

A PHONOLOGY AND LEXICON OF KHANG IN VIETNAM

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Abstract

This paper provides a phonological and phonetic description of a variety of the Khang language spoken in Nam Mu village, Phinh Sang commune, Tuan Giao district, Dien Bien province (and also Son La, Dien Bien, Lai Chau provinces). It is an under-described Palaungic language of Vietnam. The language is largely monosyllabic and has a complex tonal system. An appendix of over 900 lexical items is included.

Keywords: tonal phonology, Palaungic, lexicon

ISO 639-3 language codes: kim

1 Introduction

This paper provides a phonological inventory and tonal description of Khang based on a 916-word lexicon collected by the author. Khang people live primarily in three provinces: Son La, Dien Bien, and Lai Chau of Việt Nam. Two Khang informants assisted me: Lò Hồng Nhung (female), 54 years old, in Nam Mu village, Phinh Sang commune, Tuan Giao district, Dien Bien province; Quàng Thị Mây (female), 57 years old, in Nam Mu village, Phinh Sang commune, Tuan Giao district, Dien Bien province.

The wordlist was recorded in 2017 using a Zoom H2 Handy recorder, processed in 44,100 Hz, 16-bit, mono format as a .wav file. The phonetic and phonemic descriptions are based on the results of the acoustic analysis using the following programs: WINCECIL, Speech Analyzer.

2 Previous studies

Existing linguistic works on the phonological features of Khang language include Huy (1975), Mikami (2003), and Edmondson (2010).

Huy (1975) discussed Khang and the closely related Quang Lam language. The phonological adaption of Thai loan words in Khang and Quang Lam are discussed, though further research is called for. Huy found that although according to Việt Nam official statistics until 1975, Khang Quang Lam and Cống people belong to the same ethnic group, it is obvious that there is a similarity in language between Quang Lam and Khang. To illustrate, Huy (1975:431) provides some examples in his original notes. Note that the notations are Huy's, IPA values are not precisely explained.

Gloss	Quang Lam	Khang
'intestines'	s'rêng	hiêng
'blood'	s'num	num
'water'	ro om	om
'moon'	ch'rêng	khiêng
'bird'	k'chiêm	chêm

According to Huy (1975), in Khang Quang Lam, two-consonant clusters occur that are similar to Khang such as kl, pl, bl, and ng. Khang Quang Lam also has its own consonant clusters which are not in Khang: sn, px,

ps, pk, pr, thl, chor, sch, s'i, k'r, k'ch, m'r, l'm, rv, dd, rl as well as final consonants including fricatives, trills, and ts (in the word 'nose'), r (in nor 'neck', bar 'flower'), nr (in ponr 'to fly').

Also in that paper, Huy claimed that both languages are affected by Thai in Son La and Điện Biên province. The influence of the Tai Dam language on Khang Quang Lam is less than the influence of the Tai Dam language on Khang. There are many borrowed words in Khang in Thuận Châu district, whereas in Khang Quang Lam, more native lexical items remain. Table 1 contains examples collected by Huy (1975) in his original notations.

Gloss	Quang Lam	Tai Dam loans in Khang
day	m'ni	nự
lung	chà sô	pợt, pốt
skin	tal nu	nung
stomach	kelung	pun
breast	đo	ức
branch	đến	nga
root	rot's	hịa
tree	đông	nạt may
to dig	pức	khút
to split	lor	phá
to nuthatch	bỏ	khửn
to turn	klíc	pán
to smoke	tênh	hộp, hiệt

Table 1: Quang Lam words compared to Tai Dam loans in Khang (Huy 1975432)

On the other hand, there are some borrowed words in Khang Quang Lam, whereas in Khang of Thuận Châu, there remain native words for corresponding items in Table 2.

