo·poo·qa·na HLHL n type of frog.

Qq

qaa v shine, spray suani qaidanoo the sun shines maaqa ida qeenoo the house burns down kaaqa araana qaidanoo it poos a lot.

qaania heat, give warmth mifa suani qaanirara it wants to sunbathe ida qaanidanoo the fire gives warmth.

qa·a·poona LHL n type of pandanus.

qaaqa·na HL *n* mountain *kisaaqa qaaqana* "long mountain" high mountain *qusa qaaqana* "short mountain" low mountain.

qaara two qaara afu two eyes qaaraqanda them

qaaramoo three qaaramoo fasiqa three men qaaraqanda them two compound of qaara, moo.

qaaroosaana n type of bird.

qaaru n broken tree.

qaasoosaana LH n type of dragonfly.

qafaa v see, look mifa aamaraki qafaidanoo he looks into the hole amanamasee qafaa! try out and see!

qafai *n* side, river bank *nammari qafainni* towards the river bank.

qafuana n bird of paradise.

qafuqa H n garden.

qa·inda LH n table, stretcher, closet.

qa·ira LH n wild pandanus.

gakeesa n type of lizard.

qamaaqa n mark.

qamaqa (Tok Pisin) n hammer.

qambaana n mid, middle mifa misa qambaanai marufanoo he is among them suani ambaanai at the mid of day.

qamoonna type of cuscus.

qamuka n finger, toe aiku qamuka toe nikuqamukasaa ireedakai ania "on their toes silently they came" silently they tiptoed in. qamuqusa H n heart qinee qimuqusa umaara maraidaqa I am sad ("I am carrying a heavy heart") qini qimuqusa fannoo amiqi midanoo I am happy ("my heart is good") eendamuqusai at midnight

qamuqusaa feel sorry fainiara qamuqusaidanoo he feels sorry for his dog see **qamuqusa**.

qapoo n screen of a rat trap.

poosa H (Tok Pisin) n pole, post.

pundikaa v jump pundikeeqa I jumped.

pu·pusamu LH n hail (precipitation).

putaa rotten qiriputaa rotten log.

putee n rat trap.

qaqaasa not wrapped.

qaraa move.

qarana n fence.

qareena n crocodile.

qeerairaa v be afraid of, avoid *qinee qeerairidaqa* l avoid it.

qia v say, speak, talk, tell, think Paqoo minara qidanoo Paqoo speaks about him 'qinee Eepirinaki eeqa sugura taikaanauree' qidaqa I think I will finish school in April mina afasaafa qimaminoo:... his brother said to him:... saaraku ufa qirara I want to tell about the cuscus.

qifi n drop.

qififaramu LH n raindrop, dew.

qima *n* type of tree.

qimapia v swim qinee qimapianaura I will swim.

qi·nee LH pron ISG.SBJ.

qi·ni LH pron ISG.NSBJ.

qi·ri LH n log.

qisafaaqi n married couple.

qo·odaa HL little, few qoodaa qoodaa very few.

qoofi LH n millipede.

qooma H n 1. type of cane grass 2. torch, lamp qooma kaaqaidanoo the lamp gives light.

qoosaaseena n type of tree.

qoosu H n border mark.

quapuna n type of owl.

qumaqua v plant.

qumaraa v grab, get hold of *doo moofaqa* qumareenoo well, he got hold of one.

qumbiqaa v fill sia amuaqu qumbiqaifanoo... when his stomach isn't filled...

qumisa red *mina* asausi qumisa arirafa maridanoo its feathers are red.

qumuaraa v steal kaaqa qumuarimarifa he actually steels.

qu·mura LH n rat.

qundaqia v tear down (tree), break along the length.

qu·qusa LH n fence.

qu·ro·ona LHL n type of parrot.

qusa short mina oorifaqa aratirafaqa qusa maridanoo its beak and tail are short miufafa qusa maridanoo this talk is short qusa qaaqana a low mountain.

qusasaa shortly, a little while aiqama ainaina qusasaa taikaannoo shortly, everything will end see also: **qusa**.

qusua v hook, pierce.

