## A short morphology, phonology and vocabulary of Kiput, Sarawak

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# A short morphology, phonology and vocabulary of Kiput, Sarawak 

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## Preface

The present sketch continues a series initiated by Blust (1977), which outlined plans for brief descriptions of seven of the languages of northern Sarawak. The choice of Kiput as the third of these languages departs from the original order of coverage, which called for prior descriptions of Bintulu and Miri, and the form of presentation has been modified from that used in Blust (1977, 1988). Publication of the Kiput materials has been delayed for some years both because other projects took priority, and because of uncertainties regarding some aspects of the phonetic transcriptions.

Kiput materials were collected in the context of surveying the historical relationships of over 40 language communities in northwest Borneo, and so represent the results of no more than 20-25 hours collection time. Data was collected between June 30 and September 24, 1971, primarily from John Malang, who was then 17. He spoke Kiput, English, Malay, Iban, the Long Terawan and Batu Belah dialects of Berawan, a little Kayan and a little Kelabit, and reported that almost everyone at Long Kiput spoke Iban as a second language. Additional material was collected from Thomas Belulok, who was perhaps 16 at the time, and reportedly spoke only Kiput, Malay and English. Where there appear to be significant differences between the two speakers forms from Thomas Belulok are marked (TB). At that time both informants were students at the Government Secondary School in Marudi, Baram District, Fourth Division, Sarawak.

My greatest thanks naturally go to John Malang and Thomas Belulok, who by now may have only a dim recollection of the hours we spent together transcribing data by hand and primitive tape recorder. In addition I am indebted to Kenneth L. Rehg for providing me with information which I could not easily obtain myself while writing this paper on sabbatical leave, and to an anonymous referee for valuable suggestions on style and references to the general theoretical literature in phonology. All conclusions reached from the analysis of the data are mine alone.

## 1 Discussion

## 1 Background

Kiput is a member of the Berawan-Lower Baram branch of the North Sarawak subgroup of Austronesian ( An ) languages, spoken by perhaps 450 people. The entire language community reportedly resides in a single longhouse known variously as Long Kiput, Long Tutoh, or Kuala Tutoh, located on the Baram river, Fourth Division, Sarawak, about one kilometer from its junction with the Tutoh. The nearest major settlements are the Kenyeh longhouse of Long Ikang, further up the Baram, and the more recent Iban settlement of Belahui, some distance up the Tutoh. The nearest relatives of Kiput appear to be Belait, spoken in Brunei, Narum, Miri and Dali', spoken in the basin of the Baram river and adjacent coastal regions in Sarawak, and the languages described by Ray (1913) as Lemeting and Lelak, which may now be extinct. ${ }^{1}$

Most questions regarding contrast in Kiput were carefully checked in the field during the last two or three meetings with the informants, and a number of tape recordings were made at that time as well. These materials provide an increased sense of confidence in the accuracy of the phonetic transcriptions, but they do not rule out the possibility that some errors remain. However, given the low probability that a better description of Kiput phonology will become available in the near future it seems appropriate to publish my materials now in the hope that they will provide a foundation on which scholars in the future can build.

Very little has been published on this language. Ray (1913) contains a vocabulary of a little over 200 items in a phonemically inadequate transcription, and scattered data appear in various of the writer's earlier publications (e.g. Blust 1974, 2000). The principal aim of the present study is to provide an overview of the synchronic morphology and phonology of Kiput, together with a considerably longer and more reliable vocabulary than that in Ray (1913), and some sentence material. To my knowledge, no additional fieldwork of any significance has been undertaken on Kiput since I collected my data 30 years ago. The material gathered here will therefore be useful in itself, since so little additional descriptive work is likely to be done in the near future. As a secondary aim the present description attempts to lay the groundwork

[^0]for an account of Kiput historical phonology, a subject of particular interest which is treated in a separate publication (Blust 2002).

## 2 Subsystems

Four subsystems of the Kiput lexicon are described here: 1) numerals, 2) personal and possessive pronouns, 3) demonstrative pronouns, and 4) kinship terms.

### 2.1 Numerals

Like almost all Austronesian languages, Kiput has a decimal system of counting. The primary numerals are shown in Table 1:

Table 1: Primary numerals of Kiput

|  |  |
| :--- | :--- | :--- |
| sih/silaan | one |
| dufih | two |
| telaw | three |
| paat | four |
| limeh | five |
| nem | six |
| tuceu' | seven |
| maray | eight |
| pai' | nine |
| pulau' | ten |
| me-lataw | 100 |
| me-libew | 1,000 |
|  |  |

The derived numerals 11-19 are formed through combinations of pulau' with the primary numerals 1-9 in the order pulau' $X$ ('ten plus $X^{\prime}$ ). Those from 21 are formed through combinations of a primary numeral with pulau' in the order $X$ pulau' (' X times ten'). Higher numerals which end in 'one' use only silaan, never sih: pulau' silaan (**pulau' sih) '11', pulau' dufih '12', dufih pulau' '20', dufih pulau' silaay '21' (**dufih pulau' sih), dufih pulau' dufih ' 22 ', etc. Like some other languages in Borneo and the Philippines, the numerals ' 100 ' and ' 1000 ' take a prefix $m e$-, which appears to reflect the PAn stative marker ${ }^{*} m a$-. Multiples of one hundred and one thousand are formed like multiples of ten: dufih lataw '200', dufih lataw silaay '201', dufih lataw dufih pulau' silaay '221', telaw libew '3000', telaw libew paat lataw limeh pulau' nem '3,456'. No term for primary numerals higher than libew 'thousand' could be elicited.

Like a number of the languages of western Indonesia, Kiput uses a system of nominal classifiers which co-occur with numerals. Recorded classifiers include: 1) belunon (fish, pigs),
2) kadih (fruits, leaves, flowers, seeds, trees, birds, optionally with humans), 3) papaa' (bunches of fruit), and 4) tulew (people). Examples of usage appear in Table 2:

Table 2: Nominal classifiers of Kiput

| dufih beluyon putaa, telaw beluyon babuy | two fish three pigs |
| :---: | :---: |
| paat kadih anaak | four children |
| limeh kadih buië' | five flowers |
| paat kadih dun kacew | four leaves |
| dufih kadih kacew | two trees |
| kerusI' dufih kadih | two chairs |
| telaw kadih lupon putay | three bananas |
| paat kadih manoë' | four birds |
| limeh kadih sai' | five seeds |
| paat kadih turay | four women |
| telaw papaa' luyon putay | three bunches of bananas |
| paat tulew anaak | four children |
| dufih tulew turay | two girls, two women |

In all but one of these examples the order of elements is Numeral + Classifier + Noun. The single exception is kerusI' dufih kadih, with Noun + Numeral + Classifier. Given the limited number of examples collected it seems likely that both orders are permitted, and that more examples of the latter type would be found in a larger database. Possible semantic nuances conveyed by differences of word order in constructions with nominal classifiers are unknown. No information could be obtained concerning possible connotational differences between the use of kadih vs. tulew as nominal classifiers for humans. Very little time was spent investigating the use of nominal classifiers in Kiput, and it is possible that the system is considerably richer than what has been indicated here.

### 2.2 Personal and possessive pronouns

Atypically among the An languages of insular Southeast Asia, a number of the languages of northern and central Sarawak distinguish singular, dual, trial/paucal and plural numbers in the personal pronouns. In this respect they share a global structural resemblance to typical Oceanic languages. The distribution of such systems of number marking raises the question whether such a system might have been present in Proto Malayo-Polynesian. However, a consideration of the details of morphological marking makes this appear unlikely. Rather, the
generic structural similarities of number marking in the personal pronouns of Proto North Sarawak and Proto Oceanic appear to be parallel developments. Given the existence of similar systems of pronominal number marking in other parts of the world, the operation of convergence to produce structurally similar results among languages belonging to the same family is not at all implausible. The Kiput personal pronouns are given in Table 3:

Table 3: Kiput personal pronouns

Singular<br>1 kaw<br>2 naw<br>3 ñih<br>Dual<br>1 in kifih<br>ex kafih<br>2 ifih<br>3 difih dufih

## Trial

1 in killaw
ex kallaw
2 illaw telaw
3 lew telaw telaw

## Plural

1 in kiteh ex kamay
2 sетиё' sетиё' uñew
3 idih/lew ieh/seтиё' lew

It seems clear that where dual and trial pronouns do not contain an actual morpheme dufih 'two' or telaw 'three', these pronouns are formed by combining one syllable from the corresponding plural pronoun with the last syllable of dufih 'two', or telaw 'three'. For the $1^{\text {st }}$ and $2^{\text {nd }}$ persons the first syllable of the dual or trial pronoun is drawn from the first syllable of the plural pronoun, while for at least the $3^{\text {rd }}$ person dual it is drawn from the last syllable (presumably because $i$ - has already been preempted for use as a $2^{\text {nd }}$ person marker): $k i-f i h, k a$ fih, i-fih, di-fih, ki-llaw, ka-llaw next to kiteh and kamay, ilaw, idih which are unanalyzable.

The personal pronouns of Table 3 mark both subjects and objects with no change of form:

1. kaw mukUt ñih (1sg ACT-punch 3 sg ) 'I punched him’
2. kaw n-ukUt ñih (1 sg PASS-punch 3 sg ) 'He punched me'
3. ñih mukUt kaw (3sg ACT-punch 1sg) 'He punched me’
4. ñih n-ukUt kaw (3sg PASS-punch 1sg) 'I punched him’

Reciprocal and reflexive pronouns appear to have the same form:
5. difih se-pesih (3dl RECIP-hit) 'They hit each other'
6. kafih sel-adek (2dl/ex RECIP-kiss) 'We kissed each other'
7. anaak ieh se-pitoy (child DEM REFL-swing) 'The child is swinging'
8. laay ieh sek-abuë' (man DEM REFL-drunk) 'That man is trying to get drunk'

Although far less material was collected on the Kiput possessive pronouns than for many of the other languages of Sarawak, the limited data to hand suggest that possessive pronouns are identical to the forms in Table 3:
9. mateh kaw 'my eye'; mateh naw 'your eye'; mateh ñih 'his/her eye'
10. tameh kaw 'my father'; tameh naw 'your father'; tameh nih 'his/her father'
11. bukUt kaw 'my punch'; bukUt naw 'your punch'; bukUt ñih 'his/her punch'

The Kiput pronominal system appears to be unusual among An languages generally in using a single set of forms for both subject/object marking and possessive marking. The only form in my data which suggests that there may be a distinct set of possessive pronouns which was not recorded is seen in tineh 'mother' : tina-n 'his/her mother'. Since no other comparable possessed nouns were recorded, and since tameh $\tilde{n} i h$ was given in the meaning 'my father' this isolated example must be treated with caution. It is possible that tina-n preserves a trace of an older system of possessive marking which has begun to disappear among younger Kiput speakers.

### 2.3 Demonstrative pronouns

Relatively little information was collected for the demonstrative pronouns of Kiput. Two proximal deictics and two distal deictics were recorded, with the following generalized glosses:
nay 'this'
teh 'this'
cuy 'that'
ieh 'that'

The forms teh and ieh were also recorded after atek, the generic marker of location: atek teh 'here', atek ieh 'there'. The forms nay and cuy were not recorded after atek, but no specific questions were asked regarding the possibility of such combinations. All of these forms except ieh were also recorded after li' 'to come'. Again, it is unclear whether the absence of such a combination with ieh is due to its impossibility in the language or to lacunae in the
elicitation process. Many of the North Sarawak languages distinguish distal deictics in terms of second person vs. third person, or in sight vs. out of sight reference, but no clear evidence of such distinctions are apparent in the material collected for Kiput.

### 2.4 Kinship terms

The full set of kinship terms recorded for Kiput appears in Table 4. ( $\mathrm{F}=$ father, $\mathrm{M}=$ mother, $\mathrm{B}=$ brother, $\mathrm{Z}=$ sister, $\mathrm{e}=$ elder, $\mathrm{y}=$ younger, $\mathrm{Sb}=$ sibling, $\mathrm{C}=$ child, $\mathrm{S}=$ son, $\mathrm{D}=$ daughter, $\mathrm{W}=$ wife, $\mathrm{H}=$ husband):

Table 4: Kiput kinship terminology

| 1. General: | lanek | relative/kinsman |
| :---: | :---: | :---: |
| 2. Consanguineal: | sadei' laay | FF, MF |
|  | sadei' turay | FM, MM |
|  | tameh |  |
|  | tineh | M |
|  | kemamaan | FB, MB |
|  | keminaan | FZ, MZ |
|  | tukeh | eSb |
|  | tadey | ySb |
|  | tadey petaam | FBC, MBC, FZC, MZC |
|  | anaak laay | A |
|  | anaak turay | D |
|  | anaak menaan | BC, ZC |
| 3. Affinal: | ibin | WF, WM |
|  | baneh | H |
|  | safeh | W |
|  | balet | BW (add. and ref.) |
|  | sabiëy | ZH (add.) |
|  | sabey | ZH (ref.) |
|  | anaak linay | CSp |

The affinal terminology of Kiput probably is incomplete, and there are some uncertainties regarding the glossing of forms collected. First, it is not clear whether ibin includes HF, HM, or whether these kin categories are represented by a different lexical item. Second, it is not certain whether the glosses provided for balet and sabiëy/sabey hold for both male and female speakers, or only for male speakers. Finally, a reference/address distinction in the term for ZH
implies similar a similar distinction elsewhere in the system, but if such distinctions exist they were not recorded.

## 3 Morphology

Kiput morphology is simpler than that of most Philippine languages, or of the Philippinetype languages of Sabah. In general terms the level of complexity seen in the affixation system of this language is roughly comparable to that of Malay. The affixes (including reduplication) recorded for Kiput include 1) verbal ablaut, 2) -em- 'active verb’ (transitive or intransitive), 3) -en- 'passive/perfective verb', 4) me- 'stative verb', 5) $n$ - 'active verb (generally transitive or causative, but sometimes intransitive)', 6) ke- 'causative verb', 7) man+ verb stem or active verb 'imperative verb', 8) pe- 'nominalizer', 9) pe- 'causative verb', 10) se-, sek-, sel-, sep- 'reciprocal or reflexive verb', 11) sep- 'simulative verb', and 12) full reduplication. In addition, a few affixes were recorded in a single example. Some of these appear in native words, as yel-anaak 'to give birth', but others are products of borrowing from Malay, as with lagU' 'song' : be-lagU' 'to sing' or bilei' 'either of the halves of something split' : se-bilei' 'a half', where the longer forms can be analyzed as bimorphemic, but the affixes they contain are marginal to the Kiput morphological system.

### 3.1 Ablaut

The existence of widespread systems of verbal ablaut in the languages of central and northern Sarawak has been described elsewhere (Blust 1997). Since Kiput was among the languages included in this earlier study only an outline of the main features of the ablaut pattern needs to be given here.

Briefly, in stems that contain a penultimate schwa active verbs are often formed through replacement of schwa with $u$, and their passive counterparts through replacement of schwa with $i$. Historically this situation came about through two changes: 1) ${ }^{*} e$ (schwa) deleted in the environment VC-CV, 2) consonant clusters were reduced. As a result of these changes bases of the shape *CeCVC were transformed in the following way:

| Stage 1 | Stage 2 |
| :--- | :--- |
| *CeCVC | CeCVC |
| *C-um-eCVC | CuCVC |
| *C-in-eCVC | CiCVC |

Bases with a penultimate vowel other than schwa, however, retained the infixes which were later subject to the merger of all vowels as schwa in prepenultimate syllables:

| Stage 1 | Stage 2 |
| :--- | :--- |
| *CaCVC | CaCVC |
| *C-um-aCVC | C-em-aCVC |
| *C-in-aCVC | C-en-aCVC |
|  |  |
| *CiCVC | CiCVC |
| *C-um-iCVC | C-em-iCVC |
| *C-in-iCVC | C-en-iCVC |
|  |  |
| *CuCVC | CuCVC |
| *C-um-uCVC | C-em-uCVC |
| *C-in-uCVC | C-en-uCVC |

All known examples of ablaut are given in Table 5, where 'base' indicates 1) unrecorded, and in some cases perhaps non-attested shapes, which allow the active and passive forms of verbs to be related through a common stem, as /esië/, 2) attested bases which occur without an affix, whether these are concrete or abstract nouns (pela 'broom', teppen 'felling of trees'), or 3) bases which occur with an affix, but without ablaut, as ne-deket 'to stick something to a surface':

The 23 examples of ablaut patterns in partial verb paradigms in Table 5 show variations which require some comment. First, there are gaps in two paradigms which may reflect facts about the language, or may simply be oversights during the elicitation process when fieldwork was conducted. If the latter is the case then ${ }^{* *}$ diket 'was stuck to a surface' and ${ }^{* *}$ sipaa' 'was chewed, of betel' may occur. However, the first of these forms is unlikely, since the transitive/causative form of the verb 'to stick, adhere' is $\eta e-d e k e t$, and any passive form is likely to be formed from it rather than from the active intransitive duket. Second, five paradigms lack a recorded base form with schwa. As with the missing passive forms these gaps may reflect facts about the language or omissions during elicitation. In all of these cases the latter explanation is more plausible, but with /esië/ it requires that an underlying schwa be posited in initial position which never occurs on the surface. Third, in bases that begin with $p$ the stem-initial consonant of the active form is replaced by $m$ - in addition to $u$-ablaut (/peput/: muput, pesih : musih), or sometimes without it (pela : mela). This process, which I have called 'pseudo nasal substitution' (Blust to appear) can easily be confused with nasal substitution but is distinct from it, since nasal substitution reflects the transitive prefix *man-, while pseudo nasal substitution derives historically from the infix *-um- (Blust 1997).

Table 5: Recorded examples of ablaut alternations in Kiput verbs

| Base | Active verb | Passive verb | Gloss |
| :---: | :---: | :---: | :---: |
| 01. そe-deket | duket | ----- | stick, adhere |
| 02. se-deñek | duñek | diñek | press down |
| 03. lesië/ | usië | isië | give |
| 04. se-getep | gutep | gitep | bite |
| 05. se-getin | gutin | gitin | pinch |
| 06. guttIn | nuttIn | gittIn | cut with scissors |
| 07. /kekep/ | kukep | kikep | hang something up |
| 08. ma-kesét | kusét | kisét | press, squeeze |
| 09. lerée' | lurée' | liréë' | cut, as grass |
| 10. pa-lesét | lusét | lisét | release, let go |
| 11. pela | mela | pila | sweep |
| 12. /peput/ | muput | niput | sting |
| 13. pesih | musih | nisih | hit |
| 14. sepaa' | supaa' | --- | chew betel |
| 15. /serep/ | surep | sirep | burn |
| 16. tenaaw | tunaaw | tijaaw | call |
| 17. /teñen/ | tuñen | tiñen | swallow |
| 18. tepeh | tupeh | tipeh | pound rice |
| 19. tepek | tupek | tipek | stab, pierce |
| 20. tepen | tupen | tipen | cover, close |
| 21. teppen | tuppen | tippen | fell trees |
| 22. tesei' | tusei' | tisei' | step on |
| 23. tetek | tutek | titek | cut, as wood |

The most problematic feature of the ablaut system in Kiput is its synchronic relationship to infixation with -em- and -en-. With only one or two possible exceptions (e.g. guttIn 'scissors' : gittIy 'was cut with scissors'), ablaut is confined to disyllabic bases in which the penultimate vowel is schwa. The infix -em- rarely occurs in such bases, although the infix -en- occurs in a number of examples: /eten/ : m-eten 'to bury' : n-eten 'was buried by someone', /kelap/ : yelap 'to wipe' : k-en-elap 'was wiped by someone', /kesay/ : yesay 'to slice' : $k$-en-esay 'was sliced by someone', peleh 'throwing' : meleh 'to throw' : $n$-eleh 'was thrown by someone', se-peron 'to blow on each other' : meron 'to blow' : n-eron 'was blown on by someone'. Although the ablaut pattern is largely in complementary distribution with the infixes -em- and en- in other languages of central or northern Sarawak such as Mukeh Melanau, then, in Kiput the two patterns seem to contrast. This probably is an indication that ablaut in Kiput was acquired through language contact rather than innovated system-internally.

In a few other cases ablaut forms exist as variants of active verb forms without ablaut, or co-occur with affixes which redundantly mark the same morphological category: tetek 'cutting' : netektutek 'to cut something' (where nasal substitution and $u$-ablaut both mark the active verb, but on variant affixed forms of the same stem), $n$-isië 'was given by someone', /peput/ : m-u-put 'to sting, as a bee' : $n$-i-put 'was stung, as by a bee' (where $n$ - and $i$-ablaut redundantly mark the passive-perfective in a single variant of the same stem).

## 3.2 -em- 'active verb'

The affix -em-marks both transitive and intransitive verbs in Kiput, but where there is a transitive : intransitive contrast in the same base -em- typically marks the intransitive, and $\eta$ the transitive member of the pair:

| /abit/ | m-abit 'to hold' |
| :--- | :--- |
| /abut/ | m-abut 'to pluck' |
| /itoy/ | m-itoy 'to swing someone, as in pushing a child on a swing' |

but kadey 'direction of falling, direction of being put down' : m-adey 'to topple, as a tree falling of its own accord' : hadey 'to put someone down, as in putting a child down to sleep'.

In vowel-initial bases -em- and $\eta$-clearly contrast, the former being realized as $m$-, and the latter as $\eta$-. In consonant-initial bases, however, the distinction between these affixes can be more difficult to draw. In bases that begin with a non-labial consonant -em- and $\eta$ - can usually be distinguished, as in the example of kadey : m-adey : nadey given above, or in tuloë 'helping efforts' : m-uloë : nuloë 'to help'. In disyllabic bases that begin with a labial stop, however, both affixes surface as homorganic nasal substitution of the base-initial consonant, and both can mark transitive verbs. Thus it is unclear whether the active verb in e.g. bagi' : magi' 'to divide' is underlyingly $\eta$-bagi' or b-em-agi', or whether the active verb in e.g. pukat 'dragnet' : mukat 'cast a dragnet' is underlyingly $\eta$-pukat or $p$-em-ukat. The representation of morpheme boundaries in such cases is largely arbitrary. If magi' and similar affixed forms of other labial-initial bases are assumed to contain the infix -em-, a morpheme boundary should appear between the nasal and the following vowel. In such cases the active verb and its passive-perfective counterpart are morphologically parallel: m-agi' (<b-em-agi') 'to divide, share', $n$-agi' (<b-en-agi') 'was divided by someone, was shared by someone'. On the other hand, if magi' and similar affixed forms of other labial-initial bases are assumed to contain the prefix $\eta e$ - the morpheme boundary falls within the nasal, and cannot be represented by ordinary segmentation procedures. In such cases no morpheme boundary is written: hence bagi' : magi' ( $<\eta$-bagi').

As in many other languages of Borneo, the verb 'to eat' preserves more conservative forms of these affixes: kaan : $k$-um-aan 'to eat' : $k$-in-aan 'was eaten by someone'. Historically this situation arose as a result of the reduction of the base *kaen to a monosyllable, leaving the infixed forms $* k$-um-aen and ${ }^{*}$-in-aen as derived disyllables $* k$-um-an and ${ }^{*} k$-in-an prior to the merger of all vowels as schwa in prepenultimate syllables. The presence of these conservative forms of the productive infixes -em- and -en- raises the question whether the latter should be represented synchronically as -um- and -in- and the surface forms derived by
rule. In the present analysis this more abstract level of representation will be avoided, and the shapes of the infixes in $k$-um-aan and $k$-in-aan will be treated as exceptional.

## 3.3 -en- 'passive-perfective verb'

Most of the remarks made above in connection with the infix -em- can be applied without change to the infix -en-. There are, however, some details of distribution which distinguish the two. First, unlike -em-, which may be difficult to distinguish from $\eta$ - in labial-initial bases, -en- (and its allomorph $n$-) is always unambiguous: passive-perfective verbs that begin with $n$ must be followed immediately by a morpheme boundary, as in batin 'small cannon' : matin 'to shoot' (ambiguous for $\eta$-batin or b-em-atin) : $n$-atin 'was shot by someone', biguë 'an adze' : miguë 'to adze wood' (ambiguous for $\eta$-biguë or $b$-em-iguë) : $n$-iguë 'was adzed by someone', pa-kaan 'to feed' : $n$ - $a$-kaan 'was fed by someone'. Second, -en- surfaces as $n$ - in many bases that begin with a vowel, and so parallels -em-:

$$
\begin{array}{ll}
\text { /abit/ } & n \text {-abit 'was held by someone' } \\
\text { /abut/ } & n \text {-abut 'was plucked by someone' } \\
\text { litoy/ } & n \text {-itoy 'was pushed on a swing by someone' }
\end{array}
$$

However, in some other vowel-initial bases it must be added to a prefixed form of the base and so surfaces as een-. This is true both of vowel-initial bases that form the active verb with -em- and of vowel-initial bases that form the active verb with $\eta$-: /añet/ : m-añet 'to sink' : $k$-añet 'make something sink, deliberately drop something in the water': $k$-en-añet 'was dropped in the water by someone', araap 'hope, trust' : $\eta$-araap 'to hope, to trust in someone' : k-en-araap 'was hoped for, was trusted'. As these examples suggest, en- also surfaces as an infix in $k$-initial bases: kalot 'mixed together' : palot 'to mix things together' : $k$-en-alot 'were mixed together'. In disyllabic bases that begin with a labial consonant -en- is infixed and the first syllable of the resulting word is dropped bagi' 'divide, share' : n-agi' 'was divided, was shared by someone' (<b-en-agi'). If the same analysis were applied to 'pseudo nasal substitution' with labial-initial bases infixed with -em- the morpheme boundary would also fall between the initial nasal and the following vowel: $m$-agi' ( $<b$-em-agi'), etc. As already noted, however, in Kiput the effects of pseudo nasal substitution mimic those of true nasal substitution so closely that the affixed forms of such bases are often ambiguous for infixation with -em- or prefixation with $\eta$-. By contrast, infixation with -en- is invariably unambiguous.

In many other languages of northern and central Sarawak the passive voice, whether expressed through the infix -en- or through $i$-ablaut, is obligatorily perfective, a result of the historical complementarity of PAn *-in- 'perfective' and *-en 'patient focus'. In languages that have preserved more of the morphological apparatus of the PAn focus system *-in- is clearly a perfective marker which functions as a portmanteau affix in the patient focus (marked by a zero allomorph of *-en in the perfective). In many of the languages of central and northern Sarawak, as well as some others in western Indonesia (e.g. Rejang of southern Sumatra) the earlier four-focus system has been reduced to a system of two voices, active and passive. The passive voice in such languages is a historical reflex not of the patient focus
suffix *-en, but rather of the portmanteau infix ${ }^{*}$-in- which marked both perfective and the patient focus of perfective verbs. Why there was a preference to select a reflex of *-in- rather than of *-en to mark the new passive in such languages remains unclear, but the result in all cases was a passive voice which is obligatorily perfective.

In most cases a similar analysis appears to apply to Kiput, but some observations conflict with this interpretation. In $k$-en-iñim 'was tasted by someone', for example, -en- does not clearly mark the perfective aspect unless it is accompanied by $\eta a a$ ' 'already': kan-an ieh k-eniñim ñih (food that eat-passive 3sg) 'He ate/is eating the food', but kan-an ieh jaa' $k$-en-iñim $\tilde{n} i h$ (food that already eat-passive 3 sg ) 'He ate the food'. On the other hand, in the sentence padey ieh jaa'tipeh ñih (rice that already pound-passive 3 sg ) 'She has pounded the rice already' the action was said to be completed even without use of $\eta a a$ ', thus implying that $i$ ablaut has a portmanteau function of signaling both passive voice and perfectivity as a single complex. Finally, in the sentence semaa'ñih ndeh adi' n-ayin ñih (borrowing 3sg NEG can pay-passive 3 sg ) 'He cannot repay what he borrows' (lit. 'His borrowing cannot be repaid by him') the form n-ayin evidently is not perfective if the comment is generic or habitual rather than specific. If, in fact, the comment was intended to be specific the gloss should be altered to 'He cannot repay what he borrowed'.

