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## **Eight Languages of the Admiralty Islands, Papua New Guinea**

**Sketch 5: LIKUM**

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## Sketch 5: LIKUM

**5.1. INTRODUCTION.** Likum (also called ‘Lekum’ in e.g. Ohnemus 1998, and ‘Malai’ in Capell 1962) is spoken on the southern shores of Malai Bay, a major indentation near the southwest end of Manus island. It is the most endangered of the eight languages described here. There appear to be two major reasons for this: 1. the small number of native speakers, and 2. its location near Lindrou, which evidently is an expanding language. The limited number of speakers alone probably would not place the future of Likum in such jeopardy, but unlike Bipi, Sori or Seimat, which are spoken on separate islands, and thus somewhat protected from dominance by larger languages, Likum speakers are in an area that is dominated by Lindrou, and are forced to learn this language to communicate with others outside their own village. Younger members of the Likum community presumably are learning Lindrou as a local language and Tok Pisin as a medium of wider communication, and probably have little incentive to continue the use of their native tongue. Data was collected from Benjamin Harry, then aged 14, between March 4 and March 7, 1975. Despite the dominance of Lindrou in the local area the speaker claimed to know only English and Tok Pisin in addition to Likum.

**5.2. PHONOLOGY.** The discussion of synchronic phonology is divided into: 1. phoneme inventory, 2. phonotactics, and 3. phonological alternations.

**5.2.1. Phoneme inventory.** Likum has 23 consonants and 5 vowels, as shown in Table 5.1:

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**Table 5.1:** The phonemes of Likum

Consonants					Vowels		
p	t	c	k	ʔ	i		u
pw					e		o
(b)		j	(g)			a	
	(d)						
	dr						
(bw)			(gw)				
m	n	ñ					
mw							
	s			h			
	l, r						
w		y					

In addition, contrastive length was recorded for both consonants and vowels, as discussed below.

Before proceeding, it should be noted that voiced obstruents are infrequent in the data collected. The rarest of these are /bw/, recorded only in *bwele?e* ‘on top of’, and *dru?ubwen* ‘k.o. large barracuda’, /g/, recorded only in *gen* ‘an edible plant, *Hibiscus manihot* (TP *aipika*)’, and /gw/,

recorded only in *gway* ‘fresh water’, and *gwey* ‘surf, wave in open sea’. Slightly more common is /b/, recorded in *ban* ‘large dove or pigeon’, *bita* ‘fur’, *burus* ‘tobacco’, *sabon* ‘point, cape (of land)’, *sebelan* ~ *sebeliy* ‘to stick, adhere; bird lime, breadfruit sap used to catch birds’, and *sebelan* ‘when’. Of these, *burus* is a loan from Tok Pisin for a non-indigenous plant, leaving just five other forms. One of these, *ban* ‘large dove or pigeon’ reflects POC \*baluc, and may retain the voiced stop in a native form, although this is contradicted by \*Rabia > *l-epi* ‘sago palm’, and \*boŋi > *pen* ‘night’, both of which reflect POC \*b as /p/.

For some time I was undecided whether to recognize a separate phoneme /d/ ([nd]). This was recorded in ten bases, including various combinations of [ndo] in third person non-singular pronominal forms. However, for three of these bases I was given variant pronunciations with [nd] ~ [ndr], and told that these correspond to differences between speakers in the same community. For this reason the evidence for a distinct phoneme /d/ appears weak, and I have decided to represent all such forms phonemically as /dr/.<sup>1</sup>

This leaves two voiced stops that are somewhat better-attested: /j/, which occurs word-initially in six forms, and medially in five, and /dr/, which occurs initially in 13 forms and medially in 15. In medial position /j/ was recorded in /ejaj/ ‘to swim’, /ejih/ ‘to fly’, /ejoh/ ‘to roast’, /lejen/ ‘to capsiz’, and /pwirije/ ‘trivet’. As noted in 5.3.12, many Likum verbs begin with /e/, which probably is a separate morpheme. If this analysis is followed, then nine of the eleven instances of /j/ that were recorded for Likum are word-initial. Where an etymology is available, as with POC \*api > Likum *jeh* ‘fire’, /j/ reflects \*y, and one might assume that this word is directly inherited, since it is basic, and appears to be the result of palatal glide accretion before initial \*a, a change that is widespread in the Austronesian languages of eastern Indonesia and Melanesia (Blust 1990). However, a similar fortition of secondary y- did not happen in POC \*apaRat > *yahay* ‘west wind’, calling *jeh* ‘fire’ into question as a native form.

Finally, the 28 words recorded with /dr/ may be loans from Lindrou, which -- as noted already -- appears to be gaining ground as a language of prestige among younger speakers.

Likum phonemes have their expected phonetic values except as qualified here. All stops and affricates are unaspirated, /c/ and /j/ are palatal affricates, /pw/, /bw/ and /mw/ are labiovelars (pronounced with lip rounding, not lip spreading in the release), /b/ is a voiced bilabial stop and /dr/ a prenasalized alveolar trill. Although /dr/ is automatically prenasalized, unlike the case in many Oceanic languages, /b/ is not. /m/, /n/, /ñ/ are labial, alveolar and palatal nasals, /s/ and /h/ are voiceless alveolar and glottal fricatives, /l/ an alveolar lateral, and /r/ a 3-4 tap alveolar trill.

In several examples /p/ and /k/ show optional voicing assimilation next to a vowel or nasal, as in /sapara/ = [sapára?] ~ [sabára?] ‘to throw, as a stone’, /kay m-paley/ = [kejmbálej] ‘mast, sticks that support the sail’, /pon kay/ = [póngaj] ‘wooden bowl, dish, or /je pa/ = [dʒɛ? pa] ~ [dʒɛ? ba] ‘I want to (verb)’. The desiderative marker /pa/ ‘want, desire’ was also recorded as [va] in a single case (/je pa kaʔan moh/ = [dʒɛ? va káʔan moh] ‘I want to eat taro’.

<sup>1</sup> In the interest of preserving this information, which would otherwise be lost, I cite all of them here: [móndah] ~ [móndrah] ‘seaweed used to weatherproof canoes’, [múndu] ‘tree sp.’, [nahandíne?] ‘younger sibling’, [ndáman] ‘ripe and soft’, [ndaw] ~ [ndraw] ‘star’, [ndo] ‘3PL’ (and derivatives), [ndúsi?] ~ [ndrúsi?] ‘freshwater eel’, [pendéku] ‘small frog that takes long jumps’, [sandaaken] ‘blue-green lizard’, [wandíja?] ~ [wandríja?] ‘false, lie’.

/t/ was initially recorded as alveolar, but in one specific case (*ettah* ‘full’) it was carefully noted that the medial geminate is dental/postdental. Whether this is a product of free variation, or is a phonetic detail that escaped my notice in other forms is not known.

The voiceless labiovelar stop /pw/ was recorded as [pu] in *pusi kay* ‘tree bark’, presumably a rapid speech form of /pwisi kay/, and in the variant pronunciations [pwítɛn] ~ [pútɛn] ‘node in bamboo or sugarcane’. In a single case it was also recorded optionally as [β]: /cepwien/ = [ʃɛpwíjɛn] ~ [ʃɛβíjɛn] ‘taboo’.

The nasals /m/, /n/ and /ɲ/ are articulated at bilabial, alveolar and palatal positions. Likum is unusual for an Austronesian language in having a palatal nasal but no velar nasal, although Maddieson (1984:63) reports this as a “very strong minor pattern” for languages with three nasals. The two examples of a velar nasal that are transcribed in my fieldnotes ([pónɣaj] ‘wooden bowl, dish’, and [pónkaj] ‘fish poison’ are best analyzed as surface realizations of underlying /n/, and are treated accordingly here.

Of the remaining segments /s/ is a grooved alveolar fricative, /h/ a glottal fricative, /l/ an alveolar lateral, /r/ a strongly trilled alveolar rhotic, and /w/ and /y/ labiovelar and palatal glides respectively.

The glottal stop presents an interesting set of problems. While there is *a priori* evidence of contrast intervocalically in pairs such as [rúweh] ‘two’ : [léʔu] ‘leaf’, [káʔi] ‘mother’s brother’ : [paj] ‘stingray’, or [kow] ‘door; fence’ : [kóʔow] ‘sea cucumber’, closer inspection shows that the distribution of intervocalic glottal stop is largely predictable. First, the glottal stop almost never appears between two vowels in the same morpheme if the first vowel is higher than the second. Thus, phonemic forms such as those in column A are realized phonetically as in column B with homorganic glide insertion, and are never separated by a glottal stop:

(1) First vowel higher than second

(A)	(B)	Gloss
/piahun/	[pijáhun]	afternoon, evening
/pwiey/	[pwíjej]	crocodile
/pwie/	[pwíjɛʔ]	fruit
/iew/	[íjɛw]	away from
/kieh/	[kíjɛh]	outrigger boom
/peliew/	[pɛlíjɛw]	bonito
/sier/	[síjɛr]	monsoon
/tie/	[tíjɛʔ]	to say, tell, speak
/terien/	[tɛríjɛn]	spotted, multi-colored
/ruani/	[ruwániʔ]	to drop, throw down
/uruay/	[urúwaj]	lobster
/kuey/	[kúwej]	first-born brother; e//sb

/luew/	[lúwew]	young
/rueh/	[rúweh]	two
/loloa/	[lolówaʔ]	to push
/ñokoan/	[nokówan]	yellow

Second, two vowels must be separated by a glottal stop if the first is lower than the second:

(2) First vowel lower than second

(A)	(B)	Gloss
/cain/	[ʃáʔin]	bad
/cei/	[ʃéʔiʔ]	negative marker
/haun/	[háʔun]	clean, new
/kai/	[kaʔiʔ]	mother's brother
/kao/	[káʔoʔ]	kind of heron
/kaoh/	[káʔoh]	rafter
/keu/	[kéʔuʔ]	wall
/leu/	[léʔuʔ]	leaf
/mao/	[máʔoʔ]	cream, as of coconut
/paoh/	[páʔoh]	tree with bark used to make baskets
/saun/	[sáʔun]	to bail, as a canoe
/waow/	[wáʔow]	thin bamboo used for fish spears
/yeum/	[jéʔum]	strike with fist

Third, if adjacent vowels have the same height the phonetic outcome of the sequence depends upon whether the vowels are identical or different. If they are identical a glottal stop is inserted between them; if they differ in frontness a glide homorganic with the first vowel is inserted between them:

(3) Vowel are same height

(A)	(B)	Gloss
/koli/	[kolíʔiʔ]	tail
/luluw/	[lulúʔuw]	mad, insane
/bwelee/	[bweléʔéʔ]	on top of
/pooton/	[poʔóton]	black
/drakaan/	[ndrakáʔan]	dirty
/cui-n/	[ʃúwin]	his/her bone
/kuik/	[kúwik]	octopus
/suih/	[súwih]	short yam
/eohow/	[ejóhow]	to hunt

The same is true across a morpheme boundary, as with /k-emi/ ([kémiʔ]) 'want to urinate' vs. *emi-iy* ([émiʔ-iy]) 'urinated', where it is indeterminate whether the automatic word-final glottal stop is

simply retained in the suffixed form, or is added between two identical phonemic vowels in sequence. There are a few exceptions to these patterns, as shown in (4):

(4) Apparent exceptions to patterns (1), (2), and (3)

Apparent exceptions to (1): [+hi] [-hi] has intervening [ʔ]

1. [celíʔeh] ‘bailer for canoe’
2. [níʔan] ‘barracuda’
3. [seríʔen] ‘wet’
4. [toníʔan] ‘know, recognize’

Apparent exceptions to (2): [-hi] [+hi] does not have intervening [ʔ]

5. [nówiʔ] ‘fish with barbels (goatfish?)’
6. [sówiʔ] ‘quick’

Apparent exceptions to (3)

7. [éjeh] ‘wood used to make fireplow’
8. [moʔóʔew] ‘kind of sea anemone’
9. [ʃoʔési] ‘nine’

No explanation can be offered for [celíʔeh], [seríʔen], or [toníʔan], but [níʔan] is bimorphemic (*ni* ‘fish’ + *an* ‘barracuda’), and is therefore not an exception to the general pattern, which applies only within a morpheme. [sówiʔ] ‘quick’ was also recorded as [suwiʔ], which may explain why the first pronunciation lacks a glottal stop in the upstep sequence, leaving just the word for ‘goatfish’ as an apparent anomaly.

Although not all examples conform to the generalization proposed here, the great majority do, and for this reason one might conclude that the glottal stop is not phonemic in intervocalic position. However, Likum has a length contrast in both consonants and vowels, and since the simplest practical orthography for the representation of long vowels is to write the vowel double, a phonemic representation without glottal stop between like vowels, such as /drakaan/ for [ndrakaʔan] ‘dirty’, would be indistinguishable from one intended to represent a long vowel, as in /kaaceh/ for [ká:ceh] ‘ladder’. For practical reasons, then, long vowels are written VV and heterosyllabic like vowels are written VʔV, even though the glottal stop in this environment is almost entirely predictable.

The glottal stop also occurs in final position, where again it does not appear to be phonemic. Although I recorded some words with final glottal stop and others with final vowel, my transcriptions are inconsistent, the same word being written sometimes with and sometimes without this closing consonant. Although my fieldnotes are too limited to support a confident assertion, it appears that citation forms are more likely to have a closing glottal stop, and that forms in phrasal context are likely to lose it. However, this may be true only where the following word begins with a consonant, as seen in [níʔan] ‘barracuda’ (= [niʔ] ‘fish’ + [an] ‘barracuda’). This in

turn suggests that Likum is a language in which closed syllables are preferred: where a phonemic form has a sequence of vowels these underlying segments are separated either by glides or by glottal stop in the phonetic realization. While a final phonetic glottal stop regularly deletes before a suffix, it is retained before word-boundary, even when followed by another consonant: /noʔo/ ‘nose’ > /noʔo-k/ [nóʔok] ‘my nose’, but /noʔo pow/ [nóʔoʔ pow] ‘snout of a pig’.

As the preceding transcriptions indicate, vowel values are standard, except that /e/ is [ɛ] (occasionally [ɪ]) in all environments except when preceding a palatal glide, where it is realized as [e]. /o/ is usually tense, but was occasionally heard as [ɔ]. Unlike the great majority of AN languages, but like some other languages of Manus, Likum permits contrasts such as *-e/* : *-ey/*, *-o/* : *-ow/*, or even *-i/* : *-iy/*, *-u/* : *-uw/*, as seen in the following examples:

(5) Contrasts of final vowel vs. final vowel + homorganic glide sequence

<i>-e/</i>	<i>-i/</i>	<i>-o/</i>	<i>-u/</i>
/ake/ ‘earthworm’	/mwi/ ‘dog’	/alo/ ‘inside’	/leʔu/ ‘leaf’
/pwie/ ‘fruit’	/pwili/ ‘mountain’	/cako/ ‘gecko’	/wanu/ ‘bathe’
<i>-ey/</i>	<i>-iy/</i>	<i>-ow/</i>	<i>-uw/</i>
/pukey/ ‘clam’	/iy/ ‘3SG’	/kalow/ ‘lagoon’	/luluʔuw/ ‘insane’
/pwiey/ ‘crocodile’	/eliy/ ‘there; that’	/kow/ ‘door; fence’	/uluw/ ‘tide, current’

What allows contrasts such as /pwie/ vs. /pwiey/ to be heard is twofold: phonemic final vowels are automatically followed by a predictable glottal stop, and there is no offgliding of pure vowels. The phonetic distinction in this pair is thus [pwíjɛʔ] ‘fruit’ vs. [pwíjej] ‘crocodile’, and similarly for each of the others: [mwiʔ] ‘dog’ vs. [ij] ‘3s’, [áloʔ] ‘inside’ vs. [kálów] ‘lagoon’, [léʔuʔ] ‘leaf’ vs. [lulúʔuw] ‘insane’, etc. The form /we/ ‘water’ was recorded both as [wɛʔ], as in [wɛʔ i pwáhak] ‘my saliva’, and as [wey], as in [wey súrun] ‘her breast milk’, but this appears to be the result of occasional glottal stop deletion in medial position and loss of syllabicity in the postvocalic high vocoid. Other examples of contraction that result from glottal stop deletion include /nahatu-n i eʔen alo-n/ > [nahátun jen álon] ‘pregnant’ (lit. ‘her child is in her belly’), /noʔo con/ > [nóʔʃon] ‘prow of canoe’, and possibly [samwéʔen] ~ [sámɛn] ‘knife’.

Stress was recorded in the early stages of elicitation, but not thereafter. In isolation word stress appeared to be relatively even on the penultimate and final syllables, with no evidence of contrast. In bimorphemic trisyllables such as /co-hahu/ ‘six’, or /co-rueh/ ‘eight’, stress was recorded on the penult, but in the monomorphemic trisyllable /asihen/ ‘sneeze’, it was recorded on the first syllable. Stress was not recorded for other polysyllables, and it consequently remains unclear whether the stress is penultimate or initial in phrasal context. I have transcribed it here as uniformly penultimate.

Both vowels and consonants were recorded as contrastively long, as seen in e.g. /kamuh/ ‘short’ vs. /kaamwi/ ‘sword grass’, /norey/ ‘to play’ vs. /nooni/ ‘last-born sister’, /pusuku/ ‘snail’ vs. /puusaku/ ‘flying fox’, /emuh/ ‘behind’ vs. /emmih/ ‘to dream’, or /etu/ ‘IPL.EX’ vs. /ettuh/ ‘to sink, drown’. This feature was not noted during the early stages of elicitation, with the result that

some errors in the recording of segmental length may remain despite efforts that were made in the field to recheck the data.

**5.2.2. Phonotactics.** As seen in Table 5.1, Likum has 23 consonant phonemes that occur in non-final position (as noted above, most voiced stops are rare, and may be limited to loanwords). In final position, however, only /k/, /m/, /n/, /h/, /w/ and /y/ are found in words that are clearly native. In other words, the following consonant classes or individual consonants are excluded word-finally: 1. palatals, 2. labiovelars, 3. voiced stops, 4. liquids, 5. /p/ and /t/, 6. /dr/ and 7. /s/. Three examples of –s were recorded: *burus* ‘tobacco’, *kokoros* ‘cockroach’, and *kawas* ~ *kawah* ‘friend’. The first two are transparent loanwords from Tok Pisin. The third may be a borrowing of Lindrou *kawas*, with optional adaptation to Likum phonotactics seen in the variant with –h.

Although some words now end with a vowel, Likum lost earlier word-final vowels. Even without comparative evidence this change is inferable from a recurrent pattern of lexicalized reduplication in which an earlier CVCV base is copied without the final vowel, as in *dramadram* ‘large black biting ant’, *seli lahalah* ‘noon’, *lumulum* ‘tidal wave’, *raharah* ‘kind of stingray with large mouth’, or *sekeseke* ‘pity, sympathy, love’. In two recorded cases this pattern of reduplication provides additional information about historical change: *kulukun* ‘talk in one’s sleep’, and *pwilipwin* ‘coconut shell’ show not only loss of the final vowel of earlier bases *kulu* and *pwili*, but also merger of \*l and \*n word-finally (giving rise to one of the features of Likum phonotactics, namely the absence of /l/ in final position).

There is virtually no evidence for consonant clusters in underlying forms. The only apparent counterexample recorded is *ponkay* ‘fish poison’. Given the general absence of -CC- this almost certainly is bimorphemic, although the meanings of the parts is unknown.

**5.2.3. Phonological processes.** Although the available data is too limited to confidently assert much about phonological alternations in Likum, three relatively covert patterns of alternation for consonants were observed. The first of these is an alternation of /l/ with /n/ that is confined to a single historical base (POC \*salan ‘road, path’): *sala-n* ‘channel, passage through the reef’, *sala gway* ‘water channel’, next to *san* ‘path, road’, the CVC form agreeing with the absence of final /l/ in lexicalized reduplications like *kulukun* and *pwilipwin*. The second is an alternation of /t/ with /k/, seen in *mwak* ‘snake’, but *mwatitalaw* (= *mwat i talaw*) ‘long black and white sea snake’ and *mwatiturukow* (= *mwat i turukow*) ‘kind of gray sea snake’, where the meanings of *talaw* and *turukow* are unknown. The last consonant alternation is seen in *nahantine* ~ *nahadrine* ‘sibling’, which evidently contains *tine* ‘mother’, and so probably means ‘same mother’ (/nahan tine/). In addition to these, the future/desiderative marker /ki/ was recorded with two allomorphs, [ki] before consonants, and [k] before vowels, as in [ki laʔ] ‘will go’, vs. [kemiʔ] ‘will/want to urinate’.

While each of these consonant variations is the result of conditioned sound change, and hence a synchronic alternation in complementary environments, the vowel /a/ shows free variation with /e/ in several forms, including at least /asihen/ ~ /esihen/ ‘to sneeze’, -/ay/ ~ -/ey/ ‘counting classifier for trees’, and /saʔa/ ~ /saʔe/ ‘sap’.

**5.3. GRAMMAR.** As in the other language sketches provided here, grammatical information in my fieldnotes is limited. The categories covered are: 5.3.1. the counting system, 5.3.2. personal



pronouns, 5.3.3. possessive pronouns, 5.3.4. demonstrative pronouns, 5.3.5. locatives and directionals, 5.3.6. questions, 5.3.7. causatives, 5.3.8. the attributive suffix, 5.3.9. reciprocals and reflexives, 5.3.10. imperatives, 5.3.11. tense/aspect, 5.3.12. morphology, and 5.3.13. miscellaneous (a catch-all for other bits and pieces that do not fit into the earlier categories).