Rr

raa v sing maasa idi raidaqa we perform a dance. radukua v pull.

rafaaqafua v close in kaqi ani rafaaqafusee ukaqa amianoo he will just close you in and bite you.

rafusaki climb down rafusaki aqufua! climb down!

rafusua v lift umu nari faini rafususeenoo... he lifted his dog...

rai·me·ena LHL n type of pandanus.

raipaqua v take off (clothes).

raigara flat.

rakee 1. remove 2. break, tear rakee iaa! break it!

rakia v fight qaara fasiqaqara rakidamia two men are fighting.

rakiqaa v 1. put down 2. plant.

rakisia v watch out, watch over anee rakisia! you should watch out! eeqamoosa maraseenoo rakisi marinau he took a frog and watched over it.

rakooma n buttocks.

ramaqooqoosina n mantis.

randaa v 1. return ooqurandeeqa qimaaqa oorufiiqa I returned and went to my house 2. search randee marufanoo he is looking around.

rapee remove faiqi anaamu rapeemasaafanoo kaaqa ukaqaidanoo if a man removes the nest, they really bite.

raqaa v open oo tiaa firaana raqasaidanoo... he opened his giant mouth...

raqamaraa v break open compound of raqaa, maraa.

raraunuqu v stick out (your neck) anuka raraunuquseenoo... he sticks out his neck...

rarisaa v pull.

ra·taqa· LHL (Tok Pisin) n ladder see also: irirasu.

raudaa 1. break, come down 2. come out.

ria v paint, colour anukaki akara rirafa its neck is coloured akara ridaqa I am painting, writing see also: akara.

ripitiqa n tea bag.

rireetana n type of bird.

roofakana type of flower.

roo·ndana LH n type of cook banana.

rootana n type of tree.

rua v 1. like kaaqa nandara rimarifa he likes the forest very much 2. put inside, fill uqaki rua! put it in the string bag! 3. fall down (rain) aaku ridanoo it is raining.

ru·andi LH n type of frog.

rufari break.

rufeeka n gecko.

rufia v be afraid *ikiraqaidanoo* rufiaidanoo he cries and he is afraid.

rukamu break.

rumaa v put inside uqaki ruminoo he put it in the string bag.

runua v fall, cloud (face) oori runusee uqasee finoo his face fell and he left and went away.

rutaqua v be stuck mifa rutaqinoo maridanoo he got stuck.

sarara play miqanda sarara midaqa they two are saa no saa, unna qimariana no, you tell lies. playing. saaka· LH n sugarcane. sasamimi *n* type of tree. saamurua v fall down aniara saamuruannoofee sati n tree trunk. qunana sia saamuruananoo I thought you would fall down, but you did not fall down. sauna n pandanus. saara₁ H *n* centipede. sa·unu HL n stick. saara₂ H n type of plant. Sausasina nprop Sausasina mountain. saaraku n type of cuscus. sia NEG sia ginee asasidaga I don't like it. saarisa H n cricket (insect). siai be without, have not ginee dauna siaisa maridaga I don't have a little sister. saa·suna· LHL n axe. sianu. LH n 1. type of bird 2. egg of this bird. sa-beena LH n type of tree (used to make posts for houses). siara n grass skirt. safaa n eel trap. si·mbu·numuru LHL n type of plant. safasa n mountain. sisisa (Tok Pisin) n scissors. saikaa v work, cut, clean up (when preparing a soofa (Tok Pisin) n soap. new garden). sooqa (Tok Pisin) n shoe. sakaa v carry. stoora (Tok Pisin) n story. sa·kani LH n snake. stu·aqa· LHL (Tok Pisin) n shop. sakinaasa family ginee moomoo sakinaasa su·ani HL n sun see also: qaa, qaania. maridaga I have a big family. suanisaa n noon suanisaa! Good afternoon! sa·ma·ada LHL n cuscus. (around noon) see also: suani. sa·na LH n round taro. suara LH cold. sanda H n rope. su·gura· LHL (Tok Pisin) n school. sandaa v run mifa nammarinni sandanau he ran suka sour. to the water. **su·mba** HL *n* type of sweet potato (extinct). sandaaqi upside. sundana n type of wild pandanus. sanguma · LH (Tok Pisin) n maize. sundia (Tok Pisin) n soldier. sa·ni HL n stone axe. sugaa v cook. sa·oora· LHL (Tok Pisin) n shovel, spade. suganaa v cook and eat akagana idaki sa-garamanee LH green compound of sagari, suganaidaga they cook some on fire and eat amanee. them compound of: suqaa, naa. sa·qari LH n tree. suqua v pick (bird). su·runa LH n type of pandanus.