Gloss	Tai Dam loans in Quang Lam	Khang
tall	xung	dao
low	tow	xi, dim
rounded	mŏn	рот
core	ken	nuông
a tuber	b t	p t
near	chăm	phămber
the door	t'tu	b'tudo
to listen	po l	chiêng

Table 2: Tai Dam loans in Quang Lam compared to the Khang lexicon (Huy 1975:432)

Papers by Mikami (2003) and Edmondson (2010) focused on two different varieties of Khang. Both authors provide useful phonetic analyses; as a result of different of types of data input (Mikami reported on Khang spoken in Thuận Châu, Sơn La, whereas, Edmondson described Khang spoken in Than Uyên, Lai Châu) those descriptions differ in their accounts of syllable structure and the number of tonemes. Mikami described four tonemes, while Edmondson described six tonemes. Regarding syllable structure, Mikami finds that Thuận Châu Khang has monosyllabic structure C(C)V(C)/T. By contrast, Edmondson finds that in Than Uyên Khang, there is sesquisyllabic word structure in addition to monosyllabic forms. Mikami posited that glottal stop $\frac{1}{2}$ is a final consonant in syllable structure, while Edmondson considered glottal stop $\frac{1}{2}$ as a feature of tones.

3 Phonological word structure

Based on the Nam Mu variety studied here, Khang phonological words are mostly unlike general Austroasiatic word structure in being monosyllabic. The Khang phonological word can be summarized as follows.

$$(C_1\check{\bullet}/\check{a}).C_2(C_3)V(C_4)^T$$

 $C = consonant$
 $V = vowel$
 $T = tone$

Examples of the full range of Khang phonological word structures are given here.

Structure	Item	Gloss
C_1 š/ \check{a} . C_2VC_3 ^T	sə̃?un ⁴⁴	'sky'
$C_1C_2VC_3^T$	klak ⁴³	'head'
$C_1VC_3^T$	lak ⁴³	'stork'
$C_1C_2V^T$	plε ⁴⁴	'fruit'
C_1V^T	ti ⁴⁴	'hand'

In fact, the maximal structure is only found in five in 917 words. Thus, in my data set, only 0.55 % are sesquisyllabic words, while 99.45 % are monosyllabic words. Within the limited data available, pre-syllable consonant clusters are not allowed, and the only occurring segments in the five words with presyllables are limited to onsets /s, k, m, l/ and vowels /a/ or /a/. The five sesquisyllabic words in available Khang data are the following.

Item	Gloss
sě?un ⁴⁴	'sky'
lălan ⁴⁴	'lightning'
cělyp ⁴³	'bright'
kělx ^{35?}	'hiccups'
měďrk ⁴³	'gum'

4 Consonants

4.1 Main syllable onsets and complex onsets

Khang has 20 distinctive main syllable onsets, as presented in Table 3.

Table 3: Khang main syllable onsets

	Bilabial	Alveolar	Alveopalatal	Velar	Glottal
Voiceless stops	р	t	c	k	3
Voiceless aspirated stops	p^{h}	$t^{\rm h}$		k^{h}	
Voiced stops	6	ď			
Nasals	m	n	n	ŋ	
Voiceless fricative		S			h
Voiced fricative	W	1	j		

A limited number of consonant clusters are permitted. Only /p, k, k^h , m, h/ take the position of the first consonant in a onset cluster, and they can only be followed by consonants /w/ or /l/. Examples of the complex onsets in context are given in Table 4.

Table 4: Complex onsets in Khang

Cluster	Example	Gloss
kl	klak ⁴³	head
pl	plε ⁴⁴	fruit
ml	mləŋ ⁴⁴	buttocks
kw	kwa ^{35?}	to mix
$k^h w$	khwaŋ ⁴⁴	to lay a bet to catch fish
hw	hwaj ^{35?}	tiger

4.3 Main syllable codas

Main syllable codas are restricted to voiceless unaspirated stops, nasals, and approximants, as summarized in Table 5.

Table 5: Main syllable codas in Khang

	Bilabial	Alveolar	Alveopalatal	Velar
Stop	р	t		k
Nasal	m	n		ŋ
Approximant	w		j	

In regard to Khang codas, there is disagreement between Mikami (2003) and Edmondson (2010) about the phonological status of the glottal stop. Mikami (2003) increases the size of the Khang coda inventory with the claim of /?/ and post-glottalized codas: /m?/, /n?/, /ŋ?/, /w?/, /j?/. Edmondson (2010) by contrast, considers glottal stop as a tonal feature, and as a result, he posits more tones and fewer codas than Mikami does.