**5.3.1. The counting system.** The basic numeral system of Likum (used in serial counting) was recorded as follows:

**Table 5.2:** Likum numerals used in serial counting

1 esi	50 lemenoh
2 rueh	60 cohaanoh (100-40)
3 taloh	70 cotunueh (100-30)
4 hahu	80 corunoh (100-20)
5 limeh	90 cosenoh (100-10)
6 cohahu (10-4)	100 sinak
7 cotaloh (10-3)	200 runak
8 corueh (10-2)	300 tulunek
9 coʔesi (10-1)	400 haanek
10 senoh	500 lemenek
11 senoh esi	600 cohaanek (1000-400)
12 senoh rueh (etc.)	700 cotulunek (1000-300)
20 runoh	800 corunek (1000-200)
30 tunueh	900 cosinak (1000-100)
40 haanoh	1000 rawa

Like most other languages of the Admiralty Islands, Likum uses a decimal system of counting (because there is an independent morpheme meaning ‘10’), but one best called an ‘imperfect decimal system, since the numerals 6-9 are subtractives: 1, 2, 3, 4, 5, 10-4, 10-3, 10-2, 10-1, 10. This raises a point that has not previously received adequate attention, namely that although nearly all languages of the eastern Admiralties use subtractive numerals for 7-9 some, like Likum, extend this to the number ‘6’ (= 10-4). Languages that use the majority pattern, with subtractives only for 7-9 include Nali, Ere, Loni, Lou, Bipi, Titan, Lindrou, Pelipowai, Pak, Leipon, Sori, Papitalai, Kuruti, Mondropolon, Lele and Kele. Languages that have subtractive numerals for 6-9 include Likum and Levei. Languages that use additive numerals for 5-9 are Seimat, Drehet and Nauna. While the last three languages clearly do not form a subgroup, it is likely that Likum and Levei do, with this extension of the subtractive numeral pattern being a key piece of evidence for their historical unity. Like Likum, Levei extends the subtractive pattern from ‘10’ to both ‘100’ and ‘1000’ (hence 60 = 100-40, etc. and 600 = 1,000-400, etc.). However, Drehet, which in other respects appears to be a close relative of Levei, has 5+1, etc. for 6-9, and the highly unusual system 50+1 = 60, etc. and 500+1 = 600, etc., leaving it unclear how the language expresses numerals such as ‘51’ or ‘501’.

The additive numerals 11-19 are formed by *senoh* ‘10’, plus a postposed lower numeral (10+1, 10+2...), while the multiplicative numerals 20-90 are formed by a preposed lower numeral plus

the last syllable of *senoh* ‘10’. No phonological changes were observed in additive numerals, but in multiplicative numerals various compressions and vowel changes occur, as seen in (6):

(6) Irregular morpheme compressions in Likum multiples of ‘ten’

rueh + noh > runoh	20	cohahu + noh > cohaanoh	60
taloh + noh > tunueh	30	cotaloh + noh > cotunueh	70
hahu + noh > haanoh	40	corueh + noh > corunoh	80
limeh + noh > lemenoh	50	co + senoh > cosenoh	90

Despite a general pattern in the formation of multiples of ten, there are several irregularities in particular forms. Both medial *-h-* and the final *-h* of numerals 2-5 drop in combination forms, and sequences of unlike vowels either contract to a single vowel (*rueh* > *ru-*), or become a long vowel (*hahu* > *haa-*). The development *taloh + noh > tunueh* is quite irregular, and its manner of formation obscure. In addition, *limeh + noh > lemenoh* shows a sporadic change of the penultimate vowel of the stem (*limeh*). In the numerals 6-9 the prefix *co-* seems clearly to mean something like ‘remove’, or ‘subtract’, and this is carried over in the numerals 60-90 (100-40, 100-30, 100-20, 100-10).

Multiples of 100 exhibit a different set of phonological irregularities. Historically, *sinak* derives from PMP *\*sa-ŋa-Ratus* (> *\*saŋat* > *\*sanat* > *\*sanak* > *sinak*), but synchronically it appears that the reflex of the original ligature + base for ‘hundred’ (*\*ŋa Ratus*) has been reanalyzed as a base morpheme *-nak*. In most cases the rules of combination with multiplier numbers are similar to those for multiples of 10, but ‘300’ (and the subtractive form for ‘700’) preserves the lateral of the base numeral ‘three’ rather than showing an irregular /n/. In addition, multiples of 100 show *-nak* ~ *-nek* allomorphy, the latter variant occurring with the multipliers 3-5, and (inconsistently) with the subtractive form ‘800’ (1,000-200). The reason for so much phonological irregularity in systems that show a fairly clear structural pattern is unclear, but is not unusual for languages of this area. No data was collected for multiples of 1,000.

In addition to the basic set of numerals used in serial counting Likum, like some other languages of the Admiralties, has special numeral sets used in counting particular nominal referents. Those for which data was collected are 1. houses, 2. pigs, 3. children, 4. trees, 5. leaves, 6. coconuts, 7. bunches of coconuts, and 8. fish, as shown in Table 5.3. The set used for counting coconuts (and perhaps some other referents) is identical to the basic set used in serial counting, and the sets used for pigs (*pow*), children (*nah*), leaves (*leʔun*) and fish (*ni*) were recorded as identical to one another, as seen here:

**Table 5.3:** Numerals used in counting referents of different noun classes

1) houses	2) pigs	3) children
1 esew selem	1 pow samo	1 nah pow samo
2 esew rulem	2 pow rumow	2 nah rumow
3 esew tululem	3 pow tulumow	3 nah tulumow
4 esew haalem	4 pow haamo	4 nah haamo

5 esew lemelem	5 pow lim <sup>wew</sup>	5 nah lim <sup>wew</sup>
6 esew cohaalem	6 pow cohaamo	6 nah cohaamo
7 esew cotululem	7 pow cotulumow	7 nah cotulumow
8 esew corulem	8 pow corumow	8 nah corumow
9 esew coselem	9 pow cosamo	9 nah cosamo
10 esew senoh	10 pow senoh	10 nah senoh
4) trees	5) leaves	6) coconuts
1 kay saʔay	leʔun samo	1 cikiley esi
2 kay ruʔay	leʔun rumow	2 cikiley rueh
3 kay tuluʔey	leʔun tulumow	3 cikiley taloh
4 kay haʔay	leʔun haamo	4 cikiley hahu
5 kay lemeʔay	leʔun lim <sup>wew</sup>	5 cikiley limeh
6 kay cohaʔay	leʔun cohaamo	6 cikiley cohahu
7 kay cotuluʔey	leʔun cotulumow	7 cikiley cotaloh
8 kay coruʔay	leʔun corumow	8 cikiley corueh
9 kay cosaʔay	leʔun cosamo	9 cikiley coʔesi
10 kay senoh	leʔun senoh	10 cikiley senoh
7) bunches of coconuts	8) fish	
1 cikiley sikam	1 ni samo	
2 cikiley rukam	2 ni rumow	
3 cikiley tulukam	3 ni tulumow	
4 cikiley haakam	4 ni haamo	
5 cikiley lemekam	5 ni lim <sup>wew</sup>	
6 cilikey cohaakam	6 ni cohaamo	
7 cikiley cotulukam	7 ni cotulumow	
8 cikiley corukam	8 ni corumow	
9 cikiley cosikam	9 ni cosamo	
10 cikiley senoh	10 ni senoh	

There are several points that merit some comment in this data. First, the order of elements appears to be always noun + numeral + nominal classifier. Second, the numeral may be either contracted (*esiʔ*: *se-*, *sa-*, *si-*, *rueh*: *ru*), or full (*taloh*: *tulu*, *limeh*: *leme*). Third, the vowel of the contracted form for ‘one’ varies between /e/ (*se-lem*), /a/ (*sa-moʔ*, *saʔay*), and /i/ (*si-kam*). Fourth, the bound form for ‘three’ is invariably *tulu-* with a different vowel than *taloh*, and a different consonant than *tunueh* ‘30’. Fifth, the contracted form of ‘four’ was recorded with a short vowel before laryngeal consonants (*hahu*, *haʔay*), but a long vowel elsewhere (*haanoh*, *haalem*, *haamoʔ*, *haakam*). Sixth, the form of the numeral ‘five’ varies between the free form *limeh* and the bound form *leme-*; in *lim<sup>wew</sup>* the syllable *.meh* and the classifier allomorph *-mow* appear to have contracted to *-m<sup>wew</sup>* in a way that has no known parallels. In addition to these observations the classifier used in counting pigs, children, leaves and fish varies in shape between *-mo* ([*moʔ*]), and *-mow*, and the classifier used in counting trees varies between *-ʔay* and *-ʔey* (‘3’ and the subtractive  $7 < 10-3$ ). Finally, since ‘10’ is invariant in all its uses, from serial counting to the counting of nominal referents, the

expressions ‘ten coconuts’ and ‘ten bunches of coconuts’ appear to be identical, despite distinct expressions for 1-9.

The numeral classifiers that can be isolated from these few recorded examples are: 1. *-lem* ‘houses’, 2. *-moʔ ~ -mow* ‘pigs, children, leaves, fish’, 3. *-ʔay ~ -ʔey* ‘trees’, and 4. *-kam* ‘bunches’ (in addition to coconuts cf. *pwie sikam* ‘a bunch of fruit’).

**5.3.2. Personal pronouns.** The Likum personal pronouns are shown in Table 5.4:

**Table 5.4:** Likum personal pronouns

singular		
1		je
2		ow
3		iy
dual		
1(in.)		teru
(ex.)		eru
2		ah
3		neru
trial		
1(in.)		tocetulumow
(ex.)		etucetulumow
2		etocetulumow
3		drocetulumow
plural		
1(in.)		to
(ex.)		etu
2		eto
3		dro

As in most other languages of the Admiralties, these pronouns function both as subject and as object, with subjects of transitive and intransitive verbs marked the same. Examples of usage appear in the following sample sentences:

- |    |     |     |       |                    |
|----|-----|-----|-------|--------------------|
| 1) | je  | e   | saʔah |                    |
|    | 1SG | COP | sweat | ‘I am sweating’    |
| 2) | ow  | e   | saʔah |                    |
|    | 2SG | COP | sweat | ‘You are sweating’ |
| 3) | iy  | e   | saʔah |                    |
|    | 3SG | COP | sweat | ‘S/he is sweating’ |
| 4) | je  | e   | saʔan | iy                 |
|    | 1SG | COP | see   | 3SG                |
|    |     |     |       | ‘I see him/her’    |

- 5) ow e saʔan etucetulumow  
2SG COP see 1TL.EX 'You see the three of us'
- 6) iy e saʔan je  
3SG COP see 1SG 'S/he sees me'
- 7) teru e saʔan dro  
1DL.IN COP see 3PL 'You and I see them'
- 8) tocetulumow e saʔan iy  
1TL.IN COP see 3SG 'We two and you see him/her'
- 9) to e saʔan ow  
1PL.IN COP see 2SG 'We all see you'
- 10) neru e saʔan ah  
3DL COP see 2DL 'The two of them see you two'
- 11) drocetulumow e saʔan etu  
3PL COP see 1PL.EX 'The three of them see us'
- 12) iy e saʔan teru  
3SG COP see 1DL.IN 'S/he sees the two of us'
- 13) dro e saʔan tocetulumow  
3PL COP see 1TL.IN 'They saw the three of us (including you)'
- 14) ah ke saʔan iy  
2DL COP? see 3SG 'The two of you are looking at him/her'
- 15) etocetulumow ke saʔan iy  
2TL COP? see 3SG 'The three of you are looking at him/her'
- 16) eto ke saʔan iy  
2PL COP? see 3SG 'All of you are looking at him/her'
- 17) neru ke saʔan iy  
3DL COP? see 3SG 'The two of them are looking at him/her'
- 18) ow w-uʔun gway  
2SG ?-drink water 'You are drinking water'
- 19) je w-uʔun we i cikiley  
1SG ?-drink water GEN coconut 'I am drinking coconut water'

- 20) ow y-uʔun we i cikiley  
2SG ʔ-drink water GEN coconut 'You are drinking coconut water'
- 21) iy y-uʔun we i cikiley  
3SG ʔ-drink water GEN coconut 'S/he is drinking coconut water'
- 22) je y-aʔan moh  
1SG ʔ-eat taro 'I am eating taro'
- 23) ow w-aʔan moh  
2SG ʔ-eat taro 'You are eating taro'
- 24) iy y-aʔan moh  
3SG ʔ-eat taro 'S/he is eating taro'
- 25) teru y-aʔan moh  
1DL.IN ʔ-eat taro 'You and I are eating taro'
- 26) eru y-aʔan moh  
1DL.EX ʔ-eat taro 'The two of us (but not you) are eating taro'
- 27) tocetulumow y-aʔan moh  
1TL.IN ʔ-eat taro 'The three of us (including you) are eating taro'
- 28) etucetulumow y-aʔan moh  
1TL.EX ʔ-eat taro 'The three of us (but not you) are eating taro'
- 29) to y-aʔan moh  
1PL.IN ʔ-eat taro 'All of us are eating taro'
- 30) etu y-aʔan moh  
1PL.EX ʔ-eat taro 'All of us (but not you) are eating taro'
- 31) ah y-aʔan moh  
2DL ʔ-eat taro 'The two of you are eating taro'
- 32) etocetulumow y-aʔan moh  
2TL ʔ-eat taro 'The three of you are eating taro'
- 33) eto y-aʔan moh  
2PL ʔ-eat taro 'All of you are eating taro'

- |     |                     |                 |                       |             |   |
|-----|---------------------|-----------------|-----------------------|-------------|---|
| 34) | neru<br>3DL         | y-aʔan<br>?-eat | moh<br>taro           |             | ‘The two of them are eating taro’         |
| 35) | drocetulumow<br>3TL |                 | y-aʔan<br>?-eat       | moh<br>taro | ‘The three of them are eating taro’       |
| 36) | dro<br>3PL          | y-aʔan<br>?-eat | moh<br>taro           |             | ‘All of them are eating taro’             |
| 37) | je<br>1SG           | pa<br>want      | k-aʔan<br>FUT-eat     | moh<br>taro | ‘I want to eat taro’                      |
| 38) | je<br>1SG           | pa<br>want      | k-emi<br>FUT-urinate  |             | ‘I want to urinate’                       |
| 39) | je<br>1SG           | pa<br>want      | k-epe<br>FUT-defecate |             | ‘I want to defecate’                      |
| 40) | je<br>1SG           | i-mak<br>?-die  | son<br>hunger         |             | ‘I’m hungry’ (lit. ‘I’m dying of hunger’) |
| 41) | alo-k<br>belly-1SG  |                 | ettah<br>full         |             | ‘I’ve had enough to eat’                  |

Unlike Bipi, in which the vowels /u/ and /o/ distinguish subject from object pronouns, these vowels appear to be used in Likum to distinguish first person exclusive and second person forms, as in *etucetulumow* vs. *etocetulumow*, or *etu* vs. *eto*.

In addition to the above personal pronouns another was recorded in the following:

- |     |            |               |               |               |                              |
|-----|------------|---------------|---------------|---------------|------------------------------|
| 42) | mwi<br>dog | sadrih<br>run | imi<br>toward | haweto<br>3PL | ‘A dog is running toward us’ |
|-----|------------|---------------|---------------|---------------|------------------------------|

The pronoun *haweto* in this sentence was said to refer to three or more persons, so it is possible that in addition to singular, dual, trial and plural numbers, the Likum system of personal pronouns further distinguishes limited from extended plurals.

Another thing to note about the above examples is the variation in the form of the verb ‘to eat’, which begins with *w-* in the 2SG, but with *y-* in all other persons and numbers. The singular forms *je yaʔan*, *ow waʔan*, *iy yaʔan* might give the initial impression that the base for ‘to eat’ is *aʔan*, and the observed variation is the phonetic consequence of the transition from the frontness/backness of the preceding vowel or glide in the pronoun to the low vowel of the base. However, many other examples, beginning with sentence (25) show that this does not work. Nonetheless, the likelihood that *aʔan* is the base, with *y-* and *w-* as prefixes, is increased by the form *k-aʔan* in sentence (37). Further discussion of this verb is found in 5.3.12.

Another feature requiring further attention is the variation between /ke/ in sentences (14)–(17) and /e/ in earlier sentences. It is tentatively assumed that /e/ functions as a verb introducer (perhaps once a typically Oceanic subject person marker, but person-marking distinctions have been lost in Likum). However, this raises two questions: first, if /e/ is a verb introducer, what is /ke/?, and second, why is a verb introducer not required in the subsequent sentences in which the verb is ‘to drink’ or ‘to eat’? In (37)–(39) /ke-/ marks the future, as it does in other Manus languages, but its function in (14)–(17) is not clear.

Finally, as already noted for other languages of the Admiralties, a conjoined subject that contains a noun and a pronoun is expressed with the first person dual exclusive pronoun followed by the nominal subject, as seen in sentence (43):<sup>2</sup>

- 43) eru John tose ki-la Momote aruah  
 1DL John ? PL-go Momote tomorrow  
 ‘John and I will go to Momote tomorrow’

However, unlike most other languages from which this construction was obtained, the Likum speakers with whom I worked also accepted a linking of personal name and pronoun with a conjunction, as in (44):

- 44) John ya/ma je tose ki-la Momote aruah  
 John and 1SG ? PL-go Momote tomorrow  
 ‘John and I will go to Momote tomorrow’

**5.3.3. Possessive pronouns.** Like many Oceanic languages, Likum distinguishes direct from indirect possession. Most, but not all body parts, kinship terms and the like (e.g. ‘name’, ‘shadow, reflection’) are directly possessed by pronominal suffixes. In nearly all cases these were recorded only in their singular forms, as illustrated in Table 5.5:

**Table 5.5:** Directly possessed nouns in Likum

Free base	1SG	2SG	3SG	Gloss
alo	alo-k	alo-m	alo-n	stomach, intestines
unattested	alo kapete-k	alo kapete-m	alo kapete-n	armpit
unattested	ate-k	ate-m	ate-n	heart; chest
unattested	cawe-k	cawe-m	cawe-n	back
unattested	cine-k	cine-m	cine-n	ear
unattested	cini-k	cini-m	cini-n	intestines
unattested	cokopare-k	cokopare-m	cokopare-n	neck
cui	cui-k	cui-m	cui-n	bone
unattested	cui kapete-k	cui kapete-m	cui kapete-n	rib
unattested	emiñe-k	emiñe-m	emiñe-n	urine
esi	esi-k	esi-m	esi-n	feces

<sup>2</sup> Cf. Lichtenberk (2000), where these kinds of constructions are called “inclusory plurals”.



esu	esu-k	esu-m	esu-n	gall (bladder)
unattested	iti-k	iti-m	iti-n	penis
kalaʔu	kalaʔu-k	kalaʔu-m	kalaʔu-n	skin
unattested	kapa-k	kapa-m	kapa-n	cheek
unattested	kapese-k	kapese-m	kapese-n	chin, jaw, gills
unattested	karameʔe-k	karameʔe-m	karameʔe-n	tongue
unattested	kase-k	kase-m	kase-n	shoulder
unattested	kelite-k	kelite-m	kelite-n	foot, leg
unattested	koha-k	koha-m	koha-n	breath
unattested	kusu-k	kusu-m	kusu-n	lip
lemi	lemi-k	lemi-m	lemi-n	hair, feather
unattested	lihe-k	lihe-m	lihe-n	tooth
lim	lime-k	lime-m	lime-n	hand
unattested	loa-k	loa-m	loa-n	kinsman, relative
unattested	melue-k	melue-m	melue-n	shadow, reflection
mita	mita-k	mita-m	mita-n	eye, face
unattested	mitasubuto-k	mitasubuto-m	mitasubuto-n	navel
unattested	mucu-k	mucu-m	mucu-n	back of the head
unattested	mweʔe-k	mweʔe-m	mweʔe-n	anus, buttocks
unattested	nahatu-k	nahatu-m	nahatu-n	child
unattested	nama-k	nama-m	nama-n	fat, grease
noʔo	noʔo-k	noʔo-m	noʔo-n	nose, snout
unattested	ñana-k	ñana-m	ñana-n	parent-in-law
ota	ota-k	ota-m	ota-n	flesh, muscle
unattested	pa-k	pa-m	pa-n	thigh
unattested	pare-k	pare-m	pare-n	throat
unattested	pawe-k	pawe-m	pawe-n	fat, grease
unattested	petu-k	petu-m	petu-n	head
pita	pita-k	pita-m	pita-n	trunk, body
unattested	pwaha-k	pwaha-m	pwaha-n	mouth
unattested	pwie-k	pwie-m	pwie-n	testicles
unattested	pwili-k	pwili-m	pwili-n	forehead, face
unattested	pwiʔi-k	pwiʔi-m	pwiʔi-n	vulva, vagina
unattested	sare-k	sare-m	sare-n	name
unattested	seli-k	seli-k	seli-k	flesh, muscle
unattested	selikelite-k	selikelite-m	selikelite-n	calf of the leg
unattested	suru-k	suru-m	suru-n	breast
unattested	tama-k	tama-m	tama-n	father
unattested	tine-k	tine-m	tine-n	mother

As seen above, most body part and kin terms were recorded only in possessed form. However, a few bases were also recorded as free forms. Some free forms, as *lim* ‘hand’, are shorter than the abstract bases posited from the possessive constructions, since they show a historical loss of the final vowel that was preserved in suffixed bases. In addition the consonantal onset of a final syllable may show other differences due to conditioned sound changes in the history of the language, as in *suru-k* ‘my breast’, *suru-m* ‘your breast’, *suru-n* ‘her breast’, but *suh* ‘breast (in

general)’. Some bases have also preserved final vowels in phrasal contexts although they are not suffixed, as with *alo lime-* ‘palm of the hand’ (lit. ‘inside of the hand’), *cui kapete-k* ‘my ribs’, *cui kapete-k*, *cui-n* ‘thin, skinny, as a person or animal’, or *esi pullen* ‘rain cloud’.