T t

taa·fee HL n stick taro.

ta·aka LH n type of tree.

taatapaureena n type of spider.

taatu·qeena LH n red flowering plant see also:
 taatu·qee.

tafa n hook.

taikaa v end, finish doo, miufafa taikeenoo well,
 this talk is finished nammari taikeenoo the
 water is gone.

taka H n type of frog.

takasu· LH n type of parrot.

takoosa dot, spot.

tamatoo (Tok Pisin) n tomato.

taqu H n bamboo.

tarika: LH n ant.

ta·rooka LH n type of plant, like stinging nettle.

tatooqeesa n type of grasshopper.

tatua v pull out.

tauna (Tok Pisin) n town.

taura (Tok Pisin) n towel.

tautia v scare.

tautu be startled qinee tautumaki saamuriqa I was scared and fell down.

tiaa giant firaa qareena tiaa nammariki maridanoo there is a giant big crocodile in the water.

timusa· LH n young animal (puppy, piglet).

tinna (Tok Pisin) n can.

tis aanu LH n type of plant.

titaa v close kooqi titaa! close the door! aaku firaafa titeemaridaqa, misa maaqaki marifaqa heavy rain closed them in and they stayed in the house.

titi tight trausasisa titi qidanoo the trousers are tight.

titira *n* type of branch.

toopira short maatoopira fasiqafa this short man.

tootooqa hot.

trausasisa (Tok Pisin) n trousers.

tuka· HL n box for lime powder.

tu·mana LH n type of yellow pandanus.

tumu · HL n type of greens.

U u

uaqaa v 1. look out, watch out anee uaqeedafakisia you should watch out! 2. hunt.

Uba·ndeena· LHL *nprop* Ubandeena (village in Binumarien) **2.** Ubendeena (Binumarien family clan).

udiraa v sniff, smell.

ueesa *n* type of tree.

ufa n talk, language anee ufa moomoo qidana you talk a lot Afaqinna ufa Binumarien language see also: qia.

ufaana· LH n trap.

ufai H n wind.

ufini LH n bird.

ufinifa n male (men are traditionally given forest or bird names) Abaramma ufinifa (the man) Abraham see also: ufini.

ufiqi make a bed.

u·fisoona LH n type of plant.

ufoona *n* **party** *ufoona rimaridanoo* he is throwing a party.

uindu aga LH (Tok Pisin) n window.

ukaqa bite mina ukaqa mia! bite him!

ukasi *n* large type of nymphe (insect).

umaarumu n echidna.

umeera n type of tree.

umi downwards.

umiqaraa v come down, devour

compound of umi, qaraa.

ummaara 1. heavy 2. trouble, misfortune, sadness misa naundura ummaaranamufaqa fia they went away with a heavy heart.

ummauru n crab.

ummeena n type of grub.

umooqu n type of greens.

umu come downward umuannee! come down!

unaareena n small type of reed.

unaku 1. dig **2.** search for food *unaku naidanoo* he looks around for food and eats.

undaanai snore Paqoofa undaanai qidanoo Paqoo snores.

undana n type of parrot.

unna lie mifa unna qidanoo he tells lies.

unnaareena n type of grass.

unu chew sia unusee naidanoo "he does not chew and eat" he does not chew before he swallows.

upa wet.

upeekaa v put inside mifa aamaraki nari akiiqa upeekeenoo he put his head inside the hole.

u·**qa** LH *n* string bag (bilum).

uqaa v 1. leave, let go mifa uqasee finoo he left and went away uqasee fua! let go and go away! mifa kuara araana uqidanoo he cleans up pig poo 2. put nammariki uqasaifanoo... he puts it in the water... 3. stretch mifa aiku uqidanoo he stretches his legs aaqoo uqasee irufanoo... he strains his ear and listens... asauku uqeerasee... he waves his hand... uqaana · LH n type of fowl.

uqamafi sit down (bird) *saqari asaanai uqamafidaqa* they sit down on a tree branch.

uqanna really oo, kaqikaafa uqanna maridanoo oh, it is really small.

uqaurua v make a hole.

uqina n cold place.

uqiqaana n forest house.

uqoona· LH n 1. moon 2. month.

uqua v 1. fold, manufacture eeqa uqusee! wrap the bananas!

uraaqara see: uriqara.

uri *n* ancestor story.

uriqara be big, surpass mina afeekakaimma uriqaranoo maridanoo his strength is great saaka fannoo kisaaqa eeqaku uraaqaranoo the sugarcane is longer than the banana.

uru come upward *mifa suani qaanirara kai afainni uridanoo* it only comes up to the river bank in order to sunbathe.

usakaa *v* build *mifa maaqa usakaidanoo* he is building a house.

usau n type of long grass.

usua v put inside mifainifa mibuturanaki akiiqa usinau this dog put his head inside this bottle.

uteeti mock *Paqoofa minara uteeti qidanoo* Paqoo makes fun of him.