In kaan : k-um-aan 'to eat' pa-kaan 'to feed' : n-a-kaan 'was fed by someone' the morpheme boundary in $n$-a-kaan must be understood in relation to the causative verb form $p a$ kaan ( ${ }^{*}$ p-en-a-kaan, with loss of the first syllable). Finally, in monosyllabic bases -en- is realized as the prefix ne-: maa' 'to scale, as fish' : ne-maa' 'was scaled by someone', pei' 'to carry on the back' : ne-pei' 'was carried on the back by someone'. A parallel allomorph of -em- (viz. me- in monosyllables) was not recorded, but this is presumably an accidental gap in the data collected.

## 3.4 me- 'stative verb'

A stative verb prefix of the basic shape $m e$ - can be identified in a number of affixed words, where it contrasts with other forms of the verb that lack it. Almost all of these examples are found in bases that begin with a vowel or $l$, and contrast can almost invariably be found with a causative form of the base marked by ke- or $\eta e$ - (Table 6).

In addition to the above forms a number of invariant bases were recorded which begin with $m$ - and are semantically stative. That these bases were originally affixed with $m e$ - seems clear from the skewed phonotactics since, with a single exception, all examples are either monosyllables or disyllables in which $m$ - is followed immediately by a vowel, or trisyllables in which me- is followed immediately by $l$-: maak 'shallow', mamey 'mute', manaay 'male (animals)', maron 'loose, of binding', masem 'sour', masén 'sweet', mataa' 'raw', melait 'cold (weather)', melehum 'ancient', melepey 'lazy', melesey 'loose, of a knot', melesih 'comatose', meletaw 'salty', melipay 'thin', melufen 'old (people)', mitam 'black'. The one exception is mecië' 'clever', and since no etymology is available for this form it is unclear whether it contains a fossilized prefix $m e-$. It is, of course, possible that some or all of these apparent bases are in fact morphologically complex words in which a base was not identified due to insufficient time in the field.

Table 6: Evidence for a synchronically productive stative verb prefix me-in Kiput

| Stative | Causative |  |
| :--- | :--- | :--- |
| m-abuë, | sek-abuë' | drunk/make oneself drunk |
| m-ara | k-ara | dry/make something dry |
| m-asaak | k-asaak | cooked/cook something |
| m-asan | k-asan | embarrassed/embarrass someone |
| m-ataay | k-ataay | dead/kill |
| m-eloë, | n-eloë, | slack/loosen something |
| m-elai | -elai' | cool/cool something off |
| me-laneh | ke-laneh | wither/was made to wither |
| me-lemaw | lemaw | corpulent/fat, grease |
| me-lataw | dufih lataw | one hundred/two hundred |
| me-libew | dufih libew | one thousand/two thousand |
| me-liem | pe-liem | dark/make something dark |
| me-lumau | ke-lumau, | soft/was softened |
| m-ulon | ulon | alive/life |
|  |  |  |

Two other forms present unique problems. In kusét 'to press, squeeze, as juice from a fruit' : ma-kesét 'squeezed, as someone's arm that has gotten caught in a machine' the latter form appears to contain a stative prefix. In this form, however, the prefix was recorded only as $m a$-, not as $m e-$, and the longer form is perhaps better construed as resultative than stative. In addition, both lasau' and masau' were recorded in the meaning 'hot', although neither form was obtained in phrasal context.

Finally, there are a number of zero-marked statives in Kiput, as with abië 'left (side)', bei' 'wet', bucen 'hungry', bule' 'blind', buruë' 'rotten', but 'afraid', cei' 'good', dalaw 'angry', gaduë 'green', kalot 'mixed together', kesén 'strong, forceful', kunië 'yellow', lasau' 'hot', lataa' 'flat, level', pacey 'weak, exhausted', paroët 'hoarse', patai' 'broken', pesei' 'stinging, smarting', pét 'bitter', pidey 'upright, as a post', putai' 'white', puton 'broken', selam 'selfish', seret 'sharp', seu' 'short in height', sileh 'dazzling', talom 'deep', terei' 'pregnant', tuew 'right (side)', tuië' 'hard, of substances', usoy 'straight', utay 'taut'. In many cases these may have become zero-marked through loss of me- before consonant-initial bases that did not begin with $l$-. Other bases, however, appear to have been zero-marked originally, as with usoy and utay, which we would expect to begin with $m$-.

## $3.5 \quad \eta$ - 'active/causative verb'

Together with -em- this affix accounts for most active verb forms in Kiput. Like -em-, $\eta$ marks both transitive and intransitive verbs, although it is relatively uncommon in the latter function: araap 'hope, trust' : $\eta$-araap 'to hope, to trust' : nih $\eta$-araap araaw peraa' (3sg

ACT-hope weather rain) 'He is hoping it will rain', dalaw 'anger, jealousy : ye-dalaw 'to be angry at or jealous of someone' : ñih ne-dalaw nan laay ieh (3sg ACT-angry/jealous COMP man that) 'He is jealous of that man', labet 'loincloth' : ye-labet 'to wear a loincloth' : ñih yelabet (3sg ACT-loincloth) 'He is wearing a loincloth', tanay 'cry, weep' : anaak ieh nayay (3sg ACT-cry) 'That child is crying'. It is rare for a single verb stem to take both -em(including ablaut) and $\eta$-, but in the few available examples the two affixed forms were either given as identical in function, or the form with $\eta$ - marks constructions which take an additional argument. The recorded examples are: 1) duket 'to stick, adhere to a surface' : nedeket 'to stick something to a surface', 2) kadey 'direction of falling' : m-adey 'to fall, topple, as a tree that is felled' : yadey 'to put something or someone down, as in putting a child down to sleep', 3) tutek/netek 'to cut, to break', 4) m-uloë/nuloë 'to help'. The same general relationship appears to hold of zero-marked intransitives vs. their transitive/causative counterparts: acon 'to melt, dissolve' : $\eta$-acon 'to melt/dissolve something', pudun : 'to gather (intrans.)' : mudun : 'to gather (trans.)' : lew ieh pudun nen (3pl those gather place) 'They gathered/are gathering in one place' : ñih mudun kacew ieh silaan pacen (3sg ACT-gather wood that one pile) 'He gathered/is gathering the wood into one pile'.

A second pattern in which the morphological profile of eem- and $\eta$ - differs is seen in passive constructions, as active verbs with -em- normally are passivized with -en-, while active verbs with $\eta$ - are most commonly passivized with $k$-en-: $m$-abut 'to pluck' : $n$-abut 'was plucked by someone', but $\eta$-acon 'to dissolve something' : $k$-en-acon 'was dissolved by someone':

| Active | Passive |
| :--- | :--- |
| $m-$ | $n-$ |
| $\eta_{-}$ | $k(-e n-) e-$ |

The affix $\eta$-has numerous allomorphs, which are described in Section 4.4.1.

## 3.6 ke- 'causative verb'

The prefix $k e$ - marks causative verbs in examples such as $m$-añet 'to sink' : $k$-añet 'make something sink, drop something in the water', m-ara 'dry' : $k$-ara 'make something dry, dry something up', m-asaak 'cooked, ripe' : k-asaak 'to cook', m-asen 'shy, ashamed, embarrassed' : $k$-asen 'to embarrass someone', and $m$-ataay 'die, dead' $: k$-ataay 'to kill'. All examples of active causative verbs in my database occur with vowel-initial stems, and so are realized as $k$-. Active causatives with $k e$ - form part of a construction of the form AGT-V-PAT, as with:

1. ñih $k$-ara kukot ieh (3sg CAUS-dry well DEM) 'He dried up/is drying up the well'
2. ñih $k$-asen nen kaw (3sg CAUS-embarrass ACC 1sg) 'He made/is making me embarrassed'
3. ñih $k$-ataay asaw (3sg CAUS-die dog) 'He killed/is killing a dog'

Most examples of $k e$ - 'causative', however, were recorded as the passive counterparts of active transitive or causative verbs with $\eta$-, as with bule' 'blind' : $\eta e$-sule' 'to blind someone, make someone blind' : ke-sule' 'was blinded by someone', ye-deket 'to stick something to a surface' : ke-deket 'were stuck together by someone', dime' 'dirty' : ŋe-sime' 'to make something dirty' : ke-sime' 'was made dirty by someone', lacun 'poison' : ye-lacun 'to poison someone or something' : ke-lacun 'was poisoned by someone', or lasau' 'heat' : m-asau' 'hot' : ŋe-lasau' 'to heat' : ke-lasau' 'was heated by someone'. When a causative verb appears in its passive form it forms part of a construction of the type PAT-V-AGT. This difference in syntactic behavior appears to correlate with the larger affix potential of the verb. Verbs that take a causative in $\eta e$ - show the order AGT-V-PAT, and $k e$ - forms a passive counterpart of the causative construction, while in verbs that do not take a causative in $\eta e$-, the prefix $k e$ - forms an active causative, as seen above in 1-3):
4. ñih ne-laneh dun ieh (3sg CAUS-wither leaf DEM) 'He made/is making the leaves wither'
5. ñih ne-lumau' puttay ieh (3sg CAUS-soft banana DEM) 'She softened/is softening the banana'
6. dun ieh ke-laneh ñih (leaf DEM CAUS-PASS-wither 3 sg ) 'He made the leaves wither'
7. puttay ieh ke-lumau' nih (banana DEM CAUS-PASS-soft 3sg) 'She softened the banana'

In a few cases $k e$ - appears to mark the passive of a zero-marked causative, as in duduë 'to pawn' : ke-duduë 'was pawned by someone': ñih duduë' jiëm ñih (3sg pawn watch 3sg) 'He pawned/is pawning his watch' : anew pay ke-duduë' ñih (what PASS-pawn 3sg) 'What did he pawn?’ : jiëm ñih ke-duduë' ñih (watch 3sg PASS-pawn 3sg) ‘He pawned his watch'.

As these examples demonstrate, passive causatives do not require the passive-perfective infix -en-, although they may take it: araap 'hope, trust' : $\eta$-araap 'to hope, to trust' : $k$-enaraap 'was hoped for, was trusted by someone', /asaak/ : m-asaak 'cooked, ripe' : $k$-asaak 'to cook' : $k$-en-asaak 'was cooked by someone', bei' 'wet' : ye-bei' 'to dampen, make something wet' : $k$-en-e-bei' 'was dampened by someone', sei' 'water' : $\eta e$-sei' 'to water something' : $k$-en-e-sei' 'was watered by someone', séë 'a laugh' : ŋe-séé 'to laugh at someone' : k-en-e-séë 'was laughed at by someone'. All available examples of this affix combination occur with vowel-initial bases or monosyllables.

## 3.7 man- + ACT/CAUS verb 'imperative verb'

The prefix man- is added either to the unaffixed base, to the active form of the base, or to a causative form of the base to form the imperative. Unlike other affixes which contain a prepenultimate low vowel, man- is invariably pronounced with the low vowel $a$, never with a schwa, thus raising questions as to whether it is an affix or a clitic:

Table 7: The imperative prefix man- in relation to base and affixed forms

| Base | Active verb | Imperative verb | Gloss |
| :---: | :---: | :---: | :---: |
| acon | y-acon | man-y-acon | dissolve |
| ladek/ | m-adek | man-m-adek | kiss, smell |
| alot | $\eta$-alot | man- $\boldsymbol{\eta}$-alot | paddle |
| alut | $\eta$-alut | man-ท-alut | smooth |
| /añei'/ | $m$-añei' | man-m-añei' | chew |
| /ara/ | $k$-ara | man-k-ara | dry |
| /asaak/ | ท-asaak | man-ท-asaak | cook |
| /ataay/ | $k$-ataay | man-k-ataay | kill |
| bagi' | magi' | man-magi' | divide, share |
| bei' | ne-bei' | man-ŋe-bei' | wet, damp |
| bukUt | mukUt | man-mukUt | punch |
| danai' | pe-danai' | man-pe-danai' | near |
| /deket/ | ทe-deket | man-ทe-deket | stick, adhere |
| /getep/ | gutep | man-gutep | bite |
| /isit/ | m-isit | man-m-isit | pull |
| /kaan/ | pa-kaan | man-pa-kaan | eat/feed |
| kadey | jadey | man-kadey | put down |
| katoë | m-atoë | man-katöe | adrift |
| /kekep/ | kukep | man-kukep | hang up |
| kelai' | jelai' | man-jelai' | cool |
| /kesay/ | jesay | man-jesay | slice |
| lasau' | je-lasau' | man-ŋe-lasau' | hot |
| lata' | ye-lata' | man-ทe-lata' | flat |
| lerée' | $l$-u-réë | man-l-u-rée | cut |
| lesét | pe-lesét | man-pe-lesét | release |
| /liem/ | pe-liem | man-pe-liem | dark |
| lubië | ךe-lubië | man-ŋe-lubië | hole |
| /lumau'/ | пе-lumau' | man-ŋе-lumau' | soft |
| maa' | maa' | man-maa' | harp |
| ппие | me-ñe" | man-me-ñue' | wrap |
| pana | mana | man-mana | boil |
| peken | meken | man-peken | sleep |
| pesih | musih | man-musih | hit |
| sei' | ne-sei' | man-ทe-sei' | water |
| sipak | nipak | man-ñipak | kick |
| teyaaw | turaaw | man-turaaw | call, shout |
| /teñen/ | tuñen | man-tuñen | swallow |
| tepeh | tupeh | man-tupeh | pound |
| tepek | tupek | man-tupek | pierce, stab |
| tepen | tupen | man-tupen | cover |

Table 7 Continued

| Base | Active verb | Imperative verb | Gloss |
| :--- | :--- | :--- | :--- |
| tetek | tutek | man-tutek, | cut |
| tuië' | nuï̈' | man-nuï̈' | hard |
| /tusot/ | nusot | man-nusot | wash |
| /ulai'/ | m-ulai' | man-m-ulai' | return, go home |
| ulon | p-ulon | man-p-llon | alive |

It will be noted that various affixed forms of the base appear under the column 'active verb'. These include stems with $\eta$ - and $-e m$-, $k e$ - and $p e$ - as well as $u$-ablaut, and pseudo nasal substitution. The affixes $\eta$ - and -em-, $u$-ablaut and pseudo nasal substitution form active verbs, while $k e$ - and $p e$ - form causatives. The general pattern, then, is for man- to be added to the active form of a verb. However, in a few cases man- is added instead to the bare stem, as in man-kadey 'put it down!', man-katoë 'set it adrift!' or man-peken 'put him/her to sleep!'. No explanation can be suggested for this difference.

## 3.8 pe- 'nominalizer'

A nominalizer pe- is seen in a few morphologically complex words. All recorded examples begin with a vowel: 1) /adek : m-adek 'to smell, to kiss' : sel-adek 'to kiss one another' : $p$-adek 'a kiss', 2) m-ara 'dry' : $k$-ara 'make something dry, dry something up' : p-ara 'something that has been dried, as by smoking' (e.g. p-ara putaa 'fish dried and smoked over a fire for preservation'), 3) m-ataay 'die; dead' : $k$-ataay 'to kill' : p-ataay 'death; corpse'.

## $3.9 \quad p e$ - 'causative verb'

A causative affix pe-was recorded in a handful of verb forms. Its function appears to be identical to that of $k e$-, although the two are paradigmatically distinct in that pe-marks the causative of active verbs which are either zero-marked or affixed with -em-, and of stative verbs which are either zero-marked or prefixed with $m e$-, while $k e$-, at least as a passive causative, is the counterpart of the active verb prefix $\eta$-: m-adu' 'to bathe' : p-adu' 'to bathe someone (as a child)', danai' 'near' : pe-danai' 'put something nearer', $k$-um-aan 'to eat' : pakaan 'to feed', labië 'running' : pe-labië 'to run', lesét 'to exit, leave a place' : pe-lesét 'to release, let something go', me-liem 'dark' : pe-liem 'to make something dark, as by obstructing a light source'.

Two recorded instances of pe- are difficult to classify: ulon 'life' : man-p-ulon 'give it life, light it!', upew 'talk, things people say' : p-upew 'to say, to tell, to talk to'. In the first of these examples an affixed base p-ulon was not recorded, but the imperative form of the verb implies such an affixed base in the meaning 'to give life to, to let live'.

### 3.10 se-, sel-, sep-, sek-,-el-'reciprocal or reflexive verb'

A number of forms were recorded with a prefix of varying shape that generally contains the constant element $s e$-. These are usually reciprocal in meaning, but some are reflexive, and a single example is simulative. Because of its divergent meaning the latter form is treated separately.

### 3.10.1 se-

Recorded bases which take a prefix of the shape se-are shown in Table 8:
Table 8: Recorded bases which take a reciprocal/reflexive prefix of the shape se-

|  |  |  |
| :--- | :--- | :--- |
| Base | Active | Reciprocal/Reflexive |
| bukUt | mukUt 'to punch' | se-bukUt 'punch each other' |
| deñek | duñek 'to squeeze' | se-deñek 'squeeze each other' |
| getep | gutep 'to bite' | se-getep/se-gutep 'bite each other' |
| getin | gutin 'to pinch' | se-getin 'pinch each other' |
| kelai' | jelai' 'to cool sth.' | se-kelai' 'cool oneself/each other' |
| kesét | kusét 'to squeeze' | se-kusét 'squeeze each other' |
| pakih | makih 'knock sth. away' | se-pakih 'knock from each other' |
| paraat | maraat 'to pound w/ fist' | se-paraat 'pummel each other' |
| peleh | meleh 'to throw' | se-peleh 'throw things at each other' |
| peron | meron 'to blow' | se-peron 'blow on each other' |
| pesih | mesih 'to hit' | se-pesih 'hit each other' |
| pidië | midië 'to hang sth. up' | se-pidië 'hang oneself' |
| pisit | misit 'to pull' | se-pisit 'pull each other' |
| pulloë | mulloë 'hunt w/weapons' | se-pulloë 'hunt each other' |
| puñeu' | muñeu' 'to push' | se-puñeu' 'push each other' |
| tenaaw | tunaaw 'to call' | se-tenaaw 'call each other' |
| tepek | tupek 'to stab' | se-tepek 'stab each other' |
| tesei' | tusei' 'to step on sth.' | se-tesei' 'step on each other' |
|  |  |  |

As a general rule se-is added to bases which begin with a stop rather than with $s$ - or a vowel. There is one apparent exception:
battin mattin 'to shoot' se-pattin 'shoot each other'
Since an alternation of $b$ with $p$ is unparalleled in the database collected the explanation for se-pattin must be somewhat speculative. It is conceivable that the form battin was borrowed from Malay (bedil 'small cannon') fairly early, and an affixed form *se-battin then underwent
the general process of intervocalic devoicing which affected all stops and affricates in Kiput, whether native or borrowed. The problem with this explanation is that it fails to account for the absence of devoicing in forms such as se-bukUt 'punch each other', se-deñek 'squeeze each other', se-getep/se-gutep 'bite each other', or se-getin 'pinch each other'. Alternatively, it is conceivable that the active verb mattin 'to shoot' was reinterpreted as formed from a base attin, which then took the allomorph sep-, which occurs in the reciprocal forms of many bases that begin with a vowel, or from a base pattin, which then took the allomorph se-, as expected of bases that begin with $p$-. The problem with this explanation is that reanalyzed bases attin or pattin are unattested in the material collected, and the base battin still occurs as a noun meaning 'small cannon'. Without further evidence, then, the form se-pattin 'shoot each other' is difficult to explain.

Where a base which is affixed with se-also undergoes an ablaut alternation it is generally the neutral form of the base (with penultimate schwa) which is prefixed in the reciprocal form. With se-getep/se-gutep 'bite each other', however, there is variation between the neutral form of the base and the active verb with $u$-ablaut.

It appears from the material collected that se-most frequently marks reciprocal. Of the 19 affixed forms considered above only two show a reflexive meaning, and one of these is optionally reciprocal: se-kelai' 'cool oneself off', se-pidië 'hang oneself (in suicide)'.

### 3.10.2 sel-, sep-

Recorded bases which take a prefix of the shape sel- or sep-are shown in Table 9:
Table 9: Recorded bases which take a reciprocal/reflexive prefix of the shape sel- or sep-

| Base | Active | Reciprocal/Reflexive |
| :---: | :---: | :---: |
| abit | $m$-abit 'to hold' | sel-abit 'hold each other' (refined) |
|  |  | sep-abit 'hold each other' (coarse) |
| adek | m-adek 'to kiss' | sel-adek 'kiss each other' |
|  |  | sep-adek 'kiss each other' |
| adu' | $m$-adu' 'to bathe' | sel-adu' 'bathe each other' |
|  |  | sep-adu' 'bathe each other' |
| ataay | $m$-ataay 'to die' | sep-ataay 'commit suicide' |
| isit | $m$-isit 'to pull' | sel-isit 'pull each other' |
|  |  | sep-isit 'pull each other' |
|  |  | sel-isit talay 'tug-of-war' |
|  |  | sep-isit talay 'tug-of-war' |
| ibet | $m$-ibet 'to turn' | sel-ibet 'turn oneself' |
| iket | $m$-iket 'to tie' | sep-iket 'tie each other' |
| itoy | $m$-itoy 'to swing (tr.)' | sep-itoy 'to swing (intr.)' |
| ulei' | $m$-ulei' 'to spit' | sel-ulei' 'spit at each other' |
| ulon | $m$-ulon 'to be alive' | sep-ulon sedirl' 'live alone' |

The allomorphs sel-and sep-are found with bases that begin with a vowel. In sel-abit: sepabit there was a clearly stated connotational difference, the former variant being considered more refined than the latter, a perception that may not be unrelated to the widespread Austronesian preference for avoiding unlike labials in successive syllables. Similar information regarding connotational differences was not obtained for other bases, and where only a single variant was recorded it is assumed that this is due to accidental gaps in the data rather than to asymmetries in the language. Since no phonological conditioning is apparent, and the evidence of connotational differences is very limited, it is unclear why sel- and sepboth occur.

As with bases that take the allomorph se-, most affixed forms with sel- or sep-are reciprocal. However, a somewhat larger percentage of the latter are reflexive, including sepataay 'commit suicide', sel-ibet 'turn oneself around', sep-itoy 'to swing back and forth (as a rope from a tree branch, or a child on a swing)', and apparently sep-ulon sedirI' 'to live alone, live by oneself', a form which is not prototypically reflexive in cross-linguistic perspective, but which can be seen as plausibly falling within the range of meanings marked by reflexive constructions.

### 3.10.3 sek-

Recorded bases which take a prefix of the shape sek-include:

| abuë' | m-abuë' 'drunk' | sek-abuë' 'get drunk' |
| :--- | :--- | :--- |
| ataay | m-ataay 'die; dead' | sek-ataay sedirl' 'commit suicide' |
| elai' | m-elai' 'cool' | sek-elai' 'cool oneself off' |
| iték | $\eta$-iték 'to tickle' | sek-iték 'tickle each other' |
| ulai' | m-ulai' 'to return, go home' | sek-ulai' 'go to and from home' |

The first three of these forms are reflexive, the fourth is reciprocal, and the fifth is unclear.
As with sel- and sep-, sek- also occurs with bases that begin with a vowel. Again, since no phonological conditioning is apparent, it is unclear why some bases begin with sel- or sep-but others with sek-. A single base shows both types of variant: ataay : m-ataay 'to die; dead' $k$ ataay 'to kill' : sep-ataay sedirl'/sek-ataay sedirl' 'to commit suicide'. In this particular case it appears likely that sep-ataay sedirI' is formed from the unaffixed base ataay, and sek-ataay sedirl' from the affixed base $k$-ataay (hence: se-k-ataay sedirl').

### 3.10 .4 eel-

A single recorded base forms a reciprocal verb through infixation with eel-:
semaa' ñemaa' 'to borrow' s-el-emaa' 'borrow from each other'
Only one other verb base that begins with $s$ - was recorded in its reciprocal or reflexive form, and it shows zero-marking of the reciprocal relationship: difih ieh sakop (3dl that embrace)
'The two of them embraced/are embracing'. Given this limited and apparently contradictory set of data it is unclear whether $s$-initial bases take a special form of reciprocal marking.

### 3.11 Simulative

The single example recorded of a se-verb with a simulative meaning is seen in $m$-akét 'sick, ill' : sep-akét 'pretend to be ill' : lew ieh sep-akét (3pl there SIM-sick) 'They are pretending to be ill'. It is unclear whether the prefix sep- in this form should be treated as homophonous with the similar prefix marking reciprocals and reflexives, or whether all three senses are associated with a single morpheme.

### 3.12 Reduplication

The only form of reduplication which was recorded in Kiput is full reduplication, marked in the accompanying vocabulary by a postscript numeral 2 , as with adew tunaw $2=$ adew tunawtunaw 'very much, very many'. Recorded examples of reduplication include the preceding, and ayaap 'gaping' : anaap-anaap 'open, of the mouth', /kafet/ : kafet-kafet 'catch a glimpse of someone or something', /kidep/ : kidep-kidep 'to blink (involuntarily); to flicker, of a fire', /kiñim/ : kiñim-kiñim 'to pick at one's food, to taste a little of this and a little of that', kire' 'to think' : kire'-kire' 'calculations, arithmetic; to think', /lew/ : lew telaw-telaw '3p paucal', /litep/ : litep-litep 'partially submerged, as a log in water', sagië 'early' : sagië-sagië 'very early', sipin 'side, as of the body' : sipin-sipin 'both sides', tunaw 'much, many' : tunawtunaw 'very much, very many'. The forms kire'and kira'-kire'are borrowings from Malay, and so do not necessarily reflect native patterns of affixation. The other forms given here, however, appear to be native, and it is difficult to generalize about the function of reduplication in them, apart from its use to intensify the meaning of the simple base, as with sagië-sagië or tunaw-tunaw.

## 4 Phonology

Kiput historical phonology exhibits some highly unusual and theoretically puzzling features. Two of these, the development of a system of verbal ablaut through conditioned sound change and the fronting of low vowels after voiced obstruents, have received fairly systematic treatment in the context of broader studies of the languages of central and northern Sarawak (Blust 1997, 2000). Others, as the historical change of $* b$ to $s$, have been mentioned in passing (Blust 1969, 1974), but this does not exhaust the list of theoretically challenging innovations which have affected this language. Since little synchronic data for Kiput has appeared in print, to attain a more adequate understanding of its distinctive history it is necessary to first fill this descriptive gap.

### 4.1 Segmental phonemes

Some of the languages of northern Sarawak contain true phonemic voiced aspirates (Bario Kelabit), or a full series of implosive stops ranging from labial through dental and palatal to
velar (Bintulu, with labial and alveolar implosives, various Lowland Kenyeh dialects, with implosives at all four points of articulation). Unlike these languages the Kiput phoneme inventory contains no typologically unusual consonants apart from the mid-central glide $\ddot{e}$, a segment which, however, is quite common in other languages of the area, and phonemic geminates, which are also found in other Berawan-Lower Baram languages. Rather, what makes Kiput synchronic phonology noteworthy even for the phonologically highly innovative and typologically distinctive North Sarawak languages, is the complexity of the vowel/diphthong system, including phonemically long and short vowels, a variety of both rising and falling diphthongs, distinctive triphthongs, and phonologically conditioned but phonetically unmotivated nasality in the vowels, the apparent contribution of syllable onsets to maintaining bimoraic length requirements in content morphemes (seen only in monosyllables), and the types of phonological alternations which surface in verb paradigms, most notably the alternation of $d$ with $s$ and, more strikingly, of $b$ with $s$ in morpheme-initial position. Each of these topics will be treated in turn. Table 10 lists the consonant phonemes of Kiput:

Table 10: The consonant phonemes of Kiput

| $p$ | $t$ | $c$ | $k$ | , |
| :--- | :--- | :--- | :--- | :--- |
| $b$ | $d$ | $(j)$ | $g$ |  |
| $m$ | $n$ | $\tilde{n}$ | $\eta$ |  |
| $f$ | $s$ |  |  | $h$ |
|  | $l$ |  |  |  |
|  | $r$ |  |  |  |
| $w$ | $\ddot{e}$ | $y$ |  |  |

As already stated, the symbol $\ddot{e}$ represents a typologically rare mid-central glide. In addition Kiput has eight vowels, and at least twelve diphthongs and two triphthongs. The vowels are $i, I, \dot{e}, u, U, o, e$, and $a$ where, following a longstanding tradition in the romanization of Malay, $e$ represents a mid-central vowel (schwa). There are ten level or rising diphthongs with a high vocoid as coda (-iw, -éw, -uy, -oy, -ey, -ew, -ay, -aay, -aw, -aaw), and at least four falling diphthongs with a mid vocoid as coda (-ië, -éë, -uë,-ö̈).