In the development of Austroasiatic languages, glottal stop /?/ plays an important role in tonogenesis. In Vietic languages, according to Loi (1993:43), Arem is analyzed as retaining glottal stop coda /?/ and post–glottalized codas: $/m^2/$, $/n^2/$, $/n^2/$, $/m^2/$, /m

Lexical comparison with Palaungic languages (with data extracted from Sidwell 2015) demonstrates that words with historical glottal stop codas are reflected by forms with open syllables and non-level tones, specifically low tones, in Khang, as in Table 6. If we take a historical perspective then, it is reasonable to characterize the phonetic glottal stop in Khang codas as a tonal rather than a segmental feature, which matches Edmondson's description.

Table 6: Selected lexical correspondence between Khang and other Palaungic languages

	Danaw	Riang-L	Riang-S	Rumai	Pale-Y	Palaung-N	Muak-SA	ManMet	Lameet-LP	Samtao	Wa	Bumang	Lawa	Khang (Mikami)	Khang (Tung)
goat	bo⁴ bε	pè?²	pè?¹		bε	bε	$p\epsilon^2$	pε? ⁵³	p _V 3	pe?¹	pe?		рε?		$6\epsilon^{212}$
ashamed	kătsha1	kř²	kŏ²			kə.se					rạŋ	ăn ⁵⁵		?ol2	?ăn ⁴⁴
		shé?1	shé?1								tea	tse ³³		$c\epsilon^2$	cε ^{11?}
sesame	loŋ²	lx2	luk²	l.ŋa ⁵¹	ŋad	nəm	t.ŋa:²	a	ŋá:	aŋa?²	ກຣ໌ 3		ləŋa?		ŋa ²¹²
	ŋaʔ³	ŋaʔ²	ŋaʔ²			ŋa		ŋă? ⁵³							
uncle		po?¹	po?¹	pγ ⁵¹		рш			pí:?		pao?				$6a^{212}$

5 Main syllable nuclei

Khang has eight monophthongs without contrastive length, and there are two contrastive pairs /a/ with /ă/ and /y/ with /š/. Short vowels are transcribed with a breve /y/. In addition, there are three diphthongs: /ix/, /ux/ and /ux/. The complete inventory of fourteen vowels is shown in Table 7.

Table 7: Khang main syllable nuclei

	Front	Central	Back
Close	i	ш	и
Mid	e	ř/r	0
Open	arepsilon	ă∕a	Э
Diphthongs	ir	шү	ur

6. Tone

The tone inventory of Khang consists of eight tones, six of which appear in sonorant-final syllables (i.e., open syllables or syllables ending in /w, j/ and sonorants: /m, n, n/), and two tones which only occur in syllables with final oral stops /p, t, k/.

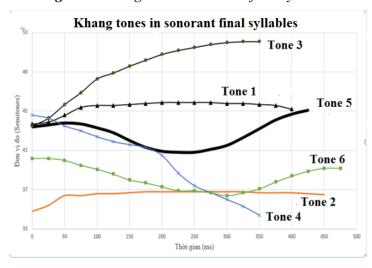
6.1. Tones in live syllables

The following are descriptions of the properties of Khang tones in live syllables (i.e., not those with final voiceless stops). I use the system of numbers for pitch height, with 1 being the lowest and 5 being the highest, with the two numbers indicating starting and ending points.