Y y

yafe·e who ani auqu yafee? "who is your name?" what is your name?

yaifee where mifa yaifee maridanoofee? where is she?

ya·iree HL when yaireefee Paqoofa anianoofee? when will Paqoo come?

yana whom, whose yana maaqafee usakaidanoofee? for whom are you building a house?

ya·qoo HL where mifa yaqoofee maaqa usakeenoofee? where did he build his house?

yeroo (Tok Pisin) **yellow** *taatuqee tamatoofaqa yeroo tamatoofaqa maridanoo* there are red tomatoes and yellow tomatoes.

Binumarien affixes

a- [Ø- before /a/] 2/3.SG.NSBJ. -a 1. v IMP.SG. 2. v 2/3PL.NPST. -afa v 2/3PL.NPST.DS. -afana v ISG/PL.FPST.DS. -ana 1. v 2SG.NPST.DS 2. v ISG/PL.FUT.DS. -anaura v | SG.FUT. -annoo v 3SG.FUT. -aqa v IMP.PL. -ara n about fuseenara girara I am going to speak about the cassowary. -au see: -fau. d- see: qi-. -da v PROG. -ee v see: -fee. -fa n SBI. -faqa and, with anee ginifaga you and I faigifaga anaaseefaqa faiqifaqa manaaqafaqa men and woman and boys and girls. -fau [-au in certain contexts] NEG maana sia saakafau this is no sugarcane. -fee [-ee in certain contexts] ♀ nanee mifa meegai qafaidanoofee? what does he see over there? aakauqafee durufee a string bag or a bow. -foo QUOT 'yaifee fiifoo', qinau 'where did he go', he said. -foora EQ mina aiku faiqi anaaqi nikuarafoora maridanoo his legs are like a baby's legs. -i 1. v IND 2. v DUR 3. v SS 4. n see -nni. -ifa 1. v 3SG.NPST.DS 2. v 2/3PL.FUT.DS. -ifara v 2/3PL.FUT. -ina 1, v 2sg.FUT.Ds 2, v 3sg.FUT.Ds. -innara v 2SG.FUT. -irara v TEL qinee ani qafarara asasa midaqa I am happy to see you deena ufa girara I am going to say something about the hummingbird. -kai see in headword list: kai. -ki n LOC maagaki in the house nammariki in the -kina n inside soogakina in the shoe nammarikina under water. m- v meaning unknown, attaches to independent verbs in fast speech.

-ma v COMP.

maa- n DEM.PROX maafaiqifa this boy.