An apparently distinct falling diphthong -uë, with short vowel nucleus, was recorded in a single form: sетиё' 'all', a borrowing of Malay seтиа. In word-final position rising diphthongs are written with a semivocalic coda; preceding a final consonant they are written with a vocalic coda: ñey 'who?', but sei' 'water', kacew 'wood; tree', but ceu' 'tail'. The lax vowels $i$ and $u$ do not occur as diphthongal nuclei. The triphthongs are -iëy and -iëw. Examples of each segment type appear in Table 11, with evidence of contrast where appropriate:

Table 11: Evidence of contrast used to establish the phonological inventory of Kiput

| $p: b$ | lepuë 'inner part of rattan' : lebuë 'prow of a boat' |
| :---: | :---: |
| $t: d$ | tufih 'liver' : dufih 'two' |
| $c: j$ | pacin 'white egret' : rajIn 'industrious' |
| $k: g$ | sikup 'tobacco, cigarette' : igum 'hut' |
| Ø: | buië 'millipede' : buië' 'flower', |
| $m: n$ | umeh 'grass' : uneh 'old (things)' |
| $n: \tilde{n}$ | munén 'civet cat' : tuñen 'to swallow' |
| $n: \eta$ | tunaw 'truth; very, truly' : turaaw 'call s.o.' |
| $f: s$ | kafië 'k.o. cooking pot' : tesië' 'noose trap' |
| $l: r$ | bulië 'metal cockspur' : burië' 'borak, rice wine' |
| $i: I$ | adin 'name' : rajIn 'industrious' |
| $i: e ́$ | gutin 'pinch' : setén 'thunderclap' |
| $i: e ́$ | sallp 'cross' : pupew selép 'to whisper' |
| $u: U$ | tabun 'quarrel' : sabUn 'soap' |
| u:o | bulun 'person' : m-ulon 'alive' |
| $e: a$ | beluy 'wrong' : baroy 'wind' |
| uy:oy | cuy 'there' : moy 'foolish' |
| ey:ay | ney 'who?' : nay 'here' |
| ay: aay | talay 'rope' : kulaay 'clouded leopard' |
|  | sei' 'water' : sai' 'seed' |
| ai : aai | mannai' 'defecate' : tenaai' 'intestines' |
| iw : éw | biw 'odor' : kéw 'vetative: don't' |
| ew : $a w$ | kutew 'louse' : bataw 'stone' |
| aw: aaw | telaw 'three' : telaaw 'barking deer' |
| $e u: a u$ | tuceu' 'seven' : pulau' 'ten' |
| ië : éë | dirië 'wall' : taréë 'tusk' |
| иё : ö̈ | busuë 'fighting between relatives' : soë 'rice mortar' |
| ey : ïey | jey 'jaw' : fiëy 'rattan' |
| $i \ddot{e}$ : $\ddot{e} y$ | tegerië 'rib' : tegeriëy 'k.o. plant with fibrous roots' |
| ew : iëw | kacew 'wood, tree' : kaciëw 'disturb' |

The segments $j$ and $g$ are rare. All but a few examples of the former are confined to transparent Malay loanwords (jaran 'wide-spaced' < Malay jarang idem, mujl' 'praise' < Malay me-muji idem, rajIn 'industrious' < Malay rajin idem, tuju' 'goal, course' < Malay tuju idem, etc.). The latter is found both in Malay loans (lugl' 'loss in a business transaction' < Malay rugi idem) and in a few forms that appear to be native (tegerië 'ribs'). Among the Kiput vowels $I$ and $U$ are rare, and apparently are confined to loanwords from Brunei Malay
(some of which are themselves ultimately borrowed from other languages), as in katIn 'bed', lattIy 'raft', lugI' 'loss in a commercial transaction', mujI' to praise', sapI' 'cow', sedirI' 'oneself', bakUn 'basket', butUn 'bottle' or sabUn 'soap'.

### 4.2 Distributional constraints

Unlike most languages of the Philippines and western Indonesia, which allow consonant clusters in medial position, sequences of consonants are almost completely unknown in Kiput. Although medial clusters were recorded in a few Malay loanwords, as belimbin 'the star fruit: Averrhoa carambola'(< Malay belimbing idem), only one consonant cluster was noted in a native word, and this one in initial position: ndeh 'no, not'. It is noteworthy that a similar violation of canonical constraints is found in some other languages of western Indonesia, where the only consonant cluster permitted in word-initial position is found in the negative marker.

In final position consonants are restricted to the voiceless stops, $-h$, the diphthongal codas $-w,-y$ and $-\ddot{e}$, and the nasals $-m,-n$ and $-\eta$. Moreover, although $-\eta$ is found following $i$ and $\ddot{e}$ in a handful of Malay loanwords such as guttIy 'scissors' (< Malay gunting idem), or bawië 'onion' (< Malay bawang idem), with five known exceptions in words which are not borrowed from Malay $-k$ and $-\eta$ are found only after syllabic schwa and $a$. The exceptions are ariy 'earwax', evidently a borrowing of Long Terawan Berawan adiy 'earwax', puttay kalin 'kind of banana', kebibuŋ 'cockroach', $\eta$-iték 'to tickle', and putiy 'nipple', which may also be Berawan loans. Stated differently, palatals, voiced stops, $f, s$, and liquids are unconditionally disallowed in final position, and in native vocabulary the velar stop and nasal are disallowed in final position after high vowels. In addition, $-h$ does not occur after back vowels, but only in the attested sequences -ih, -éh and -eh. Of these -ih and -eh are by far the most frequent. There are fewer restrictions on the distribution of consonants in non-final position. The most important of these are 1) $r$ occurs only as the onset of a final syllable, most commonly in intervocalic position, and more rarely as the onset of a monosyllable, and 2) $h$, ', $w$ and $y$ occur only in final position in native forms, although medial glides are occasionally found in Malay loanwords which have otherwise undergone various phonological adaptations to Kiput, as with bayin < Malay bayar 'to pay', or kawen < Malay kawan 'friend'.

Among the vowels, $I, \dot{e}, U$ and $o$ are restricted to final syllables. None of these vowels may occur word-finally, nor may schwa, although the phonetically similar non-syllabic mid-central glide $\ddot{e}$ is common in this position. In initial position schwa does not occur on the surface, but has been posited in some underlying forms in order to regularize partially recorded patterns of verbal ablaut.

One of the more problematic aspects of Kiput orthography is the representation of prepenultimate vowels. In every known language of Borneo the reflexes of PAn $* a$ and ${ }^{*} \mathrm{e}$ (schwa) have merged in prepenultimate syllables. In the great majority of cases the result is a mid-central vowel. In a few languages an earlier situation of this type has evidently been transformed by a tendency to change prepenultimate schwa from any source ( $\left.{ }^{*} i,{ }^{*} u,{ }^{*} a,{ }^{*} e\right)$ back to a low vowel. This has happened consistently in Miri, where the only vowel allowed in prepenultimate syllables is $a$. Kiput shows a similar tendency, but is less consistent than Miri, since $a$ and schwa are often interchangeable in prepenultimate syllables, but far less
commonly in penultimate syllables, as in me-lemaw, ma-lemaw 'fat, corpulent', but apparently not ${ }^{* *}$ me-lamaw or ${ }^{* *}$ ma-lamaw. The one striking exception to this tendency is the imperative prefix man-, which was never recorded with a mid-central vowel. In the vocabulary all prepenultimate $e \sim a$ variation is written as $e$ in the main entry, since in all syllable positions where such variation is found it appears to have arisen from a tendency to lower earlier schwa to $a$.

Finally, the rising diphthongs as well as the falling or level diphthongs -uë, -oë and -éë occur only word-finally or before final glottal stop, as in telaw 'three', kasaaw 'rafters', ticew 'elbow', penau' 'full', peseu' 'gall, gall bladder', liray 'scale of fish or reptile', anaay 'termite', sai' 'seed', taai' 'feces', sei' 'water', gaduë 'green', mabuë' 'drunk, intoxicated', lisoë 'whirlpool', sikö̈' 'gibbon', tiséé 'finger ring', or mée' 'goat', but the falling diphthong $i e ̈$ is found both in these environments and preceding $-p,-t,-m,-n$ or $-\eta$ (the latter only in loanwords), as in padië 'field', betië' 'design', lufiëp 'tide', suiët 'wound', miciëm 'borrow', lafiën 'rice paddy', bawiën 'onion'. The triphthongs are attested only in final position.

### 4.3 Phonetic description

The phonetic description of the above segments includes the following noteworthy features. Voiceless stops are unaspirated, and $t$ is dental, while $d$ is alveolar, an articulatory difference which is immediately apparent in the sequential numerals dufih 'two' and telaw 'three', or the minimal pair dufih 'two' : tufih 'large intestine'. Although consonant gemination is phonemic in Kiput, consonants are automatically geminated following schwa, and gemination is not indicated in this position.

Nasal consonants nasalize a following vowel, but unlike the situation in many of the languages of Borneo, nasal spreading in Kiput appears to be confined to adjacent syllables. Although Kiput $f$ can be described as a voiceless labiodental fricative, it is phonetically different from canonical segments of this type, as it is commonly pronounced with slight lip rounding, and was generally transcribed as [ $\mathrm{f}^{\mathrm{w}}$ ]. It can thus be described as intermediate between a voiceless labiodental fricative, with which it shares labiodental contact, and a voiceless bilabial fricative, with which it shares lip rounding. The lateral $l$ is a bright $l$, and there are two phonetically distinct rhotics, the first an alveolar tap and the second a 3-4 tap trill. As will be see below, the two rhotics are best treated as exemplifying a contrast of consonant length or gemination. The symbol $\ddot{e}$ represents a mid-central glide which is in all respects identical to schwa except that it is non-syllabic, and occurs only postvocalically as the coda of a falling diphthong.

The diphthongs eey and eew and the similar heterosyllabic sequences in medial position were sometimes recorded as $\dot{e}$ and $o$ as a result of the assimilation of the schwa to the frontness of the following glide: [usəyə] ~ [uséyə] 'cat', [lurəya?] ~ [luréya?] 'to cut', [libəw] ~ [libo] 'thousand', [tuwəw] ~ [tuwo] 'right side', [tucəu?] ~ [tuco?] 'seven'. As noted earlier, diphthongs are written as vowel-glide sequences in open syllables, but as vowel-vowel sequences in closed syllables to avoid orthographic clusters of $-y^{\prime}$ or $-w^{\prime}$ in final position, hence sei', not ${ }^{* *}$ sey' 'water', or tuceu' not ${ }^{* * t u c e w ' ~ ' s e v e n ' . ~ C o n s i s t e n c y ~ w o u l d ~ t h e n ~}$ demand the same convention in relation to the mid-central glide: munoë 'mouth', but manoe' 'bird'. However, I avoid such a convention here since it would lead to confusion between
vowel sequences of which the second member is a schwa and falling diphthongs, as in meliem 'dark' (with stress on the final schwa), but miciëm 'to borrow' (with stress on the high front vowel). The word for 'bird' is thus written manoë', and similarly with other cases of this type.

Apart from the trivial observation that $e$ has been chosen for orthographic convenience to represent the schwa, the Kiput vowels have their normal phonetic values, with two exceptions. The first of these exceptions is rather ordinary, and requires no special comment: $e ́$ and $o$ are pronounced respectively as lax mid-front and mid-back vowels when preceding a consonant, but as the tense equivalents when preceding a vowel. This is a distributional pattern found in many other An languages. The second exception is far from ordinary, and is not yet well understood.

### 4.3.1 Spontaneous nasality

Before final $p, t$ and $k$ (but not glottal stop) high and mid vowels were of en recorded with some nasality. This was transcribed with a raised $m, n$ or $\eta$, as its perceptual value in this environment resembles a weakly articulated nasal homorganic with the following stop. Given the absence of any known phonetic basis for lowering the velic in such an environent these forms were checked repeatedly in the field, and there can be no doubt about the fundamental phonetic facts. Examples include: sakop [sako:mp] 'embrace', nusop [nuso:mp] 'pour', kulét [kule:nt] 'skin', tumét [tume:nt] 'heel', kidep kidep [kidəmp kidəmp] 'blink; flicker (fire)', fit [ $\mathrm{f}^{\mathrm{W}} \mathrm{i}$ :nt] 'long', adit [adi:nt] 'customary law', sot [so:nt] 'upriver', tulot [tulo:nt] 'to fly', alut [alu:nt] 'smooth', but [bu:nt] 'fear', pesek [pəsəŋk] 'nasal mucus'. In addition to native forms, spontaneous nasality in this environment was recorded in the English loanword bup [bu:mp] 'book'. To make matters even more bizarre, although virtually all forms with underlying -ét, -it, and -ot consistently showed weak nasality in the vowel preceding final $t$, this was only rarely present in forms with -ut: cut [ču:t] 'back', liut [liyu:t] 'dust', lamut [lamu:t] 'root', laput [lapu:t] 'cloud', mabut [mabu:t] 'pluck, pull out', ubut [ubu:t] 'palm cabbage', etc. A similar phenomenon was noted in several words following the low vowel $a$ : anak [ana:ŋnk] 'child', mak [ma:ŋk] 'shallow', minat [mina:nt] 'to climb (in general)', sumat [suma:nt] 'to climb (a ladder)'. Although these words appear a priori to exemplify the same phenomenon, they can be explained as products of normal vowel nasalization, since no examples of nasalized low vowels were recorded unless they immediately followed a nasal consonant.

Spontaneous nasality in Kiput is peculiar for at least two reasons. First, it occurs in the absence of an adjacent nasal consonant or of a laryngeal consonant that might trigger lowering of the velic, as in the phenomenon now widely known as 'rhinoglottophilia'. Second, it is puzzling that spontaneous nasalization would affect the least sonorous of the vowels while leaving the most sonorous vowels (and most instances of the sequence-ut) untouched.

### 4.3.2 Stress

As in many other languages in the coastal and lowland areas of central and northern Sarawak, stress is final in citation forms. However, unlike some languages of the region in which the final stress of citation forms varies with penultimate stress in phrasal forms, word-
stress in Kiput appears to remain final throughout. Some Kiput forms appear to show stress contrasts, but both synchronic and historical information show that these are better analyzed as contrasts of tautosyllabic vs. heterosyllabic sequences of similar vocoids. The former sequences constitute diphthongs, as noted above, and in these stress falls on the vowel preceding the non-syllabic schwa, as in lufiëp 'tide', pafiët 'kind of bat', bawiëy 'onion', mabuë' 'drunk', soë 'rice mortar', or manoë' 'bird'. The latter sequences, by contrast, constitute two separate vowels, as in buen 'bottom', muek 'enter', puet 'navel', meliem 'dark', meriem 'cannon', tekien 'thread' or tuew 'right side', or lipeh tuew 'python', all of which are stressed on the schwa preceding the final consonant.

### 4.3.3 The problem of segmental length

Undoubtedly the most unsettled aspect of Kiput phonology, both synchronic and diachronic, is the phonemic interpretation of phonetic length. Other languages in the Berawan-Lower Baram branch of North Sarawak have developed a contrast of simple vs. geminate consonants under unusual phonological conditions (Blust 1995), but Kiput has length differences in both the consonants and in at least some vowels. Moreover, Kiput consonants and vowels appear to be sensitive to length differences in one another, a phenomenon reported elsewhere only in the closely related Belait (Clynes 2002).

The vowels $I, U$ and $e$ (schwa) are invariably short, as are all vowels in unstressed (nonfinal) syllables and all vowels preceding word-final $h$. The only qualification that might be made for this statement relates to emphatic pronunciations of forms with medial geminate consonants that form part of a minimal pair. Thus daccih 'crocodile' : dacih 'big' normally contrast solely through the phonetic length difference in the medial palatal stop. However, some emphatic pronunciations were recorded in which the vowel preceding -cc- appeared to be lengthened to magnify the difference between what John Malang called 'slow' (daccih) and 'fast' (dacih) pronunciations of words that were otherwise segmentally identical.

Final vowels, which are rare in Kiput, are always long: kini [kini:] 'kind of wild mango', temesu [təməsu:] 'the Sunda rhinoceros: Rhinoceros sundaicus', baka [baka:] 'wild boar'. Preceding any final consonant other than the glottal fricative $a$ may occur either long or short with fairly high frequency, but $i, e ́, u$ and $o$ when not preceding $-h$ or in monosyllables are almost always long, whether as simple vowels or as diphthongal nuclei: pakin [paki:n] 'fence', ticip [tiči:p] 'fan', belufië [bəlufi:yə] 'the Malayan sun bear', lufiëp [lufi:yəp] 'high tide', aket [ake:t] 'illness', usée [use:yə] 'cat', laput [lapu:t] 'cloud', igum [igu:m] 'hut', gaduë [gadu:wə] 'green', busuë' [busu:wə?] 'wood weevil, rice weevil', parot [paro:nt] 'hoarse', sakop [sako:p] 'embrace', katoë [kato:wə] 'porcupine', batoë’ [bato:wə?] 'neck', paloy [palo:y] 'stupid'. Where high vowels in this environment are short they can usually be interpreted as $I$ and $U$, although there is some limited evidence that $U$ and short $u$ are distinct. A more serious analytic problem is presented by the few cases in which short mid-vowels were recorded in stressed position, as with akkét [ak:zt] 'hook' vs. akét [ake:t] 'illness'. As the orthography which I have adopted for these forms suggests, the shortness of the stressed vowel in the word for 'hook' may be related to the length of the preceding consonant. In other words, Kiput may exhibit at least a tendency for long consonants to be associated with following short vowels and for short consonants to be associated with following long vowels.

The problem with the preceding analysis is that both consonants and vowels may occur contrastively geminated in Kiput:

pana [pana:] 'to cook' : lanna [lan:a:] 'rapids'<br>mataay 'die; dead' : mattay 'kingfisher' : lattaay 'chain'

This set of terms would appear to support two conclusions: 1) that segmental length is contrastive in Kiput, and 2) that quantity distinctions in consonants and vowels are mutually independent, since long consonants and long vowels co-occur in forms such as lattaay 'chain'. What complicates the analysis of segmental length in Kiput is that this seemingly secure understanding is soon shaken, since a consideration of additional data strengthens the first conclusion, but tends to undermine the second.

Vowel length is contrastive in such monosyllables as lay 'dry season' : laay 'male', let/lat 'mountain' : laat 'blowpipe dart', man 'bumblebee' : maan 'red', say 'meat, flesh' : saay 'frog', sai' 'seed; snail' : taai' 'faeces', saw 'breath' : paaw 'fern', or tot 'fart' : toot 'sewing needle'. However, a narrow transcription shows that in monosyllables initial consonants are long if the following vowel is short, and initial consonants are short if the following vowel is long, hence [l:ay] 'dry season' : [la:y] 'male', [l:at] 'mountain' : [la:t] 'blowpipe dart', [m:ay] 'bumblebee' : [ma:y] 'red', [s:ay] 'meat, flesh' : [sa:y] 'frog', [s:ai?] 'seed; snail' : [ta:i?] 'feces', [s:aw] 'breath' : [pa:w] 'fern', [t:ot] 'fart' : [to:t] 'sewing needle'. In 'bumblebee', moreover, the initial nasal is optionally syllabic, whereas the corresponding segment in 'red' is not.

Because initial geminate consonants are cross-linguistically rare, and appear phonetically in Kiput only in monosyllables that contain a short vowel, it is tempting to see consonant gemination in Kiput monosyllables as an automatic consequence of vowel quantity. In effect, a constant unit of length appears to hold over adjacent CV- sequences: if the vowel is short the duration of the consonant will be increased to maintain the unit of length; if the vowel is long no such increase is needed. The problem with this analysis is that it is arbitrary. Since consonant and vowel length are interdependent in these forms the arrow of causality is potentially bidirectional. Rather than writing lay 'dry season' : laay 'male', etc., we could with as much apparent justification write llay 'dry season' : lay 'male', deriving surface differences of vowel quantity from underlying differences of consonant quantity. There are, in fact, some apparent advantages to the latter analysis, since the derivation of consonant length from vowel length would require that the syllable onset contribute to the unit of length, rather than the syllable coda as is typical of moraic structure cross-linguistically, an important issue to which we will return below. ${ }^{2}$

[^1]At this point we are confronted with a dilemma: consonant and vowel length appear to be mutually independent in forms such as lattaay 'chain', and in less obvious examples such as lanna 'rapids' (since final vowels are automatically long). At the same time, however, consonant and vowel length appear to be interdependent in monosyllables. Since we would expect the stressed final syllable of disyllabic or polysyllabic words to behave essentially like a monosyllable, and since monosyllabic content words are infrequent in comparison with disyllables, it might be suggested that the analysis of segmental length in Kiput will ultimately depend on the patterning of long and short segments in longer words.

As noted already, not all stressed vowels are long: in monosyllables differences of vowel length are well-established, the loan phonemes $I$ and $U$, as well as the native schwa, are always short, hence the impossibility of predicting consonant length in tupeh 'pound rice' : tuppen 'fell trees', or durey 'escape' : durrey 'thorn', and all vowels are short before final $h$ : depih [dəpih] 'fathom', tiréh [tireh] 'to want', mateh [matəh] or [matah] 'eye', hence the impossibility of predicting consonant length in e.g. dacih 'big, large' : daccih 'crocodile'. Moreover, as just observed, in the last syllable of polysyllables vowel shortness rather than vowel length is marked, a situation that appears to be the reverse of that found in monosyllables:

|  | Monosyllables | Polysyllables |
| :--- | :--- | :--- |
| Marked feature | length | shortness |

Figure 1: Marked features of stressed vowels in Kiput monosyllables and polysyllables

There is one last complication. If the analysis adopted to account for non-low vowels is extended to low vowels we encounter a problem, since surface length contrasts of [a] vs. [a:] are very frequent both in simple vowels and in diphthongal nuclei. This pattern contrasts strikingly with the high and mid vowels, which are almost always long in stressed position. It is difficult to appreciate the degree to which these patterns contrast without some reference to numbers. While short $e ́$ or $o$ in final syllables was recorded in just three forms (akkét 'hook', mammét 'to jump with surprise', mulloë 'to hunt with weapons'), short $a$ was recorded in at least 144 examples, where it frequently contrasts with long $a$. If we were to insist that differences of vocalic length always be predictable from underlying differences of consonant length it would become necessary to recognize at least 144 instances of geminate consonants preceding final short $a$ : $\eta$-akkan 'to cheat', m-arra 'dry', assaw 'dog', asse' 'goose', banneh 'husband', barraw 'new', dallaw 'anger', kammay 'lp excl.', lattaw 'hundred', limmeh 'five', mettai' 'rambutan', mittam 'black', pallam 'k.o. mango', pirrak 'silver', puttai' 'white', puttay

[^2]'banana', tammeh 'father', tinneh 'mother', ullat 'maggot, caterpillar', etc. The great majority of these words, however, were recorded with simple medial consonants.

One possible escape from this quandary would be to interpret all instances of short $a$ as schwa, a vowel which can never be long. Under this interpretation the new $a$ would be automatically lengthened in stressed position, and the parallelism with non-low vowels would become much clearer. There is some evidence in favor of this analysis, since $e$ and $a$ are often interchangeable. This appears to be the case with all recorded examples of -eh and -ah, for which no convincing evidence of contrast could be found. It is also the case for many instances of e/a preceding other final consonants, as in alem/alam 'inside', arem/aram 'pangolin, scaly anteater', gaten/gatan 'itchy', irep/irap 'wasp sp.', kaceng/kacang 'peanut', kapekkapak 'axe', kematekkematak 'leech', kukep/kukap 'hang up', let/lat 'mountain', pelakep/pelakap 'cage trap', pesek/pesak 'nasal mucus', peset/pesat 'submerge', piren/piran 'to rest', seret/serat 'sharp', surep/surap 'to burn', terep/terap 'latex-producing tree similar to breadfruit', and ure'/ura' 'stay, dwell'. To some extent the same interchangeability of schwa with $a$ was observed in non-final syllables, although here it appeared to be much less common: desem/dasem 'cold, having chills', peñew/pañew 'sea turtle', me-lefen/ma-lefen 'old (of people)'.

The problem with any proposal to unconditionally equate schwa with short $a$ is that these segments cannot be interchanged in diphthongs without a loss of phonemic contrast. Especially clear evidence for the need to recognize a three-way constrast between $e$ (schwa), short $a$ and long $a$ is seen in jey 'jaw' : say 'flesh, muscle' : saay 'frog', sei' 'water' : sai' 'snail; seed' : taai' 'feces', new 'according to (someone)' : naw 'secondary forest; 2sg.' : danaaw 'lake', but many other examples of recorded schwa or short $a$ also could not be interchanged: delei' 'tongue' : m-ulei' 'to spit' : mulai' 'go home', pei' 'carry on back' : pai' 'nine', adei' 'shadow, reflection' : arai' 'sirih leaf', bilei' 'part of something split' : palai' 'footprint', bulew 'feather, body hair' : telaw 'three' : pulaaw 'island', seu' 'short' : belasau' 'rice porridge', tekey 'traditional haircut' : takay 'the largest type of deer in Borneo'. Moreover, even if all examples of short $a$ were interpreted as schwa we would not be able to maintain the position that a constant unit of length holds over an adjacent CV- sequence in all final syllables, since long and short consonants contrast not only before long vowels, as in mataay 'die, dead' : lattaay 'chain', but also before short vowels, as in dacih 'big, large' : daccih 'crocodile', or tupeh 'to pound rice' : tuppen 'to fell trees'.

Given these problems differences of phonetic length in Kiput appear to be accounted for most simply by disconnecting the treatment of monosyllables from that of disyllables. Monosyllabic bases may contain either long or short vowels, although in the corpus of data collected length contrasts in monosyllables are limited to the vowels $a$ and $o$. The last syllable of polysyllabic bases may also contain either long or short vowels, although short vowels are rare, and generally appear to follow long consonants. Nonetheless, examples such as lattaay 'chain', lanna 'rapids' and dacih 'big, large' show that long consonants may co-occur with long vowels, and that short consonants may co-occur with short vowels. Phonetically geminated initial consonants in monosyllables, then, are best treated as automatic responses to the common requirement in Austronesian languages that content morphemes be minimally bimoraic. Where a base contains a long vowel, as with laay 'male', or toot 'to sew' this requirement is met without the need for further phonetic adjustments, but where the base
vowel is short, as in lay 'dry season', or tot 'fart', the initial consonant is lengthened to meet the moraic structure required of freestanding content morphemes (i.e. morphemes which are not cliticized to an adjacent free morpheme). What is surprising about this conclusion is that it contravenes the well-established claim in general phonological theory that only syllable codas contribute to meeting moraic requirements. ${ }^{3}$

Garcia-Bellido and Clayre (1997) make a similar claim about onsets contributing to syllable weight for Long Terawan Berawan, but the facts are very different in the two cases, and the argument presented by these writers is open to serious objections. In Long Terawan and other Berawan languages syllable onsets lengthened if and only if the syllable lacked a coda at the time of the change. If the development of heavy onsets is seen as motived by the absence of a coda in these cases one must ask why literally hundreds of other Austronesian languages permit both -CV and -CVC syllables with no phonetic adjustment in the onset of the shorter syllable type. The phonetic motivation of consonant gemination in Long Terawan Berawan remains, in fact, very much an open question. In Kiput, on the other hand, initial geminates are found only in monosyllables which contain a short vowel. Since monosyllables which contain long vowels never lengthen the initial consonant, initial consonant gemination clearly is allophonic. Moreover, since initial consonants never geminate in polysyllables the allophonic lengthening of initial consonants in monosyllables must be motivated by some general prosodic constraint. The only obvious candidate is the bimoraic length requirement.