Indirect possession makes use of a freestanding postposed possessive marker that in all non-singular numbers consists of a host of the shape *te-* + pronoun. The second and third-person singular forms of this pronominal host are *to-* and *ta-*, which appear to be variants of *te-*, but the first person singular form evidently is a separate morpheme. This is illustrated in Table 5.6 for *cikiley* ‘coconut tree’, the only noun for which a full paradigm of indirect possessive marking was collected:

**Table 5.6:** Indirect possession illustrated with /*cikiley*/ ‘coconut tree’

singular			
	1	<i>cikiley se</i>	‘my coconut tree(s)’
	2	<i>cikiley toʔow</i>	‘your coconut tree(s)’
	3	<i>cikiley tatiʔiy</i>	‘his/her coconut tree(s)’
dual			
	1in.	<i>cikiley teru</i>	‘your and my coconut tree(s)’
	1ex.	<i>cikiley teteru</i>	‘our coconut trees (but not yours)’
	2	<i>cikiley teʔah</i>	‘the coconut trees of the two of you’
	3	<i>cikiley teneru</i>	‘the coconut trees of the two of them’
trial			
	1in.	<i>cikiley tetocetulumow</i>	‘the coconut trees of the three of us (including yours)’
	1ex.	<i>cikiley teʔetucetulumow</i>	‘the coconut trees of the three of us (not yours)’
	2	<i>cikiley tetocetulumow</i>	‘the coconut trees of the three of you’
	3	<i>cikiley tedrocetulumow</i>	‘the coconut trees of the three of them’
plural			
	1in.	<i>cikiley teto</i>	‘our coconut trees (including yours)’
	1ex.	<i>cikiley teʔetu</i>	‘our coconut trees (not yours)’
	2	<i>cikiley teʔeto</i>	‘your (PL) coconut tree(s)’
	3	<i>cikiley tedro</i>	‘their coconut tree(s)’

It is not clear that the entire possessive paradigm was collected for this form, since the 1TL.IN and 2TL possessive forms in my fieldnotes are identical. I assume that *cikiley tetocetulumow* is the 1TL.IN form, since it consists of *te* + the 1TL.IN personal pronoun. However, the 2TL personal pronoun differs from this only in lacking the initial consonant, so the matter remains uncertain. One other area of uncertainty in this paradigm concerns the 1DL forms, as *cikiley teteru* was recorded as a 1DL form without regard to the inclusive/exclusive distinction, as was *mita teru* ‘our (dual) eyes’, and it is essentially arbitrary which of these is assigned to either the inclusive or exclusive category, since in the personal pronouns, for which I have greater confidence, the inclusive form is *teru* and the exclusive form *eru*.

As just noted, and as seen in Table 5.5, the possessive paradigm for ‘eye’ was recorded with direct possessive marking in the singular, but with indirect possessive marking for other numbers. In the limited data that I was able to record in the time available this appears to be exceptional, as many other nouns, both those that typically take direct possessive marking in Oceanic languages and those that do not, take indirect possessive marking in the singular, as shown in Table 5.7:

**Table 5.7:** Indirectly possessed nouns in Likum

Free base	1SG	2SG	3SG	Gloss
cay	cay se	cay toʔow	cay tatiʔiy	blood
kaako	kaako se	kaako toʔow	kaako tatiʔiy	elbow
len	len se	len toʔow	len tatiʔiy	vein, tendon
pah	pah se	pah toʔow	pah tatiʔiy	brain
palah	palah se	palah toʔow	palah tatiʔiy	nape of neck
kaʔi	kaʔi se	kaʔi toʔow	kaʔi tatiʔiy	mother’s brother
paapu	paapu se	paapu toʔow	paapu tatiʔiy	grand-father or -child
mudray	mudray se	mudray toʔow	mudray tatiʔiy	husband
petih	petih se	petih toʔow	petih tatiʔiy	wife
com	com se	com toʔow	com tatiʔiy	basket
ni	ni se	ni toʔow	ni tatiʔiy	fish

Although the data are too limited to confidently support a hypothesis regarding the difference between the two construction types, *se* ‘my’ and the like appear to mark what might be called ‘general possession’, while the possessive suffixes mark intimate or obligatory possession. Although it would be unwise to draw any conclusions from negative evidence, nothing was found to suggest that indirect possession might be subdivided between general, edible and drinkable possessive relationships, as in many other Oceanic languages.

Finally, three problems connected with Likum possessive pronouns appear in my data for which no solution can yet be proposed. First, as already noted, the fragmentary possessive paradigm recorded for *mita* ‘eye’ provides clear evidence of direct possessive marking in the singular, but indirect marking in other numbers, and while indirect possessive marking may be the norm in the non-singular possessive forms of all nouns, other nouns differ from *mita* in also showing this type of marking in the singular, as seen in Table 5.7. Second, the 1SG possessive marker for general possession usually appears as *se*, but sometimes as *sepa*, as seen in *cikiley se* ‘my coconut’, but *adray sepa* ‘my sugarcane’. It is conceivable that what I recorded as *sepa* is bimorphemic, but nothing in my data appears to support that interpretation. The third problem is found in sentence (45) where, for reasons that remain unclear, the noun ‘fat’ is marked both for direct possession (with *-n*), and for indirect possession (with *tatiʔiy*):

- 45) iy      nama-n      tatiʔiy      yeto      eliy  
       3SG   fat-his/her   his/her      that      there  
       ‘S/he is fat’ (lit. ‘His/her fat there’)

**5.3.4. Demonstratives.** Likum appears to distinguish three degrees of proximity in reference to the speaker, corresponding approximately to first person, second person and third person deixis. As in many other AN languages, the same morpheme functions both as demonstrative pronoun and adverb.

- 46) pen   sepa   eteh  
pen   my   here/this   ‘This is my pen/My pen is here’
- 47) pen   sepa   eliy  
pen   my   there   ‘That is my pen/My pen is there (near hearer)’
- 48) pen   sepa   yeto  
pen   my   there   ‘That is my pen/My pen is there (not near hearer)’
- 49) adray           sepa   eteh  
sugarcane       mine   this   ‘This is my sugarcane/My sugarcane is here’

**5.3.5. Locatives and directionals.** A number of sentences were recorded that contain locative or directional terms, as follows:

- 50) mwi   samo   iy    eʔen   mita   esew  
dog   one   3SG   stay   front   house  
‘A dog is in front of the house’
- 51) mwi   samo   iy    eʔen   emuh       te    esew  
dog   one   3SG   stay   behind     ?    house  
‘A dog is behind the house’
- 52) sirih   samo   iy    eʔen   bweleʔe    esew  
bird   one   3SG   stay   on.top     house  
‘A bird is on top of the house’
- 53) mwak   samo   iy    eʔen   pehe   ca    pok  
snake   one   3SG   stay   under   ?    stone  
‘A snake is under the stone’
- 54) ni    samo   iy    eʔen   alo    com  
fish   one   3SG   stay   inside   basket  
‘A fish is inside the basket’
- 55) mwi   samo   iy    eʔen   manan  
dog   one   3SG   stay   outside  
‘A dog is outside’
- 56) mwi   sadrih           iy    le    a    cah  
dog   run            3SG   go   to   sea  
‘The dog is running to the sea’

- 57) mwi sadrih iy le a kay  
 dog run 3SG go to bush  
 'The dog is running to the bush'
- 58) mwi sadrih iy imi haweto  
 dog run 3SG come to us  
 'The dog is running toward us'
- 59) mwi sadrih iy iew haweto  
 dog run 3SG away from us  
 'The dog is running away from us'

Features that remain unclear are 1. the function of /te/ in sentence 51) and of /ca/ in sentence 53), and 2. whether /samo/, which is the number 'one' in counting at least children, dogs, pigs, fish and leaves, should be considered an indefinite article in these sentences. This seems like a reasonable interpretation, since sentences 56)-59) use /mwi/ 'dog' without a numeral. While the Tok Pisin equivalents of these sentences make no distinction of definite/indefinite (hence *dok i stop long poret bilong haus* for 50), and *dok i ron i lusim mipela i go* for, e.g. sentence 59), providing no basis for the different constructions in Likum), much of my elicitation took place in English, and it is possible that I requested these examples using 'a dog' in sentences that were given with *samo*, and 'the dog' in sentences that were not.

Finally, generic location marked with a translation equivalent of 'at' or 'on' appears to be expressed by *pita* 'at, on', as in sentences (60) and (61):

- 60) iy emi-iy pita palaŋ  
 3SG urinate-past on floor 'He urinated on the floor'
- 61) Mary tahay cikiley ma puh ite pita cew  
 Mary put coconut and banana stay on mat  
 'Mary put the coconuts and bananas on the mat.'

It is worth noting that sentences like 61) require the verb 'stay' in addition to the preposition 'on', presumably because the result of the action remains visible for some time, but this is not true for sentence 60), and in sentences 62) and 63) the verb alone suffices to mark location without a preposition to support it:

- 62) je e saʔan John ite paapi  
 1SG COP see John stay beach 'I saw John at the beach.'
- 63) je e saʔan John ma Mary ite paapi  
 1SG COP see John and Mary stay beach  
 'I saw John and Mary at the beach.'

**5.3.6. Questions.** A number of sentences using question words were recorded for Likum, as follows (including answers to questions in some cases):

- 64) ow w-aʔan seh  
2SG ?-eat what ‘What did you eat?’
- 65) esi law y-eʔen-iy ni se  
who person ?-eat-past fish 1SG ‘Who ate my fish?’
- 66) John y-eʔen-iy ni se  
John ?-eat-past fish 1SG ‘John ate my fish’
- 67) John c-eʔen-iy ni se  
John ?-eat-past fish 1SG ‘John ate my fish’
- 68) esi law y-aʔan ni se  
who person ?-eat fish 1SG ‘Who is eating my fish?’
- 69) esi law pa k-aʔan ni se  
who person want FUT-eat fish 1SG  
‘Who wants to eat my fish?’
- 70) ilepukuse John y-eʔen-iy ni se  
why John ?-eat-past fish 1SG  
‘Why did John eat my fish?’
- 71) iy makuson ya iy y-eʔen-iy  
3SG hungry and 3SG ?-eat-past  
‘He ate it because he was hungry.’
- 72) ow saa-sahni na sebelan  
2SG ?-catch fish ? when  
‘When did you catch the fish?’
- 73) ow saa-sah ni petutah  
2SG ?-catch fish where  
‘Where did you catch the fish?’
- 74) ilepukuse ya ow saa-sah ni  
how and 2SG ?-catch fish  
‘How did you catch the fish?’
- 75) ow saa-sah ni ilepukuse  
2SG ?-catch fish how  
‘How did you catch the fish?’
- 76) sapan ni ow sah-iy  
how.many fish 2SG catch-past  
‘How many fish did you catch?’

- 77) ow sahiy sapan ni  
 2SG catch how.many fish  
 ‘How many fish did you catch?’
- (78) sapan ni John y-eʔen-iy  
 how.many fish John ?-eat-past  
 ‘How many fish did John eat?’

A single tag question was recorded. It is possible that the marker for tag questions was acquired from Japanese during the military occupation of the Bismarck archipelago during the Second World War:

- (79) ah e saʔan iy, ne?  
 2DL COP see 3SG tag ‘The two of you see him, don’t you?’

**5.3.7. Causatives.** No morphological causatives were found in the brief time I spent collecting Likum data. The nearest thing I could find to a causative construction involved a lexicalized causative meaning ‘to feed’:

- 80) iy eñohan nahatu-n  
 3SG feed child-3SG  
 ‘She is feeding her child’

**5.3.8. The attributive suffix.** As already noted in earlier sketches, many Admiralty languages show evidence of a fossilized attributive suffix of the shape -nV. Many adjectives or stative verbs in Likum follow this pattern (which we can call ‘class 1’), as seen in Table 5.8:

**Table 5.8:** Evidence for Likum -n ‘marker of attribution’

caʔin ‘bad’	mosaʔan ‘old (of things)’
cayon ‘red’	mudraʔan ‘big; older (sibling)’
cepwien ‘taboo’	mwennen ‘straight’
drakaʔan ‘dirty’	nalaʔan ‘cold (food)’
draman ‘ripe and soft’	naman ‘sweet, tasty’
ellan ‘light in weight’	narahan ‘hot (food, sun)’
haʔun ‘new; clean’	ñarawin ‘blue, green’
hiʔunen/heʔunen ‘ripe’	ñokoan ‘yellow’
horaʔan ‘dry’	pellan ‘white’
keniʔin ‘heavy’	poʔoton ‘black’
laweʔen ‘long, tall’	pweseken ‘soft’
liwin ‘clean, of water’	sanan ‘bare’
mataʔan ‘raw, uncooked’	selien ‘painful’
meheñan ‘bitter’	seriʔen ‘wet’
mitan ‘sharp’	telehen ‘thin, of materials’
mooson ‘good’	terien ‘spotted, multi-colored’

Despite this pattern, many other words that appear to be in the same class do not contain a fossilized suffix *-n*, as shown for class 2 examples in Table 5.9:

**Table 5.9:** Attributive words that lack the suffix *-nV*.

ceno ‘finished, over’	lulu?uw ‘mad, insane’
cesa?ay ‘all, whole, entire’	ma ‘ashamed, embarrassed’
ekasiw ‘blind’	me?eh ‘cooked’
ekuruh ‘hunched over’	merihik ‘near, close to’
enuhe ‘sour’	mucay- <sub>1</sub> ‘calm, still (water)’
esiw ‘deaf’	pa?awih ‘slow; easy’
ettah <sub>1</sub> ‘full (stomach or vessel)’	poke ‘hard (material); difficult’
hadru ‘correct, true’	polo ‘many, plenty’
imak ‘to die; dead’	sowi ‘quick, fast’
inoh ‘fear, afraid’	talo ‘far’
kapeh ‘small, younger (sibling)’	tuk ‘dull, blunt’
keroh ‘dark’	wadria ‘false, lie’
luew ‘young’	

The membership of these two classes of attributive words is roughly equal (32 examples in class 1, 25 in class 2), and it is hard to identify reasons why a given word should belong to one or the other. All color terms belong in class 1, and most antonyms belong to the same class, whichever it is (dirty/clean, new/old, light/heavy, ripe/raw, dry/wet, good/bad, cold/hot), but others do not (sweet/sour, soft/hard).

**5.3.9. Reciprocals and reflexives.** Reciprocal constructions are formed by repeating the use of the corresponding dual pronoun, as in sentence 81):

81)	neru	ye?um	neru	
	3DL	hit	3DL	‘The two of them are hitting each other.’

A single example of a reflexive construction was recorded, shown in 82):

82)	John	motehey	iy	
	John	cut	3SG	‘John cut himself.’

**5.3.10. Imperatives.** Only a handful of imperative sentences were recorded for Likum, but these include both positive and negative commands, as follows:

83)	ow	la		‘Go!’
	2SG	go		
84)	ow	w-anu		‘Go take a bath!’
	2SG	2SG?-bathe		
85)	ow	w-u?un	gway	‘Drink the water!’
	2SG	2SG?-drink	water	



- |     |       |          |       |      |       |                               |
|-----|-------|----------|-------|------|-------|-------------------------------|
| 86) | ow    | w-aʔan   | moh   |      |       |                               |
|     | 2SG   | 2SG?-eat | taro  |      |       | ‘Eat the taro!’               |
| 87) | ow    | w-aʔan   | moh   | ceʔi |       |                               |
|     | 2SG   | 2SG?-eat | taro  | neg  |       | ‘Don’t eat the taro!’         |
| 88) | ow    | w-eʔepwi | mwak  | na   | kay   |                               |
|     | 2SG   | 2SG?-hit | snake | with | stick | ‘Hit the snake with a stick!’ |
| 89) | sohoa | mita-m   |       |      |       |                               |
|     | wash  | face-2SG |       |      |       | ‘Wash your face!’             |

Little information can be extracted from these examples beyond the following: 1. imperatives usually require a second-person pronoun, 2. the positive imperative is structurally identical to the corresponding declarative sentence (hence: ‘Eat the taro!’, ‘You are eating the taro’), and 3. the negative imperative is formed by adding a negative marker at the end of the positive imperative.

Why /ow/ is required as part of the imperative construction in examples 83)-88), but not in 89) is not entirely clear, but may be because the second person possessive pronoun already indexes the person addressed, and an independent second person actor pronoun would be considered superfluous. I initially assumed that the verb-initial glide in sentences 84)-88) was a phonetic transition between the glide of the pronoun and the initial vowel of the verb, but this fails to explain the form of the verb in sentences 25)-36).

**5.3.11. Tense/aspect.** In most cases there appears to be no obligatory marking of tense or aspect on the verb in Likum, temporal distinctions being expressed only through lexical items such as ‘today’ or ‘tomorrow’, as seen in the following sentences:

- |     |                |        |        |      |           |  |
|-----|----------------|--------|--------|------|-----------|--|
| 90) | napahe         |        | iy     | itik | Momote    | imi  |
|     | two days hence |        | 3SG    | from | Momote    | come   |
|     |                |        |        |      |           | ‘He will come from Momote the day after tomorrow.’ |
| 91) | je             | y-aʔan | moh    | na   | pini      |  |
|     | 1SG            | ?-eat  | taro   | ?    | yesterday | ‘I ate taro yesterday’                             |
| 92) | pini           | je     | y-aʔan | moh  |           |  |
|     | yesterday      | 1SG    | ?-eat  | taro |           | ‘I ate taro yesterday’                             |
| 93) | je             | y-aʔan | moh    | na   | aruwah    |  |
|     | 1SG            | ?-eat  | taro   | ?    | tomorrow  | ‘I will eat taro tomorrow’                         |
| 94) | aruwah         | je     | y-aʔan | moh  |           |  |
|     | tomorrow       | 1SG    | ?-eat  | taro |           | ‘I will eat taro tomorrow’                         |

However, contrasts such as the following show that tense (or possibly aspect) can be marked on the verb if so desired. The conditions that determine when tense or aspect will be marked on the verb and when it will not are still poorly understood:

95)	esi	law	y-eʔen-iy	ni	se	
	who	person	?-eat-past	fish	1SG	‘Who ate my fish?’
96)	esi	law	y-aʔan	ni	se	
	who	person	?-eat	fish	1SG	‘Who is eating my fish?’

Finally, as shown in sentences 91) and 92), temporal adverbs may appear clause-initially or clause-finally. One other feature of these sentences that could not be resolved in the limited time I spent with speakers of the language is the function of the suffix *-iy*, which appears to mark past tense in many cases, as in distinguishing the meanings of sentences 95) and 96). However, if this analysis is correct it is difficult to explain why *-iy* is not present in sentences 91) or 92). As with the unexpected absence of a 2SG pronoun in sentence (95), the explanation for this omission may be that redundant information is avoided.

**5.3.12. Morphology.** Likum presents greater problems in morphology than most other languages in the Admiralties. In particular, the form of verbal bases used as dictionary entries is sometimes hard to determine. Two types of problems are particularly troublesome: 1) the fact that many verbs begin with *e-*, and 2) deriving the members of certain verbal paradigms from a single underlying base form.

Many verbs were recorded with an initial *e-*, as shown in Table 5.10:

**Table 5.10:** Likum verbs recorded with initial *e-*

ecen ‘to descend’	epwi ‘to hit’
ecuk ‘to string (flowers, fish)’	eʔen ~ iʔin ‘to stay, reside’
ehum ‘to cough’	erohon ‘to hear’
ejay ‘to swim’	esa ‘to break wind, fart’
ejih ‘to fly’	esak ‘to break, crack’
ejoh ‘to roast, to boil, to fry’	esaʔan ‘to see’
ekak ‘to sing’	esehek ‘to whet, sharpen’
ekkek : ‘to squeeze, press out’	esepep ‘to catch’
ekumwe ‘to bend, fold’	esihen ‘to sneeze’
emeʔeh : cooked	esirih ‘to mend, repair, sew’
emetin ‘to sleep, lie down’	esoh ‘to pull’
emi ‘to urinate’	esom ‘to husk coconuts’
emmak ‘to wake up’	essen ‘to search’
emmay : to hide (trans.)	esun ‘to burn’
emmih ‘to dream’	etahah ‘to give’

emok ‘to sink, drown’  
 emok ‘to vomit’  
 emotoh ‘to cut long things’  
 emow ‘to pour, spill’  
 ennuh ‘to snore, to grunt (pig)’

enuhun ‘to sniff; odor’  
 eñohan ‘to feed’  
 eohow ‘to hunt for game’  
 epe ‘to defecate’  
 epih ‘to pinch with finger’

epiri ‘to itch, feel itchy’  
 episi ‘to crush, as lice’  
 eputon ‘to think’

etapwey ‘to stray, get lost’  
 etaʔak ‘to bite, to lick’  
 etarow ‘to draw, to write’  
 etehēh ‘to float, to drift away’  
 etorow ‘to hold in the hand’

ettah ‘to make, to build (as house, canoe)’  
 ettah ‘to plant, bury’  
 ettih ‘to seek, search for’  
 ettoh ‘to grow’  
 ettow ‘to give’

ettuh ‘to sink, drown, dive, submerge’  
 etukum ‘to heap up, as coconuts in a pile’  
 eturuh ‘to smoke (fish or meat)’

Where etymologies are known it is clear that this *e-* usually is a separate morpheme: POC \*mipi > *e-mmih* ‘to dream’, \*matiruR > *e-metin* ‘to sleep’, \*mimiq > *e-mi* ‘to urinate’, \*mutaq > *e-mok* ‘to vomit’. In a few cases, as *emak* ‘to wake up’ : *omak* ‘wake up!’ (= /ow mak/), synchronic evidence leads to the same conclusion (cf. POC \*mamata ‘wake s.o. up’).

The *e-* in these forms appears to be a copula or existential marker, but without evidence of contrast it is unclear whether a synchronic morpheme boundary remains in such verbs, and it would be hazardous to posit one, since the *e-* in forms without a known etymology such as *ecuk* ‘to string’, *ehum* ‘to cough’, *ejay* ‘to swim’, or *ejih* ‘to fly’ may never have been a separate morpheme. Given these uncertainties the many *e-*initial verbs that were recorded are entered here as lexical bases, although a fuller analysis of the language might show that in many cases they are morphologically complex.

The second type of problem that Likum verbs present to morphological analysis is seen in the rare cases where paradigmatically related forms were collected, particularly with the verbs ‘to eat’, ‘to come’ and ‘to urinate’. The most complete morphological paradigm recorded for any base is found with the verb ‘to eat’, which has the following forms in my data:

97)	John		c-eʔen-iy	ni	se	
	John		?-eat-past	fish	1SG	‘John ate my fish’
98)	John		y-eʔen-iy	ni	se	
	John		?-eat-past	fish	1SG	‘John ate my fish’
99)	je	pa	k-aʔan	moh		
	1SG	want	FUT-eat	taro		‘I want to eat taro’
100)	ow	w-aʔan		moh		
	2SG	?-eat		taro		‘you are eating taro’

- 101) je y-aʔan moh  
 1SG ʔ-eat taro 'I am eating taro'

The morphological analysis of this paradigm is unclear. It is initially tempting to see the *w-* in sentence 100) and the *y-* in sentence 101) as subject agreement markers, but this is hard to maintain when it is seen that the second person singular in declarative sentences takes *w-*, and all other persons and numbers take *y-*. The prefix *k-* in sentence 99) seems clearly to mark future or irrealis (although its absence in imperatives/dehortatives such as *ow waʔan moh* 'eat the taro!', or *ow waʔan moh ceʔi* 'don't eat the taro!' weighs against an irrealis interpretation). Sentences 97) and 98) were given the same gloss, and no difference of meaning could be determined during the time that data collection was possible. Finally, the past form of this verb appears to be marked both by the suffix *-iy* and by vowel fronting in the stem. It is unknown whether this is particular to the stem for 'eat', or is part of a larger pattern for forming the past tense of verbs. Similarly, it is unclear whether /kanay/ 'food' has any morphological relationship in Likum to /aʔan/.