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-maga v BEN 'aigagee' gimamagaidaga I
  apologize to you.
-mau n on, over mifa oonimau makaranau he
  climbs on a stone.
mi- n DEM mifainifa this dog.
-mia v 2/3PL.S.
-mmi v INT mifa migimminoo maridanoo it is
  exactly like that.
n- see: ni-.
-na 1. n NSBJ 2. 2SG.
-nai n inside, throughout nandakinai throughout
  the forest.
-namu n COMI faiqinamu nifiqamareega... I
  picked up the children...
-nana v 2SG.NPST.
-nau 1. v 2SG.FPST 2. v 3SG.FPST.
-ndauru n around mina aanaindauru uagee
  marinau "around its antlers, he was looking
  out" holding its antlers, he was looking out
-ndiri n COM2 nari fainindiri with his dog.
ni-[n-before vowel] \frac{2}{3}PL.NSBJ.
-nnai n INSTR mifa qamaqannai maaqa
  usakeenoo he built a house with a hammer.
-nni [-i after /a/] n ALLA qafainni to the river bank.
-noo 1. v 3sg 2. v IMM.
-qa 1. v ISG/PL 2. 2/3PL.
-qanda n DU.SPC mifainiqanda these two dogs.
-gara n DU.NSPC fainigara two dogs.
-qari n ELA maaqakiqari out of the house.
-gau v 2/3PL.FSPT.
qi- [d- before vowel] ISG/PL.NSBJ.
-qiafana [-qia in fast speech] v ISG.FPST.
-ra see: -sa.
-runna n through, along nandarunna oonuree aniree
  inoo... through the forest it comes and goes...
-sa 1. [ra- on motion verbs] v SEQ 2. n PL.SPC,
  GROUP.SPC mifainisa these dogs see also: -usa.
-saa n on oonisaa on a rock.
-ufa 1. v 2/3PL.FPST.DS 2. v 3SG.FPST.DS.
-una 1. v 2sg.fpst.ds 2. v Isg/pl.npst.ds.
-uga n PL.NSPC fainiuga dogs.
-uqaindi n GROUP.NSPC fainiuqaindi (a pack of)
-usa [-sa following /a/] n GROUP aigamausa
```

everyone.

English - Binumarien

A a

able, can amana.

about -ara.

above *mirinni*; *miriqoo*. **afraid** *qeerairia*; *rufia*.

afternoon (late) eendimari.

again kafaa; kaifaa.

along, through -runna.

along the river nammandunna.

and -faqa.

angry aanoo.

animal aandau.

ant tarika.

ant (type of) kupee.

arm asauku.

arm (upper) aururu.

anon, later fafa. around -ndauru.

arrow feefa.

ashes dunda.

aside, next to ameemaanai.

ask iraa.

avocado bataqa. avoid qeerairaa. axe saasuna.

axe (stone) kurusa kurusana; sana.

B_b

baby anaaqi; asumu.

back (body part) anaaqianna.

backbone ataufaka.
back door akanaana.

bad manda.

balcony parandaa.

ball para.

bamboo taqu.

bamboo (type of) kapusa.

banana eega.

banana (type of) paadura; oosafarana;

roondana.

bandicoot (type of) iroosa; muree.

bank (river) qafai.

bark afairia.

bark (tree) saqari apata.

base oosana; adaka.

be maria.

bean kufisa.

beautiful, good amiqi.

become, grow kama.

bed beeta.

bee, wasp kookapuna.

bee (large type) narusootupi.

before manika; ooqai.

beginning oosana.

belly amuaqu; arananda.

betelnut (kawiwi) idu.

big firaa.

big, surpass uriqara.

big toe, thumb akoonnana.

Binumarien Afaqinnaa.

bird *ufini*.

bird of paradise qafuana.

bird (type of) afaafusina; aroosaana;

daparana; difusa; farafuari; fasaa; feetutareena; iuaaoona; koofana; kukuma; nakipuruna; noonaafeesoona; nukuna;

qaaroosaana; rireetana; sianu.

bite *ukaqa*. **black** *dundu*.

black fern dundu garidafa.

blessing deepi.

blood *fidika*.

body afaaqa.

bone amudaani.

border mark qoosu.

boring akooqakaa.

bottle butura.

bow duru.

box for lime powder tuka.

boy akoonaiqi.

branch asaana.

branch (type of) titira.

break rufari; rukamu.

break open raqamaraa.

break raudaa.

break, tear rakee.

break along the length qundaqia.

breast anaama.

bring away munu.

bring here mini.

broken tree qaaru.

broom damuna.

brother (older) afasaafa.

brother (younger) akaqa.

brown aadara; kafeedara.

bud ammuqu.

build usakaa.

burned piece of land kadidaki.

burrow (rat) andaana.

bush aakaga.

butterfly *peepeennaana*.

buttocks araqeemu; rakooma.

 $\mathbf{C} \mathbf{c}$

calf of leg imaaku.

call aaraa: nameera.

can tinna.

can, be able to amana.

car kara.

carry muru; sakaa.

carry on shoulders aakua; kookoombaaraa.

casing, web, hive, nest anaamu.

cassowary fuseena.

catch (in trap) afaqumaraa.

centipede saara.

charcoal kadida.

chase afaqaa.

cheek nafaasa.

chew unu.

chicken kookooraana.