Clynes (2002) has reported a similar correlation between vowel and consonant length in the monosyllabic vocabulary of Belait, as in [jjun] 'above' : [juud] 'back', [ddaq] 'flour' : [diin] 'thing', or [nnaq] 'mosquito] : [maal] 'blunt'. However, he maintains that there is 'no strong evidence for not concluding that initial long consonants are not moraic in Belait'. While the multiple embedding of negations here makes parsing less than instantaneous, it seems clear that Clynes is reluctant to accept an analyis similar to that proposed above for Kiput. The principal reasons that he expresses for this reluctance are 1) Belait has at least one CV monosyllable $b i$ [b:i:] 'long', and in this form both the consonant and the vowel are lengthened (hence there can be no motivation for the lengthening of the syllable onset), 2) a disyllabic analysis of forms such as [jjuy] is possible (e.g. with initial schwa, which deletes under specifiable conditions), and 3 ) in the great majority of reported languages bimoraic length requirements are met by syllable codas, not syllable onsets.

The first objection that Clynes raises is perhaps the most serious, but he vacillates in his interpretation of this single example, noting that it is unclear whether the pattern observed is 'just a tendency'. The second objection essentially appeals to a historical explanation or its synchronic equivalent: disyllables that earlier began with schwa had short vowels in the last syllable, and when initial schwa was lost this resulted in monosyllables with short vowels. Compensatory lengthening of the syllable onset then re-established the minimal bimoraic freestanding content morpheme. Ironically, the same type of ordering argument can be used to account for [b:i:] 'long', since the allophonic lengthening of final vowels could have been a feature acquired after loss of initial schwa and gemination of the resulting word-initial consonant. The last objection is the most pernicious, namely that the use of syllable onsets to

[^3]meet moraic word requirements in Belait should be treated with suspicion, because such a pattern is cross-linguistically rare. Such an attitude is methodologically dangerous, since it suggests that whenever theory and data conflict existing theory should predominate. Such a view of the relationship between theory and data in any science will ultimately lead to stasis.

### 4.4 Phonological alternations

On the level of morphophonemics Kiput presents some peculiarities which are no less striking than those seen already on the level of the phoneme or allophone. The principal morphophonemic phenomena which require attention are: 1) nasal substitution, 2) initial syllable deletion, and 3) the alternations $b / s$ and $d / s$.

### 4.4.1 Nasal substitution

One of the apparent innovations characterizing the proposed but problematic 'Western Malayo-Polynesian' subgroup of An languages is the presence of a set of verbal or nominal prefixes which end with an underlying velar nasal that has variant phonemic realizations in different phonological environments. The most important of these prefixes is *may-, an affix which is shortened to $\eta$ - in a number of attested languages, including Kiput. Like other languages, Kiput exhibits a range of allomorphs of the active/causative verb prefix $\eta$-. These include variants formed by homorganic nasal substitution, variants formed by schwa epenthesis, and variants formed by schwa epenthesis plus an alternation of the stem-initial consonant. The full pattern of affixation in the active forms of verbs appears in Table 12:

In monosyllables the prefix $\eta$ - is realized as $\eta e$ - regardless of the stem-initial segment: bei' 'damp, wet' : ye-bei' 'to dampen' (cp. biguë 'an adze' : miguë 'to adze, work with an adze'), tot 'a fart' : ye-tot 'to fart' (cp. tulit 'writing' : nulit 'to write'), ciët 'paint' : ŋe-ciët 'to paint', sei' 'water' : $\eta e-s e i$ ' 'to sprinkle with water', séë 'a laugh' : ŋe-séë 'to laugh’ (cp. semaa' 'borrowing' : ñemaa' 'to borrow', suiët 'a wound' : nuiët 'to wound', etc.), me-raan 'light in weight' : ye-raan 'make something lighter'. In two recorded forms a disyllable with steminitial $s$ - takes $\eta e$-: sulië 'cockfight' : ye-sulië 'to fight cocks', silei' 'to split (intr.)' : ye-silei' 'to split (trans.)'. However, a wider pattern to be described below suggests that the affixed forms of these stems were originally paired with bases that began with $b$-, and the attested $s$ initial bases are back-formations from the affixed stem.

Table 12: Realizations of the active/causative verb prefix $\eta$ - with all possible stem-initial segments in bases of two or more syllables

| Stem-initial segment | Form of active verb prefix | Example |
| :---: | :---: | :---: |
| $a$ | $\eta-$ | aton : $\eta$-aton 'to arrange, put in order' |
| $i$ | $\eta-$ | iték 'tickling' : $\eta$-iték 'to tickle' |
| $u$ | $n-$ | usoy 'straight' : $\eta$-usoy 'to straighten' |
| $p$ | $m$ - | peleh 'throwing' : meleh 'to throw' |
| $b$ | $m-$ | battin 'cannon' : mattin 'to shoot' |
|  | クe-s- | bule' 'blind' : ye-sule' 'to blind s.o.' |
| $t$ | $n$ - | talay 'rope' : nalay 'to make rope' |
| $d$ | ne-d- |  |
|  | ne-s- | dime' 'dirty' : ye-sime' 'to make s.t. dirty' |
| $k$ | $\eta$ - | kalaay 'a dance' : yalaay 'to dance' |
| $g$ |  | guttIy 'scissors' : ֶuttIn 'to cut with scissors' |
| c | ? |  |
| $j$ | $?$ |  |
| $m$ | ? |  |
| $n$ | ? |  |
| $\tilde{n}$ | ne- | $\tilde{n} e t$ 'a cough' : ŋe-ñet 'to cough' |
| $\eta$ | ? |  |
| $s$ | $\tilde{n}$ - | semaa' 'borrowing' : ñemaa' 'to borrow' |
| 1 | ne- | lubië 'a hole' : ŋe-lubië 'to make a hole' |
| $r$ | ? |  |

### 4.4.2 Initial syllable deletion

The infixation of the active voice marker -em- or of the passive/perfective voice marker -en- into consonant-initial bases leads to the deletion of certain initial syllables. Syllable deletion is distinct from nasal substitution: in the latter case one consonant replaces another as part of a process of prefixation, while in the former a CV-syllable is deleted after infixation of the base. As noted earlier, these two distinct morphological processes produce identical results in the active voice of labial-initial bases, leading to uncertainty as to whether such words contain -em- or $\eta$ - in particular cases. Recorded examples are given in Table 13:

Table 13: Patterns of initial syllable deletion in Kiput bases infixed with -em- and -en-

| BASE | Active | Underlying | Passive | Underlying | Gloss |
| :---: | :---: | :---: | :---: | :---: | :---: |
| bagi' | magi' | ? | $n$-agi' | b-en-agi' | share, divide |
| battin | mattin | ? | $n$-attin | b-en-attin | cannon; shoot |
| bayin | ----- | ----- | $n$-ayin | $b$-en-ayin | pay, repay |
| biguë | migиё | ? | $n$-iguë | $b-e n-i g u e ̈$ | adze, to adze |
| /bukaa'/ | mukaa' | ? | n-ukaa, | $b-e n-u k a a{ }^{\prime}$ | open |
| bukUt | mukUt | ? | $n-u k U t$ | $b$-en-ukUt | punch |
| kadey | m-adey | $k$-em-adey | $k$-en-adey | $k$-en-adey | fall; put down |
| katoë | $m$-atoë | k-em-atoë | $k$-en-atoë | $k$-en-atoë | adrift |
| pacen | macen | ? | $n$-acen | p-en-acen | knock away |
| pakin | makin | ? | n-akin | p-en-akin | fence |
| pakU' | makU' | ? | $n-a k U$ ' | p-en-akU' | nail |
| paloë' | maloë' | ? | $n$-aloë | p-en-aloë' | tell a lie |
| pana | mana | ? | n-ana | p-en-ana | cook |
| pañim | mañim | ? | $n$-añim | p-en-añim | begin weaving |
| /paraat/ | maraat | ? | n-araat | p-en-araat | hit with hand |
| paraaw | maraaw | ? | n-araaw | p-en-araaw | scratch |
| paroy | maroy | ? | n-aroy | p-en-aroy | sew |
| pasée' | masée' | ? | $n$-asée" | $p-e n-a s e ́ e ̈ '$ | splash |
| pasië' | masië' | ? | $n$-asië | $p$-en-asië | split |
| pasiw | masiw | ? | $n$-asiw | p-en-asiw | weave |
| peken | meken | ? | $n$-eken | p-en-eken | sleep |
| peleh | meleh | ? | $n$-eleh | p-en-eleh | throw |
| peron | meron | ? | $n$-eron | p-en-eron | blow on |
| peset | ----- |  | $n$-eset | p-en-eset | dive |
| piciëm | miciëm | ? | n-iciëm | p-en-iciëm | borrow |
| piden | miden | ? | $n$-iden | p-en-iden | erect |
| pidië | midië | ? | $n$-idië | p-en-idië | hang up |
| pucew | ----- | ? | n-ucew | p-en-ucew | request |
| pucut | mucut | ? | $n$-ucut | p-en-ucut | pick up |
| ридиё | mиduë | ? | $n$-иduë | p-en-uduë | count |
| pudun | mudun | ? | $n$-udun | p-en-udun | gather |
| pujl' | mujl' | ? | $n$-ujI' | p-en-ujl' | praise |
| pukat | mukat | ? | n-ukat | p-en-ukat | dragnet |
| pulloë | mulloë | ? | $n$-ulloë | p-en-ulloë | hunt |
| pulot | mulot | ? | n-ulot | p-en-ulot | latex |
| puñeu' | тиก̃eu' | ? | n-uñeu, | $p$-en-uñeu' | push |

Continued

Table 13: Continued

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| BASE | Active | Underlying | Passive | Underlying | Gloss |
| pupuë | mupuë | $?$ | n-upuë' | p-en-upuë | hit |
| purot | murot | $?$ | n-urot | p-en-urot | rub |
| pusin | musin | $?$ | n-usiy | p-en-usin | turn |
| puton | muton | $?$ | n-uton | p-en-uton | break |
| tuloë | m-uloë | t-em-ulö̈ | t-en-uloë | t-en-uloë | help |

It is difficult to reach clearcut generalizations from this data. The most consistent pattern is that labial-initial bases infixed with een- drop the initial CV-. The same bases may also drop the initial CV- when infixed with -em-, but here the underlying forms are ambiguous for affixation with -em- or $\eta$-, hence /b-em-agi'/ or / $\eta$-bagi'/, /b-em-atin/ or $/ \eta$-batin/, etc. This indeterminacy is indicated by the use of a question mark, and contrasts with the passive voice, where the underlying shapes of morphologically complex verbs are unambiguous.

In bases that begin with non-labial consonants the underlying shape of active verbs is unambiguous, but the loss of the initial CV- in forms infixed with -em- was recorded in only three forms, two that begin with $k$ - and one with $t$-. Two of these forms also have known active counterparts with $\eta$-: m-adey 'topple, fall down, as a tree' : クadey 'put someone down to sleep, as a child', m-uloë, nuloë 'to help' (no known semantic or syntactic difference). In virtually all other recorded examples the active verb undergoes homorganic nasal substitution (hence prefixation with $\eta$-), and its passive counterpart is infixed with -en- with no loss of phonemic material from the stem: kaccIn 'button' : yaccIn 'to button' : k-en-accIy 'was buttoned by someone', kalot 'mixed together' : yalot 'to mix together' : k-en-alot 'was mixed together by someone', sakop 'grasp' : ñakop 'to grasp something' : s-en-akop 'was grasped by someone', talay 'string, rope' : nalay 'to make string or rope' : t-en-alay 'was made into string or rope by someone'. Bases that begin with $l$-form the active verb with $\eta e$ - and the passive with $k e$ - (never -en-). Taken together these observations suggest that -em- is a rare affix in Kiput, and is perhaps in the process of being replaced by $\eta$-. While this is perhaps true of bases that begin with a consonant, as seen already, -em- is rather common in bases that begin with a vowel, and clearly contrasts with $\eta$ - in this environment.

Two examples which show initial syllable loss are difficult to classify:

1) muput 'to sting, as a bee' : n-iput 'was stung, as by a bee',
2) patai' 'broken' : $k$-atai' 'to break something, as a branch' : matai' 'to break, as a stick or a branch' : n-atai' 'was broken by someone, as a stick'.
The first of these examples suggests a base /peput/ which is not attested in the material collected. Both the active and the passive forms of this verb are formed by redundant morphological processes of ablaut and affixation with $\eta$ - for the active verb, and -en- for the passive. The form $n$-iput thus appears to result from:
1. *peput > piput, with passive-perfective ablaut,
2. *piput $>$ p-en-iput, with secondary infixation with the passive-perfective infix, and
3. loss of the initial CV-.

In the second example the form $n$-atai' is a straightforward reduction of underlying $p$-en-atai', but the form $k$-atai' is unparalleled in the data collected. It is possible that the underlying form of this base is atai' rather than patai'.

### 4.4.3 b/s and $\mathrm{d} / \mathrm{s}$ alternations

One of the most bizarre features of Kiput phonology is the alternation of $b$ with $s$ under affixation with the transitive/causative prefix $\eta$-. Only four examples of this alternation were recorded, but these leave no doubt that the phonological relationship between $b$ and $s$ is real: bilei' 'either of the halves of something that is split' : ye-silei' 'to split something in half', bule' 'blind' : $\eta$-sule' 'to blind someone', bulië 'metal cockspur' : ŋe-sulië 'to fight cocks', buruë' 'rotten' : ye-suruë' 'to let something get rotten'. The first and third of these examples are complicated by the occurrence of variant bases with $s$-: silei' 'to split (intr.), sulië 'cockfight'. However, the normal active/transitive form of an $s$-initial base would undergo nasal substitution with $\tilde{n}$-.

In the sentences 1) buleu' ieh silei' 'The bamboo is splitting (by itself)', and 2) ñih ñilei' buleu' ieh 'He split/is splitting that bamboo' we see this expected relationship in the shapes of intransitive and transitive verb stems, suggesting that Kiput has two distinct bases bilei' and silei', with corresponding active verb forms $\eta e$-silei' and ñilei' respectively. Likewise, the morphologically deviant character of $\eta e$-sulië points to an original base with $b$-, suggesting that the abstract noun sulië is a back-formation from the concrete noun bulië in its prefixed form. Moreover, this synchronic interpretation is consistent with the comparative evidence for *bulay 'artificial cockspur; bind on an artificial cockspur' in other languages of the Philippines and western Indonesia, and with additional evidence for the historical sound change $* b s$.

The alternation of $d$ with $s$ under similar conditions should come as no surprise after acknowledging the typologically much more unusual alternation of $b$ with $s$. For this alternation only a single example was recorded: dime' 'dirty' : ne-sime' 'to make something dirty'. Despite the limited evidence available in this case this alternation is almost certainly valid, as it is consistent with the historical change $\mathrm{PMP}{ }^{*} z>s$ in intervocalic position.

One other marginal matter should perhaps be mentioned in passing. In tebayan 'scale, instrument for weighing' : nipiëy 'to weigh' we see a unique alternation of $b$ with $p$, and of the vowel $a$ with both the vowel $i$ and the diphthong $i \ddot{e}$. These differences could be due to borrowing, with tebayan entering the language as a relatively late loan from Malay (timbang$a n$ ). If both forms are native, however, this pair of words provides tenuous evidence for

1) a synchronic rule of intervocalic devoicing, and
2) a synchronic rule of low vowel fronting after voiced obstruents, both of which occurred in the history of Kiput.
The latter interpretation would raise still unanswered questions about the possible role of suprasegmental conditioning in these changes. For this reason it is perhaps best to assume
borrowing. It is possible that both forms were borrowed from Malay, nipiën at an earlier period and tebajan more recently.

### 4.4.4 Vowel shortening

A rule of vowel shortening is required to account for the alternation of long and short vowels in kan-en 'cooked rice' as against $k$-um-aan 'to eat' or pa-kaan 'to feed', although no other examples of such an alternation are known. Historically the inherited vowels $* i, * u$ and ${ }^{*} a$ were lengthened in stressed (hence final) syllables. By contrast, the schwa ( ${ }^{*} e$ ) was not, and a length contrast developed for $e(=[a] \sim[\partial])$ : aa in final syllables. Hence earlier *kanen 'cooked rice' developed a short low vowel in both syllables, while earlier $* k$-um-an and *pa-kan developed a short low vowel in the penult but a long low vowel in the final syllable. Somewhat different is the contraction of like vowels in mateh 'eye' + araaw 'day' > mateh raaw 'sun', a change which presumably took place before the addition of final $h$ in the first morpheme (*mata araw > mata raw > mateh raaw).

### 4.4.5 Miscellaneous observations

Several types of observations based on the vocabulary collected raise questions for which adequate answers are not yet available. For example, it might be asked whether ñilaa' 'to lick' is morphologically related to delei' 'tongue', whether añim 'the taste of something' is morphologically related to yiñim 'to taste' or whether mannai' 'to defecate' is morphologically related to taai' 'feces'. If any of these proposals were adopted it would be necessary to propose phonological rules for which no independent motivation is currently known. On the other hand, it seems clear that sikup 'tobacco, cigarette' : pe-ñikup 'a smoker, someone who smokes a lot' : sekup-in 'smoking pipe' do form a valid morphological paradigm, but one which contains two otherwise unrecorded affixes: an agentive prefix peNand an instrumental suffix -in. The form sigup is a widespread loanword in this area, and the entire paradigm probably was borrowed from some other indigenous language of the Baram basin after tobacco had been introduced into the region through European contact.

In addition to the above observations, some segmentation problems which do not involve unfamiliar affixes remain recalcitrant. The forms pusoy 'to straighten something' and kisoy 'was straightened by someone', for example, imply a base ${ }^{* *}$ kesoy, with redundant $u$-ablaut and prefixation with $\eta$-in the active form and $i$-ablaut in the passive form of the verb. But a base usoy 'straight' occurs in Kiput, leaving the form kisoy with no obvious explanation in terms of known patterns of affixation. Similarly, in pesih 'hitting' : ma-k-esih 'to be hit or knocked down by a blow' the segmentation remains unclear. We might posit a base ${ }^{* *}$ esih, and derive the abstract noun by prefixation with the nominalizer $p e$-, but then pisih 'was hit by someone' becomes problematic. In this particular case some parts of the paradigm were recorded from John Malang and others from Thomas Belulok, and these appear to differ in their implications for a morphological analysis.

As noted earlier, no surface form in Kiput can begin with schwa, but some $e$-initial underlying bases must be posited in order to unite what would otherwise be disconnected pieces of a morphological paradigm. An example is seen in usië 'to give something to
someone' : isië 'was given by someone' : n-isië 'was given by someone', where these forms are related through a non-attested base /esië/. Four such $e$-initial bases are posited in the vocabulary. The base /esië/ is further unusual in having two passive forms which may be syntactically distinct, the former marking an agentless construction, as in bup ieh isië yan kaw (book that give-passive COMP 1 sg ) 'The book was given to me (by someone)', and the latter an agentive construction, as in anew pay n-isië nih (what give-passive 3 sg ) 'What did he give?', or bup n-isië ñih (book give-passive 3sg) 'He gave a book' (answer to preceding question). In bases that do not contain a penultimate schwa the second of these would ordinarily be formed by prefixation without change of the stem vowel, thus implying a base isië. However, this formation may be motivated purely by double marking of the same passive function. In /eten/ : m-eten 'to bury' : n-eten 'was buried by someone' or /uñun/: $m$-uñun 'to grub in the dirt, as a pig' : n-uñun 'was grubbed in, as dirt when a pig is rooting about' the choice of a vowel-initial underlying base rather than a labial-initial underlying base is arbitrary.

## 5 The vocabulary

The Kiput vocabulary given here is approximately four times the size of that in Ray (1913), the only other published source that merits mention. Every effort has been made to ensure that it is phonemically accurate, although as noted earlier, some questions remain with regard to the treatment of segmental length. In addition, wherever possible loanwords have been distinguished from native vocabulary, and their probable source has been indicated.

### 5.1 Main entries

As in most dictionaries of the languages of Indonesia and the Philippines, affixed forms of bases are listed in alphabetical order under the simple base. Where a base is needed to relate affixed forms but is not attested in the data collected it is posited as an abstract form written between slant lines, as with /asaakl, posited as a basis for relating the affixed forms $k$-asaak 'to cook', $k$-en-asaak 'was cooked by someone', man- $\eta$-asaak 'cook it!', and m-asaak 'cooked', or /abuë'/, used to relate m-abuë' 'drunk' and sek-abuë' 'make oneself drunk, try to get drunk'. Apart from their use in helping to relate otherwise disconnected pieces of a morphological paradigm such abstract forms can be justified through reference to similar paradigms in which the simple base is attested, as with talay 'rope, string' : nalay 'to make rope or string' : t-en-alay 'was made into rope or string by someone', or battin 'small cannon' : mattin 'to shoot' : n-attin 'was shot by someone'. Homophonous bases are distinguished by a hyphenated numeral, as with kepen-1 'coffin' and kepen-2 'invulnerable'. A numeral ' 2 ' immediately following a base with no intervening hyphen indicates reduplication, as with kafet2 (= kafet-kafet) 'catch a glimpse of someone', or sagië 2 lebelem (= sagië-sagië lebelem) 'very early in the morning'.

Variant pronunciations are given in parentheses, as with irep 'k.o. wasp' (= irap)', and cross-references to semantically related forms (synonyms, antonyms, etc.) are given by 'cf.', as with /eloë'/ 'slack' (cf. utay), where the latter form means 'taut'.

### 5.2 Loanwords

There are a number of clearly identifiable loanwords in Kiput, the great majority from Malay. These are marked in the accompanying vocabulary, but are brought together in one place here for convenience of reference. Known or suspected Malay loanwords are:


| kaccIn | 'button' (Malay kancing) |
| :--- | :--- |
| kacen | 'peanut' (Malay kacang) |
| kafië | 'black frying pan' (Malay kawang) |
| kapek | 'axe' (Malay kapak) |
| kapiën | 'ship' (Malay kapal) |
| kataam | 'wood plane' (Malay ketam) |
| katIn | 'bed' (< Malay katil 'bedstead') |
| kawen | 'friend' (Malay kawan) |
| kelabaaw | 'water buffalo' (Malay kerbau) |
| kelataat | 'paper' (Malay kertas) |
| kelecih | 'work' (Malay kerja) |
| kepen | 'invulnerable' (Malay kebal) |
| kerusI' | 'chair' (Malay kursi) |
| kéén | 'clothing' (Malay kain) |
| kikén | 'wood file' (Malay kikir) |
| kire' | 'think, want, intend' (Malay kira) |
| kude' | 'horse' (Malay kuda) |
| kuraan | 'insufficient, lacking' (Malay kurang) |
| lacun | 'poison' (Malay racun) |
| lagU' | 'song' (Malay lagu) |
| lajen | 'copper or iron cooking pot' (Malay lajang) |
| lamaay | 'lively, bustling' (Malay ramai) |
| lapiëw | 'kind of fish trap' (Malay selambau) |
| lapun | 'lamp' (Malay lampu) |
| lattaay | 'chain' (Malay rantai) |
| lattII | 'raft' (Malay lanting) |
| lekih | 'price' (Malay harga, from Sanskrit) |
| lugl' | 'loss in a financial transaction' (Malay rugi) |
| lurUt | 'correct, accurate' (Malay lurus 'straight, honest') |
| maat | 'gold' (Malay emas) |
| makin | 'the more X the more Y' (Malay makin) |
| menasaan | 'regret' (Malay menyesal) |
| meriem | 'large cannon' (Malay meriam) |
| mije' | 'table' (Malay méja, from Portuguese) |
| pakU' | 'iron nail' (Malay paku) |
| payuë | 'umbrella' (Malay payung) |
| penulén | 'rudder of a boat' (Malay pengulin) |
| picit | (in laput picit 'flashlight'; Malay lampu pijit = 'squeeze light') |
| pikaan | 'plate' (Malay pingan, from Persian) |
| pikén | 'think' (Malay pikir, from Arabic) |
| pirek | 'silver' (Malay pirak) |
| pujl' | 'praise' (Malay puji) |
| puket | 'dragnet' (Malay pukat) |
| pulaaw | 'island' (Malay pulau) |


| pusin | 'turn' (Malay pusing) |
| :--- | :--- |
| rajIn | 'industrious' (Malay rajin) |
| saaw | ''nchor' (Malay sauh) |
| sabip | 'because' (Malay sebab, from Arabic) |
| sabUn | 'soap' (Malay sabun, from Portuguese) |
| sakon | 'hoe' (Malay carkul) |
| salpp | 'cross' (Malay salip) |
| sapI' | 'cow' (Malay sapi) |
| sedirl' | 'oneself' (Malay sendiri) |
| sekoleh | 'school' (< Malay sekolah, from Portuguese) |
| selalu | ''always' (Malay selalu) |
| seluien | 'trousers' (Malay seluar, from Persian) |
| semuë' | 'all' (Malay semua) |
| subei' | 'try, taste' (Malay coba) |
| suraat | 'letter, writing' (Malay surat) |
| tamben | 'patch on clothing' (Malay tambal) |
| puttay tanduk | 'kind of large banana' (Malay pisang tanduk) |
| tebayaan | 'scale for weighing' (Malay timbang-an) |
| tekien | 'thread' (Malay getian, with metathesis) |
| tilem | 'mattress' (Malay tilam) |
| tipu' | 'play a trick on someone, deceive' (Malay tipu) |
| tuken | 'craftsman' (Malay tukang) |
| tusu | 'cow's milk, store-bought milk' (Malay susu) |
| ubit | 'medicine' (Malay ubat) |
| ukon | 'luck' (Malay ukur) |
| utaan | 'debt' (Malay utang) |

Loanwords from English, some of which may have entered Kiput through the medium of Malay, include:

| bilun | 'airplane' (English 'balloon') |
| :--- | :--- |
| bisin | 'container' (English 'basin') |
| bun | 'ball' |
| bup | 'book' |
| butUn | 'bottle' |
| jin | 'jail' |
| kapun | 'camphor' |
| kepen | 'coffin' |
| kupi | 'coffee' |
| tIn | 'tin can, metal container' |

In addition to these examples a much smaller number of words shows distinctive phonological characteristics which mark them as loanwords from the Berawan dialect of Long Terawan, spoken further up the Tutoh river. The most obvious of these are ariy (LTB adiy)
'ear wax', and uken (LTB uken) 'horn'. Since John Malang professed to speak the Berawan dialect of Long Terawan it is possible that these and perhaps some other Berawan forms were inadvertently offered as Kiput, but are not generally used by other speakers at Long Kiput.

The above list includes 119 probable loanwords in Kiput out of a total vocabulary of 931 items collected. It is very likely, however, that a number of loanwords were missed, either because of insufficient information about neighboring languages or because some items left no telltale phonological clues. It follows that at least one eighth, or about $12.5 \%$ of the vocabulary of Kiput consists of borrowed lexical material, the great bulk of it from Brunei Malay.