The second paradigm that presents unresolved issues of morphological analysis is the base for 'to come', which was recorded in the following forms:

- (1) ow mwe 'Come!'  
 (2) je ue 'I'm coming'

I tentatively assume a base /mwe/ 'to come', although the labiovelar nasal in this form may be a product of rounding after the second person singular pronoun that is required in imperatives.

In the third problematic paradigm the words for 'urine/urinate', were recorded as follows:

- (1) /emiñe-/ : urine  
 (2) emi-ʔiy: urinated  
 (3) k-emi: will urinate, wants to urinate

The verb base appears to be *emi*, with *k-* marking desiderative or future, and *-iy* marking past, but there is no known parallel in the data collected for analyzing the noun as *emi-ñe*. For the present I list them separately in the vocabulary with a cross-reference.

One other feature of morphology was found in comparing *son* 'hunger; famine' and *maku-son* 'hungry', but since there are also no parallels in my data for this it is impossible to determine whether *maku-* is an independent word meaning 'have', a monomorphemic prefix, or a sequence of prefixes, and the matter can only be settled by further fieldwork, if that is still possible.

**5.3.13. Miscellaneous.** Several observations that were collected but do not fit into any of the previous categories are noted here with brief discussions.

First, verbs that are optionally transitive in English ('eat', 'drink', 'sing') reportedly require an object in Likum, as seen in the following:

- 102) John y-aʔan kanay  
 John ʔ-eat food 'John is eating food' (must have object)

- 103) Mary ekak weri  
Mary sing song 'Mary is singing [a] song' (must have object)

Second, as already noted in previous sketches, where English and various other European languages have a structure of the form SUBJECT *have* NUMBER OBJECT, as in 'I have two children', many Austronesian languages prefer a structure of the form Subject-Possessor (Copula) Number, as in 'My children are two', with no main verb 'have', a zero copula in most languages, and the number forming the predicate. As seen in sentence 104) Likum fits this pattern

- 104) nahatu-k rumow  
children-1SG two 'I have two children'

Third, two sentences were recorded which illustrate the use of an instrumental preposition:

- 105) je esepen ni na pepu  
1SG catch fish with basket.trap 'I caught the fish with a basket trap'
- 106) John y-e?epwi mwi na kay  
John ?-hit dog with stick 'John hit the dog with a stick'

Fourth, the coordinating conjunction *ma* was recorded in several collocations, of which the following are representative:

- 107) pok kapeh ma po?oton  
stone small and black 'A small black stone'
- 108) John ma Mary y-a?an moh  
John and Mary ?-eat taro 'John and Mary are eating taro'

Fifth, as is commonly the case in AN languages, the question 'What is your name?' uses the personal interrogative rather than the general question word 'what?':

- 109) sare-m esi  
name-2SG who 'What is your name?'
- 110) sare-k Benjamin  
name-1SG Benjamin 'My name is Benjamin'

Finally, the variation between *sasah* 'to catch, as fish', vs. the past form *sah-iy* 'caught' may indicate a general tendency to drop the first of two partially similar syllables in suffixed bases.

**5.4. LEXICON.** The following is an alphabetized list of all Likum morphemes identified in my fieldnotes. Homophones are distinguished by subscript, as with *an-1* 'barracuda', next to *an-2* 'sun', and all conventions adopted in the earlier sketches also apply here. Geminates are alphabetized like consonant clusters (hence *ennuh* 'to snore' precedes *eno* 'to be lacking', and

glottal stop occupies the position of /q/ (just before /r/). In usage all fish names are preceded by *ni* ‘fish’, which is omitted in the citations here.

## LIKUM-ENGLISH VOCABULARY

/a/

001. *a* : (gloss uncertain; cf. *sadrih*)  
 002. *adra* : branch  
       *adra ah* : branch of coral; branch coral  
       *adra kay* : branch of a tree  
 003. *adray* : sugarcane  
 004. *ah*<sub>-1</sub> : coral limestone; lime for betel chew  
 005. *ah*<sub>-2</sub> : 2DL, you two  
 006. *ahēk* : sago grub; worm-like stage of the *cucoh* beetle  
 007. *ak* : thatch, roofing material  
 008. *ake* : caterpillar  
 009. *alah* : flat white fish, similar to a mackerel  
 010. *aleh* : fish corral of bamboo and rope  
 011. *alo*<sub>-1</sub> : abdomen, belly, stomach, intestines, *alo-k*, *alo-m*, *alo-n*  
       *alo-k ettah* : ‘I am full’ (= ‘My stomach is full’)  
 012. *alo*<sub>-2</sub> : 1. inside  
       *alo esew* : floor (‘inside of the house’)  
       *alo kapete-* : armpit (‘inside of the ribs’)  
       *alo kay* : jungle, bush (lit. ‘in the bush’)  
       *alo lime-* : palm of the hand (‘inside of the hand’)  
       *alo putun* : deep water beyond the reef; ocean  
 013. *an*<sub>-1</sub> : barracuda  
 014. *an*<sub>-2</sub> : sun  
 015. *anu* : to bathe  
       *ow w-anu* ‘Go bathe!’  
 016. *añay* : k.o. wild nut  
 017. *apay* : firewood shelf above the hearth  
 018. *aʔan* : to eat, chew  
       *c-eʔen-iy* : ate, chewed  
       *k-aʔan* : will eat, want to eat  
       *w-aʔan* : to eat, chew (2SG agreement?)  
       *y-aʔan* : to eat, chew (non-2SG agreement?)  
       *y-eʔen-iy* : ate, chewed (non-2SG agreement?)  
 019. *arey* : k.o. pandanus the leaves of which are used to plait mats and baskets  
 020. *aruah* : tomorrow  
 021. *asihen* ~ *esihēn* : to sneeze  
 022. /ate/ : heart, chest; *ate-k*, *ate-m*, *ate-n*  
 023. *-ay* ~ *-ey* : counting classifier for trees

/b/

024. *ban* : k.o. large dove or pigeon  
 025. *bita* : fur  
       *bita mwi terien* ‘the fur of the dog is spotted/colorful’  
 026. *burus* : tobacco (TP)

/bw/

027. *bweleʔe* : on top of

/c/

028. *ca* : (gloss uncertain; cf. *pehe*)  
 029. *cacom* : to count  
 030. *cah*<sub>-1</sub> : conch shell, shell trumpet  
 031. *cah*<sub>-2</sub> : sea, saltwater; salty  
 032. *cako* : gecko  
 033. *cam* : lime spatula  
 034. *camak* : person, human being  
 035. *camwisim* : rainbow  
 036. *can* : slitgong  
 037. *caʔin* : bad  
 038. /cawe/ : back (anat.), *cawe-k*, *cawe-m*, *cawe-n*  
 039. *cay* : blood, *cay se*, *cay toʔow*, *cay tatiʔiy*  
 040. *cayon* : red (possibly connected with *cay* ‘blood’)  
 041. *ce* : (gloss uncertain; cf. *mañah*)  
 042. *ceh*<sub>-1</sub> : (gloss uncertain; cf. *selehiy*)  
 043. *ceh*<sub>-2</sub> : ladder  
 044. *celeki* : heavy rope, rope used to manipulate sails  
 045. *celih* : a shore tree with edible nut: *Terminalia catappa*  
 046. *celiʔeh* : canoe bailer  
 047. *cem* : large marine fish, probably sea pike  
 048. *cemum* : small grey and white fish with spiny back  
 049. *cen* : large fish that is light gray to white in color  
 050. *ceno* : finished, over  
 051. *ceppen* : dawn, morning  
 052. *cepwien* : taboo  
 053. *ceʔi* : negative particle  
 054. *cesaʔay* : all, whole, entire  
       *pita-k cesaʔay* : my whole body (= *ce-saʔay*?)  
 055. *cew* : sleeping mat  
 056. *ci* : catfish with orange back and red belly  
 057. *cicim* : tongs for lifting coals, etc.  
 058. *cikiley* : coconut tree, coconut  
 059. *cilen* : to weep, cry

060. /cine/ : ear, *cine-k*, *cine-m*, *cine-n*  
 061. /cini/ : intestines, *cini-k*, *cini-m*, *cini-n*  
 062. *co*<sub>1</sub> : punting pole  
 063. *co*<sub>2</sub> : to take away, subtract from (for numerals 6-9)  
 064. /cokopare/ : neck, *cokopare-k*, *cokopare-m*, *cokopare-n*  
 065. *com* : small basket  
 066. *con* : outrigger canoe  
       *con emuh* : stern of a canoe  
       *con pwalin* : dugout canoe  
 067. *cu*<sub>1</sub> : dugong  
 068. *cu*<sub>2</sub> : log; post, pillar  
       *cu u esew* : housepost  
       *cu u jeh* : firewood  
 069. *cucoh* : sago beetle  
 070. /cui/ : bone, *cui-k*, *cui-m*, *cui-n*  
       *cui-n* : thin, skinny, as a person or animal, bony

/dr/

071. *drakaʔan* : dirty  
 072. *dramadram* : large black biting ant  
 073. *draman* : ripe and soft  
 074. *dranoh* : boil, abscess  
       *petu dranoh* : head of a boil  
 075. *drasak* : starfish  
 076. *draw* : star  
       *draw e piahun* : Evening star, Venus  
 077. *drawey* : drive fish into a corral  
 078. *dray* : northwest monsoon  
 079. *dro* : 3PL, they, them  
       *dro-cetulumow* : 3TL, the three of them  
 080. *droay* : coconut grater  
 081. *drosu* : egg  
       *drosu kakaruk* : chicken egg  
 082. *druʔubwen* : k.o. large barracuda  
 083. *drusi* : freshwater eel

/e/

084. *e*<sub>1</sub> : copula (?; cf. *pare*<sub>2</sub>, *saʔah*)  
 085. *e*<sub>2</sub> : (gloss uncertain; cf. *draw*)  
 086. *e*<sub>3</sub> : verb prefix  
 087. *ecen* : to descend; down  
 088. *ecuk* : to string, as flowers or fish  
 089. *ehum* : to cough  
 090. *ejay* : to swim



091. *ejih* : to fly  
 092. *ejoh* : to roast, to boil, to fry  
 093. *ekak* : to sing  
 094. *ekasiw* : blind  
       *mita-m ekasiw* ‘You are blind’  
 095. *ekkeh* : thief  
 096. *ekkek* : to squeeze, press out, as juice from a fruit  
 097. *ekumwe* : to bend (as a metal bar), to fold (as cloth or paper)  
 098. *ekuruh* : humpbacked, hunched over  
 099. *eliy* : there (near hearer); that (near hearer)  
 100. *ellah* : swelling caused by sickness or insect sting  
 101. *ellan* : light in weight  
 102. *elloh* : to fall (from a height); stumble  
 103. *eluh* : first-born sister  
 104. *emaʔak* : to scratch (an itch)  
       *ow emaʔak* ‘Scratch (it)!’ ([omáʔak])  
 105. *emeʔeh* : cooked  
 106. *emetin* : to sleep, lie down  
 107. /emi/ : to urinate: *emi-ʔiy*: urinated; *k-emi*: will urinate, want to urinate  
       *je pa k-emi* ‘I want to urinate’  
 108. /emiñe/ : urine, *emiñe-k*, *emiñe-m*, *emiñe-n*  
 NOTE: Clearly related to the base /emi/, but a suffix -ñe is otherwise unknown.  
 109. *emmak* : to wake up  
       *emmak*: to wake up (trans. and intrans.)  
       *ow emmak iy* ‘Wake him up!’ ([ommak ij])  
 110. *emmay* : to hide (trans. and intrans.)  
       *ow emmay* ([ommáj]) ‘Hide!’  
 111. *emmih* : to dream, talk in one’s sleep  
 112. *emok*<sub>-1</sub> : to sink; to drown  
 113. *emok*<sub>-2</sub> : to vomit  
 114. *emotoh* : to cut long objects  
       *emotoh kana* : to cut yams for planting  
       *emotoh kay* : to cut wood  
       *emotoh sukay* : to cut rope or string  
 115. *emow* : to pour, spill  
 116. *emuh* : behind, rear part, stern (of canoe)  
 117. *en* : to lie down, recline  
       *kehe en* : to lie down  
       *kehe en ecen* ‘Lie down!’  
 118. *ennew* : glowing hot, of coals or stones  
 119. *enuh* : to snore (of a person), to grunt (of a pig)  
 120. *eno* : to be lacking, short of something  
       *koha-k eno*: ‘I am short of breath’ (= ‘My breath is lacking’)  
 121. *enuhe* : sour  
 122. *enuhun* : to sniff, smell; odor  
       *enuhun caʔin*: bad odor

123. *eñohan* : to feed  
*eñohan nah* : to feed a child
124. *eohow* : to hunt for game
125. *epe* : to defecate (cf. *kaloh*-1)  
*je pa k-epe* ‘I want to defecate’
126. *epih* : to pinch with finger
127. *epiri* : to itch, feel itchy
128. *episi* : to crush  
*episi kuk* : to crush lice with the nails when delousing hair
129. *epura* : to stink, be smelly, have a stench  
*ni epura* ‘the fish is smelly’
130. *eputon* : to think
131. *eʔen* ~ *iʔin* : to stay, reside  
*nahatu-n iy eʔen alo-n* : pregnant (lit. ‘Her child it stay in her stomach’)  
*y-iʔin ecen* ‘S/he is lying down’
132. *eʔepwi* : to hit  
*w-eʔepwi* ‘Hit (it/him)! (= *ow eʔepwi*)’
133. *erohon* : to hear
134. *eru* : 1DLE.X, we two
135. *esa* : to break wind, fart
136. *esak* : to break, crack (as a leaking roof)
137. *esaʔan* to see
138. *esehek* : to whet, sharpen
139. *esepen* : to catch
140. *esew* : house  
*esew kaman*: men’s house
141. *esi*-1 : feces, waste, *esi-k*, *esi-m*, *esi-n*  
*esi cine-* : cerumen, earwax (‘excrement of the ear’)  
*esi mita-* : mucus in eye, eye matter (‘excrement of the eye’)  
*esi pullen* : rain cloud (‘excrement of the sky’)  
*esi walow* : diarrhoea
142. *esi*-2 : interrogative marker, who?
143. *esi*-3 : one  
*co-esi* : nine
144. *esihen* : to sneeze
145. *esirih* : to mend, repair, sew
146. *esiw* : deaf  
*cine-m esiw* ‘You are deaf’ (lit. ‘Your ears are deaf’)
147. *esoh* : to pull  
*esoh koha-m* ‘Breathe!’ (lit. ‘Pull your breath’)
148. *esom* : to husk coconuts  
*iy esom* ‘He is husking (coconuts)’  
*ow esom* ‘You are husking (coconuts)’
149. *essen* : to search
150. *esu*-1 : downstream, downriver
151. *esu*-2 : gall bladder

- esu pow* : gall bladder of a pig
152. *esun* : to burn
153. *etahah* : to give  
*etahah mweʔen* : to give back, to return something
154. *etapwey* : to stray, get lost
155. *etaʔak* : to bite, to lick
156. *etarow* : to draw, to write
157. *etebuk* : blister, blistered  
*lime-k etebuk* ‘my hand is blistered’
158. *eteh* : here; this
159. *eteheh* : to float, to drift or be carried off by a current
160. *eto* : 2PL, you;  
*eto-cetulumow*: 2TL, you three
161. *etorow* : to hold in the hand
162. *ettah-1* : to be full, of the stomach or a container  
*alo-k ettah* ‘my belly is full; I’ve had enough to eat’
163. *ettah-2* : to make, to build, as a house or canoe
164. *ettah-3* : to plant, to bury
165. *ettih* : to seek, search for  
*ettih kuk*: to seek lice, delouse a person
166. *ettoh* : to grow
167. *ettow* : to give (cf. *etahah*)
168. *ettuh* : to sink, drown, dive, submerge; to flood
169. *etu* : 1PL.EX, we  
*etu-cetulumo* : 1<sup>st</sup> trial exclusive, we three
170. *etukum* : to heap together, as coconuts in a pile
171. *eturuh* : to smoke (fish or meat)  
*eturuh ni*: to smoke fish
172. *ew* : fig tree, banyan
173. *ewey* : mango
174. *ewi* : nest, web; cloth, clothing  
*ewi jam* : men’s sarong, laplap (introduced by Europeans or other Pacific islanders)  
*ewi kaanolew* : spider web  
*ewi nahatun* : placenta  
*ewi sirih* : nest of a bird
175. *eyeh* : k.o. tree with wood used to make fireplows
- /g/
176. *gen* : an edible plant, *Hibiscus manihot* (TP *aipika*)
- /gw/
177. *gway* : fresh water
178. *gwey* : surf, wave in open sea

/h/

179. *haakam* : four (in counting bunches, as of coconuts)  
*co-haakam* : six (in counting bunches, as of coconuts)
180. *haalem* : four (in counting houses)  
*co-haalem* : six (in counting houses)
181. *haamow* : four (in counting at least children, dogs, pigs, fish and leaves)  
*co-haamow* : six (in counting at least children, dogs, pigs, fish and leaves)
182. *haanek* : four hundred (in serial counting)  
*co-haanek* : six hundred (in serial counting)
183. *haanoh* : forty (in serial counting)  
*co-haanoh* : sixty (in serial counting)
184. *hadru* : correct, true
185. *hahu* : four (in serial counting)  
*co-hahu* : six (in serial counting)
186. *hanay* : stone anchor
187. *haʔay* : four (in counting trees)  
*co-haʔay* : six (in counting trees)
188. *haʔun* : new; clean
189. *haweto* : 1PL, we, us
190. *heluh* : to paddle  
*ow heluh* ‘Paddle! (command to someone in a canoe)’
191. *heʔeunen* : ripe
192. *hora* : to dry in the sun, as clothes; dry up  
*horaʔ-an* : dry, dry food

/i/

193. *i*<sub>1</sub> : genitive? (cf. *we*)
194. *i*<sub>2</sub> : (gloss uncertain; cf. *mwak*)
195. *ia* : (gloss uncertain; cf. *uk*)
196. *ibo* : to copulate
197. *ien* : to be, exist (?)  
*ien emuh* : to follow (lit. ‘be behind’)  
NOTE: Same as *eʔen* ~ *iʔin* : to stay, reside?
198. *iew* : away from
199. *ih*<sub>1</sub> : to dig
200. *ih*<sub>2</sub> : a hardwood tree much used in construction, ironwood: *Intsia bijuga*
201. *ilepukuse* : interrogative, how?, why?
202. *imak* : to die; dead  
*je imak son* ‘I’m hungry’ (lit. ‘I am dying of hunger’)
203. *imi* : come toward; toward  
*k-imi* : will come toward
204. *inoh* : fear, afraid
205. *iñek* : to climb, as a ladder or tree

206. *irom* : to shoot; to stab  
 207. *is* : shoo! call made to frighten off a dog or pig if it tries to enter the house  
 208. *isan* : to cut with a sawing motion  
 209. *isik* : to shave  
 210. *ite* : to stay; be at  
 211. /iti/-<sub>1</sub> : penis, *iti-k*, *iti-m*, *iti-n*  
 212. *iti*-<sub>2</sub> : to plait, to weave  
 213. *iti*-<sub>3</sub> : to wink, to blink  
 214. *itik* : from (a location)  
 215. *iy*-<sub>1</sub> : 3SG, he/she/it  
 216. *-iy*-<sub>2</sub> : marker of past tense

/j/

217. *jam* : foreigner; white person, Caucasian  
 218. *jay* : fishing line  
 219. *je* : 1SG, I  
 220. *jeh* : fire  
 221. *jibwik* : second from last-born sister (cf. *nooni*)  
 222. *joh* : wind

/k/

223. *kaaceh* : ladder (also recorded as *ceh*)  
 224. *kaakah* : to carry on the shoulder  
 225. *kaako* : elbow, *kaako se*, *kaako toʔow*, *kaako tatiʔiy*  
 226. *kaamwi* : sword grass, kunai grass: *Imperata cylindrica*  
 227. *kaanolew* : spider  
 228. /kaayo/ : brother-in-law, *kaayo-k*, *kaayo-m*, *kaayo-n*  
 229. *kadram* : various short-leaved crotons  
 230. *kaha* : pepper fruit  
 231. *kahah* : k.o. large tree used to make canoes  
 232. *kahu* : sticks of the *kupwen* fishing net  
 233. *kakaruk* : chicken (TP)  
 234. *kalah* : elephant ear taro: *Alocasia macrorrhiza*  
 235. *kalaʔu* : skin : *kalaʔu-k*, *kalaʔu-m*, *kalaʔu-n*  
     *kalaʔu pow* : pig skin  
     *kalaʔu puh* : banana skin  
 236. *kaloh*-<sub>1</sub> : to defecate (cf. *epe*)  
 237. *kaloh*-<sub>2</sub> : lake  
 238. *kalow* : lagoon (= *kaloh*-<sub>2</sub>?)  
 239. *kam* : counting classifier for bunches (of fruit, coconuts, etc.)  
 240. *kaman* : male, man  
 241. *kamek* : lightning  
 242. *kammah* : dark mark on skin, mole  
 243. *kamuh* : short in length or height