child faiqi.

chin amaaqini.

chop, cut (wood) kurusaa.

Christmas Aukuana; Kirisimasa.

chug out fidi.

claw, nail asakadi.

claw (of a crab), horn aanai.

climb akaraa.

climb down rafusaki.

close titaa.

close in rafaaqafua.

close, seal aqumia.

closet, stretcher, table qainda.

cloth, clothes amunna.

cloud oonamu.

cloud (small, high) asuru.

cloud (face) runua.

cockatoo eekara.

cockroach ooqoosa.

coconut nafisa.

coffee koofi.

cold suara.

cold place uqina.

come ania.

come across, meet paquria.

come down umigaraa.

come downward umu.

come out raudaa.

come upward uru.

cook suqaa.

country maqannaa; maqa maaqa.

crab ummauru.

crack akuqu.

crazy mooka.

cricket (insect) saarisa.

crocodile qareena.

cry, weep ikiraqaa.

cucumber nageera.

cuscus (type of) mataqooma; ooreeqa;

saaraku; samaada; qamoonna.

cut auku; kurusaa.

cut (across the width) ateekaa.

D_d

dark asukuna.

daughter manaaqa faiqi.

daughter-in-law anaakumaaka.

dawn iaqa. day faasaana.

day after tomorrow moona.

dead leaf afa.

dessert banana eegaku.

devour *umiqaraa*. **dew** *qififaramu*.

die kuqua.

dig indufu; unaki. dislike kooqaa.

dish (type of) feemu.

do, make augaa.

dog faini.

door kooqi.

down below maami.
downwards ooqu; umi.

dragonfly (type of) qaasoosaana.

drop qifi.

drop off afaimaqua.

drum (kundu) dukaanaa.

dry aadana.
dry leaf aututu.
duck patu.
dusk eendi.

dust kookooma.

Еe

ear aagoo.

early afternoon eeneemari.

earwig eerimaana.

eat, drink, smoke naa.

echidna umaarumu.

eel faandi.

eel trap safaa.

egg auru.

elbow asaata.

elder asooga.

elder man nauraigi.

end taikaa.

enjoy, be happy asasa.

enough amana.

every, each aiqama.

everything and anything, whatever padi

padi.

eye afu.

F f

face ooraiki

fall aqu; saamurua.

fall down (rain) rua.

flower, type of dafari; roofakana; fakeendanda

amuna.

fowl (type of) uqaana.

fly aqaa.

fly (insect) faufaari.

fly, take off aqamaraa.

flying fox kaakaana.

flying squirrel pakaasina.

fold uqua. forever naaru. follow footprints agaara. forked stick amara. food narana. frame of an oblong roof ataufaka. foot, leg aiku. friend agoondi. forehead afiri; aqini. frog eeqamoosa. forest nanda. frog (type of) fiqaura; faramaqtana; koodideena; poopooqana; ruandi; taka. forest (deep) oombura. from, out of -qari. forest house uqiqaana. fuzz (on plant) aada. Gg game pirai. grandfather anaaku. garden qafuqa. grandmother ataatoo. garden (old) anaadoo. grass andanda; karasa. garden waste dump araisaga. grass skirt siara. gather fiqua. grass (type of) eefeeda; qooma; unnaareena; gecko rufeeka. grass, weed nimmuru get up, wake up findi. grasshopper pandaaqa. giant tiaa. grasshopper (type of) didinna; naanaana; ginger isaaqa. tatooqeesa. girl manaaqa. gravel oondaani. give mia. green saqaramanee. give birth, lay (eggs) maqaa. greens adasa. go fua. greens (type of) tumu; umooqu; anaaqnaa; go around nua. faafisa. go away aiqaa. **ground** maqa. go downward aqu. ground around the house maqusa. go inside keeqa. grow, become kama. go slowly anuqua. grow (crops) kambiqaa. go upward oonu. grow up innooqaa. God Anutufa. grub (type of) ummeena. good, beautiful amiqi. guitar gitaqa; piripunna. goodbye doofee. gum paki. grab qumaraa. H h hail (precipitation) pupusamu hang diri. hair asausi. happy, enjoy asasa. hammer qamaqa. have, be with faqaa. hand asauku. head akiiqa. handle anaanu. heap aumuru.

hear, know iria. **Holy Spirit** *Maraqufa*. heart gamugusa. hook tafa. hook, pierce qusua. heat, give warmth qaania. heavy ummaara. horn aanai. help adaaqia. hornbill aneesa. here maatina; magoo. **hot** tootooga. hide kukee. house maaqa. hill, slope ameema. how much, how many nauma. hinder amaa. hummingbird deena. hit, kill arua. hungry aararaa. hive, nest, web, casing anaamu. hunt uaqaa. hole aamara; akaga. hurry kaqi kaqi. hole (large, in ground) madika. hurt aupuraa. Ιi in -ki. insect (small) doodaani. inside aundura; -kina. island afuma. Ιj jump pundikaa. juice, milk anoona. K k kangaroo afeenana. knife (kitchen) musuka. kill, hit arua. know, hear iria. knee aqoori. kunai grass eefeeda. knife, machete paipana. Ll ladder irirasu; rataga. leg, foot aiku. landslide mararana; maani. lemon, orange muri. large type of nymphe (insect) ukasi. liane (type of) numasa. later, anon fafa. lid (of jar) afu. laugh naanaa. lie unna. lay (eggs), give birth maqaa. lift rafusua. leaf amanee. like rua. learn maraa. like that miqi. leave, let go uqaa. lime powder idunaura.