# 2 Kiput-English vocabulary 

## A

| aan | chicken, domestic fowl |
| :---: | :---: |
| abew | ash |
| abey | Brunei Malays |
| abië (1) | left side (cf. tuew) |
| abië (2) |  |
| lipen abië | molar tooth |
| abieil (3) | ilipe nut (cf. lunon) |
| /abit/ (1) |  |
| m-abit | to hold |
|  | nih m-abit kaw 'He held/is holding me' |
| $n$-abit | was held by someone |
|  | kaw n-abit ñih 'He held me' |
| sel-abit | to hold one other (said to sound 'nicer' than sep-abit) |
| sep-abit | to hold one another |
|  | difih sel-abit/sep-abit 'They held/are holding each other' |
| abit (2) | iron; parang, machete, bush knife used to clear underbrush |
| /abut/ |  |
| m-abut | to pluck, pull out, as grass or feathers |
|  | nih m-abut bulew aan ieh 'She plucked/is plucking the chicken' |
| $n$-abut | was plucked by someone |
|  | bulew aan ieh n-abut nih 'She plucked the chicken' |
| /abuë'/ |  |
| m-abuë' | drunk |
|  | laay ieh m-abuë' $T$ That man is drunk' |
| sek-abuë' | to make oneself drunk, to try to get drunk |
|  | laay ieh sek-abuë' 'That man is trying to get drunk' |
| acon (1) | to melt, as wax; to dissolve |
|  | uei' alem sekin ieh acon 'The salt in the cup is dissolving' |
| $k$-en-acon | was dissolved by someone |
|  | uei' ieh $k$-en-acon ñih 'She dissolved the salt' |

```
    man-\eta-acon
    \eta-acon
acon (2)
adei'
/adek/
    m-adek
    man-m-adek
    n-adek
    p-adek
    sel-adek
    sep-adek
adew
    a.tunaw2
adin
adi'
adit
/adu'/
    m-adu'
    n-adu'
    p-adu'
    sel-adu'
    sep-adu'
/akaan/
    k-en-akaan
    \eta-akaan
akaa\eta
akem
akét
    m-akét
```

| sep-akét | to pretend to be ill |
| :---: | :---: |
|  | lewieh sep-akét 'They are pretending to be ill' |
| $a k i$ | because, that (introducing clauses of reason, as in 'He regrets that he did not study hard') |
| akkét | hook |
| alem | in, inside (= alam) |
| a. raw | inside bottom of a boat, floor of a boat |
| alot | boat |
| $k$-en-alot | was paddled by someone |
|  | alot ieh $k$-en-alot $n$ nih 'He paddled the boat' |
| man-ŋ-alot | paddle it! |
|  | man- $\boldsymbol{y}$-alot alot ieh 'Paddle the boat!' |
| $\eta$-alot | to paddle |
|  | nih $\eta$-alot alot ieh 'He paddled/is paddling the boat' |
|  | NOTE: Kiput uses a verbal form of the noun 'boat' rather than the noun 'paddle' (palah) to indicate the action of paddling |
| alun | wave, billow at sea (< Malay alun) |
| alut | smooth (< Malay halus) |
| $k$-en-alut | was made smooth by someone |
|  | mije' ieh k-en-alut ñih 'He made the table smooth' |
| man-ŋ-alut | make it smooth! |
|  | man- $\eta$-alut mije' ieh 'Make the table smooth!' |
| y-alut | to make something smooth |
|  | nih $\eta$-alut mije' ieh 'He made/is making the table smooth' |
| amén | house (= amin) |
| /amét/ |  |
| $m$-amét | to scratch hard, as a cat (cf. paraaw) |
|  | uséë ieh m-amét kacew 'The cat scratched/is scratching a tree' |
| n-amét | was scratched by something |
|  | kacew namét uséë 'The cat scratched a tree' |
| ami ${ }^{\prime}$ | few, little (in amount) |
| a. tuk tunaw 2 | very, very few; very, very little |
| anaak | child |
| a. añim | grandchild |
| a. laay | son |
| a. linay | son-in-law; daughter-in-law |
| a. menaan | nephew, niece, BC, ZC |
| a. turay | daughter |
| kel-anaak | was given birth to |
|  | anaak ieh kel-anaak nih 'She gave birth to the child' |
| jel-anaak | to give birth |
|  | nih yel-anaak anaak ieh 'She gave birth/is giving birth to the child' |
| anaay | termite, white ant |


| anew a. pay | which? <br> what? (also heard as anu, and then generally shortened to upay) upay séét 'What is the news?/How are you?'; also 'What pain do you feel?' |
| :---: | :---: |
| a. gaye' | how? |
| aךаap | gaping |
| aŋaap 2 | open, of the mouth |
| anaat | intestinal worm |
| /añei'/ |  |
| $m-a n ̃ e i '$ | to chew |
| man-m-añei' | ñih mañei' kan-en alem munoë ñih 'He chewed/is chewing the rice in his mouth' chew it! |
| $n$-añei' | was chewed by someone |
|  | kan-en ieh n-añei' nih alem munoë ñih 'He chewed the rice in his mouth' |
| añeu' | ointment, balm |
| /añet/ | (cf. peset) |
| $k$-añet | to make something sink, drop something in the water nih $k$-añet jiëm kaw 'He dropped my watch in the water (deliberately)' |
| $k$-en-añet | was made to sink, was dropped in the water by someone jiëm kaw k-en-añet ñih 'He dropped/is dropping my watch in the water' |
| m-añet | to sink, to drown |
| añim (1) | jiëm kaw m-añet 'My watch sank/is sinking' (it dropped in the water) (cf. anaak) |
| añim (2) | the taste of something, as of food (cf. kiñim) |
| apay | scorpion |
| apun | lime chewed with betel |
| /ara/ |  |
| $k$-ara | to make something dry |
|  | ñih $k$-ara kukot ieh 'He made the well dry/he dried up the well' |
| $k$-en-ara | was made dry by someone |
|  | kukot ieh $k$-en-ara nih 'He made the well dry' |
| man-k-ara | dry it up, make it dry! |
|  | man-k-arakukot ieh 'Make the well dry!' |
| m-ara | dry |
|  | kukot ieh mara 'The well is dry' |
| m. batoë' | thirsty (lit. 'dry throat') |
| p-ara | something that has been dried, as by smoking |
|  | para baka 'pork dried and smoked over a fire for preservation' |
|  | para putaa' 'fish dried and smoked over a fire for preservation' |


| araap | hope, trust (< Malay harap) |
| :---: | :---: |
| $k$-en-araap | was hoped for, was trusted |
|  | laay ieh k-en-araap nih 'He trusted that man' |
| $\eta$-araap | to hope, to trust |
|  | nih $\eta$-araap araaw peraa' He is hoping that it will rain' |
| araaw | day; weather |
| arai' | sirih leaf (in betel quid) |
| arem | pangolin, scaly anteater: Manis javanica (=aram) |
| arey | cold charcoal (< Malay arang; cf. salaay) |
| ariy | earwax (< Long Terawan Berawan adiy) |
| /asaak/ |  |
| $k$-asaak | to cook |
|  | nih k-asaak kan-en 'She cooked the rice' |
| k-en-asaak | was cooked by someone |
|  | kan-en ieh k-en-asaak nih 'She cooked the rice' |
| man-ŋ-asaak | cook it! |
|  | man- $\boldsymbol{\text { -asaak kan-en ieh 'Cook the rice!' }}$ |
| m-asaak | cooked, ripe |
|  | luyon ieh $\eta$ e' m-asaak 'that fruit is already ripe' |
| /asaay/ |  |
| m-asaay | to fix something, to repair |
|  | nih m-asaay upét 'He repaired/is repairing the knife' |
| $n-a s a a y$ | was repaired by someone |
|  | upét n-asaay ñih 'He repaired the knife' |
| asaw | dog |
| y-asaw | to hunt using dogs (cf. mulloë) |
| /asen/ |  |
| $k$-asen | to embarrass someone |
|  | nih k-asen yen kaw 'He made/is making me embarrassed' |
| $k$-en-asen | was embarrassed by someone |
|  | kaw k-en-asen nih 'He embarrassed me' |
| m-asen | shy, ashamed, embarrassed |
| asen | standing, stature |
|  | asen nih keren asen balay 'He is very tall' (lit. 'His stature is like that of a giant') |
| m-asen | to stand |
| asin | ladder |
| asse ${ }^{\text {a }}$ | goose (< Malay angsa) |
| ataa' | rice grain with husk adhering after the pounding (cf. berey) |
| /ataay/ |  |
| $k$-ataay | to kill |
|  | ney $k$-ataay asaw 'Who killed/is killing the dog?' |
|  | $\tilde{n} i h k$-ataay asaw 'He killed/is killing the dog' (answer to preceding question) |



## B

| babuy | domesticated pig (cf. baka) |
| :--- | :--- |
| baccl' | to hate (<Malay benci) |
| badié' | k.o. trunkless plant with leaves used to make roofing for huts and boats |
| bagi' | to divide, share $(<$ Malay bagi) <br> nih bagi' putaa' ieh 'He divided/is dividing the fish' |
| magi' | to divide, share <br> $\tilde{n i h}$ magi' putaa' ieh 'He divided/is dividing the fish' <br> man-magi' <br> divide it! <br> man-magi' putaa' ieh 'divide the fish!' |


| $n-a g i '$ | was divided by someone |
| :---: | :---: |
|  | putaa' ieh n-agi' nih 'He divided the fish' |
| baka | wild boar (cf. babuy) |
| baken |  |
| tepaan baken | sleeping met |
| bakUn | carrying basket carried in the hand, as to market (<Malay bakul; cf. kibih, lage') |
| baleh | guilty |
| balet | brother's wife, apparently both m.s. and w.s., add. and ref.; (cf. sabey, sabiëy) |
| balay | giant |
| baléh | kitchen, cooking area (cf. puraan) |
| baneh | husband |
| bareh (1) | upper arm, arm from shoulder to elbow (cf. gule') |
| bareh (2) | part of a $\log$ in the fire that has not yet been burned |
| baren | things, belongings (< Malay barang) |
| baraa' | swollen |
| baraw | new |
| baroy | wind |
| b. naw | whirlwind |
| basih | roof for a hut or boat made from the long leaves of a trunkless plant called badië' |
| basin | plank, board |
| basse' | race, nationality (< Malay bangsa) |
| bataan | tree trunk, log |
| bataw | stone |
| batoë' | neck |
| battin mattin | small cannon (< Malay bedil; cf. meriem) |
|  | shoot, discharge a cannon or other firearm |
|  | nil mattin baka 'He shot/is shooting a boar' |
| $n$-attin | was shot by someone |
|  | baka n-attin nih 'He shot a boar' |
| se-pattin | to shoot one another |
|  | kifih se-pattin 'The two of us shot each other' |
| bawiën | onion (<Malay bawang) |
| bayin | to pay (< Malay bayar) |
|  | ñih bayin barey ieh 'She paid/is paying for those things' |
| $n$-ayin | was paid or repaid by someone; be repaid by someone |
|  | lekih barey ieh ye' n-ayin nih 'She has already paid for those things' |
|  | semaa' $\mathfrak{n i h}$ ndeh adi' n-ayin $\tilde{n} i h ~ ' H e ~ c a n n o t ~ r e p a y ~ w h a t ~ h e ~ b o r r o w s ' ~$ <br> (lit. 'His borrowing cannot be repaid by him') |
| bei' | damp, wet |
| $k$-en-e-bei' | was made damp, was dampened by someone |
|  | kéén ieh $k$-en-e-bei' nih 'She dampened the clothes' |


| man-ŋe-bei | dampen it/them! <br> man-ŋe-bei' kéén ieh 'Dampen those clothes!' |
| :---: | :---: |
| ne-bei' | to dampen, make wet |
| belacië | nih ye-bei' kéén ieh 'She dampened/is dampening the clothes' barbed spear (cf. bucië',desen) |
| belafiën | rainbow |
| belajen | to study (< Malay bel-ajar) |
| belakaan | clever, intelligent (< Malay ber-akal; cf. paloy) |
| belaléë | circle |
| belasau' | rice porridge |
| belatéë' | spring-set spear or arrow trap, used to catch large animals like wild oars (cf. pelakep, tesië', ubië sengirai') |
| beledI' | bucket (< Malay beledi) |
| belelen | round |
| belenaan | a bird, the hornbill |
| belilih | fish sp. (= Malay belida) |
| belimbin | the star fruit: Averrhoa carambola (< Malay belimbing; cf. luyon) |
| belufië | the Malayan sun bear: Ursus malayanus |
| beluyon | numeral classifier used to count animals |
|  | dufih beluyon putaa' 'two fish' |
|  | telaw belunon babuy 'three pigs' |
| beyey | heat |
| berey | husked rice (cf. ataa', kan-an, padey) |
| berih | bubble (cf. puraa') |
| berit | heavy |
| besey | iron |
| besuë' | large yellowish-brown short-tailed monkey, the coconut macaque (cf. ucit) |
| besun | full, of the stomach after eating, satiated |
| beti | leg from knee to foot (cf. lulot, pupun) |
| betië' | design, tattoo |
| betuë | k.o. bamboo (cf. buleu') |
| biguë | implement for scraping out or smoothing wood, adze (cf. kapek, kataam) |
| miguë | to adze wood, to smooth the surface of wood with an adze |
|  | nih miguë kacew ieh 'He adzed/is adzing the wood' |
| $n$-igиё | was adzed by someone, of wood |
|  | kacew ieh n-iguë nih 'He adzed the wood' |
| bilei' | either half of something split, as the halves of a split bamboo (cf. ilei', silei') |
| ipin se-b. | opposite bank of a river |
| ne-silei' | to split something, as wood or bamboo |
| bilun | airplane (<English 'balloon') |
| bin | to leak, as a roof |


| bisei bisin | to worsen, of a pain container (< English 'basin'?) |
| :---: | :---: |
| biw | odor, smell |
| bucen | hungry |
| bucië | bachelor (< Malay bujang; cf. buday) |
| bucië | k.o. large spear (cf. belacië, desen) |
| buday | bachelor (cf. bucië) |
| buduh | silly, stupid (< Malay bodoh) |
| buen | bottom, posterior, buttocks |
| buië | millipede (cf. kelipan) |
| buië | flower |
| /bukaa'/ |  |
| man-mukaa' | open it! |
| mukaa' | to open |
|  | nih mukaa' tIn ieh 'He opened/is opening the can' |
| $n-u k a a^{\prime}$ | was opened by someone |
|  | tIn ieh n-ukaa' $n$ ih 'He opened the can' |
| bukaw | node, joint, knuckle |
| bukUt | a punch |
|  | bukUt nih 'his punch' |
| man-mukUt | punch him! |
| mukUt | to punch |
|  | nih mukUt kaw 'He punched/is punching me' |
| $n-u k U t$ | was punched by someone |
|  | kaw n-ukUt nih 'He punched me' |
| se-bukUt | punch each other |
|  | difih se-bukUt 'They punched/are punching each other' |
| bule' | blind (cf.tulaa') |
|  | laay ieh bule 'That man is blind' |
| $k e-s u l e{ }^{\prime}$ | was blinded by someone |
|  | laay ieh ke-sule' nih 'He blinded that man/he made that man blind' |
| ne-sule' | to blind someone, make someone blind |
| buleu' | nih ye-sule' laay ieh 'He blinded that man/he made that man blind' bamboo |
| b. butuë | k.o. bamboo |
| bulew | body hair, downy feathers (cf. suë') |
| b. gumey | moustache, beard |
| b. kiraay | eyebrow |
| bulië | metal cockspur (cf. tadih; sulië) |
| ךе-sulië | to fight cocks |
| bulih | may, can, be permitted (< Malay boléh; cf. adi') |
| bulin | moon, month |
| bulun | person, human being |
| bun (1) | ball (<English 'ball') |


| bun (2) | before |
| :---: | :---: |
| b. teh | now, at this time |
| buyeh | areca nut, betel nut |
| buyén | ankle |
| bup | book (< English 'book') |
| bupun | heap, pile |
| burek | sweet rice wine (< Malay burak; cf. burië') |
| burië' | rice wine (cf. burek) |
| buruë' | rotten |
| ŋе-surиë' | to let something get rotten |
|  | nih $\eta$ e-seruë' puttay ieh 'He let that banana get rotten' |
| burUt | inguinal hernia (< Malay burut) |
| busuë | fighting between kin, conflict among relatives |
| busuë' (1) | high, of the river |
| busuë' (2) | small boring insect that eats maize, wood, bamboo, etc., probably wood weevil/rice weevil |
| busut | brown bird with long black tail feathers, the cuckoo |
| but | fear; afraid |
| butin | coconut |
| butun | wood carving |
| butUn | bottle (< Malay butul or English 'bottle') |

## C

| cei' | good |
| :---: | :---: |
| ceu' | tail |
| cew | river |
| ciët | paint (< Malay cat) |
| $k$-en-e-ciët | was painted by someone |
|  | amin ieh k-en-e-ciët ñih 'He painted the house' |
| ne-ciët | to paint, as a house |
| cin | ñih $\eta e$-ciët amin 'He painted/is painting the house' dammar, resin |
| сиё | above, on top of (cf. seu', ucuë) |
| cut (1) | back (anatomical) |
| cut (2) | small saltwater shrimp brought in by coastal people |
| cuy | that; there (cf. nay) |

## D

| daccih | crocodile |
| :---: | :---: |
| dacih | big, large |
| dadin | tortoise, land turtle |
| dafiëy | face |
| dagIn | meat (< Malay daging) |
| dalaan | path |
| d. lalun | road |
| dalaw | anger, angry; jealous, jealousy |
|  | laay ieh dalaw 'That man is angry' |
| ke-dalaw | to be the object of someone's anger or jealousy |
|  | laay ieh ke-dalaw ñih 'He is jealous of that man; that man arouses his jealousy' |
| ne-dalaw | to be angry at or jealous of someone |
|  | nih ye-dalaw yen laay ieh 'He is jealous of that man' |
| dalét | ear |
| danaat | sweat, perspiration |
| danaaw | lake |
| danai' | near |
| man-pe-danai' | put it nearer! |
|  | man-pe-danai' kerusI' ieh 'Put that chair closer!' |
|  | man-pe-danai' kerusI' dufih kadih ieh 'Put those two chairs closer together!' |
| pe-danai' | to put something nearer, move something closer |
|  | ñih pe-danai' kerusI' dufih kadih ieh 'He put those two chairs closer together' |
| dasei' | boiling, bubbling up |
| dasem | shivering with cold, have chills |
| /deket/ |  |
| duket | to stick, to adhere to a surface |
|  | kelataat ieh duket 'Those papers are sticking together' |
| man-ทe-deket | stick them together! |
|  | man-ךe-deket kelataat ieh 'Stick those papers together!' |
| ne-deket | to stick something to a surface |
|  | $\tilde{n} i h$ ne-deket kelataat ieh 'He stuck/is sticking those papers together' |
|  | ñey ŋe-deket kelataat ieh une' 'Who stuck those papers together just now?' |
| ke-deket | were stuck together by someone |
|  | kelataat ieh ke-deket ñih 'He stuck those papers together' |
| delei' | tongue, uvula |
| d.dacih | tongue |


| d. iti' | uvula |
| :---: | :---: |
| d. tu'unuk | uvula |
| demih | country, state |
| /deñek/ |  |
| diñek | was pressed down by someone |
|  | mije' ieh diñek nih 'He pressed down on the table' |
| duñek | to press down on something |
|  | nih duñek mije' ieh 'He pressed down/is pressing down on the table' |
| se-deñek | to press one another down |
|  | difih se-deñek 'They are pressing each other down' (as of two people wrestling, first one on top, then the other) |
| depih | fathom |
| desen | barbless spear (cf. belacië, bucië') |
| dibin | side (cf. libin) |
| d. cew | river bank |
| d. li' cut | behind (also heard as ibi li' cut) |
| difih dufih | 3 p dual |
| dilei' | sea, ocean |
| dime' | dirty |
|  | dime' tu 'unaw kasut kaw 'My shoes are really dirty' |
| ke-sime ${ }^{\text {, }}$ | was made dirty by someone |
|  | kan-en ieh ke-sime' nih 'He made the food dirty' |
| ye-sime' | to make something dirty |
|  | nih ye-sime' kan-en ieh 'He is making the food dirty' |
| din | branch |
| dipi' | short in length (cf. seu') |
| dirië | wall |
| $d u d u$ ' | to pawn, to deposit goods as collateral |
|  | nih duduë' jiëm nih 'He pawned/is pawning his watch' |
| $k e-d u d u e{ }^{\prime}$ | was pawned by someone |
|  | anew pay ke-duduë' nih 'What did he pawn?' |
|  | jiëm ñih ke-duduë' nih 'He pawned his watch' |
| dufih | two |
| dufih pulau' | twenty |
| dun | leaf |
| d. kacew | eaf of a tree |
| dupen | slave |
| durey | thorn |
| durrey | to escape, slip away |

## E

/elai'/

| $k$-en-elai' | was cooled by someone |
| :---: | :---: |
| m-elai' | kupi $k$-en-elai' nih 'She cooled the coffee/she let the coffee cool' cool |
|  | kaw kire' umaau' kaw m-elai' 'I want to make myself cool' |
| $\eta$-elai' | to cool something off |
| man-r-elai' | ñih $\eta$-elai' kupi 'She cooled the coffee/she let the coffee cool' cool it off! |
|  | man-y-elai' sei' kupi ieh 'Cool this coffee/let this coffee cool!' |
| sek-elai' | to cool one another; to cool oneself |
| /eloë'/ | kaw kire'sek-elai' kaw sedirl' 'I want to cool myself off' (cf. uten) |
| $k$-en-eloë' | was loosened or made slack, as a rope |
|  | talay ieh $k$-en-eloë' nih 'He loosened the rope' (i.e. made it slack, or no longer straight) |
| m-eloë | slack, as a rope |
|  | talay ieh ทe'm-eloë' 'The rope is already loosened/slack' |
| n-eloë' | to loosen something or make it slack, as a rope |
|  | $\tilde{n i h} \eta$-eloë' talay ieh 'He loosened/is loosening the rope' |
| /esië/ |  |
| isië | was given by someone |
|  | bup ieh isië gen kaw 'The book was given to me (by someone)' |
| $n-i s i e ̈$ | was given by someone |
|  | anew pay n-isië nih 'What did he give?' |
|  | bup $n$-isië nih 'He gave a book' (answer to preceding question) |
| usië | to give something to someone |
|  | ñih usië bup ieh nen kaw 'He gave/is giving the book to me' |
|  | ñey usië bup ieh 'Who gave the book (to someone)?' |
|  | nih usië bup ieh 'He gave the book' (answer to preceding question) |
| /eten/ |  |
| $m$-eten | to bury |
|  | $\tilde{n} i h$ m-eten pataay asaw ieh 'He buried/is burying the corpse of the dog' |
| $n-e t e n$ | was buried by someone |
|  | pataay asaw ieh n-eten nih 'He buried the corpse of the dog' |


|  |  |
| :--- | :--- |
|  |  |
|  |  |
| fiëy |  |
| fit |  |$\quad$| rattan |
| :--- |
| long, of physical objects. |

## G

gaben (1)
gaben (2)
gaduë
gamben
ganeh
ganUm
gaten
gaye'
gelamay
gelep
gelië
gelukut
/getep/ gitep
gutep
man-gutep
se-getep
se-gutep
/getin/
gitin
gutin
se-getin
wooden box used for storing clothing
wooden bellows used in traditional metallurgy (= gaben (1)?)
green
picture (< Malay gambar)
kind of carrying basket
corn, maize (< Malay gandum 'wheat')
itchy (= gatan)
way, manner (<Malay gaya)
ne-le' gaye' $n i h$ musig mije' ieh 'Look at the way he is turning that table around'
land on which rice has been harvested and the straw left standing
k.o. plant with a small green fruit
bracelet, anklet
moss, algae
was bitten
nih gitep asaw ieh 'That dog bit him'
to bite
asaw ieh gutep nih 'That dog bit/is biting him'
bite him!
man-gutep laay ieh 'Bite that man! (spoken to a dog)
to bite one another
asaw ieh se-getep 'Those dogs are biting each other'
to bite one another
asaw ieh se-gutep 'Those dogs are biting each other'
was pinched by someone
bareh kaw gitin ñih 'He pinched my arm’
to pinch
ñih gutin bareh kaw 'He pinched/is pinching my arm'
to pinch one another
difih se-getin bareh 'They pinched/are pinching each other's arms'

```
guё` naughty, as a misbehaving child
gule'(1)
gule'(2)
gumey
guni'
gu'
guttIg
    guttI\eta
    \etautI\eta
naughty, as a misbehaving child
arm from elbow to wrisst (cf. barah)
sugar (<Malay gula)
(cf. bulew)
sack (< Malay guni)
on, against; from; relative pronoun(?)
man-kukep gamben ieh gu'dirië 'Hang that picture on the wall!'
nih tade' gu'anew inaau' nih 'He denied the thing that he had done'
scissors (< Malay gunting; cf. kuttIr)
was cut by someone with scissors
talay ieh guttIy nih 'He cut the rope with scissors'
pay kaw guttIy nih saat 'She did a bad job of cutting my clothes'
to cut with scissors
nih juttIn talay ieh 'He cut/is cutting the rope with scissors'
nih ךuttİ suë' kaw 'He cut/is cutting my hair'
```


## I

/ibet/
m-ibet
n-ibet
sel-ibet
ibi
i. li' cut
ibin
$\tilde{n}-$ ibin
idih
idin
$k$-idin
ieh
ië
ifih
igum
ikaat
to turn something
was turned by someone
to turn oneself
behind
parents-in-law
to stay with one's parents-in-law
3pl: they, them; other people (cf. lew)
to hear
to be heard by someone; able to hear
k-idin naw new ñih ga-ladiw une'keh ‘Could you hear him calling just now?'
kaw k-idin new lew ne-ladiw 'I could/can hear what they are shouting' that, those; there
gills of a fish
2 p dual
field hut, temporary shelter used while working in the fields (cf. silaap)
ray of light, as from the sun

| iket | tying |
| :---: | :---: |
|  | iket $\tilde{n}$ ih maron 'His tying (of something) is loose (not tight)' |
|  | ne-le' gaye' iket nih 'Look at his way of tying!' |
| m-iket | to tie |
|  | nih m-iket kacew ket 'He tied/is tying up the firewood (into a bundle)' |
| $n-i k e t$ | was tied by someone |
|  | kacew ket n-iket nih 'He tied up the firewood (into a bundle)' |
| sep-iket | to tie one another |
|  | difih sep-iket 'They tied each other up' |
| ilaak | scar, cicatrix |
| ilei' | piece of something that is broken (cf. bilei', silei') |
|  | $\tilde{n} i \frac{1}{}$ mudun ilei' butun ieh ' He is gathering the pieces of broken bottle' |
| illaw |  |
| i. telaw | 2p paucal (cf. semuë' illaw) |
| /inaat/ |  |
| m-inaat | to climb; to rise, of a river (cf. sumaat) |
|  | ñih m-inaat asin 'She climbed/is climbing a ladder' |
|  | $\tilde{n}$ ih m-inaat lat ieh 'He climbed/is climbing that mountain' |
| $n$-inaat | was climbed by someone |
|  | asin n-inaat nih 'She climbed a ladder' |
|  | let ieh n-inaat nih 'He climbed that mountain' |
|  | anew pay n-inaat nih 'What did he climb to get?' (asked, e.g. of someone who has just climbed a fruit tree) |
| inaau' | was done by (someone), was made (by someone) |
|  | kerusI' dufih kadih ieh inaau' nih danai' 'She put those two chairs closer together' |
| i. pay | why? |
|  | inaau' pay naw ndéh tupen tIn ieh 'Why didn't you cover that can?' |
| iyén | to want, desire (<Malay ingin) |
| ipaa' |  |
| seu' $i$. | armpit |
| iraat | vein, vessel |
| irep | k.o. wasp ( $=$ irap) |
| isen | ant |
| /isep/ |  |
| m-isep | to drink |
|  | ñih m-isep sei' 'He is drinking water' |
| $n-i s e p$ | was drunk by someone |
|  | sei' $n$-isep $\mathrm{n}^{\text {ilh 'He drank the water' }}$ |
| /isit/ |  |
| man-m-isit | pull it! |
|  | man-m-isit talay ieh 'Pull the rope!' |


| m-isit | to pull |
| :---: | :---: |
|  | nih m-isit bataay 'He pulled/is pulling a log' |
|  | $\tilde{n}$ ih m-isit talay 'He is pulling a rope' |
| m. saaw | to breathe |
| $n$-isit | was pulled by someone |
|  | bataay $n$-isit nih 'He pulled the log' |
|  | talay ieh $n$-isit $n$ ih 'He pulled the rope' |
| sel-isit | to pull each other |
| sep-isit | to pull each other |
|  | difih sel-isit/sep-isit 'They are pulling each other' |
| sel-isit talay | tug-of-war |
| sep-isit talay | tug-of war |
| itaaw | long ago, in former times (cf. melefen, melehum, uneh) |
| itéë | domestic duck |
| /iték/ |  |
| $k$-en-iték | was tickled by someone |
|  | anaak ieh k-en-iték ñih 'He tickled that child' |
| $\eta$-iték | to tickle |
|  | nih $\eta$-iték anaak ieh 'He tickled/is tickling that child' |
| sek-iték | to tickle one another |
|  | difih sek-iték 'The two of them are tickling each other' |
| iti' | small |
| itoë | mind, intellect, character |
| cei' itoë | generous |
| /itoy/ |  |
| m-itoy | to swing something, to push someone on a swing |
|  | nih m-itoy anaak ieh 'He pushed/is pushing the child on a swing' |
| n-itoy | was pushed on a swing by someone |
|  | anaak ieh n-itoy ñih 'He pushed the child on a swing' |
| sep-itoy | to swing back and forth (as a rope from a tree branch, child on a swing) |
|  | anaak ieh sep-itoy 'That child is swinging (himself)' |