244. *kana* : long yam  
 245. *kanaw* : seagull  
 246. *kanay* : food, bait  
 247. *kaney* : mangrove crab  
 248. *kao* : k.o. heron (also recorded as *kaʔo*)  
 249. *kapeh* : small, narrow; younger (of siblings)  
     *pok kapeh* : a small stone  
     *san kapeh* : a narrow road  
 250. *kapese* : chin, jaw, gills, *kapese-k*, *kapese-m*, *kapese-n*  
     *kapese ni* : gills of a fish  
 251. /*kapete*/ : side of body, flank  
     /*cui kapete*/ : rib, *cui kapete-k*, *kapete-m*, *kapete-n*  
 252. /*kappa*/ : cheek, *kappa-k*, *kappa-m*, *kappa-n*  
 253. *kaʔi* : uncle, mother's brother, *kaʔi se*, *kaʔi toʔow*, *kaʔi tatiʔiy*  
 254. *kaʔoh* : rafter  
 255. *karah* : board in a canoe for storing paddles and punting poles when not in use  
 256. *karahak* : sea turtle  
 257. *karak* : red tree ant  
 258. *karakay* : coconut flower spathe  
 259. /*karameʔe*/ : tongue, *karameʔe-k*, *karameʔe-m*, *karameʔe-n*  
 260. *karaw* : white scar, old scar (cf. *pakan*)  
 261. *karen-1* : red parrot  
 262. *karen-2* : (gloss uncertain; cf. *samweʔen*)  
 263. /*kase*/ : shoulder, *kase-k*, *kase-m*, *kase-n*  
 264. *kason* : wooden headrest, pillow  
 265. *kassow* : sweet potato  
 266. *kasumwey* : scorpion  
 267. *kasus* : coconut crab  
 268. *katah* : large black bird with white chest and great wingspan; frigate bird  
 269. *kati* : to take  
     *kati k-imi*: to bring (lit. 'take, will come')  
 270. *kaw* : fishhook  
 271. *kawah* ~ *kawas* : friend, companion  
 272. *kay* : tree, wood, stick; bush, jungle  
     *kay m-paley* : mast, sticks that support the sail  
     *kay te y-aʔan ah* : lime spatula ('stick for chewing betel')  
 273. *kayan* : variety of pandanus with edible round, reddish fruit  
 274. *kayaw* : k.o. black wildfowl which lays large eggs  
 275. *ke* : (gloss uncertain)  
     *ah ke saʔan iy* 'You (DL) are looking at him'  
 276. *kehe* : (gloss uncertain; cf. *en*)  
 277. /*kelite*/ : foot, leg, *kelite-k*, *kelite-m*, *kelite-n*  
 278. *kemow* : left side  
 279. *kenew* : comb of a fowl  
 280. *keniʔin* : heavy

281. *keʔu* : side, wall  
       *keʔu esew* : wall of a house
282. *kerekih* : to laugh, smile
283. *keroh* : dark
284. *kesueh*<sub>-1</sub> : to pull out; to suck  
       *kesueh pwitiw* : pull up grass or weeds, weed a garden
285. *kesueh*<sub>-2</sub> : smoke of a fire  
 NOTE: Probably *kesu eh*.
286. *ketik* : the putty nut tree: *Parinari laurinum*
287. *ki ~ k-*: future/desiderative marker  
       *ki la*: will go; *k-emi*: will urinate; want to urinate
288. *kicemoh* : to heal, of a wound
289. *kidrey* : sickness
290. *kieh* : outrigger boom
291. *kikiw* : kingfisher
292. *kinariw* : k.o. elongated shell; adze made from this shell, used to shape canoe hulls
293. *kitiʔih* : fireplow
294. *koh* : village
295. *koha-* : breath, *koha-k*, *koha-m*, *koha-n*  
       *eno koha*: short of breath  
       *esoh koha*: to breathe (lit. ‘pull the breath’)
296. *kohoceh* : jellyfish
297. *kok* : yellow-finned grouper
298. *koki* : cockatoo (TP)
299. *kokoros* : cockroach (TP)
300. *koliʔi* : tail  
       *koliʔi ni* : tail fin of a fish  
       *koliʔi pow* : tail of a pig  
 NOTE: Or /koli i ni/, /koli i pow/?
301. *kooko* : butterfly/cocoon
302. *koʔow* : sea cucumber
303. *korak* : k.o. long kelp
304. *koromita* : immature, of fruits, early growth stage of certain fruits  
       *koromita cikiley* : golfball-sized coconut  
       *koromita pwie* : immature betel nut
305. *koroñeñey* : k.o. mollusk, mussel
306. *koteʔen* : stomach
307. *kow*<sub>-1</sub> : door
308. *kow*<sub>-2</sub> : fence
309. *kow*<sub>-3</sub> : k.o. halibut
310. *kow*<sub>-4</sub> : k.o. mullet
311. *kudruh* : story, narration
312. *kuey* : first-born brother
313. *kuh* : clay cooking pot
314. *kuhi* : small marine eel
315. *kuik* : octopus

316. *kuk* : louse  
 317. *kulaw* : coconut ready to be eaten (< TP *kulaw* ‘green coconut’)  
 318. *kulik* : steering paddle, rudder  
 319. *kuluih* : ashes  
 320. *kulukun* : to talk in one’s sleep  
 321. *kum*<sub>-1</sub> : east; east wind  
 322. *kum*<sub>-2</sub> : k.o. black fish with tough skin  
 323. *kun* : breadfruit  
 324. *kupwen* : long rectangular fishnet  
 325. *kurihiw* : k.o. tree whose bark is used to make baskets  
 326. *kuruh* : thunder  
 327. *kurusom* : to spit  
 328. /kusu/ : lip, *kusu-k*, *kusu-m*, *kusu-n*  
 329. *kuy* : small coconut leaf basket used to carry sago

/l

330. *la* : to go (cf. *le*)  
       *ki-la*: will go  
       *ow-la* ‘Go!’  
 331. *lah* : k.o. tree used to make canoes  
 332. *lahalah* : (gloss uncertain; cf. *seli*)  
 333. *lahek* : sideboard of a canoe  
 334. *lan*<sub>-1</sub> : day  
 335. *lan*<sub>-2</sub> : south wind  
 336. *lan*<sub>-3</sub> : Trochus shell  
 337. *lasow* : marsupial rat, bandicoot  
 338. *law*<sub>-1</sub> : crowd, group of people; person (one of a group)  
       *esi law y-e?en-iy ni se* ‘Who (in this group) ate my fish?’  
 339. *law*<sub>-2</sub> : k.o. yellow and white reef fish  
 340. *lawe?en* : long, of things; tall  
 341. *le* : to go (cf. *la*)  
 342. *leh* : k.o. large stinging fly, probably a horsefly or blowfly  
 343. *lejen* : to capsize, of a boat  
 344. *lelen* : to ask (a question)  
 345. *lem* : counting classifier for houses  
 346. *lemelem* : five (in counting houses)  
 347. *lemenek* : five hundred  
 348. *lemenoh* : fifty  
 349. *leme?ay* : five (in counting trees)  
 350. *lemi*- : hair, feather; *lemi-k*, *lemi-m*, *lemi-n*  
       *lemi kapese-*: beard  
       *lemi mita-*: eyebrow  
       *lemi petu-*: head hair  
       *lemi sirih* : bird feather  
 351. *len* : vein, tendon, *len se*, *len to?ow*, *len tati?iy*



352. *lepi* : sago palm  
 353. *leɔu* : leaf  
     *leɔu cikiley* : coconut frond  
     *leɔu gen* : leaf of the *Hibiscus manihot*  
     *leɔu kay* : leaf of a tree  
     *leɔu lumwa* : betel leaf  
 354. *ley* : ginger  
 355. *lih* : nit, egg of a louse  
 356. /lihe/ : tooth, *lihe-k*, *lihe-m*, *lihe-n*  
 357. *liliw* : k.o. large white fish with tough skin  
 358. *lim* : hand, arm, *lime-k*, *lime-m*, *lime-n*  
 359. *limeh* : five (in serial counting)  
 360. *limwew* : five (in counting at least children, dogs, pigs, fish and leaves)  
 361. *lin* : k.o. small reef fish with blue, green or brown stripes  
 362. *liwin* : clean, of water  
 363. /loa/ : kinsman, *loa-k*, *loa-m*, *loa-n*  
 364. *lohov* : to work  
 365. *lok*<sub>-1</sub> : boil, abscess  
 366. *lok*<sub>-2</sub> : long-stemmed taro with large leaves  
 367. *loko* : freshwater shrimp  
 368. *loloa* : to push  
 369. *lon* : small hut or rest house made of sago leaves  
 370. *lossen* : angry, quarrel; to fight, as animals  
 371. *lowlow* : k.o. small black ant  
 372. *luew* : young  
 373. *luhulun* : noose trap  
 374. *lukluk* : to waste time  
 375. *lululala* : termite  
 376. *luluɔuw* : mad, insane  
 377. *lumulum* : tidal wave  
 378. *lumwa* : areca palm  
     *leɔu lumwa*: betel leaf  
     *kaha lumwa*: betel pepper
- /m/
379. *ma*<sub>-1</sub>: ashamed, embarrassed  
     *puli-k e ma* ‘I am ashamed’ (lit. ‘my face is ashamed’)  
 380. *ma*<sub>-2</sub>: conjunction; and  
 381. *maakon* : fontanelle  
 382. *macey* : upstream, upriver  
 383. *mak* : low tide, exposed reef  
 384. *maku* : (gloss uncertain; cf. *son*)  
 385. *mamah* : medium-sized tree used in making houses  
 386. *mana* : to dance  
 NOTE: Probably men’s dance, connected with the white cowrie penis shell  
 387. *manan* : outside

388. *maña* : k.o. tree whose bark is used to make baskets  
 389. *mañah* ~ *meñah* : to sit down; be seated, sitting  
*i ce mañah* : ‘S/he is seated’  
 390. *maʔo* : thick liquid?  
*maʔo cikiley*: coconut cream  
 391. *mataʔan* : raw, uncooked  
 392. *maw* : to talk  
 393. *meheñan* : bitter  
 394. *melue-* : shadow, reflection, spirit; *melue-k*, *melue-m*, *melue-n*  
*melue camak* : spirit of a dead man  
 395. *meniey* : hawk, eagle  
 396. *merihik* : near, close to  
 397. *mita* : eye, face; front of something, in front of., *mita-k*, *mita-m*, *mita-n*  
*mita jeh* : hearth (‘eye of the fire’)  
 /mita subuto/ : navel; *mita subuto-k*, *mita subuto-m*, *mita subuto-n*  
*mita suk* : shore  
 /mita suru/ : nipple, *mita suru-k*, *mita suru-m*, *mita suru-n*  
*mita-n* : sharp, of point or blade  
 398. *mo* ~ *mow* : counting classifier for children, fish, leaves, and pigs  
 399. /moco/-<sub>1</sub>: (gloss uncertain; cf. *netu*)  
 400. *moco-2*: roots; taproot, buttress root, fibrous roots, aerial root  
*moco kay* : root of a tree  
 401. *mocoʔew* : k.o. edible sea anemone  
 402. *modrah* : k.o. seaweed used to weatherproof canoes  
 403. *moh* : k.o. taro with purple leaves  
 404. *momwak* : juvenile squid (with shell)  
 405. *mon* : k.o. pandanus with long red or yellow fruit, probably *Pandanus conoideus*  
 406. *mooson* : good  
 407. *morah* : k.o. catfish with black and pink stripes  
 408. *mosaʔan* : old (of things)  
 409. *moson* : meaning, sense, as of words  
 410. *motehey* ~ *mwetehey* : to cut with one slash  
 411. *mucay-1* : calm, still, of water  
 412. *mucay-2* : cuscus, phalanger, possum  
 413. /mucu/ : occiput, back of head, *mucu-k*, *mucu-m*, *mucu-n*  
 414. *mudraʔan* : big/wide (things); older (of siblings)  
*san mudraʔan* : a big or wide road  
 415. *mudray* : husband, *mudray se*, *mudray toʔow*, *mudray tatiʔiy*  
 416. *mudru* : k.o. tree whose bark is used to make baskets  
 417. *muli* : citrus fruit (TP)  
 418. *mumu* : earth oven (TP)  
 419. *mumwih* : twin  
 420. *muroh* : the cinnamon tree, *Cinnamomum xanthoneuron*

/mw/

421. /mwat/ = *mwak* : snake  
       *mwatitalaw* (= *mwat i talaw*) : long black and white sea snake or eel  
       *mwatiturukow* (= *mwat i turukow*) : k.o. gray sea snake or eel
422. *mwaw* : Spanish mackerel
423. *mwe* : to come  
       *ow mwe alon* : ‘Come inside!’  
       *je ue* ‘I’m coming!’
424. *mwennen* : straight
425. /mweʔe/ : anus, buttocks, rear part, back (to a source) *mweʔe-k*, *mweʔe-m*, *mweʔe-n*
426. *mwesew* : k.o. sea anemone
427. *mwi* : dog
428. *mwicakok* : brown grasshopper
429. *mwidri* : second from last-born brother
430. *mwikiw* : k.o. small bird with black back and white chest
431. *mwisim* : a shore tree with needles and small cones: *Casuarina equisetifolia*

/n/

432. *na*<sub>-1</sub> : (gloss uncertain)  
       *je yaʔan moh na aruah* ‘I will eat taro tomorrow’
433. *na*<sub>-2</sub> : with (instrumental)  
       *John y-eʔepwi mwi na kay* ‘John hit the dog with a stick’
434. *naakoh* : carry load or person on the back, carry in a basket on the back (cf. *kaakah*, *say*)
435. *nadroh* : loincloth (traditional)
436. *nah*<sub>-1</sub> : child (cf. *nahatu-*, *netu*); *nah samo* : one child
437. *nah*<sub>-2</sub> : digging stick
438. *nah*<sub>-3</sub> : red Malay apple with flower-shaped fruit, *Syzygium gomata* (cf. *saakow*)
439. *nahan*<sub>-1</sub> : fathom  
       *nahan esi* : one fathom
440. *nahan*<sub>-2</sub> : same (?)  
       *nahan-tine-* : sibling (lit. ‘same mother’)  
       *nahan-tine kaman* : younger brother (= [nahantine] ~ [nahandrine])  
       *nahan-tine petih* : younger sister
441. /nahatu/ : child, *nahatu-k*, *nahatu-m*, *nahatu-n* (cf. *nah*<sub>-1</sub>, *netu*)  
       *nahatun yen alo-n* : pregnant (‘child stay her-stomach’)
- NOTE: The sister of one’s wife calls her brother-in-law *tamak* ‘my father’, so he calls her *nahatuk* ‘my child’.
442. *nahun* : mangrove swamp
443. *nak*<sub>-1</sub> ~ *nek* : base for ‘hundred’ (cf. *senak*)
444. *nak*<sub>-2</sub> : k.o. tall tree with sweet green fruit
445. *nalak* : stinging nettle, *Laportea* sp.
446. *nalaʔan* : cold (food)
447. *nam* : ancestral spirit; nature spirit
448. /nama/ : fat, grease, *nama-k*, *nama-m*, *nama-n*  
       *nama-n ta-tiʔiy* : his/her fat

449. *namam* : k.o. slug or leech found on leaves  
 450. *naman* : sweet, tasty (probably connected with *nama* ‘fat’)  
 451. *napahe* : the day after tomorrow  
 452. *narahan* : hot (food, sun)  
 453. *nay* : woman’s traditional grass skirt  
 454. *ne* : marker of a tag question, don’t you, isn’t it?  
     *ah e saʔan iy, ne?* ‘You see him, don’t you?’  
 NOTE: Possibly from Japanese during WWII occupation.  
 455. *nehenah* : obsidian spearpoint  
 456. *nenah* : spear (probably = fast speech variant of *nehenah*)  
 457. *nene* : mother! (vocative; possibly a reduplication of the last syllable of *tine*)  
 458. *neru* : 3DL, they two  
     *neru ke saʔan iy* ‘the two of them are watching him’  
 459. */netu moco-/* : grandchild (grandmother speaking)  
 460. *new-1* : k.o. creeper used to sew sago  
 461. *new-2* : firefly  
 462. *ni* : fish  
 463. *nilew* : canarium nut: *Canarium indicum*  
 464. *nimwaw* : a fish: Spanish mackerel  
 465. *nipanah* : rainbow  
 466. *nisen* : inner gills (red part)  
 467. *niw* : coconut  
 468. *noh-1* : base for ‘ten’ (cf. *senoh*, *runoh*, etc.)  
 469. *noh-2* : stinging reef fish  
     *noh pok* : stonefish (lit. ‘stone stinging-fish’)  
     *noh rak* : lionfish  
 470. *noi* : k.o. fish with barbels, goatfish?  
 471. *nom* : mosquito  
 472. *non* : goldlip pearl shell  
 473. *noone* : to taste, test, try something  
 474. *nooni* : last-born sister (cf. *jibwik*)  
 475. *noʔo* : nose, snout; prow, forward part, *noʔo-k*, *noʔo-m*, *noʔo-n*  
     *noʔo con* : prow of a canoe  
     *noʔo pow* : snout of a pig  
 476. *norey* : to play  
 477. *now* : large tree used to make canoes  
 478. *nu* : squid  
 479. *nunu* : needle used to sew pandanus leaf mats  
 480. *nutu* : earthquake
- /ñ/*
481. */ñana/* : parent-in-law, *ñana-k*, *ñana-m*, *ñana-n*  
 482. *ñañaw* : widow(er)  
 483. *ñarawin* : blue, green, ‘grue’  
 484. *ñokoan* : yellow

/o/

485. *obey* : edible leaf of small tripartite-leafed shrub with red stem; the shrub itself,  
*Abelmoschus manihot*
486. *oloŋay* : brown heron
487. *omek* : tattoo, cicatrization
488. *on* : sand
489. *oocu* : thin bamboo that does not stand erect, but leans over --- used to make fish traps
490. *ooleh* : k.o. large bamboo used to make combs and to attach sago leaves in making walls
491. *ota* : muscle, flesh, *ota-k, ota-m, ota-n*  
*ota pow* : meat of a pig, pork
492. *ow* : 2SG, you  
*ow waʔan moh* ‘You are eating taro’

/p/

493. /pa/-<sub>1</sub> : thigh, *pa-k, pa-m, pa-n*
494. *pa*-<sub>2</sub> : to want, desire
495. *paahaw* : oar
496. *paaniw* : flying fish
497. *paapi* : beach
498. *paapu* : grandfather, grandchild (reciprocal), *paapu se, paapu toʔow, paapu tatiʔiy*
499. *paasen* : frog
500. *pah*-<sub>1</sub> : brain, *pah se, pah toʔow, pah tatiʔiy*
501. *pah*-<sub>2</sub> : k.o. pandanus that grows close to the beach
502. *pahum* : angry; fight in war
503. *pakan* : scar, scab (new)
504. *palah*-<sub>1</sub> : nape of the neck, *palah se, palah toʔow, palah tatiʔiy*
505. *palah*-<sub>2</sub> : structure inside a canoe consisting of two square or rectangular pieces connected by a plank; used to store things and keep the canoe from buckling under pressure
506. *palani* : prow shield on a canoe
507. *palan* : floor (TP, from English ‘plank’)
508. *paley* : sail
509. *paleyahay* : connecting fork on outrigger
510. *panah* : k.o. small slender green and blue marine fish with projecting lower jaw, probably needlefish or sharp-nosed rainbowfish
511. *papa* : father!, vocative form (TP)
512. *paʔawih* : slow; easy
513. *paʔoh* : k.o. tree whose bark is used to make baskets
514. *para* : pole, handle  
*para jay* : fishing pole  
*para samweʔen karen* : handle of axe or adze
515. *parak* : frigate bird
516. *pare*-<sub>1</sub> : (gloss uncertain; source?)  
*pare gway* : headwaters of a river

517. *pare*<sub>2</sub> : throat; *pare-k*, *pare-m*, *pare-n*  
*pare-k e sapan* ‘I’m hoarse’ (lit. ‘My throat is closed’)
518. *patow* : k.o. shore tree with long leaves like coconut fronds
519. /*pawe*/ : fat, grease, *pawe-k*, *pawe-m*, *pawe-n*
520. *pay* : stingray  
*pay pela*: manta ray
521. *pedreku* : k.o. small frog that takes long jumps
522. *peepu* : bamboo basket trap used to catch fish
523. *pehe* : (gloss uncertain)  
*pehe ca* : under, beneath
524. *pela* : (gloss uncertain; cf. *pay*)
525. *pelemek* : large flying fox
526. *peliew* : large tuna, bonito
527. *pellen* : white
528. *pen*<sub>1</sub> : night
529. *pen*<sub>2</sub> : pen (< English)
530. *pennak* : fly (generic)  
*pennak ñarawin* : blue stinging March fly
531. *pennih* : k.o. short flat gray marine eel
532. *pereci* : oyster
533. *peri* : hollow, cavity  
*peri kay* : hollow in a tree
534. *petele* : canoe platform
535. *petih* : female, woman; wife, *petih se*, *petih to?ow*, *petih tati?iy*
536. /*petu*/<sub>1</sub> : head, *petu-k*, *petu-m*, *petu-n*
537. *petu*<sub>2</sub> : seed
538. *petukulu* : large sandfly
539. *petukun* : orange-colored fish (squirrelfish?)
540. *petutah* : where?
541. *pew* : shark
542. *piahun* : afternoon, evening
543. *pilen* : garden
544. *pilu* : wild swamp taro with large leaves (*Cyrtosperma* spp.?)
545. *pini* : yesterday
546. *pise* : charcoal
547. *pita*<sub>1</sub> : body, trunk, *pita-k*, *pita-m*, *pita-n*  
*pita kay* : trunk of a tree,
548. *pita*<sub>2</sub> : on, upon
549. *pitew* : a shore tree: *Calophyllum inophyllum*
550. *plaua* : flower (TP)
551. *poh* : canoe paddle
552. *pok* : stone, rock
5531. *poka* : husk, covering (?)  
*poka niw* : coconut husk
554. *poke* : hard, of substances; difficult
555. *poley* : stick anchor

556. *polo* : many, plenty  
 557. *poloa* : to twist, twine, as fibers in making rope  
 558. *pomana* : small projections on the prow shield of a canoe (*palani*) made from the same piece of wood  
 559. *pon* : (gloss uncertain); *pon kay*: wooden bowl, wooden plate ([ponkaj])  
 560. *pon kay* : fish poison ([ponkaj])  
 561. *poʔoton* : black  
 562. *poron* : hole, in the ground, in a canoe, wall, etc.; cave  
 563. *posoa* : to turn  
       *posoa petu-m* ‘Turn your head’  
       *posoa pita-m* ‘Turn your body’  
 564. *poto* : thorn  
       *poto lepi*: sago thorn  
 565. *pow-1* : k.o. tree whose bark is used to make baskets  
 566. *pow-2* : pig  
 567. *puh* : banana  
 568. *puk-1* : Sea Poison tree whose floating seeds are sometimes used as fishnet floats:  
       *Barringtonia asiatica*  
 569. *puk-2* : fishnet float  
 NOTE: Since the seeds of the *Barringtonia asiatica* are sometimes used as fishnet floats this may be identical to *puk-1*. However, it could equally well reflect POC \*puta, which is the interpretation adopted here.  
 570.. *pukey* : clam  
 571.. *puko* : k.o. four-cornered fish  
 572.. *puku* : mushroom  
 573.. *puli-* : face, countenance  
 574.. *pullen* : sky  
 575.. *pulum* : moss  
 576.. *pun* : moon; month  
 577.. *puruku* : small sandfly  
 578.. *puse* : island  
 579.. *pusuku* : snail  
 580. *putiw* : grass  
 581. *putun* : open sea?  
       *alo putun* : deep water beyond the reef  
 582. *puusaku* : small fruit bat or flying fox
- /pw/
583. *pwaha* : mouth, *pwaha-k*, *pwaha-m*, *pwaha-n*;  
       *pwaha gway* : mouth of a river, estuary  
 584. *pwakom* : hermit crab  
 585. *pwalin* : (gloss uncertain; cf. *con*)  
 586. *pwapuse* : foam  
       *pwapuse cah* : foam of breakers on the shore  
 587. *pweiha* : last-born brother