lip afauru.

left asaaqai.

little, few qoodaa.

live maria.

live (dwell) faiqa. liver annaama.

lizard eefari.

lizard (type of) qakeesa.

log qiri.

long kisaaqa. look qafaa.

look out, watch out uaqaa; rakisia.

louse numma. lung aunda.

M m

machete, knife paipana.

maize sanguma.

make, do auqaa.

make a bed ufiqi.

make a hole uqaurua.

make noise kasikasi. make, work auqua.

male akoofa.

man faiqi.

mango keefaadi.

mantis ramaqooqoosina.

manufacture fufua, uqua.

many moomoo.

mark qamaaqa.

married couple afaqiqara; qisafaaqi.

maybe abee; mee.

meat aandau; amaqi.

meet, come across paquria.

mid, middle gambaana.

middle, tree stem adaka.

milk, juice anoona.

millipede qoofi.

miss niaqa.

miss, shoot wrong aaqaa.

mock uteeti.

month uqoona.

moon uqoona.

morning kananaana.

mosquito aakuka.

mosquito (type of) nunuka.

mother anoofa.

mountain qaaqana; safasa.

mountain range anu.

mouth oo.

move qaraa.

much, very kaaga.

mud doona.

Nn

nail, claw asakadi.

name auqu.

nature oosana.

nearby aaqa; adeedi.

neck anuka.

nest, hive, web, casing anaamu.

nest (old) atuna.

new fuka.

next to ameemaanai.

night afuru; eendaki.

nit afeeka.

no saa.

noon suanisaa.

nose aiki.

not sia; -fau.

nothing fifau; kaqi.

nymph (insect) anunnu.

0 o

old naaruqaa. Orion's belt (constellation) Mooseena Saunu. on -saa. oscillate foonimbooniri. on top of meerai. other moo. on, over -mau. other side dinni; maagitina. one moo. out of, from -qari. one moodaa. outside madaana. onion, scallion anniamma. over, on -mau. only kai. overtake, pass fiqua. open atuqaa; raqaa. owl (type of) karoonda; quapuna. orange, lemon muri. owner akoofa. Pр plant (type of) eemboona; kaatu; kauauaga; paint, write akara; ria. kootana; maparoona; munana; ookara; pandanus sauna. saara; simbunumuru; tisaanu; ufisoona; pandanus (type of) araqandaaraqa; foorina; tarooka. oorufana; qaapoona; raimeena; tumana; play sarara. saruna; gaira; kasaana; sundana. plough afoodu. parrot (type of) quroona; takasu; undana. poison auka; auku. Papua New Guinea Papua Niu Gini. pole, post poosa. parent anaukoo. pond madika. party ufoona. pond (rainwater) mandirana. pass, overtake fiqua. popaya fafaiaqa. passion fruit kamugkamuna. post, pole poosa. peel adi; apipee. pouch koomaana. peel (empty) adusa. **pull** radukua; rarisaa. period fasa. pull back, shudder mafisaa. person faiqi. pumpkin firimbiri. pick (bird) suqua. push afeeqaa. piece ati. put uqaa. pig kuara. put down rakiqaa. place magusa. put inside ausu; rumaa; upeekaa; usua, rua. plant gumagua; rakigaa. Q q queen kuinna. Rr rain aaku. raindrop, dew qififaramu. rainbow oondanda. raise, erect kuraa.

right, good andeeqaa. rat qumura. rat trap putee. ripe aku. rat (type of) fadi. river anoona; nammari. ready deeda. river mouth aateena. really uganna. river source arumu. reason oosana. road aana. **red** *qumisa*; *taatuqee*. rock, stone ooni. red flowering plant taatuqeena. root, base atuka. reed (type of) indumu; unaareena. rope sanda. rope to make fire naakunda. rejoice fusakia. religion amaana. rotten putaa. remove rakee; rapee; afaqua. round fiqu fiqu. return randaa. rubbish heap madaapee. right (direction) annai. run sandaa. Sssand nukuda. shovel, spade saoora. shrubs dapu. say, speak, talk qia. say goodbye manda. shudder, pull back mafisaa. scallion, onion anniamma. side aakaara. scare tautia. sideways atiqara.

scallion, onion anniamma.

side aakaara.

sideways atiqara.

similar, the same fooqaa.

scissors sisisa.

scrape fataa.

screen of a rat trap qapoo.

search randaa.

search for food unaku.

see, look qafaa.

side aakaara.

sideways atiqara.

similar, the same fooqaa.

sing raa.