## J

```
jaccei'
    be-jaccei'
jadi'
```

jake' during, when
jaren seldom; have wide spaces between the knots, of a net (< Malay jarang)

| jeu' | far |
| :--- | :--- |
| jey | chin, jaw |
| jiëm | watch, clock (< Malay jam) |
| jin | gaol (<English 'gaol') |

## K

/kaan/

| kan-en | cooked rice (cf. berey, padey) |
| :---: | :---: |
| $k$-in-aan | was eaten by someone |
|  | kan-en k-in-aan nih 'She ate some rice' |
| $k$-um-aan | to eat |
|  | nih $k$-um-aan kan-en 'She ate/is eating rice' |
|  | ne-le' gaye' nih $k$-um-an 'Look at how he eats!' <br> $k$-um-aan kan-en 'Eat the rice!' |
| man-pa-kaan | feed him/her! |
|  | man-pa-kaan anaak ieh 'Feed that child!' |
| $n-a-k a a n$ | was fed by someone |
|  | anaak ieh n-a-kaan nih 'She fed the child' |
| pa-kaan | to feed, as an animal or a child |
|  | nil pa-kaan anaak ieh 'She fed the child' |
| $a a^{\prime}$ | a raucous black bird, the crow (cf. manoë') |
| abin | beetle |
| abun | garden (not a cultivated field) (<Malay kebun) |
| accin | peg or short support used to steady a housepost |
| accIn | button (< Malay kancing) |
| $k$-en-accIn | was buttoned by someone |
|  | seluiën nih k-en-accIn ñih 'He buttoned his trousers' |

naccIn
kacen
kacew
kaciëw
k-en-aciëw
kadey
$k$-en-adey
to button
ñih yaccIy seluiën ñih 'He buttoned/is buttoning his trousers'
peanut (= kacay; < Malay kacang)
wood, tree
to disturb
ñih kaciëw kaw 'He disturbed/is disturbing me'
was disturbed by someone
kaw k-en-aciëw ñih 'He disturbed me'
direction of falling, direction of being put down
li' ñeh raay kadey kacew ieh 'In which direction will the tree fall?'
was put down to sleep, as a child
anaak ieh $k$-en-adey $\tilde{n} i h$ 'She put the child down to sleep'

| m-adey | to fall down, to topple, as a tree |
| :---: | :---: |
|  | kacew ieh m-adey 'The tree fell down' |
| man-kadey | put it down!cut it down! |
|  | man-kadey kacew ieh 'Cut down that tree!' |
| jadey | to put someone down to sleep, as a child |
|  | nih jadey anaak ieh 'She put/is putting the child down to sleep' |
| kadih | numeral classifier used to count most referents, including leaves, seeds, flowers, trees, fruit, birds; used optionally for humans nextto tulew, and apparently not allowed with names of animals. Noun may precede or follow numeral + classifier (cf. belunon, tulew) |
|  | paat kadih anaak 'four children' |
|  | limeh kadih buië' 'five flowers' |
|  | paat kadih dun kacew 'four leaves' |
|  | dufih kadih kacew 'two trees' |
|  | kerusI' dufih kadih 'two chairs' |
|  | telaw kadih luyon puttay 'three bananas' |
|  | paat kadih manoë' 'four birds' |
|  | limeh kadih sai' 'five seeds' |
|  | paat kadih turay 'four women' |
| /kafet/ |  |
| kafet 2 | to catch a glimpse of someone or something |
| kafië | black frying pan; copper cooking pot used for vegetables (< Malay kawang; cf. lajen) |
| kafih | (cf. kifih) |
| keh | interrogative marker, sentence-final marker of a question |
| kakaak | a bird, the large blue-crested kingfisher (cf. mattay) |
| /kakaap/ |  |
| $k$-en-akaap | was groped for by someone |
|  | sabUn ñih mañet k-en-akaap ñih 'He groped for his soap (which) sank' |
| nakaap | to grope for something, as in the dark or under water |
|  | ñih nakaap sabUn nih mañet 'He groped/is groping for his soap, (which) sank' |
| kalaay | a dance, the ngajat (traditional Bornean dance form) |
| nalaay | to dance the ngajat |
| kalét | bat sp. |
| kalin | k.o. short, thick banana (cf. puttay; kelatat, tanduk, ucit) |
| kallaw | (cf. killaw) |
| kalot | mixed together, stirred together |
|  | uei' ieh kalot ron gule' 'This salt is mixed with sugar' |
| $k$-en-alot | was mixed or stirred together by someone |
|  | gule' k-en-alot nih ron sei' $n$ ih'He stirred sugar into his water' |
| yalot | to mix things together, stir together |
|  | nih yalot gule' ron sei' nih 'He stirred/is stirring sugar into his water' |



| $k$-en-atoë | was set adrift, was released on a current alot kaw k-en-atoë nih 'He set my boat adrift' |
| :---: | :---: |
| man-katoë | set it adrift, let it go on the current! |
|  | man-katoë alot ieh 'Let the boat go on the current!' |
| m-atoë | carried away on a current, adrift |
|  | alot kaw m-atoë 'My boat is adrift' |
| katoë (2) | porcupine |
| kaw | 1sg, I; my |
|  | mateh kaw 'my eye' |
| kawen | friend (< Malay kawan) |
| kebepe' | butterfly |
| kebepet | firefly |
| kebibut | cockroach (cf. kebipeh) |
| kebipeh | cockroach (cf. kebibur) |
| kebulih |  |
| k. sei' | whirlpool (cf. lisoë) |
| keburen | k.o. black flying insect that bores into wood (carpenter bee?) |
| kedacen | forehead |
| /kekep/ |  |
| kikep | was hung up by someone |
|  | gamben ieh kikep nih gu' dirië 'He hung the picture on the wall' |
| kukep | to hang something up |
|  | ñih kukep gamben ieh gu' dirië 'He hung the picture on the wall' |
| man-kukep | kééw kukep gamben ieh gu' dirië 'Don't hang that picture on the wall!' hang it up! |
| man-kukep | man-kukep gamben ieh gu' dirië 'Hang that picture on the wall!' |
| kelabaaw | carabao, water buffalo (< Malay kerbau) |
| keladei' | grasshopper |
| kelanaan | empty, as a container |
| man-yelayaan | empty it! |
|  | man-yelayaan tIn ieh 'Empty that can!' |
| yelayaan | to empty a container |
| kelayen | thin, slender, of people (= kelangan) |
| kelasun | stuck in the throat, of food that will not go down |
|  | nih kelasun tulaay putaa' 'He has a fishbone stuck in his throat' |
| kelataat | paper (< Malay kertas) |
| kelatet | k.o. very small banana (cf. puttay; kalin, tanduk, ucit) |
| kelecih | work, occupation (<Malay kerja) |
|  | anew pay kelecih nih 'What is his occupation?' |
|  | nilh kelecih pulot ' He taps rubber (for a living)' |
| nelecih | to go to work |
|  | nih jelecih pulot 'He has gone to work tapping rubber' |
| kelep | leap from a high place |
|  | ñih kelep ate'ucuë kacew 'He jumped from the top of the tree' |


| /kelep/ |  |
| :---: | :---: |
| $k$-en-elep | was wiped by someone |
|  | mije' ieh $k$-en-elep nih 'He wiped that table' |
| jelep | to wipe |
|  | nih yelep mije''He is wiping the table' |
| kelepét | a bird, the rice sparrow |
| keleput | was spit out, was ejected from the mouth |
|  | dagIn ieh keleput nih 'He spit out the meat' |
| neleput | to spit out, eject from the mouth |
|  | nilh yeleput dagIn ieh 'He spit/is spitting out the meat' |
| kelét | small insectivorous bat, cave bat ( cf. pafiët) |
| kelin | sleeping area, bedroom |
| kelipaan | centipede (cf. buië) |
| keliteh | to forget; to be forgotten (= kaliteh) |
|  | kaw keliteh bup kaw 'I forgot my book' |
|  | bup kaw keliteh kaw 'I forgot my book' |
| kelitet | small white louse, possibly nit (cf. kutew, lieh) |
| kelufië | ginger |
| kemamaan | uncle, FB, MB (cf. keminaan) |
| kematek | leech (= kematak) |
| keminaan | aunt, FZ, MZ (cf. kemamaan) |
| kena | vegetable |
| keneh | correct (cf. lurUt) |
| keneu' | like, similar to (cf. keran) |
| /kepaat/ |  |
| $k$-en-epaat | was tapped, was extracted, of rubber, etc. |
|  | anew pay $k$-en-epaat nih 'What did he tap/extract?' |
|  | pulot $k$-en-epaat $\tilde{n i h}$ 'He tapped rubber' (answer to the preceding question) |
| jepaat | to tap rubber (cf. naruk) |
|  | nih nepaat pulot 'He is tapping rubber' |
| kepen (1) | coffin (<English 'coffin') |
| kepen (2) | invulnerable (< Malay kebal) |
| keren | like, similar to (cf. keneu') |
| kerubun | shell |
| kerusI' | chair (< Malay kursi) |
| /kesay/ |  |
| $k$-en-esay | was sliced by someone |
|  | baka ieh $k$-en-esay niih 'He sliced up the pig' |
| nesay | to slice |
|  | $\tilde{n} i h$ nesay baka ieh 'He sliced/is slicing up the pig' slice it! |
| man-yesay | man-yesay baka ieh 'Slice up that pig!' |




| $k$-en-uttIn | was cut by someone with scissors <br> talay ieh $k$-en-uttIy nih 'He cut the rope with scissors' |
| :--- | :--- |

## L

| laat | blowpipe dart (cf. seput, tacem) |
| :---: | :---: |
| laay | male, of humans, man (cf. manaay) |
| labet | loincloth |
| ke-labet | was made to wear a loincloth |
|  | kaw ke-labet nih 'He made me wear a loincloth' |
| ne-labet | to wear a loincloth; to make someone wear a loincloth |
|  | nih pe-labet'He is wearing a loincloth' |
|  | nih ye-labet kaw 'He is making me wear a loincloth' |
| labeu' | pumpkin (cf. luךon) |
| labië | running |
|  | labië ñih ndéh kesén 'His running isn't strong' (= he isn't a fast runner) |
| pe-labië | to run |
|  | ñih ieh pe-labië 'He ran/is running' |
|  | pe-labië kesén 'Run fast!' |
|  | ñih subei' tiréh ron idih pe-labië 'He tried to run with them' (as of someone trying to join in a race with faster runners) |
| labuë | prow of a boat |
| lacun | poison (<Malay racun) |
| ke-lacun | was poisoned by someone |
|  | asaw ieh ke-lacun nih 'He poisoned the dog' |
| ye-lacun | to poison someone or something |
|  | nilh ye-lacun asaw ieh 'He poisoned/is poisoning the dog' |
| ladei' | swampy forest, boggy ground in the rainforest |
| ladiët | bald |
| ladiw | voice |
| ne-ladiw | to call out, to shout |
|  | idin naw newñih ŋe-ladiw une'keh 'Could you hear him calling just now?' |
| lafiën | rice paddy, wet rice field (cf. padië) |
| lage' | small tapering or conical carrying basket worn on the back (cf. bakUn, kibih) |
| $\operatorname{lag} U^{\prime}$ | song (< Malay lagu) |
| be-lag ${ }^{\prime}$ | to sing |
|  | ñih be-lagU' lagU' 'She is singing a song' (cannot be passivized) |


| lajen | copper or iron cooking pot used for rice (< Malay lajang; cf. kafië) |
| :---: | :---: |
| lalet | housefly |
| l. akaan | bluebottle, horsefly (lit. 'ghost fly') |
| lalun | big? (cf. dalaan) |
| lamaay | lively, bustling (< Malay ramai) |
| lamaat | finger |
| l. miceu' | index finger |
| lamut (1) | root |
| lamuti (2) | yeast |
| lanaa' | pus |
| /laneh/ |  |
| ke-laneh | was made to wither, was withered by someone dun ieh ke-laneh ñih 'He made the leaves wither' |
| me-laneh | withered |
|  | dun ieh je'me-laneh 'The leaves are withered already' |
| ne-laneh | to make something wither |
|  | ñih ye-laneh dun ieh 'He made/is making the leaves wither' |
| lanek | relative, kinsman |
| lanna | rapids |
| laŋét | sky |
| lapiët | casting net (cf. puket) |
| ke-lapiët | was caught with a casting net by someone |
|  | putaa' ieh ke-lapiët nih 'He caught the fish with a casting net' |
| ne-lapiët | to cast a casting net, to catch with a casting net |
|  | lew pullau' ne-lapiët 'They are going to cast a casting net' |
|  | nih ne-lapiët putaa' ieh 'They caught/are catching the fish with a casting net' |
| lappiëw | k.o. fish trap (= Malay selambau) |
| lappun | lamp, light (< Malay lampu) |
| l. picit | flashlight (<Malay lampu pijit) |
| laput | cloud |
| /le'/ |  |
| $n e-l e{ }^{\prime}$ | was seen by someone |
|  | turay ieh ne-le' kaw 'I saw that girl' |
| ne-le' | to see |
|  | kaw je-le' turay ieh 'I see that girl' |
| lasau' | hot |
| ke-lasau' | was heated by someone |
|  | sei' ieh ke-lasau' nih 'She heated/boiled the water' |
| man-ŋe-la |  |
|  | man-ye-lasau' sei' ieh 'Heat up the water!' |
|  | sei' ieh ke-lasau' nih 'She heated the water' |
| m-asau' | hot |


| je-lasau' | to heat, to boil water |
| :---: | :---: |
|  | nih ne-lasau' sei' ieh 'She heated/boiled the water' |
| lata | milk (cf. sei') |
| lataak | flat, as land (cf. kufië, lataa') |
| lataa' | flat, level, as land (cf. lataak, kufië) |
| man-ye-lataa' | flatten it level it! |
|  | man-ทe-lataa' tanaa' ieh 'Level off that land!' |
| ye-lataa' | to flatten something or make it more level |
|  | lew ye-lataa' tanaa' ieh 'They leveled the land' |
| lataw | hundred |
| me-lataw | one hundred |
| dufih lataw | two hundred |
| lattaay | chain (< Malay rantai) |
| ke-lattaay | was tied with a chain by someone |
|  | asaw ieh ke-lattaay nih 'He tied the dog with a chain' |
| ne-lattaay | to tie something with a chain |
|  | nil ye-lattaay asawieh 'He tied/is tying the dog with a chain' |
| lattIn | raft (< Malay lanting) |
| lay | dry season |
| lebelem | morning (cf. li' may) |
| sagië 2 l. | ery early in the morning |
| lecih | ginger |
| lecin | a fruit, the durian (cf. luyon) |
| lekih | price (<Malay harga) |
|  | kudih lekih bup teh 'How much does this book cost?' |
| lem | night |
| lemaw | fat, grease |
| me-lemaw | to be fat, corpulent; to be fatty or greasy, as meat (= ma-lemaw) turay ieh me-lemaw 'That woman is fat' |
| leyeh | current |
| lериё | inner part of the rattan |
| lerée' | cutting, as of grass; partially cleared farmland, swidden land that has been prepared for planting but not yet planted |
|  | leréé' nih saat 'His cutting his bad' (i.e. he didn't do a good job of cutting) |
|  | ney pun leréè' ieh 'Whose prepared swidden is this?' |
| l-i-réë' | was cut by someone, as grass |
|  | umeh ieh l-i-réë' nih 'He cut the grass' |
|  | to cut, as grass |
|  | ñih l-u-réë' umeh 'He cut/is cutting the grass' |
| man-l-u-réë | cut it! |
|  | man-l-u-réë' umeh ieh 'Cut the grass!' |


| lesét | to exit, leave a place <br> teh ne' lesét naw 'Where did you exit from?' (e.g. asking someone what path he took to come out of the jungle) |
| :---: | :---: |
| l-i-sét | was released, was allowed to go |
|  | aan ieh l-i-sét ñih 'He let the chicken go' |
| $l-u$-sét | to go out, to exit |
|  | aan ieh l-u-sét 'The chicken went out' |
| man-pa-lesét | let it go! |
|  | man-pa-lesét aan ieh 'Let the chicken go!' |
| pa-lesét | to release, to let something go |
|  | ñih pa-lesét aan ieh 'He let the chicken go' |
| let | mountain (= lat) |
| /lew/ |  |
| l. telaw 2 | 3p paucal |
| semuë' lew | 3 pl (cf. idih) |
| léép | whole leg or whole arm, limb of the body |
| libew | thousand |
| me-libew | one thousand (= ma-libew) |
| dufih libew | two thousand |
| libin | site, location (cf. dibin, nen) |
| l. li' cut | behind |
| libu' | a fruit, the mountain apple or jambu (cf. lunon) |
| lidu' | dappled, of sunlight (as when the sun is shining but there are many scattered clouds) |
| lieh | nit, louse egg (cf. kelitet, kutew) |
| /liem/ |  |
| man-pe-liem | darken it, make it dark(er)! |
|  | man-pe-liem alem amin ieh 'Make the inside of the house darker' (as by lowering the flame of a lamp) |
| me-liem | dark |
|  | layét me-liem 'The sky is dark' |
| pe-liem | to make something dark, to obscure the light |
|  | kééw pe-liem te' ieh 'Don't get in the way of the light' (said, e.g. to someone who is standing between a person who is reading and the source of light) |
| /lilaat/ |  |
| ke-lilaat | was stuck out at someone, of the tongue |
|  | anaak ieh ke-lilaat nih 'He stuck outhis tongue at the child' |
| ne-lilaat | to stick out the tongue at someone |
|  |  the child' |
| limeh | five |
| linay | son-in-law, daughter-in-law (cf. anaak) |


| lipeh | snake |
| :---: | :---: |
| l. tuew | python |
| lipen | tooth (= lipan) |
| /liraw/ |  |
| ke-liraw | was put near a fire to warm up anaak ieh ke-liraw tineh nih 'The child's mother put it near the fire to keep warm' |
| ne-liraw | to sit near a fire to keep warm |
| liray | turay ieh je-liraw 'The woman is sitting near a fire to keep warm' scale of fish or reptile |
| $l i$ | to come, to go |
| li' cuy | go there! |
| li' may | evening (cf. lebelem) |
| li' nay | come here! |
| li' seu' | to go down, descend |
| li'sië' | to go down to the river |
| li' soot | to go upriver |
| li' teh | come here! |
| lisaay | fishing pole, line and hook |
| ke-lisaay | was caught with line and hook, of a fish putaa' ieh ke-lisaay nih 'He caught that fish with line and hook' |
| ne-lisaay | to fish with line and hook |
|  | nih je-lisaay 'He is fishing with line and hook' |
| lisoë | whirlpool, eddy in the river (cf. kebulih) |
| lite' | earthworm |
| /litep/ (1) |  |
| ke-litep | be heard, be listened to; be understood by someone new manoë' be-lagU' kelitep nih 'He listened to the birds singing' |
| ne-litep |  |
|  | ñih ne-litep new manoë' be-lagU' 'He listened to the birds singing' nil ye-litep new tamah ñih 'He listened to what his father said' |
|  | adi' naw ye-litep new kaw 'Can you understand what I said?' |
| /litep/ (2) | submerged? |
| litep 2 | partially submerged, as wood in the river |
| liut | dust |
| loë | opening |
| l. cew | river mouth, estuary |
| l. ubek | door |
| lubië | hole (cf. ubië) |
| ke-lubië | to be perforated |
|  | kacew ke-lubiëñih 'He made/is making a hole in the wood' |


| man-ŋe-lubië | make a hole in it! perforate it! man-ŋe-lubië kacew ieh 'Make a hole in that wood!' |
| :---: | :---: |
| ne-lubië | to make a hole, as in wood |
| lubuë' | ñih ye-lubië kacew 'He made/is making a hole in the wood' bend in a river |
| lufiëp | tide, tidal rise in the river |
| lufiëy | a bird similar to the Argus pheasant (cf. tebun) |
| lugI' | loss, as in a commercial transaction (<Malay rugi) |
| lulot | shin (cf. beti, pupun) |
| lumaa' | playing |
|  | lumaa' nih saat 'His playing is bad (i.e. rough)' |
| se-lumaa' | to play (with one another) |
| lumaan | in front of (cf. ibi) |
| /lumau'/ |  |
| ke-lumau' | was softened by someone |
|  | puttay ieh ke-lumau' nih 'She softened/is softening the banana' man-ne-lumau' soften it! man-ŋe-lumau' puttay ieh 'Soften that banana/make that banana softer!' |
| me-lumau' | soft, as a ripe fruit (cf. tuië) |
|  | puttay ieh me-lumau' 'That banana is soft' |
| ทe-lumau' | to soften something, make something softer |
|  | nih je-lumau' puttay ieh 'She softened/is softening the banana' (as by mashing it) |
| lunon | fruit, nut, vegetable |
| l. abië | ilipe nut |
| l. belimbin | the star fruit: Averrhoa carambola |
| l. kini | k.o. large sweet mango |
| l. labeu' | pumpkin |
| l. lecin | durian |
| l. libu' | a fruit, the mountain apple or jambu |
| l. meduë | papaya |
| l. metai' | fruit with hairy rind, k.o. small rambutan |
| l. pelem | k.o. small sweet and sour mango |
| l. petabey | pineapple |
| l. sibaw | fruit with hairy rind, k.o. large rambutan |
| l. takaa' | jackfruit |
| l. timun | cucumber |
| lupaa' | to overflow (cf. matep) |
| lupay | a dream |
| ne-lupay | to dream |
| lurUt | kaw ne-lupay lem une' 'I had a dream last night, I dreamt last night' correct, accurate (<Malay lurus; cf. kenah) |


| lusoë | ringworm |
| :--- | :--- |
| lutéë | to float (cp. katoë) |

## M

| maak | shallow |
| :---: | :---: |
| maay | red |
| maa' (1) | Father (add.) |
| maa' (2) | to scale a fish, pluck a chicken |
|  | kaw maa' putaa' ieh 'I scaled/am scaling the fish' |
| ne-maa' | was scaled/was plucked by someone |
|  | putaa' ieh ne-maa' kaw 'I scaled the fish' |
| maa' (3) | to whet, to sharpen |
|  | ñihmaa' uppét ieh 'He is sharpening that knife' |
|  | kééw maa' uppét ieh 'Don't sharpen that knife!' |
| man-maa' | sharpen it! |
|  | man-maa' uppét ieh 'Sharpen that knife!' <br> NOTE: Possibly the same morpheme as maa' 'to scale a fish' |
| maat | gold (< Malay emas) |
| macen | to reflect, flash, as someone reflecting sunlight with a mirror |
| makaaw | to walk (cf. pullau', umaaw, useu') |
|  | kaw makaaw 'I'm walking' |
| makét | eel |
| makin | the more ... the more (<Malay makin...makin) |
|  | makin nupew makin buduh 'The more you talk to him (i.e. give him advice) the stupider he becomes' |
| mamey | mute |
| mammét | to jump with surprise, to be startled |
| manaay | male, of animals (cf. laay, tinah) |
| manitén | to lift, raise up |
| mannai' | to defecate (cf. taai') |
| manoë' | bird |
| m. kaa' | a raucous black bird, the crow |
| $m$. sedadin | a black, long-legged, long-necked water bird that feeds on fish |
| may | bumblebee (cf. mutét, nusuret) |
| maray | eight |
| maren | primary forest (= maran; cf. naw) |
| maron | loose, not tight, of binding |
| masa | to wipe with a damp cloth (cf. murot) |
| masem | sour (= masam) |


| masén | sweet |
| :---: | :---: |
| masin | to faint, swoon, pass out (cf. melesih, pacey) |
| masot | to penetrate, as a knife or spear penetrating flesh or wood |
| mataa' (1) | raw, unripe |
| mataa' (2) | crossbeam in a house |
| mateh | eye |
| m. raaw | sun (lit. 'eye of the day') |
| matep | to flood (cf. lupaa') |
| mattay | a bird, the small blue-crested kingfisher (cf. kakak) |
| may | (cf. $l i$ ') |
| тесіё' | clever, skillful at doing something |
| теduë | papaya (cf. lunon) |
| melait | cold, as the weather |
| melehum | long ago, in ancient times (cf. itaaw, melefen, uneh) |
| melepey | lazy, indolent |
| melesey | to be loose, as a knot |
|  | talay ieh melesey 'The rope is coming loose' (from being tied) |
| melesih | near death, in a condition where one is unable to eat, speak or move, comatose (cf. masin, pacey) |
|  | laay ieh melesih 'That man is near death' |
| meletaw | salty |
|  | ñih umaau' kan-en ieh meletaw 'She made the food salty' |
| melipay | thin, of paper, cloth, etc. (cf. kelayen) |
| melufen | old, of people (cf. itaaw, melehum, uneh; also heard as melefen) |
| menaan | nephew, niece (cf. anaak) |
| menasaan | to regret (< Malay menyesal) |
|  | ñih menasaan aki ñih ndéh belajen kesén 'He regrets that he did not study hard' |
| menei' | to throw something away, discard something |
| man-menei' | throw it away! |
| meñit | to snag, to catch on something, as a fishhook or a net being drawn in lapiët kaw meñit 'My casting net caught on something' |
| meriem | large cannon (Malay meriam; cf. battin) |
| metai' | fruit with hairy rind, k.o. small rambutan (cf. lunon; sibaw) |
| méë | goat |
| méh | gloss? |
|  | kudih s-en-emaa' naw méh 'How much did you borrow?' |
| mije ${ }^{\text {' }}$ | table (<Malay méja) |
| mitem | black (= mitam) |
| moy | foolish (cf. paloy) |
| mufiëw | to doubt, to disbelieve |
| mulaa' | mad, insane |
| munén | civet cat (described as 'fox') |
| типоё | mouth |

```
mu'upaw
    m. \etaaan
murot
mutét
    sei' mutét
mutoë edge, as of paper, a table, etc.
```