588. *pweleʔeh* : sand crab  
 589. *pwepwe* : insectivorous bat  
 590. *pweſe* : wing  
       *pweſe ſirih* : wing of a bird  
 591. *pweſeken* : soft  
 592. *pwie* : fruit, betel nut; testicles, *pwie-k*, *pwie-m*, *pwie-n*  
       *pwie kay* : the fruit of a tree  
 593. *pwiey* : crocodile  
 594. *pwiley* : rat  
 595. /pwili/-<sub>1</sub> : forehead, face, *pwili-k*, *pwili-m*, *pwili-n*  
 596. *pwili*-<sub>2</sub> : mountain  
 597. *pwilih* : fallow land  
 598. *pwilipwin* : coconut shell  
 599. *pwiliʔiw* : k.o. insect  
 600. *pwinek* : earth, mud  
 601. *pwini* : roof  
 602. /pwiiʔi/ : vulva, *pwiiʔi-k*, *pwiiʔi-m*, *pwiiʔi-n*  
 603. *pwirije* : trivet, three stones of the hearth  
 604. *pwirik* : honeybee  
 605. *pwiriw* : k.o. trunkless pandanus with leaves that grow directly from the ground  
 606. *pwisi* : shell, container, covering  
       *pwisi ah* : lime gourd  
       *pwisi cikiley* : coconut husk  
       *pwisi gway* : (gourd) water bottle  
       *pwisi karahak* : turtle shell  
       *pwisi kay ~ pusi kay* : tree bark  
       *pwisi lime-*: fingernail  
       *pwisi ni*: fish scale  
 607. *pwiten* : node in bamboo or sugarcane  
 608. *pwitik* : to pinch  
 609. *pwitiw* : grass, weeds
- /r/
610. *raharah* : k.o. stingray with large mouth  
 611. *rak*-<sub>1</sub> : (gloss uncertain; cf. *noh*)  
 612. *rak*-<sub>2</sub> : whale  
 613. *ramweh* : kelp, seaweed with small water-filled bulbs  
 614. *rawa* : 1,000  
 615. *rayew* : k.o. barracuda  
 616. *rok* : porkfish  
 617. *rola* : rollers for beaching a canoe (TP < English ‘rollers’)  
 618. *ru-* : two (bound form in *ru-noh* ‘20’, *ru-nak* ‘200’, etc.)  
 619. *rueh* : two (in serial counting)  
       *co-rueh* : eight (in serial counting)  
 620. *rukam* : two (in counting bunches, as of coconuts)  
       *co-rukam* : eight (in counting bunches, as of coconuts)



621. *rulem* : two (in counting houses)  
       *co-rulem* : eight (in counting houses)
622. *rumow* : two (in counting at least children, dogs, pigs, fish and leaves)  
       *co-rumow* : eight (in counting at least children, dogs, pigs, fish and leaves)
623. *runak* : two hundred (in serial counting)  
       *co-runak* : eight hundred (in serial counting)
624. *runoh* : twenty (in serial counting)  
       *co-runoh* : eighty (in serial counting)
625. *ruʔay* : two (in counting trees)  
       *co-ruʔay* : eight (in counting trees)

/s/

626. *sa* : a tree of coastal swamps, mangrove (recorded only as *mocosa*, presumably ‘mangrove roots’)
627. *saakow* : long Malay apple (cf. *nah*-3)
628. *saasah* : to catch, as a fish, or a ball that is thrown
629. *sabon* : point, cape (of land)
630. *sadraaken* : k.o. blue-green lizard that climbs coconut trees
631. *sadrih* : to run  
       *mwi sadrih i le a cah* ‘A/the dog is running to the sea’
632. /sah/.<sub>1</sub> : catch (?)  
       *sa-sah* : to catch  
       *sah-iy* : caught
633. *sah*.<sub>2</sub> : sea urchin
634. *sahokew* : kingfisher
635. *saka* : fork of branch, space between spread fingers
636. *sakalem* : to swallow
637. *sakamah* : to bark, of a dog  
       *mwi sakamah* ‘A/the dog is barking’
638. *sakaro* : centipede
639. *saki* : dorsal fin  
       *saki ni* : dorsal fin of a fish
640. *sakow* : multi-pronged  
       *nenah sakow* : multi-pronged fish spear
641. *salak* : k.o. vine used to sew sago leaves
642. *sala-n* : channel, passage through the reef  
       *sala gway* : fresh water channel
643. *salapuk* : k.o. white fish with hard skin
644. *sam* : outrigger float
645. *samen* : knife
646. *samo* : one (in counting at least children, dogs, pigs, fish and leaves)  
       *co-samo* : nine (in counting at least children, dogs, pigs, fish and leaves)
647. *samweʔen* : (gloss uncertain)  
       *samweʔen karen* : axe
648. *san* : path, road

649. *sanan* : bare, bald  
*petu-m sanan* ‘you are bald’
650. *sapan*<sub>-1</sub> : closed; sore, of the throat, hoarse
651. *sapan*<sub>-2</sub> : interrogative, how many?
652. *sapara* : to throw (as a stone)  
*sapara iew* : to throw away,
653. *sapaye* : green grasshopper
654. *sapow* : to split; to whittle
655. *saʔa ~ saʔe* : sap  
*saʔa kun ~ saʔe kun* : breadfruit sap
656. *saʔah* : sweat, perspiration  
*je e saʔah* ‘I am sweating’
657. *saʔay* : one (in counting trees)  
*co-saʔay* : nine (in counting trees)
658. *saʔun* : to bail  
*saʔun gway*: to bail water, as from a canoe
659. /sare/ : name, *sare-k*, *sare-m*, *sare-n*  
*sare-m esi* ‘What is your name?’ (lit. ‘Who is your name?’)
660. *say* : to carry on a pole between two men; carrying pole
661. *se*<sub>-1</sub> : 1SG possessor, my,  
*petih se*: my wife  
*cikiley se*: my coconut
662. *se*<sub>-2</sub> ~ *si-* : one (clitic form seen in e.g. *senoh* ‘10’, as opposed to *runoh* ‘20’)
663. *sebelan*<sub>-1</sub> ~ *sebeliy* : to stick, adhere; bird lime, breadfruit sap used to catch birds
664. *sebelan*<sub>-2</sub> : when
665. *seh* : interrogative, what?
666. *seken* : to want, desire
667. *sekese* : pity, sympathy, love
- 668.. *selehiy* : to find—attested only in the phrase *ceh selehiy* ‘to find’
669. *selem* : one (in counting houses)  
*co-selem* : nine (in counting houses)
670. *seli*<sub>-1</sub> : middle?  
*seli lahalah*: noon
671. /seli/<sub>-2</sub> : muscle, flesh, *seli-k*, *seli-m*, *seli-n*  
/seli kelite/ : calf of the leg, *seli kelite-k*, *seli kelite-m*, *seli kelite-n*
672. *selien* : painful  
*petu-k selien* : my head aches, I have a headache
673. *selin* : right side
674. *selo* : flowing (?)  
*gway selo*: river
675. *senoh* : ten (in serial counting)  
*co-senoh* : ninety (in serial counting)
676. *sepa* : my, mine (cf. *se*)
677. *seriʔen* : wet
678. *sewie* : to buy

679. *sih* : to sweep  
       *ow sih* : ‘Sweep it!’  
       *si-sih* : broom
680. *sihiih* : edible shellfish with black shell
681. *sikam* : one (in counting bunches, as of coconuts)  
       *co-sikam* : nine (in counting bunches, as of coconuts)
682. *sim* : sticks for the sail on a canoe, yard of the sail
683. *sinak* : one hundred  
       *co-sinak* : nine hundred
684. *sini* : young plant shoot  
       *sini moh*: taro sucker
685. *sirih* : bird
686. *sirihiiy* : to sew
687. *sohoa* : to wash  
       *sohoa mita-m* ‘Wash your face!’
688. *soi* : quick, fast (also heard as [súwi?])
689. *solaʔan* : much, many
690. *solay* : marlin, swordfish
691. *solukey* : to stand, rise
692. *somuna* : to blow (of the wind, on a fire, to inflate a balloon, etc.); to puff
693. *son* : hunger; famine  
       *maku-son* : hungry
694. *soohan* : ridgepole
695. *soray* : k.o. areca palm without a useful nut, black palm
696. *soroyaniy* : to expel?  
       *soroyaniy winni* : to blow the nose
697. *soyem* : k.o. tree with bark that can be used to make rope
698. *su*<sub>1</sub> : comb
699. *su*<sub>2</sub> : k.o. medium-sized whitish fish that lives in river mouths
700. *sua* : sore (TP)
701. *subuto-* : navel? (cf. *mita*)
702. *suh* : female breast, *suru-k*, *suru-m*, *suru-n*
703. *suih* : short yam
704. *suk* : gloss uncertain; cf. *mita*)
705. *sukay* : rope, string
706. *sukutun* : few
707. *sulusi* : to fill (?)  
       *sulusi poron* : to caulk (fill a hole?)
708. *sun* : coconut leaf torch

/t/

709. *ta- ~ te- ~ to-* : possessive classifier for coconuts; *cikiley tatiʔiy*: his coconut, *cikiley teteru*: our (dual.IN) coconut, *cikiley toʔow*: your coconut
710. *taanu* : to call, hail someone

711. *tahay* : to put, to place  
 712. *talaw* : (gloss uncertain; cf. *mwak*)  
 713. *talay* : k.o. small white fish eaten by the *ni cen* (sardine?)  
 714. *talo* : far  
 715. *taloh* : three (in serial counting)  
       *co-taloh* : seven (in serial counting)  
 716. /*tama*/ : father; *tama-k*, *tama-m*, *tama-n*  
 717. *tati?iy* : 3SG possessor, his/her  
 718. *tatok* : to stand, rise  
 719. *te*<sub>1</sub> : for, in order to (?; cf. *kay*)  
       *kay te y-a?an ah* : lime spatula (lit. ‘stick for eating lime’)  
 720. *te*<sub>2</sub> : (gloss uncertain)  
       *mwi samo i e?en emuh te esew* ‘A dog is behind the house’  
 721. *tedro* : 3PL possessor, their  
       *tedro-cetulumow*: 3TL possessor (that which the three of them possess)  
 722. *telehen* : thin, of materials  
 723. *teneru* : 3DL possessor, their two (that which the two of them possess)  
 724. *te?ah* : 2DL possessor, your two (that which the two of you possess)  
 725. *te?eto* : 2PL possessor, your  
 726. *te?etu* : 1PL..EX possessor, our  
       *te?etu-cetulumow*: 1TLEX possessor, our three (that which we three possess)  
 727. *terien* : spotted, multi-colored  
 728. *teru* : 1DL.IN, we  
       *teru y-a?an moh* ‘The two of us are eating taro’  
 729. *tet* : to walk  
       *ow tet* ‘You are walking’, ‘Walk!’  
 730. *teteru* : 1DL.IN possessor, our two, that which we two possess (jointly)  
 731. *teto* : 1PL.IN possessor, our  
       *teto-cetulumow*: 1TL.IN possessor, our three (that which we three possess)  
 732. *tie* : to say, tell, speak  
 733. /*tine*/ : mother; *tine-k*, *tine-m*, *tine-n*  
 734. *tirip* : young coconut with shell that is still soft, and meat not yet formed  
 735. *to* : 1PL.IN, we  
       *to y-a?an moh* ‘We are eating taro’  
       *to-cetulumow* : 1TL.IN, we three  
 736. *toni?an* : to know things, be expert at  
 737. *to?ow* : 2SG possessor, your  
 738. *tose* : (gloss uncertain; cf. sentences 49, 50)  
 739. *totoreh* : to shiver, as with cold  
 740. *tuk* : dull, blunt  
 741. *tulukam* : three (in counting bunches, as of coconuts)  
       *co-tulukam* : seven (in counting bunches, as of coconuts)  
 742. *tululem* : three (in counting houses)  
       *co-tululem* : seven (in counting houses)  
 743. *tulumow* : three (in counting at least children, dogs, pigs, fish and leaves)  
       *co-tulumow* : seven (in counting at least children, dogs, pigs, fish and leaves)

744. *tulunek* : three hundred (in serial counting)  
       *co-tulunek* : seven hundred (in serial counting)  
 745. *tuluʔey* : three (in counting trees)  
       *co-tuluʔey* : seven (in counting trees)  
 746. *tunueh*: thirty  
       *co-tunueh* seventy  
 747. *turukow* : (gloss uncertain; cf. *mwak*)

/u/

748. *u* : genitive marker, of (?); cf. *cu*  
 749. *uh* : rain  
 750. *uhu* : to tie, as by wrapping around; tie a knot  
 751. *uk* : to submerge a container to fill it  
       *ia uk ~ e uk* ‘Fill it up!’  
 752. *uluw* : tide, current (?)  
       *uluw ettuh* : high tide, flood  
 753. *un* : maggot, earthworm  
 754. *uʔun* : drink  
       *y-uʔun*: to drink  
       *ow uʔun gway* ‘Drink the water!’  
 755. *uri* : dolphin  
 756. *uruay* : lobster  
 757. *usiw* : rattan, vine

/w/

758. *w-* : 2SG verb prefix (cf. *aʔan, uʔun*)  
 759. *wadria* : false, lie  
 760. *walow* : watery? (cf. *esi*)  
 761. *waʔow* : k.o. thin bamboo used to make fish spears and fish traps  
 762.. *wasoh* : pus  
 763.. *wati* : monitor lizard, *Varanus* spp.  
 764. *watuh* : fog, mist  
 765. *we* : juice; bodily fluid  
       *we i cikiley* ‘coconut water’  
       *we i mita-* : tears  
       *we i pwaha-*: saliva  
       *we i suru-* : breast milk  
 766. *weri* : song  
 767. *winni* : wet nasal mucus, snot

/y/

768. *y-* : verb prefix for all persons and numbers except 2SG  
 769. *ya-1* : and, also  
 770. *ya-2* : so, therefore, for that reason

771. *yahay* : west wind, west  
 772. *yariw* : to pluck, pull out; pull a rope, canoe, etc.  
 773. *yaye* : grandmother  
 774. *ye* : to want, desire  
 775. *yeʔum* : to strike, hit  
       *yeʔum na kay*: to hit with a stick  
 776. *yeto* : there (far from hearer); that (far from hearer)  
 777. *yiʔin* : to lie down, recline (= e-iʔin?)

#### 5.4.1 English- Likum Index

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sore (throat)	:	sapan
sour	:	enuhe
south	:	lan
to speak	:	tie
spear	:	nenah
spearpoint	:	nehenah
spider	:	kaanolew
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to spill	:	emow
spirit	:	melue, nam
to spit	:	kurusom
split	:	sapow
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to squeeze	:	ekkek
squid	:	nu
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to stab	:	iron
to stand	:	solukey, tatok
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to steal	:	ekkeh
stench	:	enuhun ca?in
stern (of canoe)	:	con emuh
stick (wood)	:	kay
to stick (adhere)	:	sebelan ~ sebeliy
stingray	:	pay, raharah
to stink	:	epura
stomach	:	kote?en
stone	:	pok
story	:	kudruh
straight	:	mwennen

to strike (s.o., s.t.)	:	yeʔum
string (n.)	:	sukay
to string (as fish)	:	ecuk
to submerge	:	ettuh, uk
to suck	:	kesueh
sugarcane	:	adray
sun	:	an
surf	:	gwey
to swallow	:	sakalem
sweat	:	saʔah
to sweep	:	osih
sweet	:	naman
sweet potato	:	kassow
to swim	:	ejay
swollen	:	ellah
sword grass	:	kaamwi
sympathy	:	sekeseke
taboo	:	cepwien
tail	:	koliʔi
to take	:	kati
to talk	:	maw
talk in one's sleep	:	emmih, kulukun
tall	:	laweʔen
taro	:	kalah, lok, moh, pilu
to taste	:	noone
tasty	:	naman
tattoo	:	omek
tears	:	we i mata
to tell	:	tie
ten	:	senoh
tendon	:	len
termite	:	lululala
to test	:	noone
testicle	:	pwie-
that	:	eliy
thatch	:	ak
their	:	tedro, teneru
there	:	eliy, yeto
they, them	:	dro, neru
thief	:	ekkeh
thigh	:	pa-
thin (of materials)	:	telehen
to think	:	eputon
thirty	:	tunueh
this	:	eteh
thorn	:	poto

thousand	:	rawa
three	:	taloh, tulukam, tululem, tulumow, tulu?ey
three hundred	:	tulunek
throat	:	pare-
to throw	:	sapara
to throw away	:	sapara iyew
thunder	:	kuruh
tidal wave	:	lumulum
tide, high	:	uluw ettuh
tide, low	:	mak
to tie	:	uhu
to	:	ile
tobacco	:	burus (TP)
tomorrow	:	aruah
tongs	:	cicim
tongue	:	karama?e-
tooth	:	lihe-
torch	:	sun
toward	:	ile, imi
tree	:	kay
trees (types)	:	celih, ew, eyeh, ih, kahah, kurihiw, lah, mamah, maña, mudru, muroh, mwisim, nak, now, patow, pitew, pow, puk, sa, soray, soyem
trivet	:	pwirije
Trochus shell	:	lan
true	:	hadru
trumpet (shell)	:	cah
trunk, tree	:	pita-
try	:	noone
turn	:	posoa
turtle	:	karahak
twenty	:	runoh
twin	:	mumwih
to twine	:	poloa
to twist	:	poloa
two	:	rueh, rukam, rulem, rumow, ru?ay
two hundred	:	runak
uncooked	:	mata?an
under	:	pehe ca
upstream	:	macey
urinate	:	emi
vagina	:	pwi?i-
vein	:	len
village	:	koh

vine	:	salak, usiw
to vomit	:	emok
vulva	:	pwiʔi-
wake up	:	mak
walk	:	ootet
wall (of house)	:	keʔu esew
to want	:	pa, seken, eʔen
to wash	:	sohoa
water, fresh	:	gway
water, salt	:	cah
watery	:	walowʔ
we	:	eru, etu, haweto, to, tocetulumow
to weave	:	iti
to weep	:	cilen
west, west wind	:	yahay
wet	:	seriʔen
whale	:	rak
what?	:	seh
when?	:	sebelan
where?	:	petutah
to whet	:	esehek
white	:	pellan
who	:	esi
whole	:	cesaʔay
why?	:	ilepukuse
wide	:	mudraʔan
widow(er)	:	ñañaw
wildfowl	:	kayaw
will (future)	:	ki, k-
wind (n.)	:	joh, kum, lan
wing	:	pwece
to wink	:	iti
with (instrumental)	:	na
woman	:	petih
wood	:	cuʔu, kay
to work	:	lohow
to write	:	etarow
yam	:	kana, suih
yard of the sail	:	sim
yellow	:	ñokoan
yesterday	:	pini
you	:	ah, eto, ow
young	:	luew
your	:	teʔah, teʔeto, toʔow

**5.5. HISTORICAL PHONOLOGY.** As noted previously, all languages of the Admiralty Islands lost POC final consonants, and all languages except Wuvulu-Aua and one of the extinct languages of the Kaniet Islands lost the vowel that preceded a final consonant. Examples of this change of canonical shape in Likum are shown in Table 5.11:

**Table 5.11:** Canonical reduction of Proto-Oceanic word forms in Likum

POC	Likum	
*qatop	ak	thatch
*apaRat	yahay	west monsoon
*tasik	cah	sea, saltwater
*draRaq	cay	blood
*kuron	kuh	clay cooking pot
*ruyuŋ	cu	dugong
*sa-ŋaRatus	sinak	one hundred
*baluc	ban	pigeon
*qipil	ih	ironwood: <i>Intsia bijuga</i>
*qapuR	ah	lime for betel chew
*sipiri	sihih	cockatoo

As a result of canonical reduction, original disyllables that were not suffixed are reflected as monosyllables, while original trisyllables and sometimes longer words are reflected as Likum disyllables, as with *yahay*, *sinak* and *sihih*. In one known case a POC vowel before a word-final consonant was retained: \*potok > *poto* ‘thorn’. This may be because a reflex of \*potok occurred only preceding a noun that modified it, and the entire phrase was treated as a single phonological word, as in Likum *poto lepi* ‘sago thorn’, the sole context in which it was recorded.

In the following discussion medial consonants which became final through these changes are described as occupying a ‘derived final position’. As with other languages of Manus, particularly those of western Manus, consonant change has been rather extensive in Likum. A summary of major developments appears in Table 5.12:

**Table 5.12:** Likum reflexes of POC consonants

POC	Likum
*pw	pw
*bw	?
*mw	mw, m
*w	w
*p	p- (in nouns) h (elsewhere)
*b	p
*m	m
*t	c- (in nouns) t- (elsewhere) -k

*d	h
*s	s-, r- -h
*n	n
*r	c- (in nouns) r- (elsewhere) -h
*dr	c- -h
*l	l- -n
*c	h
*j	h,c
*ñ	n/ñ- -n/y *y                      y, j
*k	k- (in nouns) Ø (elsewhere)
*g	k
*ŋ	ŋ, k
*q	Ø
*R	y, Ø

Only a single reflex of POC \*pw was recorded, where it remained unchanged in \*kupwena > *kupwen* ‘rectangular fishing net’. No reflexes of \*bw are known in Likum.