sister (older) anasaafa.

sister (younger) auna.

sit down faaqee; uqamafi.

skin adi; apata; asukua.

skin disease (type of) fakara.

seed ikoo.sky innaaruna.seed, fruit aqama.sleep, live faiqa.seedling, baby asumu.slide fatika.

send aiqaa.slope, hill ameema.shine, spray qaa.slowly ireeda; iree aree.shiver indinda.small kaqikaa.

shoe sooqa. small, nothing kaqi.

shop stuaqa.smell, sniff udiraa.short qusa; toopira.smoke muna.

shortly qusasaa.

shoulder akumu. smoke of a new garden munana.

smoke (cooking) kasooqia.

shout afairia; faaqarua.snake sakani.shovel indaku.sniff, smell udiraa.

snore undaanai.

snout, face ooraiki.

soap soofa.

soldier sundia.

some akaga.

something good idaaqira.

son kumaaraa faiqi.

song, dance idi.

soon, fast dauni.

sorry aii; aiagee.

sour suka.

Southern Cross (constellation)

Kirisinanamu.

speak, say, talk qia.

spear faqaana.

spend the night faifi.

spider (that makes webs) arapeepoona.

spider (type of) pasoosoona; taatapaureena.

spot takoosa.

spray, shine qaa.

stand kikiqia.

star fasau.

star (bright) dudeeqi.

startled tautu.

stay, be maria.

steal qumuaraa.

stem (tree) adaka.

stick aika; saunu.

stick out (neck) raraunuqu.

stink afundi.

stomach amaana moona.

stone axe kurusa kurusana: sani.

stone oven oonida.

stone, rock ooni.

stop kasoo.

store keendi.

story stoora.

story (ancestor story) uri.

stretcher, table, closet qainda.

string aqamana.

string bag (bilum) uqa.

string bag (bilum, small) aakauqa.

strong afeeka.

stuck padaku; rutaqua.

sugarcane saaka.

sun suani.

supporting stick idaara.

surpass, be big uriqara.

sweet potato kamaa.

sweet potato (type of) sumba.

swell innooqaa.

swim qimapia.

swing (seat) kikoona.

T t

table, stretcher, closet qainda.

tadpole arada; kapaqioona.

tail ameesa.

tail (bird) aratiri.

take maraa.

take off (clothes) raipaqua.

take off (fly) agamaraa.

talk, say, speak gia.

talk, language ufa.

taro (round) sana.

taro (stick) taafee.

taste good adiafaa.

tea bag ripitiqa.

tear aukunu.

tear, break rakee.

tear down (tree) qundaqia.

thanks dufi dufi.

there maaqi; meeqa; miqoo; muqu.

thigh afundana.

thing ainaina.

think iria, qia.

this place mindari.

three qaaramoo.

through, along -runna.

throughout -nai.

throw aqu.

throw down agumara.

thumb, big toe akoonnana.

tibia afeedana.

tight titi.

time kari.

tobacco fukaa.

today maqee.

toe, finger qamuka.

tomato tamatoo.

tomorrow duna.

tongue amaakiri.

tooth afai.

top of head amoonduna.

torch qooma.

towards -nni.

towel taura.

town tauna.

trap ufaana.

trap in a tree aireega.

tree sagari.

tree (type of) arikinaa; fairaka; finika;

kasaasa; keera; naareepaa; nanaura; nupuki; oosaaseena; ootooma; qima; qoosaaseena; rootana; sasamimi; taaka;

ueesa; umeera; sabeena.

trouble, fighting namuqaa.

trouble, misfortune ummaara.

trousers trausasisa.

true kuqaa.

trunk (tree) aumooku; sati.

twig asaida.

two qaara.

U u

uncle anaufa.

unripe aqnuma.

unwrapped qaqaasa.

upper arm aururu.

upside amuaaqa; sandaaqi.

upwards ooru.

urinate afianaa; dimaa.

$\mathbf{W} \mathbf{w}$

wake up, get up findi.

walk magaa.

wallaby fioosa.

wart muri.

wash nammaraugaa.

wasp, bee kookapuna.

watch out, watch over rakisia; uaqaa.

water nammari.

waterstrider (type of) auqaauqaana;

naaqnaatoona.

weak amanna.

web, hive, nest, casing anaamu.

weed, grass nimmuru.

weep, cry ikiraqaa.

weird mooka.

Westerner, white person mataaqa.

wet upa.

what nana.

when yairee.

where yaifee; yaqoo.

whistled speech fooka.

white eekara.

white hair aandau.

who yafee.

whom, whose yana.

why nanaree.

wide andoorandoora.

wild kaasau.

wind ufai.

window uinduaqa.

wing aqoosa.

wing (oblong, insect) kasaapaa. with -namu; -ndiri; -nnai. without, have not siai.

woman anaasee.

work auqaa, saikaa.
world maqa maaqa.
write, paint akara; ria.
write down akararumaa.

Y y

yam nandi. yam (type of) duu. year aukuana. yellow aaki; yeroo.

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yes eeoo. yesterday eenda. young, youngster kumaaraa. young animal timusa