## N

| naan | to have (cf. pun) |
| :---: | :---: |
|  | ñih naan uppét seret 'He has a sharp knife' |
|  | kaw naan lupay lem une' 'I had a dream last night' |
| nadih | no, nothing |
| naruk | to tap rubber (cf. kepaat) |
|  | $\tilde{n}$ ih naruk pulot 'He is tapping rubber' |
| naw (1) | spinning? (cf. baroy) |
| naw (2) | secondary forest (cf. maren) |
| naw (3) | 2sg., you; your |
|  | mateh naw 'your eye' |
| nay | this, these; here (cf. cuy) |
| ndéh | no, not (= ndeh) |
| nem | six |
| nen | place (cf. libin) |
| $n{ }^{\text {, }}$ | which, which one? |
| new (1) | quotative particle, according to (someone) |
|  | ñih tiréh sekulah new ñih 'He said that he wants to go to school' |
| new (2) | sound, noise |
| nibuë | nibong palm |
| nin | to use; with (instrumental) |
| nipaa' | nipa palm |
| nulaay | work (cf.pullau') |
| nusop | to pour |
| nusuret | k.o. bee (cf. may, nusuret) |

## ŋ

| jaan <br> naa' | hand already |
| :---: | :---: |
|  | ñih ŋaa' musiy mije' He has already turned the table around' |
| jaay | dun kacew ieh ŋaa' sirep 'These leaves have already been burned' to yawn |
| nake' | to spread apart, of elongated objects joined at one end, as tweezers or the legs |
| man-ŋake' | spread it apart! |
| neleh | a shortcut |
|  | nih nin yeleh 'He took/is taking a shortcut' |
| nelaraat | monitor lizard (cf. tek) |
| nelusaan | to go against, as a current, to oppose |
|  | nilh jelusaay leyeh 'He is going against the current' |
| nen | at, to; marker of verbal complements (not locative or directional) |
|  | nih pupew yen turay ieh 'He is talking to the girl' |
| ךеtuë | deaf |
| nilaw | unbearable sensation, as when hearing someone scratch his fingernails on a blackboard, or a strange sensation in the teeth, as when eating something very sour |
| nilih | to turn (body or head); rock a boat to empty it of water ( $\eta$-ilih?) |
| ninet | cicada |
| niñim | to taste (cf. añim) |

## $\tilde{\mathbf{n}}$

| $\tilde{n} e h$ | where? (cf. atak; also recorded as ne') ñeh raay nih 'Where is he?' |
| :---: | :---: |
| ñet | a cough |
| ne-ñet | to cough |
| ney | who? |
| ñi ieh | ney musin mije' ieh 'Who turned that table around?' other, different |
| ñih | 3 sg , he, she, it; his, her, its mateh ñih 'his/her/its eye' |
| $\tilde{n} u{ }^{\prime}$ | bundle, package |
| me-nиue' | to bundle, wrap up |
| man-me-ñuë | wrap it up! |

## P

| paaw pacen macen | fern |
| :---: | :---: |
|  | a heap, a pile |
|  | to heap, to pile up, as wood |
|  | nih macen ket 'He piled/is piling up the firewood' |
| n-acen | was piled up by someone |
|  | ket n-acen nih 'He piled up the firewood' |
| pacey | weak, exhausted from hunger; to faint, pass out (cf. masin, melesih) |
| pacin | a bird: white egret or heron |
| padek | small bit of broken rice grain |
| padey | riceplant, rice in the field (cf. berey, kan-en) |
| padië | uncultivated field, meadowland (cf. lafiën) |
| pafét | wing |
| pafiën | to walk or talk in one's sleep |
| pafiët | large, edible fructivorous bat, the flying fox (cf. kelét) |
| pai' | nine |
| /pakih/ |  |
| makih | to knock something away, knock something out of one's hand ñih makih guni' ieh 'He threw/is throwing unwanted things into that sack' |
|  | ñih makih ulet gu' yaan tadey ñih 'He knocked a caterpillar from his little brother's hand' |
| n-akih | was knocked away by someone |
|  | guni' ieh nakih nih 'He threw unwanted things into that sack' |
| se-pakih | to knock something away from one another |
|  | difih se-pakih aki ulet ieh 'They are knocking caterpillars off each other' |
| pakin | fence |
| makin | to fence in, to make a fence around something |
|  | nilh makin amén nih 'He fenced/is fencing in his house' |
| n-akin | was fenced in by someone |
|  | kacew ieh n-akin nih 'He put a fence around that tree' |
| pakU'makU | iron nail (<Malay paku) |
|  | to nail something |
|  | ñih makU' kerusI' nih 'He nailed, is nailing his chair' (i.e. to repair a loose chair leg, etc.) |
| $n-a k U '$ | was nailed by someone |
|  | kerusI' $n$ ih n-akU' $n$ ih 'He nailed his chair' |
| palaang | cross-seat in a boat |
| paleh | a paddle |
| palay | footprint (cf. tesei') |


| paloë' | to tell a lie $\tilde{n i h}$ ieh selalu paloë' 'He is always telling lies' (with maloë' this sentence would be incomplete, as it would require an object or verbal complement) |
| :---: | :---: |
| maloë' | to lie to someone |
|  | nih maloë' nen kaw 'He lied/is lying to me' |
| $n$-aloë' | was lied to by someone |
|  | kaw n-aloë' nih 'He lied to me' |
| paloy | stupid (cf. belakaan, moy) |
| pana | to cook (cannot mean 'to boil water'); thing cooked upay añim pana naw une' 'How does the thing that you cooked just now taste?' |
| mana | to boil, as water, meat or vegetables (cf. lasau') |
|  | nih mana sei' 'She is boiling water' |
|  | nih mana kucit ieh 'She boiled/is boiling the vegetables' |
| man-mana | boil it! |
|  | man-mana kucit ieh 'Boil the vegetables!' |
| n-ana | was boiled by someone |
|  | sei' $n$-ana nih 'She boiled water |
| pañim | beginning of weaving (cf. pasiw) |
|  | pañim ñih saat 'Her initial weaving is bad' (i.e. the way she started her weaving is not skillful) |
| mañim | to begin weaving something |
| n-añim | $\tilde{n} i h$ mañim tepen ieh 'She is beginning/has begun to weave the mat' has been started by someone, of weaving |
|  | tepaan ieh n-añim ñih 'She has begun to weave the mat' |
| papaa' | bunch (of fruit), ear (of corn); numeral classifier for bunches of fruit telaw papaa' luyon puttay 'three bunches of bananas' |
| /paraat/ |  |
| maraat | to hit with the hand (vertical stroke) |
|  | ñih maraat mije' 'He hit/is hitting the table' |
| $n$-araat | was hit with the hand |
|  | mije' $n$-araat nih 'He hit the table' |
| se-paraat | difih se-paraat 'The two of them pounded/are pounding each other' |
| paraaw | scratching |
|  | paraaw nih saat 'His scratching is bad' (i.e. 'He doesn't know how to scratch') |
| maraaw | to scratch an itch |
|  | nih maraaw cut kaw 'He scratched/is scratching my back' |
| n-araaw | was scratched by someone |
|  | cut kaw n-araaw nih 'He scratched my back' |
| paroët | hoarse |
| paroy | sewing |
|  | paroy nih saat 'Her sewing is bad' |


| maroy | to sew |
| :---: | :---: |
|  | nih maroy pey kaw 'She sewed/is sewing my clothes' |
| n-aroy | was sewed by someone |
|  | pey kaw n-aroy nih 'She sewed my clothes' |
| pasée' | wood chip, splinter; drop of splashing water |
| maséë | to splash water |
|  | nih maséë' sei' ieh pullau' kaw 'He splashed the water on me' |
| $n-a s e ́ e ̈ '$ | was splashed on someone, of water |
|  | sei' ieh n-asée' nih pullau' kaw 'He splashed the water on me' |
| pasië | splitting (evidently distinct from paséë') |
|  | pasië' $n i h$ saat 'His splitting is bad' (i.e. 'He doesn't know how to split things properly') |
| masie’ | to split, as firewood |
|  | nih masië' kacew 'He is splitting firewood' |
| $n$-asië | was split by someone |
|  | kacew n-asië' nih 'He split some firewood' |
| pasiw | weaving (cf. pañim) |
|  | pasiw nih saat 'Her weaving is bad' (i.e. she is unskillful at weaving) |
| masiw | to weave |
|  | nih masiw lage' 'She wove/is weaving a basket' |
| n-asiw | was woven by someone |
|  | lage' ieh n-asiw nih 'She wove this basket' |
| paat | four |
| pataak | star |
| patai' | broken |
|  | kacew ieh patai' 'This stick is broken' (no reference to external agency) |
| $k$-atai' | to break something, as a branch (cf. puton) |
| matai' | to break, as a stick or a branch |
|  | nih matai' kacew ieh 'He broke/is breaking the stick' |
| $n$-atai' | was broken by someone, as a stick |
|  | kacew ieh n-atai' nih 'He broke the stick' |
| pay | (cf. anew, inaau') |
| рауиё | umbrella (< Malay payung) |
| pecet | horsefly, bluebottle |
| pei' | to carry on the back |
|  | nih pei' yen kaw 'He carried me on his back' |
| ne-pei' | was carried on the back by someone |
|  | kaw ne-pei' nih 'He carried me on his back' |
| peken | to put someone to sleep, as a child |
|  | nih peken anaak ieh 'She is putting the child to sleep' |
| man-peken | put him/her to sleep! |
|  | man-peken anaak ieh 'Put the child to sleep!' |


| meken | to sleep |
| :---: | :---: |
|  | difih meken 'The two of them are sleeping' |
|  | pullau' meken 'Go to sleep!' |
| $n$-eken | was put to sleep by someone |
|  | anaak ieh n-eken ñih 'She put the child to sleep' |
| pela | broom |
| man-mela | sweep it! |
| mela | to sweep |
|  | nih mela raat 'She swept/is sweeping the floor' |
| pila | was swept by someone |
|  | raat ieh pila ñih 'She swept the floor' |
| peleh | throwing |
|  | peleh nih saat 'His throwing is bad' (i.e. he misses the mark, etc.) |
| meleh | to throw |
|  | $\tilde{n}$ ih meleh bataw 'He threw/is throwing stones' |
| $n$-eleh | was thrown by someone |
|  | bataw n-eleh ñih 'He threw a stone' |
| se-peleh | to throw things at one another |
|  | difih se-peleh bataw 'The two of them are throwing stones at each other' |
| pelakay | eagle |
| pelakep | spring-set cage trap for rats, squirrels and other small animals (cf. belatéé', tesië', ubië senirai' = pelakep) |
| pelanoë' | mousedeer: Tragulus kanchil (cf. takay, telaaw) |
| pelayoy | to swim |
| pelem | k.o. small sweet and sour mango (cf. luyon; kini) |
| pelinay | a bird, the swallow |
| pelirey | housepost |
| peloë' | bladder, balloon |
| p. putaa' | fish bladder |
| penau' | full, as a container |
| pey | clothes, clothing, shirt (= pay) |
| penadei' | glass; mirror |
| peyasi | rice wine in a ceramic container with a straw for communal sipping |
| penulén | rudder of a boat (< Malay pengulin) |
| peñew | sea turtle, river turtle |
| /peput/ |  |
| $m-u$-put | to sting, as a bee |
|  | mutét ieh m-u-put yen ñih 'A bee stung/is stinging him' |
| $n-i-p u t$ | was stung, as by a bee |
|  | ñih n-i-put mutét ieh 'A bee stung him' |
| peraa' | rain |

```
/peron/
    meron
    n-eron
    se-peron
pesei'
pesek
peset (1)
peset (2)
    n-eset
peseu'
pesée'
pesih
    ma-k-esih
    man-musih
    mesih
    misih
    musih
    n-esih
    pisih
    se-pesih
pesit
petaam
peu'
péét
\begin{tabular}{|c|c|}
\hline /peron/ & \\
\hline meron & to blow, of a person or the wind \\
\hline & nih meron saap 'He blew/is blowing on the fire' \\
\hline \(n\)-eron & was blown on \\
\hline & saap n-eron nih 'He blew on the fire' \\
\hline se-peron & to blow on one another \\
\hline & difih se-peron 'The two of them blew on each other' \\
\hline pesei' & stinging, smarting, of a wound, the eyes, etc. \\
\hline pesek & nasal mucus \\
\hline peset (1) & to cry so hard that the voice is lost, of a child \\
\hline peset (2) & to dive, to submerge (cf. mañet) \\
\hline & ñih peset barey ieh 'He dived/is diving for the things' (to retrieve them) \\
\hline \(n\)-eset & was dived for by someone \\
\hline & barey ieh n-eset ñih 'He dived for the things' \\
\hline peseu' & bile, gall, gall bladder \\
\hline pesée' & freshwater shrimp \\
\hline pesih & hitting (cf. ририё') \\
\hline & pesih nih sandi' tim 'His hitting is very hard' \\
\hline ma-k-esih & to be hit or knocked down by a blow \\
\hline & kaw ma-k-esih 'I was hit, knocked down (as by an accidental blow when trying to intercede between two other people who were fighting)' \\
\hline man-musih & hit him! hit it! \\
\hline & man-musih ñih 'Hit him!' \\
\hline mesih & to hit \\
\hline & nih mesih kaw 'He hit/is hitting me' \\
\hline misih & to hit (TB) \\
\hline & ñih misih jenkaw 'He hit/is hitting me' \\
\hline musih & to hit \\
\hline & ñih musih kaw 'He hit/is hitting me' \\
\hline \(n-e s i h\) & was hit by someone \\
\hline & kaw n-esih nih 'He hit me' \\
\hline \(n-i\)-sih & was hit by someone \\
\hline & kaw n-i-sih ñih 'He hit me' \\
\hline pisih & was hit by someone (TB) \\
\hline & kaw pisih nih 'He hit me' \\
\hline se-pesih & to hit one another \\
\hline & difih se-pesih 'They hit/are hitting each other' \\
\hline pesit & to separate, divorce \\
\hline petaam & first cousin (cf. tadey) \\
\hline реи' & heart, heart of banana \\
\hline péét & bitter \\
\hline
\end{tabular}
```

| piciëm | borrowing |
| :---: | :---: |
|  | kudih piciëm naw 'How much did you borrow?' (lit. 'How much was your borrowing?') |
| miciëm | to borrow (same object returned, as a book; cf. sema') |
|  | ñih miciëm bup kaw 'He borrowed my book' |
| $n$-iciëm | was borrowed by someone |
|  | bup kaw n-iciëm ñih 'He borrowed my book' |
| picit | (<Malay pijit; cf. lapuy) |
| piden | upright, of a post |
| miden | to place upright, as a post |
|  | nih miden pelirey ieh 'He placed/is placing the housepost upright' |
| $n-i d e \eta$ | was placed upright by someone, as a post |
|  | pelirey ieh n-idey nih 'He placed the housepost upright' |
| /pidië/ |  |
| midië | to hang something up, as a picture |
|  | ñih midië gamben ieh 'He hung/is hanging the picture up' |
| $n$-idië | was hung up by someone, as a picture |
|  | gamben ieh n-idië nih 'He hung the picture up' |
| se-pidië | to hang oneself, as in committing suicide |
|  | nih se-pidië gu' kacew ieh 'He hanged himself on the tree' |
| $p i \ddot{\text { ' }}$ | (cf. sei') |
| pikaan | plate (< Malay pinggan) |
| pikén | think (<Malay pikir; cf. kire') |
|  | pikén kaw 'I think that...' |
| mikén | to think |
|  | mikén kaw uneh 'Think first (before doing something)' |
| piŋét | cheek |
| pirek | silver (<Malay pirak) |
| piren pucew | to rest, take a break |
|  | request, command; ask someone to do something |
|  | nih pucew lew pullau' pa-kaan babuy 'He asked/is asking them to go and feed the pigs' |
| n-ucew | was asked to do something |
|  | lew pullau' pa-kaan babuy n-ucew nih 'He asked them to go and feed the pigs' |
| /pucut/ |  |
| mucut | to pick up with the fingers |
|  | ñih mucut beré ieh (a)te' alem tIn 'He is picking the rice grains from the can' |
| $n$-ucut | was picked up with the fingers by someone |
|  | beré ieh n-ucut nih (a)te' alem tIn 'He picked the rice grains from the can' |


| pиduë mиduё | puduë nih saat 'Her counting is bad (i.e. inaccurate)' |
| :---: | :---: |
|  | to count |
|  | nih muduë butin ieh 'She counted/is counting the coconuts' |
| $n-и$ duë | was counted by someone |
|  | butin ieh n-uduënih 'He counted the coconuts' |
| pudun | to gather (intrans.) |
|  | lew ieh pudun nen 'They gathered/are gathering in one place' |
| mudun | to gather (trans.) |
|  | ñih mudun kacew ieh silaan pacen 'He gathered/is gathering the wood into one pile' |
| $n-u d u n$ | was gathered by someone |
|  | kacew ieh n-udun nih silaan pacey 'He gathered the wood into one pile' |
| puet | navel |
| puiën | squirrel |
| /puji'/ |  |
| mujl' | to praise (< Malay me-muji) |
|  | ñih mujI' kawen nih 'He praised/is praising his friend' |
| $n-u j l^{\prime}$ | was praised by someone |
|  | kawen $\tilde{n}$ ih n-ujl' $\mathrm{n} i \mathrm{~h}$ 'He praised his friend' |
| se-pujl | to praise one another |
|  | difih se-pujl' 'They praised/are praising each other' |
| puketmuket | dragnet (probably < Malay pukat; cf. lapiët) |
|  | to cast a dragnet, to catch with a dragnet |
| muket | nih pullau' muket 'He is going to cast a dragnet' |
|  | nilh muket putaa' ieh 'He caught/is catching the fish with a dragnet' |
| $n-u k e t$ | was cast by someone, of a dragnet |
|  | putaa' ieh n-uket nih 'He caught the fish with a dragnet' |
| puken | stump of a tree that has been cut down |
| pulaaw | island (<Malay pulau) |
| pulai' | to carry |
| pulau' | ten |
| p. silaan | eleven (never ${ }^{* *} p$. sih) |
| pullau' | to go; to, on (in serial verb constructions; cf. makaaw, umaaw, useu') |
| p. kelecih | to go to work (in town) |
| p. nulaay | to go to work (traditional) |
| p. se-lumaa' | to play |
|  | sei' ieh naséè' nih pullau' kaw 'He splashed water on me' (lit. 'The water was splashed by him (and) went to me') |
| /pulloë/ |  |
| mulloë | to hunt using weapons (cf. $\eta$-asaw) |
|  | ñih mulloë belufië 'He hunted/is hunting bears' |
| $n$-ulloë | was hunted using weapons |
|  | belufië $n$-ulloë nih 'He hunted a bear' |


| se-pulloë | to hunt one another, hunt each other down |
| :---: | :---: |
|  | difih se-pulloë'They are hunting each other down (to kill each other)' |
| pulot | latex, rubber |
| p. terep | bird lime |
| mulot | to catch birds with bird lime |
|  | nih mulot manoë' 'He is catching birds with bird lime' |
| $n-u l o t$ | was caught with bird lime |
|  | manoë' ieh n-ulot niih 'He caught the bird with bird lime' |
| pun (1) | to have, to own |
|  | ñey pun bup tah 'Whose book is this?' |
| pun (2) | base, foundation, beginning, origin |
| p. kacew | base of a tree, place where a tree emerges from the ground |
| /puñeu'/ |  |
| тип̃eu' | to push |
|  | ñih muñeu' kaw 'he pushed/is pushing me' |
| n-uñeu' | was pushed |
|  | kaw n-uñeu' $n$ ih 'He pushed me' |
| se-puñeu' | to push one another |
|  | difih se-puñeu' 'The two of them are pushing each other' |
| ририё | hitting (cf. pesih) |
|  | ририё' nih sandi' sandi' tim 'He hits very hard' (lit. 'His hitting is very hard') |
| тириё | to hit |
|  | ñih mириё' kaw 'He hit/is hitting me' |
| п-ириё | was hit by someone |
|  | kaw n-ириё' nih 'He hit me' |
| pupun | thigh, leg from knee to hip (cf. beti, lulot) |
| puraan | hearth, fireplace (cf. baléh) |
| puraa' | foam, suds, from churning water or from soap (cf. berih) |
| puron | to pay out rope |
| purot | rubbing |
|  | purot nih saat 'His rubbing is not good (he cannot rub properly)' |
| man-murot | rub it! |
|  | man-murot akem ñih ieh 'Rub his leg!' (as with liniment) |
| murot | to rub in, as ointment into the skin (cf. masa) |
|  | $\tilde{n i h}$ murot jaan ñih nin añeu'She is rubbing his hand with ointment' ñey murot そaan ñih 'Who rubbed his hand?' |
| n-urot | was rubbed in, as ointment |
|  | yaan ñih n-urot kaw 'I rubbed his hand' (answer to preceding question) |
| pusin | turn something around (<Malay pusing) |
|  | upay gaye' ilaw pusij atek lubuë' 'How did you (three or more) turn your boat around at the bend of the river?' |



## R

/raan/
man-ŋe-raan
me-raan
ye-raan
raat
raay
rajIn
raw
réét
roё
roё'
ron
make it lighter!
light in weight; quick, fast
to make something lighter, as by removing part of a load
floor
direction (cf. $\tilde{n} e h)$
hard-working, industrious (< Malay rajin)
(cf. alem)
sand
nose
chest (anatomical)
and; with

## S

| saap | fire |
| :---: | :---: |
| saat | bad |
| saaw (1) | anchor (< Malay sauh) |
| saaw (2) | breath |
| saaw (3) | small stinging ant-like insect |
| saay | frog |
| sabey | sister's husband (add.); apparently both m.s. and w.s. (cf. balat, sabiëy) |
| sabiëy | sister's husand (ref.); apparently both m.s. and w.s. (cf. balat, sabey) |
| sabip | because (< Malay sebap) |
| sabUn | soap (< Malay sabun) |
| ñabUn | to soap something, to wash something with soap $\tilde{n} i h ~ n a b U n ~ t u l e w ~ n ̃ i h ~ ' H e ~ s o a p e d / i s ~ s o a p i n g ~ h i s ~ b o d y ' ~$ |
| $s$-en-abUn | was soaped by someone, was washed with soap by someone tulew ñih s-en-abUn ñih 'He soaped his body' |
| sadei' | grandparent |
| s. laay | grandfather |
| s. turay | grandmother |
| safeh | wife |
| sagië (1) | early |
| sagië (2) | very early |
| sai' (1) | seed |
| s. bataw | kidney |
| sai' (2) | snail |
| sakkau' | spoon, ladle |
| nakkau' | to spoon or ladle something out |
|  | $\tilde{n i h} \tilde{n} a k k a u$ ' kena te' alem pikaan 'She spooned/is spooning the vegetables from the plate' |
| $s$-en-akkau' | was spooned out by someone, was ladled out by someone |
|  | kena ieh s-en-akkau' nih te' alem pikaan 'She spooned the vegetables from the plate' |
| sakon | hoe (< Malay caykul) |
| ñakon | to hoe |
|  | nilh nakon tanaa' 'He hoed/is hoeing the earth' |
| s-en-akon | was hoed by someone |
|  | tanaa' ieh s-en-akon ñih 'He hoed the earth' |
| sakop | to grasp, to take firm hold of, to embrace |
|  | difih ieh sakop 'The two of them embraced/are embracing' |


| nakop | to grasp, to take firm hold of, to embrace ñih nakop bataay ieh jake' ñih tiréh mañet 'He caught hold of thelog when he was about to drown' |
| :---: | :---: |
| s-en-akop | was grasped by someone, was embraced by someone bataan ieh s-en-akop ñih 'He caught hold of the log' |
| salaan | glowing coal, ember (cf. arey) |
| sallp | cross (< Malay salip) |
| nallp | to cross, to put in a cross-shape |
|  | ñih ñallp kacew ieh 'He crossed/is crossing the sticks' |
| s-en-allp | were crossed, were put in a cross-shape' |
|  | kacew ieh s-en-allp ñih 'He crossed the sticks' |
| saloy | transform, metamorphose, change state (= seloy) |
| sanaan | married couple |
| silaay sanaan | husband and wife |
| sandi' | intensifier, very (cf. tu'unaw) |
| sañey | to tease, torment |
| sapaaw | roof |
| man-ñapaaw | put a roof on it! |
|  | man-ñapaaw amén ieh 'Put a roof on that house!' |
| napaaw | to roof a house, put on a roof |
|  | ñih ñapaaw amén 'He put/is putting the roof on a house' |
| s-en-apaaw | was roofed by someone |
|  | amén ieh s-en-apaaw ñih 'He put the roof on that house' |
| sapét | to reach the opposite side (of a road, river, etc.) |
| sapI | cow (< Malay sapi) |
| sattin | to lean against |
| nattin | to lean something against |
|  | $\tilde{n} i h n \tilde{n a t t i n}$ tepan ieh gu' kacew 'He leaned/is leaning the mat against a tree' |
| $s$-en-attin | was leaned against something by someone |
| say (1) | tepaan ieh s-en-attin ñih gu' kacew 'He leaned the mat against a tree' flesh, muscle |
| say beti | calf muscle |
| say (2) | sago flour |
| sebuteu' | penis |
| sedadin | k.o. water bird (cf. manoë') |
| sedirI' | oneself: reflexive pronoun; one another: reciprocal pronoun (<Malay sendiri) |
|  | difih ŋe-séë yen difih sedirl' 'They are laughing at each other' |
| sei' | water |
| $k$-en-e-sei' | was watered by someone |
|  | buië' ieh k-en-esei' niih 'She watered the flowers' |


| ךe-sei' | to sprinkle water on something |
| :---: | :---: |
|  | nih $\eta e$-sei' buie' ieh 'She is watering the flowers' |
|  | nih ndéh mecië' ye-sei' buie' 'He is not good at watering flowers' |
| man-ŋe-sei' | sprinkle water on it/them! |
|  | man-ŋe-sei' buië' teh 'Sprinkle some water on these flowers!' |
| s. lata | mother's milk, breast milk (cf. tusu) |
| s. m-ulai' | a reverse current (as when there is a bend in the river that causes part of the current to flow back upstream)' |
| s. pië' | urine |
| sekadey | to lie down |
| sekerit | pull-ups (as on a bar) |
|  | kééw sekerit te' ieh 'Don't do pull-ups there' |
| sekiëw | tall, as a person or a tree |
| sekin | cup |
| sekudih | when? (cf. kudih) |
| sekuleh | school (< Malay sekolah, from Portuguese escola 'school') |
| sekulét | k.o. small, gray, long-beaked bird that stays near the river bank |
| selalu | always (< Malay selalu) |
| selaraaw |  |
| s. anaak | placenta |
| selem | selfish, stingy, unwilling to share |
| ñelem | to be selfish or possessive with someone, to act in a selfish way |
|  | nih nelem anaak nih 'He is being selfish with his child' (as of someone who won't let another person adopt his child) |
|  | nih ñelem bup ñih 'He is being selfish with his book' (i.e. won't lend it to someone who wants it, etc.) |
| selép | to whisper (cf. p-upew) |
| seloy | beeswax |
| seluiën | shorts, trousers (< Malay seluar, from Persian) |
| selutö̈ | a tree (= Malay jelutong) |
| semaa' (1) | blood |
| semaa' (2) | to borrow, of things returned in kind, as rice, money (cf. piciëm) |
| nemaa' | to borrow |
|  | bulih kaw nemaa' berey naw 'May I borrow some rice from you?' |
| s-el-emaa' | to borrow from one another |
|  | difih s-el-emaa' berey 'The two of them borrowed rice from each other' |
| $s$-en-emaa' | was borrowed from someone |
|  | berey ñey s-en-emaa' naw 'Whose rice did you borrow?' |
|  | berey nih s-en-emaa' kaw 'I borrowed his rice' |
| sетиё | all (<Malay semua) |
| s. illaw | 2 pl ., all of you |
| s. uñew | 2 pl ., all of you |
| sen | animal |