Word-initially POC \*mw or its continuation in PADM became either /mw/ or /m/ without storable conditions. Examples of the first type are found in POC \*mwata > *mwak* ‘snake’, PADM \*mwatV > *mwatuk* ‘white dove sp.’, and POC \*mwane, PADM \*mwane-mwane-na > *mwennen* ‘straight’. In all known cases the change \*mw- > m- in Likum resulted from a transfer of rounding to the following vowel. The comparative evidence suggests that this was a late change in POC \*mwanoRe > PADM \*mwanoy > *money* ‘unicorn fish’, POC/PADM \*mwapo > *moh* ‘taro: *Colocasia esculenta*’ and POC/PADM \*mwamwaki > *momwak* ‘juvenile squid (with shell)’ (cp. Lindrou *mwah*, Sori *mwap* ‘taro’, Nali *mwamwak*, Baluan, Lou *mwamway* ‘shelled squid), or POC \*mapo (PADM \*mwapo) > *kice-moh* ‘heal, recover’, but an early change in POC \*mwaña > PADM \*moña > Likum *mon* ‘a plant: *Pandanus conoideus*’. Medially \*mw became /m/ in one form and /mw/ in another: \*tamwata > *camak* ‘person, human being’, \*mwamwaki > *momwak* ‘juvenile squid (with shell)’.

POC \*w generally remained unchanged as both onset and coda in derived final position:

\*w > w: POC \*waiR > *we* ‘fresh water’, \*kanawe > *kanaw* ‘seagull’, \*kawil > *kaw* ‘fishhook’, \*ma-wiRi > *ke-mow* ‘left side’, \*bakewak > *pew* ‘shark’. This development is further supported by PADM \*watiV > *wati* ‘monitor lizard’, and PADM \*cawa > *cew* ‘sleeping mat’.



In one known case \*w disappeared word-initially and in another it is reflected as gw: \*waiwai > \*wewey > ewey ‘mango’, \*waiR > gway ‘fresh water’. However, the latter form is a doublet, since we, which occurs in such expressions as we i mita- ‘tears’ and we i pwaha- ‘saliva’ also reflects POC \*waiR. It follows that gway probably is a loanword, although a source and a motivation for borrowing such a basic term remains unclear.

In a few other cases the sequence \*-wa- or \*-aw- contracted to -o-, as in POC \*lawa > lo ‘long fishnet’, or POC \*mawiRi > PADM \*ka-mawi > kemow ‘left side’.

As in other Admiralty languages, POC \*p shows a split development, with fortition word-initially in nouns as a result of the weakening of the vowel in the common noun article \*na, and fusion of the nasal with the base-initial consonant, illustrated by the following forms:

\*p- > p-: \*paqa- > pa- ‘thigh’, \*padran > pah ‘pandanus’, \*pa-layaR > paley ‘sail’, \*paRi > pay ‘stingray’, \*pataŋ > pita- ‘trunk (of tree); body’, \*pitaquR > pitew ‘a shore tree: *Calophyllum inophyllum*’, \*pose > poh ‘canoe paddle’, \*patu > pok ‘stone’, \*potok > poto ‘thorn’, \*pudi > puh ‘banana’, \*pulan > pun ‘moon’, \*putun > puk ‘a shore tree: *Barringtonia asiatica*’.

When it came to stand before a prevocalic /u/ POC \*p developed into Likum /pw/ by transfer of rounding from the vowel to the preceding consonant, as in \*puaq > pwie ‘areca palm; fruit’, or \*puqaya (> \*puaya) > pwiey ‘crocodile’. Before a preconsonantal /u/ the sequence \*pu was maintained without change, as in \*pudi > \*budri > puh ‘banana’, \*pulan > \*bula > pun ‘moon, month’, \*puta > \*buta > puk ‘fishnet float’, or \*putun > \*butu > puk ‘a shore tree: *Barringtonia Asiatica*’. One etymology appears to depart from this pattern: \*puki > \*buki- > pwiŋ- ‘vulva’, and in another etymology POC \*p > pw before a low vowel: \*papaq > pwaha- ‘mouth’.

In all other environments \*p became h-, both as word onset in words other than nouns, and in non-initial position in any word class:

\*p > h: POC \*qapuR > ah ‘lime for betel chew’, \*qapatoR > ahok ‘sago grub’, \*tapuRi > cah ‘conch shell trumpet’, \*mipi > e-mmih ‘to dream’, \*paluja > heluh ‘to paddle’, \*qipil > ih ‘a hardwood tree: *Intsia bijuga*’, \*api > jeh ‘fire’, \*katapa > katah ‘large black bird’, \*mapo > kice-moh ‘to heal’, \*mwapo > moh ‘taro’, \*nopus > noh ‘stonefish’, \*paŋan-i > no-han ‘to feed’, \*sa-ŋa-puluq > senoh ‘ten’, \*sapa > seh ‘what?’, \*apaRat > yahay ‘west wind’.

POC \*b became Likum p, where it merged with \*p word-initially in nouns:

\*b > p: \*boŋi > pen ‘night’, \*batuk > petu- ‘head’, \*bakewak > pew ‘shark’, \*boRok > pow ‘pig’.

In a single known case it is reflected instead as a voiced stop, possibly because it is in intervocalic position, where sporadic voicing of /p/ was heard in other words, and this one was recorded only once as a citation form: POC \*buto- > mita-su-buto- ‘navel’.

In derived final position the single available example shows \*b (which was [mb]) > -m:

\*b > -m: \*koba > pwa-kom ‘hermit crab’.

POC \*m usually remained unchanged in Likum in all positions: \*mutaq > *e-mok* ‘to vomit’, \*matiruR > *metin* ‘to sleep’, \*mata > *mita-* ‘eye; center’, \*mola > *mon* ‘dugout canoe’ \*kamali > *kaman* ‘male; men’s house’, \*kamea > *kame?e-* ‘tongue’, \*lima > *lime-* ‘hand’, \*lima > *limeh* ‘five’, \*ñamuk > *nom* ‘mosquito’, \*saman > *sam* ‘outrigger float’.

However, in one known form \*m became /mw/ as onset, and in another it disappeared as coda: PADM \*mosimo > *mwisim* ‘a shore tree: *Casuarina equisetifolia*’, POC \*mimiŋ > *e-mi* ‘to urinate’.

POC \*t has three separate regular developments in Likum. First, word-initially in nouns it became \*d- ([nd]), and this historically secondary \*d- then further changed to c-.

\*t (> \*d) > c: \*tapuRi (> PADM \*dapuy) > *cah* ‘conch shell (trumpet)’, \*tamata (\*damata) > *camak* ‘person, human being’, \*talise (PADM \*dalise) > *celih* ‘a shore tree: *Terminalia catappa*’, \*taliŋa (PADM \*daliŋa-) > *cine-* ‘ear’, \*tokon (PADM \*doko) > *co* ‘punting pole’, \*tuRu (PADM \*du) > *cu* ‘housepost’.

In two known cases nouns that we would expect to show secondary prenasalization do not: POC \*tama (PADM \*tama-) > *tama-* ‘father’, \*tina (PADM \*tina-) > *tine-* ‘mother’. As in other languages of the Admiralties, these nouns apparently were not preceded by the common noun article \*na, as they may have been used more as personal names. When it did not undergo secondary prenasalization POC \*t became Likum /t/ as a syllable onset, and /k/ as a coda:

\*t > t-: \*qate ‘liver’ > *ate-* ‘liver, heart; chest’, \*qutin > *iti-* ‘penis’, \*katapa > *katah* ‘frigate bird’, \*katita > *ketik* ‘putty nut’, \*mata > *mita-* ‘eye’, \*mataŋ > *mata?a-n* ‘raw’, \*matiruR > *metin* ‘to sleep’, \*natu > *nahatu-* ‘child’, \*batuk > *petu-* ‘head’, \*pitaŋuR > *pitew* ‘a shore tree: *Calophyllum inophyllum*’, \*potok > *poto* ‘thorn’, \*tolu (> PADM \*tolu-pu) > *taloh* ‘three’, \*tama- > *tama-* ‘father’, \*tina- > *tine-* ‘mother’.

\*t > -k: \*qapatoR > *ahək* ‘sago grub’, \*qatop > *ak* ‘thatch’, \*tamata > *camak* ‘person, human being’, \*mamata > *e-mmak* ‘wake up’, \*mutaq > *e-mok* ‘to vomit’, \*mate > *i-mak* ‘die, dead’, \*katita > *ketik* ‘putty nut’, \*kotoŋ > *kok* ‘large grouper’, \*kuRita > *kuik* ‘octopus’, \*kutu > *kuk* ‘louse’, \*loto > *lok* ‘boil, abscess’, \*ma-qati > *mak* ‘low tide, dry reef’, \*mwata > *mwak* ‘snake’, \*ñatuŋ > *nak* ‘k.o. hardwood tree’, \*salatoŋ > *nalak* ‘stinging nettle’, \*patu > *pok* ‘stone’, \*putun > *puk* ‘a shore tree: *Barringtonia Asiatica*’, \*puta > *puk* ‘fishnet float’, \*rato > *rak* ‘whale’, \*sa-ŋa-Ratus > *sinak* ‘one hundred’, \*qutup > *uk* ‘submerge a vessel to fill it’.

In one known etymology \*t in derived coda position became h: \*natu > *nah* ‘child’ (but *nahatu-* ‘child’ in possessive constructions).

In the only known reflex of POC \*d, this phoneme merged with \*dr as Likum –h

\*d > h: \*pudi (PADM \*budi) > *puh* ‘banana’.

POC \*s usually became Likum s as syllable onset, but h as syllable coda.

\*s > s- : \*saŋa-saŋa > *dra-sak* ‘starfish’, \*qasu > *esu-* ‘gall, gall bladder’, \*kasu > *kesu eh* ‘smoke’, \*ŋusu > *kusu-* ‘lip’, \*saŋa > *saka-* ‘fork of a branch’, \*salan-an > *sala-n* ‘path, road; channel’, \*saman > *sam* ‘outrigger float’, \*salan > *san* ‘path, road’, \*sa-ŋapuluq > *senoh* ‘ten’, \*siRi > *si* ‘croton sp.’, \*sipiri > *sihih* ‘cockatoo’, \*sa-ŋaRatus > *sinak* ‘100’, \*saku-layaR > *solay* ‘sailfish’, \*soŋe > *son* ‘famine’, \*sura > *su* ‘comb’, \*suRuq > *su* ‘soup’, \*suluq > *sun* ‘torch’, \*sunu > *sun* ‘to roast, burn’.

\*s > -h: \*tasik > *cah* ‘sea, saltwater’, \*talise > *celih* ‘a shore tree: *Terminalia catappa*’, \*lisaq > *lih* ‘nit, egg of a louse’, \*mwasasi > *morah* ‘goatfish sp.’, \*pose > *poh* ‘canoe paddle’, \*susu > *suh* ‘female breast’ (free form), \*qusan > *uh* ‘rain’.

In two known cases \*s became *r* in onset position, and in two others it remained a sibilant word-finally:

\*s > r-: \*masoki > *murow* ‘cinnamon tree’, \*susu > *suru-* ‘female breast’ (possessed form).  
 \*s > -s: \*qisaq > *is* ‘shoo! (said to frighten away animals that have invaded human space)’, \*kasusu > *kasus* ‘coconut crab’.

The first of these seems clearly to be a retention motivated by the pragmatic force of the word: the syllable *is* is uttered loudly at an animal that has intruded into human space, and it would lose its functional effectiveness if it became *ih*. The last word, as well as PEADM \*kawas > *kawas* ‘friend’ are almost certainly borrowings of Lindrou *kasus* and *kawas* respectively.

POC \*n remained unchanged in Likum in all positions:

\*n > n: \*tanoq ‘earth’ > *e-cen* ‘earth; down’, \*kanawe > *kanaw* ‘seagull’, \*kani > *kan-ay* ‘eat; food’, \*natu > *nahatu-* ‘child’, \*niuR > *niw* ‘coconut palm’, \*nopo-nopo > *noh* ‘fearful, intimidated’, \*nopuq > *noh* ‘stonefish’, \*qone > *on* ‘sand’, \*panapa > *panah* ‘garfish’, \*sunu > *sun* ‘to roast, burn’, \*tina > *tine-* ‘mother’.

Word-initially in nouns POC \*r became *c* (from intermediate \*dr):

\*r (> dr) > c: \*ruyuŋ > *cu* ‘dugong’, \*ruRi > *cui-* ‘bone’.

In two known forms POC \*r is instead reflected as *dr*:

\*r > dr: \*raŋan > *a-dra-* ‘branch’, \*raki ‘southeast trade winds’ > *dray* ‘northwest wind’.

The first of these almost certainly is a borrowing of Lindrou *adra*, but the source of *dray* is less certain. In addition, word-initial \*r is reflected as *l* in two known nouns, one of which may be a chance resemblance:

\*r > l: \*raŋi > *lan* ‘day’, \*raun > *le?u-* ‘leaf’ (?).

Word-initially in non-nouns and medially in any word (where it did not undergo secondary prenasalization) \*r usually became *r*:

\*r > *r*: POC \*kamea- > *kameʔe*- ‘tongue’, \*kareŋas > *karen* ‘red parrot’, \*kururu > *kuruh* ‘thunder’, \*rua (> PADM \*ruo-pu) > *rueh* ‘two’, \*kuriap > *uri* ‘dolphin’, \*quraŋ > *ur-uay* ‘lobster’.

In derived final position \*r normally became *h*:

\*r > *-h*: \*muri > *e-muh* ‘behind; stern of canoe’, \*kuron > *kuh* ‘clay cooking pot’, \*kururu > *kuruh* ‘thunder’, \*sipiri > *sihih* ‘cockatoo’.

In one known case it is reflected as *-n*, and in another it disappeared: \*matiruR > *metin* ‘to sleep’, \*sura > *su* ‘comb’.

POC \*dr became Likum /c/ as syllable onset, but /h/ in the single known case in coda position:

\*dr > *c-*: \*d(r)amut > *cam* ‘lime spatula’, \*drali > *can* ‘slitgong’, \*draRaŋ > *cay* ‘blood’

\*dr > *-h*: \*padran > *pah* ‘pandanus’.

\*POC \*l became Likum *l* as syllable onset:

\*l > *l*: \*talise > *celih* ‘a shore tree: *Terminalia catappa*’, \*paluca > *heluh* ‘to paddle a canoe’, \*lawa > *kano-lew* ‘spider’, \*lako > *la* ‘to go’, \*lace > *lac* ‘coral limestone’, \*lalak > *lan* ‘Trochus shell’, \*laŋa > *ley* ‘ginger’, \*liŋa > *lih* ‘nit, louse egg’, \*lipon > *lihe-* ‘tooth’, \*lima > *lime-* ‘hand’, \*lawa > *lo* ‘long fishnet’, \*loto > *lok* ‘boil, abscess’, \*salatoŋ > *nalak* ‘stinging nettle’, \*pa-layaR > *paley* ‘sail’, \*lumut > *pu-lum* ‘moss, algae’, \*salan-an > *salan* ‘channel, passage through reef’, \*tolu (> PADM \*tolu-pu) > *taloh* ‘three’.

In derived final position \*l normally became *n*:

\*l > *-n*: \*qalu > *an* ‘barracuda sp.’, \*qalo > *an* ‘sun’, \*baluc > *ban* ‘pigeon’, \*drali > *can* ‘slitgong’, \*tola > *con* ‘outrigger canoe’, \*kamali > *kaman* ‘men’s house’, \*kuluR > *kun* ‘breadfruit’, \*lalak > *lan* ‘Trochus shell’, \*mola > *mon* ‘dugout canoe’, \*pulan > *pun* ‘moon, month’, \*salan > *san* ‘path, road’, \*suluŋ > *sun* ‘coconut leaf torch’, \*quloc > *un* ‘maggot’.

In one known case \*l which remained intervocalic became *n*: \*suliŋ > *sini-* ‘plant shoot’. In another it disappeared either between vowels, or as a result of cluster reduction after medial vowel syncope: \*taliŋa > *cine-* ‘ear’.

A reflex of POC \*c is known in just one form; where it became *h*:

\*c > *h*: \*paluca > *heluh* ‘to paddle a canoe’.

Reflexes of POC \*j are known in two forms. In one it became *h*, and in the other *c*:

\*j > h: \*kiajo > *kieh* ‘outrigger boom’.

\*j > c: \*laje > *lac* ‘coral limestone’.

In onset position POC \*ñ usually became Likum *n*:

\*ñ > n: \*ñatu > *nak* ‘hardwood tree with edible green fruit: *Burkella obovata*’, \*ñaman-na > *naman* ‘sweet, tasty’, \*ñamuk > *nom* ‘mosquito’.

However, in a few cases \*ñ is preserved as a palatal nasal both in reflexes of POC and of Proto-Eastern Admiralty reconstructions:

\*ñ > ñ: POC \*ñaRo > *ña-ñaw* ‘widow’, PEADM \*ñana > *ñana-* ‘parent-in-law’, \*ñagi > *ñek* ‘to climb’.

These irregularities presumably are products of borrowing, primarily from Lindrou, although this is problematic with *ñana-* (cp. Lindrou *molosow* ‘parent-in-law’).

As coda \*ñ became *n* in the one POC reflex available, but became *y* in the reflex of a well-established PADM reconstruction:

\*ñ > -n: \*mwaña > *mon* ‘pandanus sp., probably *Pandanus conoideus*’.

\*ñ > -y: PADM \*kuñV > *kuy* ‘coconut leaf basket’.

POC \*y or a palatal glide derived from \*i was retained in most items:

\*y > y: \*kayu > *kay* ‘tree’, laqia (> PADM \*laya) > *ley* ‘ginger’, \*pa-layaR > *paley* ‘sail’, \*puqaya > *pwiey* ‘crocodile’, \*saku layaR (PADM \*colaya) > *solay* ‘sailfish’

In one known form a medial vowel was deleted, producing a cluster of \*yw, which led to the vocalization of the palatal glide and coalescence of the sequence \*-ai-: POC \*qayawan > PADM \*qaiwa > *ew* ‘banyan’.

In \*mayaq > *ma* ‘ashamed, embarrassed’, \*y disappeared.

In two other forms \*y is reflected as /j/ word-initially:

\*y > j: \*api (> PADM \*yapi) > *jeh* ‘fire’, PEADM \*yay > *jay* ‘fishing line’

Word-initially in nouns POC \*k underwent fortition, and was retained as a stop:

\*k > k: \*kamali > *kaman* ‘men’s house’, \*kanawe > *kanaw* ‘seagull’, \*kani ‘to eat’ > *kan-ay* ‘food’, \*kamea > *kameaʔe-* ‘tongue’, \*kasusu > *kasus* ‘coconut crab’, \*katapa > *katah* ‘frigate bird’,

\*kawil > *kaw* ‘fishhook’, \*kayu > *kay* ‘wood; tree’, \*katita > *ketik* ‘putty nut’, \*kiajo > *kieh* ‘outrigger boom’, \*koro > *koh* ‘village’, \*koton > *kok* ‘large grouper’, \*kuron > *kuh* ‘clay cooking pot’, \*kuRita > *kuik* ‘octopus’, \*kutu > *kuk* ‘louse’, \*kuluR > *kun* ‘breadfruit’, \*kupwena > *kupwen* ‘rectangular fish net’, \*kururu > *kuruh* ‘thunder’.

When it did not undergo secondary prenasalization POC \*k was normally lost:

\*k > Ø: \*tokon > *co* ‘punting pole’, \*raki > *dray* ‘northwest wind’, \*tiki > *i-ti* ‘to plait, weave’, \*ikan (> PADM \*nika) > *ni* ‘fish’, \*koe > *ow* ‘2SG’, \*pakewak > *pew* ‘shark’, \*saku layaR > *solay* ‘sailfish’.

In one known case a noun unexpectedly has lost initial \*k: POC \*kuriap > *uri* ‘dolphin’. In one other case a medial \*k which we would expect to disappear is reflected instead as /k/, and in another as glottal stop: \*mwamwaki > *momwak* ‘squid with shell’, \*puki > *pwiʔi* ‘vulva, vagina’.

Only one example of POC \*g were recorded, and it merged with the secondary nasal grade of \*k: PADM \*kagV > *kak* ‘crown of thorns starfish’.

POC and PADM \*ŋ generally became Likum *n*, leaving the language with no phonemic velar nasal in native vocabulary:

\*ŋ > *n*: \*taliŋa > *cine-* ‘ear’, \*roŋoR > *ero-hon* ‘to hear’, \*paŋan-i > *no-han* ‘to feed’, \*raŋi > *lan* ‘day’, \*ŋuru > *en-nuh* ‘to growl; grunt, snore’, \*boŋi > *pen* ‘night’, \*sa-ŋapuluq > *senoh* ‘ten’, \*sa-ŋaRatus > *sinak* ‘one hundred’, \*soŋe > *son* ‘famine’.

However, in four known cases \*ŋ is instead reflected as *k*:

\*ŋ > *k*: \*saŋa-saŋa > *dra-sak* ‘starfish’, \*ŋusu- > *kusu-* ‘lip’, \*aŋo-aŋo-ana > *ñ-okoan* ‘yellow’, \*saŋa > *saka-* ‘fork of a branch’.

POC \*q was lost in all positions:

\*q > Ø: \*raqan > *a-dra* ‘branch’, \*qapuR > *ah* ‘lime (for betel chew)’, \*qapatoR > *ahék* ‘sago grub’, \*qatop > *ak* ‘roof, thatch’, \*qalo > *an* ‘sun’, \*qalu > *an* ‘barracuda’, \*qate ‘liver’ > *ate-* ‘heart; chest’, \*qasu > *esu-* ‘gall (bladder)’, \*qenop > *en* ‘to lie down’, \*qayawan > *ew* ‘banyan’, \*qipil > *ih* ‘a hardwood tree: *Intsia bijuga*’, \*qutin > *iti-* ‘penis’, \*qone > *on* ‘sand’, \*quloj > *un* ‘maggot’; \*laqia (> PADM \*laya) > *ley* ‘ginger’, \*ma-qati > *mak* ‘low tide; exposed reef’, \*puqaya > *pwiey* ‘crocodile’, \*qusan > *uh* ‘rain’, \*qutup > *uk* ‘submerge a container to fill it’, \*quloc > *un* ‘maggot’, \*quraŋ > *ur-uay* ‘lobster’.