| senirai' | pitfall trap (cf. lubië) |
| :---: | :---: |
| sepaa' (1) | betel quid |
| sipaa' | was chewed by someone, of betel nut |
| supaa' | to chew betel |
|  | nih iah supaa' 'He is chewing betel nut' |
| sepaa' (2) | cockscomb |
| seput | blowpipe (cf. laat, tacem) |
| /serep/ |  |
| sirep | was burned by someone |
|  | dun kacew sirep nih 'He burned leaves' |
| surep | to burn something |
|  | nih surep dun kacew 'He burned/is burning leaves' |
| seret | sharp |
| ndéh seret | dull, blunt |
| seruë | a snore |
|  | seruë' nih dacih new 'His snore is very loud' |
| пе-seruë | to snore |
| setelay | vulva, vagina (cf. téén) |
| setén | thunderclap (cf. kun) |
| seu' | short in height; underneath (cf. cuë, dipi') |
| séë | a laugh |
|  | séë nih dacih new 'His laugh is very loud' |
| $k$-en-e-séë | was laughed at |
|  | kaw k-en-e-séë nih 'He laughed at me' |
| そe-séë | to laugh at someone |
|  | nih ŋe-séë yen kaw 'He is laughing at me' |
| séét | pain |
|  | anew pay séét 'What is the pain/what pain are you feeling?' |
| sibaw | (cf. luyon) |
| sidut | sipping |
|  | sidut nih keneu' sidut babuy 'He sips like a pig' (lit. 'His sipping is like a pig's sipping') |
| nidut | to sip, suck |
|  | ñih ñidut peyasi 'He is sipping rice wine' |
| s-en-idut | was sipped or sucked by someone |
|  | peyasi s-en-idut ñih 'He sipped rice wine' |
| sië' | (cf. li') |
| sih | one (in serial counting, but not with higher numerals; cf. silay) |
| siköe' | gibbon |
| sikup | tobacco, cigarette |
| pe-ñikup | a smoker, someone who smokes a lot |
| sekup-in | smoking pipe |
| silaay | one (in expressions of quantity; cf. sih) |
| s. toon | one year |

```
silaap
/silaa'/
    man-ñilaa'
    nilaa'
    s-en-ilaa'
sileh
silaw fingernail, toenail
silei' to split (intrans.; cp. bilei', ilei')
    buleu'ieh silei''The bamboo is splitting (by itself)'
    nilei'
    s-en-ilei' was split by someone
    buleu' ieh s-en-ilei' nih 'He split that bamboo'
sipek to kick (< Malay sépak)
    sipek nih kesén 'His kick is strong/forceful'
    kick it!
    to kick
    nih ñipek bun ieh 'He kicked/is kicking that ball'
    was kicked by someone
    bun ieh s-en-ipek ñih 'He kicked that ball'
sipin(1)
    sipin (2)
sö̈
soot
subei'
subu
    s-en-ubu
sudut
    man-ñudut
    \tilde{nudut}
    s-en-udut
suë
/suiët/ (1)
    nuiët
    s-en-uiët
    hut (cf. igum)
    lick it!
    to lick
    asaw ieh nilaa' alem pikaan 'That dog licked/is licking out the plate'
    was licked by someone
    pikaan ieh s-en-ilaa' asaw'That dog licked out the plate'
    dazzling, dancing with light
    to split something, as wood or bamboo
    nih \tilde{nilei' buleu' ieh 'He split/is splitting that bamboo'}
    man-ñipek
    ñipek
    s-en-ipek
    side, as of the body
    both sides (of the body, etc.)
    rice mortar (cf. tepah)
    upriver (cf.ta sei')
    to taste, to try (<Malay coba)
    to cover, as food that has been put away for storage
    ñih subu kan-enieh 'She covered/is covering the food'
    was covered by someone
    kan-en ieh s-en-ubu ñih 'She covered the food'
    a comb
    comb it!
    to comb
    ñih nuudut suë' ñih 'She combed/is combing her hair'
    to be combed by someone
    suë' nih s-en-udut ñih 'She combed her hair'
    head hair (cf. bulew)
    (=suiët (2) ?; cf. teppe\eta)
    to try to fell, try to cut down, as trees
    nih nulët kacew ieh 'He tried/is trying to cut the tree down'
    kacew ieh s-en-uiët nih 'He tried to cut the tree down'
```

| suiët (2) | a wound |
| :---: | :---: |
| nuiët | to wound |
|  | nih nuiët baka ieh 'He wounded the wild boar' |
| $s$-en-uiët | was wounded by someone |
|  | baka ieh s-en-uiët nih 'He wounded the wild boar' |
| sulië | cockfight (cf. bulië) |
| ŋе-sulië | to fight cocks |
| sumaat | to climb, as a ladder (also recorded as sumaak; cf. m-inaat) |
|  | $\tilde{n}$ ih sumaat asin 'She climbed/is climbing a ladder' |
| s-en-umaat | was climbed by someone |
|  | asin ieh s-en-umaat nih 'She climbed a ladder' |
| sunai' | spinning top |
| suraat | letter; writing (< Malay surat) |
| man-ñuraat | write it! |
| nuraat | to write |
|  | ñih nuraat suraat ieh'He wrote/is writing the letter' |
| s-en-uraat | was written by someone |
|  | suraat ieh s-en-uraat $\tilde{n}$ ih 'He wrote that letter' |
| surei' | to wash dishes, to clean, as a house (cf. madu', nusot) |
|  | nih surei' amin 'She is cleaning the house' |
|  | surei' amin 'Clean the house!' |
| $s$-en-urei' | was cleaned by someone |
|  | amin s-en-urei' nih 'She cleaned the house' |
| surue" | to be swamped by a wave, as someone in a small boat |
| sutuë | to carry on the shoulders between two people, as in hauling a log |
|  | difih sutuë pulai' kacew ieh 'The two of them carried/ are carrying the log on their shoulders' (of two people carrying a log, one person at either end) |
| $s$-en-utuë | was carried by two people working together, as a log being hauled |
|  | kacew ieh s-en-utuë difih 'The two of them carried the log on their shoulders' |
|  | NOTE: sutuë reportedly cannot be used without pulai', although $s$-en-utuë can. |
| sutun | mock battle before leaving on war expedition (old custom) |

## T

| $t a$ | $(=t e ' ?)$ |
| :---: | :--- |
| $t$. sei, | downriver (cf. soot) |
| taai' | feces, excrement |

feces, excrement

| taan <br> tabun | bamboo basket trap for fish |
| :---: | :---: |
|  | a quarrel; to quarrel with someone |
|  | $\tilde{n}$ ih tabun yen tameh nih 'He quarreled/is quarreling with his father' |
| nabun | to make people quarrel with one another |
|  | $\tilde{n} i h$ selalu nabun kamay ' He is always making us quarrel with each other' |
| t-en-abun | was quarreled with, was the object of quarrelsome behavior |
|  | tameh nih t-en-abun nih 'He quarreled with his father' |
| tacem | blowpipe poison (cf. laat, seput) |
| tade' | to deny |
|  | ñih tade' gu' anew inaau' nih 'He denied what he had done' |
| tadey | younger sibling (cf. tukah) |
| t. petaam | first cousin, FBC, FZC, MBC, MZC |
| tadih | natural cockspur (cf. bulië) |
| takaa' | jackfruit (cf. lunon) |
| takay | the largest type of deer in Borneo, Cervus equinus (cf. pelanoë', telaaw) |
| takey | traditional haircut, made by cutting around an inverted bowl placed over the head |
| talay | string, rope |
| nalay | to make string or rope |
|  | $\tilde{n i h}$ nalay talay sunai' 'He is making string for spinning tops' |
| t-en-alay | was made by someone, of string or rope |
|  | talay t-en-alay nih 'He made some string/rope' |
| $\underset{\text { talom }}{\text { nalom }}$ | deep |
|  | to make something deeper, to deepen |
|  | ñih nalom ubië ieh 'He made/is making the hole deeper' |
| tameh | father |
| tamben | a patch (< Malay tambal) |
| namben | to patch, as tattered clothing |
|  | tineh namben pey kaw 'Mother patched/is patching my shirt' |
| t-en-amben | was patched by someone |
|  | pey kaw t-en-amben tineh 'Mother patched my shirt' |
| tanaa' | earth |
| tanduk | k.o. long banana (cf. puttay; kaling, kelatet, ucit) |
| tajai' | eclipse of the sun or moon |
| tayay | cry, weep |
|  | tayay ñih sandi' dacih new 'His cry is very loud' |
| nayay | to cry, to weep |
|  | anaak ieh napay 'That child is crying' |
| tapaan | winnowing basket |
| napaan | to winnow rice |
|  | $\tilde{n}$ ih napaan berey ieh 'She winnowed/is winnowing the rice' |


| t-en-apaan | was winnowed by someone, of rice berey ieh $t$-en-apaan nih 'She winnowed the rice' |
| :---: | :---: |
| tapaay (1) | beehive |
| tapaay (2) | fermented rice, used in making traditional rice wine |
| taréë | tusk of a wild boar |
| tasaa' | blacksmithing, ironworking (cf. tukey) |
| nasaa' | to forge, of iron |
|  | nih nasaa' abit 'He worked/is working iron' (e.g. to make a parang) |
| $t$-en-asaa' | was worked by someone, of iron |
|  | abit ieh t-en-asaa' nih 'He worked/forged the iron' |
| tasay | a piece of something, as meat, a plank, etc. |
| tebayaan | scale, instrument for weighing (< Malay timbang-an; cf. tipiëŋ) |
| tebun | a bird, the Argus pheasant (cf. lufiëy) |
| tegerië | rib (cf. tulaay) |
| teh | this, these (cf. li', nay) |
| tek | gecko, house lizard (= tak; cf. yelaraat) |
| tekien | thread (< Malay gentian) |
| telaaw | smaller type of deer, the kijang or barking deer (cf. pelanoë', takay) |
| telaay | young shoots |
| telaw | three |
| temesu | the Bornean rhinoceros: Rhinoceros sundaicus |
| tenaai' | intestines (cf. taai') |
| t. dacih | large intestine (cf. tufih) |
| t. iti' | small intestine |
| teyaaw | a call, a shout |
|  | teyaaw nih dacih new 'His call is very loud' |
| man-turaaw | call him! |
|  | man-turaaw ñih 'Call him!' |
| se-teyaaw | to call one another |
|  | difih se-teyaaw 'The two of them are calling to each other' |
| tigaaw | was called by someone |
|  | kaw tigaaw lew ieh 'They called me' |
| turaaw | to call out to someone (to come) |
|  | lew ieh tuyaaw kaw 'They called/are calling me' |
|  | kéw tuŋaaw ñih 'Don't call him!' |
| /teñen/ |  |
| man-t-u-ñen | swallow it! |
|  | man-t-u-ñen kan-en kaw 'Swallow your food!' |
| $t-i-n ̃ e n$ | was swallowed by someone |
|  | kan-en ieh t-i-ñen nih 'He swallowed his food' |
| $t$-u-ñen | to swallow |
|  | nih t-u-ñen kan-en nih 'He swallowed/is swallowing his food' |
| tepaan | mat |
| t. baken | sleeping mat |


| tepanay | the first time |
| :---: | :---: |
| tepeh | rice pestle (cf. loë) |
| man-tupeh | pound it! |
|  | man-tupeh padey teh 'Pound the rice!' |
| tipeh | was pounded by someone, as rice |
|  | padey ieh je' tipeh nih 'She has pounded the rice already' |
| tupeh | to pound, as rice |
|  | nih tupeh padey 'She pounded/is pounding the rice' |
| tepek | stabbed, pricked, pierced |
|  | akem kaw tepek durey 'My leg was pricked by a thorn' |
| man-tupek | stab it! |
|  | man-tupek baka ieh 'Stab that boar!' |
| se-tepek | to stab each other |
|  | difih se-tepek 'They stabbed each other' |
| tipek | was stabbed by someone |
|  | baka ieh tipek $\tilde{n} i h$ 'He stabbed the boar' |
| tupek | to stab |
|  | nih tupek baka 'He stabbed/is stabbing a boar' |
|  | kéw tupek baka ieh 'Don't stab that boar!' |
| tepen | lid, as of a basket or box |
| t. loë ubek | door |
| man-tupen | cover it! |
|  | man-tupen tIn ieh 'cover that can!' |
| tipen | was closed by someone |
|  | mateh nih tipen nith 'She closed her eyes' |
|  | tIn ieh tipen nih 'He covered the can' |
| tupen | to close |
|  | nih tupen mateh 'She closed/is closing her eyes' |
|  | nih tupen tIn ieh 'He covered/is covering the can' |
|  | tina-n ñih umaau' anaak ñih tupen mateh 'The child's mother made him close his eyes' |
|  | tupen mateh 'close your eyes!' |
| teppen | felling of trees |
|  | tepper ñih saat 'His felling is bad' (viz. he can't fell trees properly) |
| man-tuppen | fell it!cut it down! |
|  | man-tuppen kacew ieh 'Cut down that tree!' |
| tippen | was felled by someone |
|  | kacew tippey nih 'He felled some trees' |
|  | anew pay tipper naw 'What did you cut down?' |
| tuppen | to fell trees |
|  | $\tilde{n}$ ih tuppey kacew 'He is felling trees' |
|  | kéw tuppey kacew ieh 'Don't cut down that tree!' |
|  | ney tupper kacew ieh 'Who cut down that tree?' |


| te' ${ }^{\text {te' }}$ ieh |  |
| :---: | :---: |
| tera | ironwood tree |
| terei' | pregnant |
| terep | tree with fruit similar to breadfruit and a sticky sap used as birdlime |
| tesaa' | to be knocked or pinned down by a falling tree |
|  | laay ieh tesaa' kacew 'That man was knocked down by a falling tree' |
| nesaa' | to knock someone down, of a falling tree |
|  | kacew ieh nesaa' laay ieh 'That tree knocked the man down' (i.e. when it toppled) |
| tesei' | mark made by stepping, footprint (cf. palay) |
| se-tesei' | to step on one another |
|  | difih se-tesei' akem 'They stepped on one another's feet' |
| tisei' | was stepped on by someone |
|  | akem kaw tisei' ñih 'he stepped on my foot' |
| tusei' | to step on |
|  | ñih tusei' akem kaw 'he stepped on my foot' (answer to the question 'Who stepped on your foot?') |
| tesek | to enter the ground (as a javelin that lands sticking in the ground) |
| tesew | sugarcane |
| tesië' | noose trap, used for birds and small game (cf. belatéë', pelakep, ubië senirai') |
| tesuë' | cape of land, peninsula |
| tetek | cut, as rope or wood (= tetak) |
|  | talay ieh tetek'The rope/string is cut/broken' |
| man-tutek | cut it! break it! |
|  | man-tutek talay (iah) 'Break the string!' |
| netek | to cut, break, as wood or rope |
|  | nilh netek talay ieh 'He broke the string' |
| titek | was cut/broken by someone |
|  | talay ieh titek nih 'He broke the string' |
| tutek | to cut, break, as wood or rope |
|  | ney tutek talay ieh 'Who cut the rope/who broke the string?' |
|  | kaw tutek talay 'I cut/am cutting the rope' |
| téén | vulva, vagina (cf. setelai') |
| ticeu' | egg |
| ticeu' | to pass something to someone |
|  | ñih ticeu' bisin yen kaw 'He passed/is passing the container to me' |
| t-en-iceu' | was passed to someone |
|  | bisin t-en-iceu' $n$ ih nen kaw'He passed the container to me' |
| ticeu' | pointing |
| niceu' | to point out or at, to indicate |
|  | ñih niceu' bilun ieh 'He pointed out/is pointing out the airplane' |
|  | nih niceu' yen kaw 'He pointed/is pointing at me' |


| t-en-iceu' | was pointed out by someone |
| :---: | :---: |
|  | kaw t-en-iceu' nih 'He pointed at me' |
| ticew | elbow |
| ticin | belly, abdomen |
| ticip | a fan |
| tilem | mattress (<Malay tilam) |
| tim | hard, with reference to the force of a punch or other blow |
| timun | cucumber (cf. luyon) |
| tineh | mother; female, of animals |
| /tipiën/ nipië | (a base tipiëy was said not to occur; cf. tebayan) |
|  | to weigh |
|  | ñih nipiëy putaa' ieh 'He weighed/is weighing the fish' |
| t-en-ipiën | was weighed by someone |
|  | putaa' ieh t-en-ipiëy nih 'He weighed the fish' |
| /tipu'/ nipu' | (< Malay tipu) |
|  | to play a trick on someone, deceive |
|  | ñih nipu' yen kaw 'He played/is playing a trick on me' |
| $t$-en-ipu' | was tricked by someone, was deceived |
|  | kaw t-en-ipu' $n i h ~ ' H e ~ p l a y e d ~ a ~ t r i c k ~ o n ~ m e / h e ~ d e c e i v e d ~ m e ' ~$ vine, creeper |
| tiréh | to want, desire, will (future, or intended action) |
|  | kaw tiréh umaw 'I want to go' |
|  | asaw ieh tiréh mataay 'That dog is about to die' (lit. 'That dog wants to die') |
| tisée | finger ring |
| titai' | female breast |
| tIn | tin can, metal container (<English 'tin') |
| tolot | to fly (= tulot) |
|  | manoë' ieh tolot 'That bird flew/is flying' |
|  | to let something fly, to make something fly |
|  | nih nolot manoë' ieh 'He let/is letting the bird fly (free)' |
| t-en-olot | was allowed to fly, was made to fly |
|  | manoë' ieh t-en-olot nih 'He let the bird fly (free)' |
| toon | year |
| toot | sewing needle |
| tot (1) | fart |
| ne-tot | to fart |
| tot (2) | kneecap? |
| ukau' tot | knee (lit. 'head of the knee') |
| tubihnubih | fish poison, Derris elliptica |
|  | to stun fish by spreading pulverized Derris root in the river |
|  | lew nubih cew ieh 'They poisoned/are poisoning the river with Derris |

t-en-ubih were stunned by poison, of fish cew ieh t-en-ubih lew 'They poisoned the river with Derris root'
tисеи'
tudey
tuew (1)
tuew (2)
tufih
tuguk
tuië
nuie’
man-nuië
$t$-en-uië
tuju'
tukaan
tukeh
t. laay
t. turay
tuken
t. tasaa'
tuket
man-nuket
nuket
t-en-uket
tukin
tulaay
t. tegerië
tulaa'
tulet
tulew
tulit
nulit
seven
to drop dead on the spot, as an animal when shot
python (cf. lipah)
right side (cf. abië)
large intestine (cf. tenaai', dacih)
beak, bill
hard, of substances (cf. me-lumau')
to harden something
lew nuië' pulot ieh 'They let/are letting the rubber harden' harden it!
man-nuië' pulot ieh 'Harden the rubber/let the rubber harden!'
was hardened by someone
pulot ieh t-en-uië' lew 'They let the rubber harden'
goal, course
grave
elder sibling (cf. tadey)
elder brother
elder sister
craftsman (<Malay tukang)
blacksmith
walking stick, prop, support (= tukat)
prop it up!
to prop something up
nih nuket kacew ieh 'He propped/is propping up the tree'
was propped up by someone
kacew ieh t-en-uket nih 'He propped up the tree'
dibble stick
bone
rib
cataract of the eye (cf. bule')
to come to grief because of disrespect toward one's elders
body; numeral classifier for people
paat tulew anaak 'four children'
dufih tulew turay 'two girls, two women'
writing
tulit ñih saat 'His handwriting is bad/illegible'
to write
nih nulit suraat ieh 'He wrote/is writing the letter'
kaw nulit suraat yen nih 'I wrote/am writing a letter to her'

| t-en-ulit | was written by someone <br> anew pay t-en-ulit naw yen nih 'What did you write to her?' <br> suraat ieht-en-ulit ñih 'He wrote the letter' <br> suraat t-en-ulit kaw yen ñih 'I wrote a letter to her' (answer to the preceding question) |
| :---: | :---: |
| tuloë | helping efforts, attempts to help |
|  | tuloë nih saat 'His efforts to help were not good (bungled)' |
| m-ulöe | to help |
| nuloë | to help |
|  | nih nuloë ทen kaw 'He helped me' |
| t-en-uloë | was helped by someone |
|  | kaw t-en-uloë nih 'He helped me' |
| tumét | heel |
| tunaan | to hold on to something, refuse to let something go |
|  | nih tunaan barey ieh 'He is holding on to those things' (i.e. doesn' want to give them to anyone else) |
| tu'unaw | truth; intensifier, very, really (often shortened to tunaw; cf. sandi') |
| tu'unuk | small, young (= iti'unuk) |
| anaakt. | young child |
| turay | female, woman |
| /tusot/ |  |
| man-nusot | wash them! |
|  | man-nusot pey kaw 'Wash my clothes!' |
| nusot | to wash clothes (cf. madu', surei') |
|  | nih nusot pey 'She is washing clothes' |
| t-en-usot | was washed, were washed |
|  | pey nih t-en-usot nih 'She washed her clothes' |
| tusu | store-bought milk, cow's milk (< Malay susu; cf. lata, sei') |
| tusun | to jump or leap up and down |
|  | nih tusun 'He is jumping up and down' (as in excitement or joy) |

## U

ubek (1)
loë ubek
ubek (2)
ubey
ubië
u. buen
u. senirai'
room, space
doorway (often shortened to lobek)
popped rice, roasted rice
manioc, tapioca (< Malay ubi kayu)
hole (cf. lubië)
anus
pitfall, used to catch large animals such as wild boars

| ubit | medicine (< Malay ubat) |
| :---: | :---: |
| ubut | palm cabbage, as the tips of the nibong palm |
| ucit (1) | smallest type of banana (cf. puttay; kaliy, kelatet, tanduk) |
| ucit (2) | small dark-colored long-tailed monkey, probably langur (cf. besuë') |
| исиё | extremity, tip, top, as of a tree (cf. cuë) |
| udo' | carved wooden design, as a canoe prow ornament |
| uei' | salt |
| /uek/ |  |
| m-uek | to enter |
|  | lew m-uek alem amin 'They entered/are entering the house' |
|  | lew umau' bulun ieh m-uek alem jin 'They put/are putting that person in jail' |
| n-uek | was entered by someone |
|  | amin ieh n-uek lew 'They entered the house' |
|  | bulun ieh n-uek lew alem jin 'They put that person in jail' |
| ukau' | head |
| ukev | horn, as of a deer or buffalo (<Long Terawan Berawan ukey) |
| ukon | luck (< Malay ukur) |
| ukkon | tie rope for a boat |
| ulaat | rattan hand guard on a parang |
| /ulai'/ |  |
| man-m-ulai' | go back home! |
| m-ulai' | to return, go home, go back the way one has come |
| sek-ulai' | to go to and fro from one's home |
| /ulei'/ |  |
| sei' ulei' | saliva |
| $m-u l e i '$ | to spit |
| sel-ulei' | to spit at one another |
|  | difih sel-ulei' 'The two of them are spitting at each other' |
| ulet | maggot, caterpillar (=ulat) |
| ulonman-p-ulon | life |
|  | give it life, light it! |
|  | man-p-ulon saap 'Light a fire!' |
| m-ulon | to live; living, alive |
| se-p-ulon |  |
| s. sedirl' | to live by oneself |
| umeh | grass |
| umaau' | to make, to do |
|  | ñih uтaau' kaw m-adek turay ieh 'He made me kiss that girl' |
|  | nih umaau' seluiën nih mitem 'He made his shorts black' (i.e. dyed them) |
|  | NOTE: Possibly the active counterpart of inaau', from a common base aau', and fossilization of earlier shapes of the infixes *-umand *-in- |


| umaaw | to go (cf. makaaw, pulau', useu') |
| :---: | :---: |
| unaan | pillow |
| uneh | old, of things; before, earlier, first (cf. itaaw, melefen, melehum) |
| une' | just now (apparently distinct from uneh) |
| uñew | 2p. pl. (cf. semuë) |
| /uñun/ |  |
| $m-u n ̃ u n$ | to grub or root in the dirt, as a pig |
|  | babuy ieh m-unun tanaa' 'The pig rooted/is rooting in the earth' |
| n-uñun | was grubbed in, as dirt when a pig is rooting about tanaa' ieh n-uñun babuy 'A pig rooted in the earth' |
| upaan | bait |
| ираа' | yam |
| upay | how? (often heard as pay) |
| u. gaye' | how? in what way? |
| upew | talk |
|  | ñih mufiëw new upew idih 'He doesn't believe what other people say' to say, to tell, to talk to |
| p-upew | nih pupew yen turay ieh 'He talked to/is talking to the girl' pupew yen nih 'Talk to her!' |
| p. selép | to whisper |
| n-upew | be talked to |
|  | makin n-upew makin buduh 'The more you talk to him the stupider he becomes' |
| uppaw | tiger cat (cf. uséë) |
| uppét | knife |
| uraam | rice straw |
| ure' | to stay, dwell, live in a place(= ura') |
|  | nilh puceu' anaak ñih ure' 'He asked his son to stay' |
| useu' | to come (cf. makaaw, pulau', umaaw) |
|  | ñih be-jaccei' tiréh useu' 'He promised to come' |
| usée | domestic cat (cf. uppaw) |
| usoy | straight |
| $k$-isoy | was straightened by someone |
|  | talay ieh kisoy niih 'He straightened the rope' |
| 万-usoy | to straighten something |
|  | nih $\eta$-usoy talay 'He straightened/is straightening the rope' |
| utaay | debt (< Malay utang) |
| utaap | shield |
| utaa' | vomit, vomitus |
| $k$-en-utaa' | was vomited up |
|  |  |
| 7-utaa' | to vomit |
|  | nih $\eta$-utaa' 'He is vomiting' |
|  | $\tilde{n} i h \mathrm{y}$-utaa' $k$ an-en 'He vomited up the rice' |


| uten | taut, as a rope that is stretched to its limit (cf. eloë') <br> to straighten, as a rope that is slack or curled |
| :--- | :--- |
| nuten | nih $\eta$-uten talay ieh 'He straightened/is straightening the rope' <br> was straightened by someone |
| utek $k$ | talay ien $k$-en-uten $\tilde{n}$ nh 'He straightened the rope' <br> brain; soft inner part of wood (=utak) |

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[^0]:    ${ }^{1}$ Grimes and Grimes (2001), drawing on Wurm and Hattori (1981), report three dialects of Kiput: Long Kiput, Long Tutoh (= Kuala Tutoh), and Lemiting, with some 2,460 speakers in all. However, there appear to be multiple errors in this account. According to my own informants Long Kiput and Long Tutoh/Kuala Tutoh are alternative names for the same longhouse and, as already noted, Lemiting evidently was a distinct language which may no longer exist. Few longhouses in Sarawak have more than 350-400 inhabitants, and the figure of 2,460 for a single dwelling must misrepresent the actual number of speakers by several orders of magnitude. The morpheme long = 'river junction' in a number of the languages of northern Sarawak, and kuala is its equivalent in Malay.

[^1]:    ${ }^{2}$ In some ways a bisegmental length constraint of this kind resembles the moraic requirement, found in many of the Austronesian languages of insular Southeast Asia that consonants be lengthened after schwa, as this vowel typically is shorter than other short vowels (Blust 1995). Both of these requirements in effect demand that a constant unit of length be assigned to adjacent CV or VC sequences. However, they differ in at least three respects: 1) In pairs such as [l:ay] : [la:y] either vowel length or consonant length may be interpreted as allophonic, whereas sequences of schwa followed by a long consonant in other languages are open only to one interpretation, namely that the length of the consonant is allophonic; 2) in Kiput phonemic vowel quantity affects the allophonic quantity of a preceding consonant, or phonemic consonant quantity affects the allophonic quantity of a following vowel, while in Kelabit and many other languages allophonic vowel quantity (extra-shortness in

[^2]:    the schwa) affects the allophonic quantity of a following consonant; 3) in Kiput the constant unit of length over CV sequences, which can be described as a target, is tautosyllabic, while in Kelabit and many other languages the same type of target is heterosyllabic (the schwa in the first syllable of Kelabit teluh lengthens the onset of the second syllable.

[^3]:    ${ }^{3}$ For another Austronesian language in which syllable onsets reportedly contribute to bimoraic length requirements see Davis (1999).