POC \*R sometimes became *y*, and sometimes disappeared without storable conditions:

\*R > *y*: \*paRa > *a-pay* ‘firewood rack’, \*draRaQ > *cay* ‘blood’, \*paRi > *pay* ‘stingray’, \*apaRat > *yahay* ‘west wind’

\*R > Ø: \*tapuRi > *cah* ‘conch shell’, \*tuRu > *cu* ‘housepost’, \*ruRi > *cui-* ‘bone’, \*mawiRi (PADM \*ka-mawi) > *kemow* ‘left side’, \*kuRita > *kuik* ‘octopus’, \*Rabia > *l-epi* ‘sago palm’ (*l-* added after the breakup of Proto-Admiralty), \*maRi > *me* ‘to come’, \*boRok > *pow* ‘pig’, \*siRi > *si* ‘croton’, \*sa-ŋaRatus > *sinak* ‘100’. These reflexes show near-complementation, in that \*R generally became *y* when following \*a, but otherwise disappeared. The exceptions are \*maRi > *me* (through \*may?), and \*sa-ŋaRatus > *sinak*.

Undoubtedly the most striking feature of Table 5.12 is that there is no historical source for any of the voiced obstruents described in Table 5.1, namely /b/, /bw/, /dr/, /j/, /g/, and /gw/, since the consonants that could have produced these results all became voiceless (/p/, /pw/, /c/, /y/ and /k/. Together with the fact that all voiced obstruents except /dr/ and /j/ are rare, this strongly suggests that words which contain a voiced obstruent are not native, even though some of them (as *juh* ‘fire’) are very basic.

The development of the POC vowels in Likum can be sketched as follows:

\*i > *i*: \*POC \*i is almost invariably reflected as *i*. The one exception in my data is \*nai > *nay* ‘woman’s traditional grass skirt’, in which a final postvocalic high vowel was semivocalized. As shown below, a similar semivocalization of \*u and \*o is found in reflexes of POC \*niuR ‘coconut’, \*pitaquR ‘a shore tree: *Calophyllum inophyllum*’, and \*ñaRo ‘widow(er)’.

\*u > *u*: In most environments \*u became *u* (many examples). However, following a labial stop the rounding of \*u was often transferred to the stop, leaving a high front vowel as reflex of \*u:

\*u > *i*: \*puaq > *pwie* ‘areca palm; fruit’, \*puqaya > *pwiey* ‘crocodile’, \*puki > *pwiŋ-* ‘vulva, vagina’. In addition to these examples we might add PEADM \*bua- > *pwie-* ‘testicles’, PEADM \*bule- > *pwili-* ‘forehead’, PEADM \*buli > *pwili* ‘mountain’, Likum *pwiley* (next to Ere *buliy*, Titan *buley*) ‘rat’, Likum *pwini* (next to Loni *puŋey*, Titan *bruŋey*) ‘ridge of the roof’, Likum *pwisi* (next to Nali *pusi-n ni*) ‘fish scales’, or Likum *pwisi cikiley* (next to Nali *pusi niw*) ‘coconut husk’.

This transfer of rounding from vowel to labial stop (which has also happened in a number of Oceanic languages outside the Admiralties) only occurred word-initially, and there are a number of words in which it is not found, as with \*pudi > *puh* ‘banana’, \*puta > *puk* ‘fishnet float’, \*putun > *puk* ‘a shore tree: *Barringtonia Asiatica*’, or \*pulan > *pun* ‘moon’, to note only forms that have a known POC source.

In two recorded cases \*u is reflected as /w/:

\*u > *w*: \*niuR > *niw* ‘coconut’, \*pitaquR (> \*pitau) > *pitew* ‘a shore tree: *Calophyllum inophyllum*’.

Although /niw/ ‘coconut’ is phonetically indistinguishable from /niu/ in other Oceanic languages, such as Hawaiian, in Likum it is structurally CVC, since phonemic final vowels in this language, as in most of the languages of Manus, are automatically followed by glottal stop.

In two known cases \*u is reflected as /i/; this may be an anticipatory assimilation to the vowel of the following syllable:

\*u > i: \*qutin > *iti-* ‘penis’, \*suliq > *sini-* ‘plant shoot’

Finally, in two other cases \*u is reflected as /o/:

\*u > o: \*mutaq > *e-mok* ‘to vomit’, \*tolu (PADM \*tolu-pu) > *taloh* ‘three’.

\*e : In the few reconstructions in which it occurs, POC \*e is reflected as *e*: \*qate ‘liver’ > *ate-* ‘heart, chest’, \*karamea > *karame?e-* ‘tongue’, \*kupwena > *kupwen* ‘rectangular fishing net’.

\*o : POC \*o is normally reflected as *o*, but appears as *e* in several words when an adjacent syllable contains \*i or \*y:

\*o > e: \*lipon > *lihe-* ‘tooth’, \*boji > *pen* ‘night’, \*mwanoRe > *money* ‘unicorn fish. To these we can add PADM \*draliqopV > *celi?eh* ‘canoe bailer’.

The change \*o > e is also found in one word that does not contain a high front vowel in an adjacent syllable: Proto-Eastern Admiralty \*busok > *puse* ‘island’. Other irregularities are \*o > *wi* in \*mosimo > *mwisim* ‘a shore tree: *Casuarina equisetifolia*’, and \*o > *a* in \*tolu (PADM \*tolu-pu) > *taloh* ‘three’.

\*a : The most complex vocalic developments in Likum are found with reflexes of POC \*a.

First, \*a is unchanged in a large number of forms (see section 5.6). However, it is also reflected as /e/ in a large number of forms:

\*a > e: \*qapatoR > *ahek* ‘sago grub’, \*talise > *celih* ‘a shore tree; *Terminalia catappa*’, \*taliŋa > *cine-* ‘ear’ \*tanoq > *e-cen* ‘earth; down’, \*qasu > *esu-* ‘gall (bladder)’, \*paluja > *heluh* ‘to paddle’, \*api > *jeh* ‘fire’, \*lawaq > *kano-lew* ‘spider’, \*kasu > *kesu-eh* ‘smoke’, \*katita > *ketik* ‘putty nut’, \*kiajo > *kieh* ‘outrigger boom’, \*Rabia > *l-epi* ‘sago palm’, \*raun > *le?u-* ‘leaf’, \*laqia (PADM \*laya) > *ley* ‘ginger’, \*lima > *lime-* ‘hand’, \*matiruR > *metin* ‘to sleep’, \*batuk > *petu-* ‘head’, \*pitaquR > *pitew* ‘a shore tree: *Calophyllum inophyllum*’, \*sa-ŋapuluq > *senoh* ‘ten’, \*sapa > *seh* ‘what?’, \*tina- > *tine-* ‘mother’. To these we can add PADM \*cawa > *cew* ‘sleeping mat’, PEADM \*kapase- > *kepese-* ‘chin, jaw’, PEADM \*manuay > *meniey* ‘sea eagle’, PEADM \*ñagi > *ñek* ‘to climb’, PEADM \*paliaw > *peliew* ‘large tuna, bonito’, PEADM \*pataleV > *petele* ‘canoe platform’, and a number of other forms. Although many examples of \*a > e are adjacent to high vowels \*i or \*u, this change also occurs in other environments, as with \*tanoq > \*dano > *e-cen* ‘earth; down’, and the search for conditions consistently governing this split has so far proven unsuccessful.

Second, \*a is sometimes reflected as /i/ if the next vowel is also \*a, a phenomenon that has been labeled ‘low vowel dissimilation’. Low vowel dissimilation (LVD) is a conditioned change in which a low vowel is raised if the nucleus of the following syllable is also low. This innovation is regular in a number of Oceanic languages, including Ere of eastern Manus, where the first vowel



in the phoneme configuration \*CaCa- raises to *i* (Blust 1996b, Lynch 2003). Since a similar change has been reported from other language families (Suzuki 1998, Blevins 2009) it appears to have a universal phonetic motivation. However, the nature of this motivation remains unclear, and it is puzzling that although LVD has been reported in three widely separated areas within the Oceanic branch of AN, it is unknown elsewhere in this large and geographically dispersed language family.

While LVD is regular in Ere, it is sporadic in Likum. The three clearest examples of the change are seen in the following forms:

\*a > i/\_Ca: POC \*sa-ŋaRatus > *sinak* ‘100’, \*mata > *mita-* ‘eye, face’, *mita-n* ‘sharp’, \*pataŋ > *pita-* ‘trunk of a tree’.

Despite the phonetic distance between them, it is clear that *sinak* reflects POC \*sa-ŋaRatus (PMP \*sa-ŋa-Ratus), as seen by the evidence of recurrent sound correspondences, and of phonetically intermediate forms in many other languages of the Admiralty Islands (Nauna *saŋət*, Titan *saŋat*, Loni, Nali *ma-saŋat*, Ere *siŋat*, Bipi *saŋak*, Levei *ranak*, Lindrou *rinek* ‘100’). However, many other forms that meet the conditions for LVD have not undergone this change: \*kanawe > *kanaw* ‘seagull’, \*katapa > *katah* ‘frigate bird’, \*laton > *nalak* ‘stinging nettle, *Laportea* sp.’, \*saŋa- > *saka-* ‘fork of a branch’, \*salan > *san* ‘path, road’, \*salan-an > *sala-n* ‘channel’, \*tama > *tama-* ‘father’, \*apaRat > *yahay* ‘west wind’, etc.

In a third development, \*a is reflected as /o/ near a rounded vowel or glide:

\*a > o: \*mawiRi (PADM \*ka-mawi) > *kemow* ‘left side’, \*mapo > *kice-moh* ‘to heal, recover’, \*mwapo(q) > *moh* ‘taro: *Colocasia esculenta*’, \*ñamuk > *nom* ‘mosquito’, \*aŋo (PADM \*aŋo-ana) > *ñ-oko-an* ‘yellow’, \*koe > *ow* ‘2SG, you’, \*patu > *pok* ‘stone’, \*saku layaR > *solay* ‘sailfish’ (probably with loss of \*k and then contraction of \*-au-).

There is also some evidence that when two vowels are juxtaposed in affixation the first will drop. This is particularly clear with the future/desiderative marker *ki*, which retains the vowel in *ki la* ‘will go; want to go’, but loses it in *k-emi* ‘will urinate; want to urinate’. Perhaps in the same category is *emmay* ‘to hide (trans.)’, *ommay* ‘Hide!’, where the latter presumably is /ow emmay/, with contraction of the pronoun to [o] and loss of the second vowel (since loss of the first vowel would be disfunctional).

Another change has preserved vowels that would otherwise have dropped in word-final position. As in Sori, a sequence of lower plus higher vowel was converted in some forms to a vowel plus glide, which enabled the original higher vowel to remain intact when final vowels were lost, as in \*kiokio > *kikiw* ‘kingfisher’, or \*ñaRo > *ña-ñaw* ‘widow’.

In addition to these changes to earlier consonants and vowels, homorganic glides formed after a non-low vowel and before a following unlike vowel. In this environment glide formation is non-phonemic, but when final consonants were lost the glide in such words usually was retained, leading to contrasts *-i/* : *-iy/* and *-u/* : *-uw/*, as in POC \*ia ([iya]) > Likum *iy* ‘3SG, he/she/it’,

or POC \*boRok (> PADM \*boo) > *pow* ‘pig’. For reasons that remain unclear this was not the case in \*kuriap > *uri* ‘dolphin’, which was recorded with a clear final glottal stop.

The last thing to note is the still unexplained addition of /h/ or glottal stop between identical vowels in a few words, as in POC \*natu > *nahatu-* ‘child, offspring’, or \*mataq-ana > *mataʔan* ‘raw, uncooked’.

## 5.6. LIKUM REFLEXES OF PROTO-OCEANIC AND PROTO-ADMIRALTY

	POC	PADM	LIKUM	
001.	*aŋo-aŋo-ana	*aŋo-ana	ñ-okoan	yellow
002.	*apaRat	*yapaya	yahay	west wind
003.	*api	*yapi	jeh	fire
004.	*bakewak	*bakewa	pew	shark
005.	*baluc	*balu	ban	k.o. pigeon
006.	*batuk	*batu-	petu-	head
007.	*boŋi	*boŋi	pen	night
008.	*boRok	*boo	pow	pig
009.	*buto	*buto-	mita-su-buto-	navel
010.		*cawa	cew	sleeping mat
011.	*drali	*drali	can	slitgong
012.	*d(r)ramut	*dramu	cam	lime spatula
013.	*draRaQ	*draya-	cay	blood
014.	*ia	*ia	iy	3SG, he/she/it
015.	*ikan	*nika	ni	fish
016.	*isa	*isa	is	hiss used to shoo off
017.	*isaŋ	*isa	n-ise-n	gills of fish
018.		*kagV	kak	spiny red starfish
019.	*kamali	*kamali	kaman	male; men’s house
020.	*kanawe	*kanawe	kanaw	seagull
021.	*kani	*kani	kan-ay	to eat/food
022.	*karamea	*karamea-	karameʔe-	tongue
023.	*kareŋas	*kareŋa	karen	red parrot
024.	*kasu	*kasu	kesu eh	smoke
025.	*kasusu	*kasusu	kasus	coconut crab
026.	*katapa	*katapa	katah	frigate bird
027.	*katita	*katita	ketik	putty nut
028.	*kawil	*kawi	kaw	fishhook
029.	*kayu	*kayu	kay	wood; tree
030.	*kiajo	*kiaco	kieh	outrigger boom
031.	*kiokio	*kiokio	kikiw	kingfisher
032.	*koba	*koba	pwa-kom	hermit crab
033.	*koe	*koe	ow	2SG, you
034.		*koqowV	koʔow	sea cucumber
035.	*koro	*koro	koh	village

036.	*kotoŋ	*koto	kok	large grouper
037.	*kuluR	*kulu	kun	breadfruit
038.		*kuñV	kuy	coconut leaf basket
039.	*kupwena	*kupwena	kupwen	rectangular fishing net
040.	*kuriap	*kuria	uri	dolphin
041.	*kuron	*kuro	kuh	cooking pot
042.	*kururu	*kururu	kuruh	thunder
043.	*kuRita	*kuita	kuik	octopus
044.	*kutu	*kutu	kuk	louse
045.	*laje	*lace	lac	coral limestone
046.	*lako	*lako	la	to go
047.	*lalak	*lala	lan	Trochus shell
048.	*laqia	*laya	ley	ginger
049.	*lawa	*lawa	lo	long fishnet <sup>3</sup>
050.	*lawaq	*lawa	kano-lew	spider <sup>4</sup>
051.	*lima	*lima-pu	limeh	five
052.	*lipon	*lipo-	lihe-	tooth
053.	*lisaq	*lisa	lih	nit, louse egg
054.	*loto	*loto	lok	boil, abscess
055.	*lumut	*lumu	pu-lum	moss, algae
056.	*ma	*ma	ma	conjunction, and
057.	*mamata	*mamata	e-mmak	to awaken
058.	*mapo	*mwapo	kice-moh	to heal, recover
059.	*ma-qati	*mati	mak	low tide; reef
060.	*maRi	*mai	mwe	to come (?)
061.		*masawa	mwesew	sea anemone
062.	*masoki	*mwasoki	muroh	cinnamon tree
063.	*mata	*mata-	mita-	eye; center
064.	*mataq	*mata-na	mata?a-n	raw, unripe
065.	*mate	*mate	i-mak	to die, dead
066.	*matiruR	*matiru	e-metin	to sleep
067.	*mawiRi	*ka-mawi	ke-mow	left side
068.	*mayaq	*maya	ma	ashamed, embarrassed
069.	*mimiq	*mimi	e-mi	to urinate
070.	*mipi	*me-mepi	e-mmih	to dream
071.	*mola	*mola	mon	dugout canoe
072.	*mwaña	*moña	mon	pandanus sp.
073.		*mosimo	mwisim	<i>Casuarina</i> spp.
074.	*muri	*muri	e-muh	behind/stern of canoe
075.	*mutaq	*muta	e-mok	to vomit
076.		*mwalutV	mwaluk	white dove sp.
077.	*mwamwaki	*mwamwaki	momwak	shelled squid
078.	*mwanene-ana	*mwanene-na	mwennen	straight

<sup>3</sup> Possibly identical to \*lawaq ‘spiderweb’, in which case the POC form had a final consonant.

<sup>4</sup> Reflexes of POC \*lawaq are parts of larger words in many languages of the Admiralties, as with Loniwi *wi-law*, Leipon *kebru-we-law*, Titan *ñakap-we-law* ‘spider’.

079.	*mwanoRe	*mwanoy	money	unicorn fish
080.	*mwaña	*moña	mon	pandanus sp.
081.	*mwapo	*mwapV	moh	taro, <i>C. esculenta</i>
082.	*mwasasi	*morasi	morah	goatfish sp.
083.	*mwata	*mwata	mwak	snake
084.	*nai	*nay	nay	grass skirt
085.		*nasi	nah	k.o. Malay apple
086.	*natu	*natu	nah, nahatu-	child
087.	*ikan	*nika	ni	fish
088.	*niuR	*niu	niw	coconut
089.	*nopo-nopo	*nopo-nopo	i-noh	afraid, fearful
090.	*nopusq	*nopus	noh	stonefish; lionfish
091.	*ñaman-na	*ñama-na	naman	sweet, tasty
092.	*ñamuk	*ñamu	nom	mosquito
093.		*ñapa	ne-nah	fish spear
094.	*ñaRo	*ñawV-	ña-ñaw	widow
095.	*ñatu	*ñatu	nak	k.o. hardwood tree
096.	*ñui	*ñui	nu	shellless squid
097.		*ñuV	-nu	dive; bathe
098.		*ñodro	e-nuh	to snore
099.	*ñuru	*ñuru	en-nuh	to growl; grunt, snore
100.	*ñusu-	*ñusu-	kusu-	lip
101.	*padran	*badra	pah	pandanus
102.	*pa-layaR	*pa-ley	paley	to sail/sail
103.	*paluca	*palura	heluh	to paddle
104.	*panapa	*banapa	panah	garfish
105.	*pañan	*paña	no-han	to feed
106.	*papaq	*pwapa-	pwaha-	mouth
107.	*paqa	*baqa-	pa-	thigh
108.		*paunV	haʔu-n	new (?)
109.	*paRa	*baya	a-pay	firewood rack
110.	*paRi	*bay	pay	stingray
111.	*pat	*pa-pu	hahu	four
112.	*patañ	*bata-	pita-	tree trunk
113.	*patu	*batu	pok	stone
114.	*pitaquR	*bitau	pitew	<i>Calophyllum</i> spp.
115.	*pose	*bose	poh	canoe paddle
116.	*potok	*boto	poto-	thorn
117.	*puaq	*bua	pwie	areca palm
118.	*puaq	*bua	pwie kay	fruit
119.	*pudi	*budri	puh	banana
120.	*puki	*buki-	pwiʔi-	vulva, vagina
121.	*pulan	*bula	pun	moon
122.	*puqaya	*buqaya	pwiey	crocodile
123.	*puta	*buta	puk	fishnet float
124.	*putun	*butu	puk	<i>Barringtonia Asiatica</i>

125.	*qalima	*lima-	lime-	hand
126.	*qalo	*qalo	an	sun
127.	*qalu	*qalu	an	barracuda sp.
128.	*qapatoR	*qapato	ahek	sago grub
129.	*qapuR	*qapu	ah	lime for betel chew
130.	*qaqe	*ae-	a-	foot/leg
131.	*qasu	*qasu	esu-n	gall (bladder)
132.	*qate	*qate-	ate-	liver; heart, chest
133.	*qatop	*qato	ak	thatch
134.	*qayawan	*qaiwa	ew	banyan
135.	*qenop	*qeno	en	to lie down
136.	*qipil	*qipi	ih	a tree: <i>Intsia bijuga</i>
137.	*qisaq	*qisa	is	shoo!
138.	*qone	*qone	on	sand
139.	*quloc	*qulo	un	maggot
140.	*quraŋ	*qura	ur-uay	lobster (?)
141.	*qusan	*qusa	uh	rain
142.	*qutin	*quti-	iti-	penis
143.	*qutup	*qutu	uk	submerge to fill
144.	*raki	*draki	dray	SE trades; NW wind
145.	*raŋi	*raŋi	lan	day
146.	*raqan	*draqa-	a-dra-	branch
147.	*rato	*rato	rak	whale
148.	*raun	*rau	leʔu-	leaf (?)
149.	*roŋoR	*roŋo	ero-hon	to hear
150.	*rua	*ruo-pu	rueh	two
151.	*ruRi	*drui-	cui-	bone
152.	*ruyuŋ	*druyu	cu	dugong
153.	*Rabia	*yabia	l-epi	sago palm
154.	*saku-layaR	*colaya	solay	sailfish
155.	*salan	*cala	san	path, road
	*salan-an	*calana	salan	path, road; channel
156.	*salatoŋ	*ñalato	nalak	stinging nettle
157.	*saman	*cama	sam	outrigger float
158.	*saŋa	*caŋa-	saka-	fork of branch
159.	*sa-ŋapuluq	*sa-ŋapulu	senoh	ten
160.	*sa-ŋaRatus	*saŋatu	sinak	100
161.	*saŋasaŋa	*caŋacaŋa	dra-sak	starfish
162.	*sapa	*sapa	seh	what?
163.	*sipiri	*cipiri	sihih	cockatoo
164.	*siRi	*ci	si	<i>croton</i> spp.
165.	*soŋe	*coŋe	son	famine
166.	*suliq	*culi-	sini-	plant shoot
167.	*suluq	*culu	sun	torch
168.	*sunu	*sunu	sun	to roast, burn

169.	*sura	*cua	su	comb
170.	*suRuq	*cuyu	su	soup
171.	*susu	*susu-	suru-, suh	breast
172.	*taliŋa	*daliŋa-	cine-	ear
173.	*talise	*dalise	celih	<i>Terminalia catappa</i>
174.	*tama	*tama-	tama-	father
175.	*tanoq	*dano	e-cen	earth; down
176.	*tapuRi	*dapuy	cah	conch shell
177.	*tasik	*dasi	cah	sea; saltwater/salt
178.	*taumata	*damata	camak	person, human being
179.	*tiki	*tiki	i-ti	to plait, weave
180.	*tina	*tina	tine-	mother
181.	*tokon	*doko	co	punting pole
182.	*tola	*dola	con	outrigger canoe
183.	*tolu	*tolu-pu	taloh	three
184.	*tuRu	*du	cu	housepost
185.		*ulua	uluw	high tide
186.	*unum	*unu	u?-un	to drink (?)
187.	*waiR	*wai	gway, we	fresh water
188..	*waiwai	*wewey	ewey	mango
189.		*watiV	wati	monitor lizard