- 1. The first tone begins at high-level 4(43 semitones) and ends at high-level 4 (45 semitones), marked as [44], for example, $p\epsilon^{44}$ or $pl\epsilon^{44}$ 'fruit', $k\sigma^{44}k\epsilon^{44}$ 'pigeon', $c\sigma^{44}$ 'grandchild', and ma^{44} 'father's sister'.
- 2. The second tone begins at low-level 1 (35 semitones) and also ends at low-level 1 (36.5 semitones). It is marked as [11], for example, ko 112 'to carry on one's back', co^{112} 'to chew (horse)', and ma 112 'horse'.
- 3. The third tone begins at mid-level 3 (43.5 semitones), rises, and ends at high-level 5 (52.1 semitones). There is glottal stop voice quality at the end, so it is marked [357], for example, $p\varepsilon\eta^{357}$ 'expensive' and $k\sigma^{357}$ 'un-cooked rice'.
- 4. The fourth tone begins at mid-level 3 (44.6 semitones), falls, and ends at low-level 1 (34.4 semitones). There is a glottal stop voice quality at the end, and it is thus marked [$^{31?}$], for example, $p\varepsilon^{31?}$ 'to put' and no $^{31?}$ 'breast'.
- 5. The fifth tone begins at mid-level 3 (43 semitones), falls at the middle of the syllable at level 2 (41 semitones), but then rises and ends at mid-level 3 (45.1 semitones), marked [323], for example, $p\varepsilon^{323}$ 'to grind', ma^{323} 'rice', ki^{323} 'field (upland/terraced)', and $d\sigma^{323}$ 'brain'.
- 6. The sixth tone begins at level 2 (40.2 semitones), falls gradually in the middle of the syllable at low-level 1 (36.4 semitones), then rises and ends at level 2 (39.2 semitones), marked [212], for example, su^{212} 'broken (of string, thread, rope)', k^hun^{212} 'dust', and ko^{212} 'night'.

Figure 1 summarizes the tone system of Khang in syllables ending in sonorants, analyzed with WIN CECIL in semitones.

Figure 1: Khang tones in sonorant final syllables



6.2. Tones in dead syllables (stop final)

There are two tones occurring in syllables ending in voiceless stops. They are described as follows:

- Tone 7 begins at level 4 (46 semitones), falls at level 3 (44.5 semitones), marked [43], for example, $klak^{43}$ 'head', sak^{43} 'deer', k^hak^{43} 'buffalo', hap^{43} 'to burden', and pup^{43} 'body's back'.
- Tone 8 begins at level 1 (35.4 semitones), rises at level 2 (41 semitones), marked [12], for example, pok^{12} 'to open, to peel' and huk^{12} 'greedy'. Figure 2 summarizes the tones in Khang in syllables ending in final stops, analyzed by WIN CECIL in semitones.

Khang tones in syllables ending final stops

Tone 5

Tone 6

Figure 2: Khang tones in syllables ending in final stops

6.3. Voice register

In Khang, there are three types of voice quality: modal voice, creaky voice and glottal stop. The first tone [44] and the fifth tone [323] has modal voice. This is shown in the wave form and F0 tracks in Figure 3 and Figure 4.

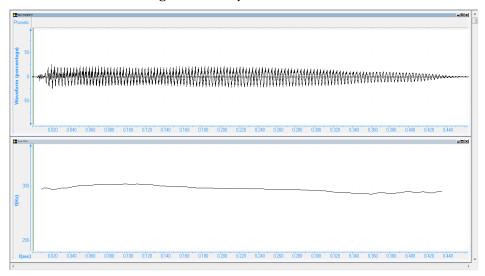


Figure 3: The syllable ti⁴⁴ 'hand'

Procedo

| Heec| | Obso | Obso | Obso | Otso | Otso

Figure 4: The syllable da³²³ 'black'

Creaky voice appears in tone [212]. Figure 5 show a sample wave form, F0 track and spectrum of tone [212].

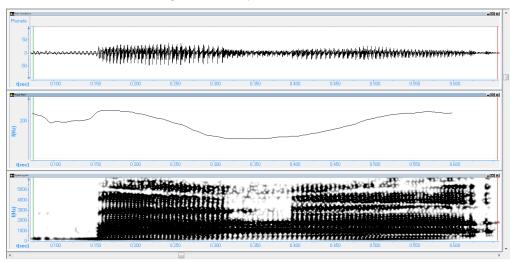


Figure 5: The syllable $6a^{212}$ 'sour'

Tones [117], [357] and [317] end in a final glottal stop. Figures 6, 7, 8 show forms of wave forms, F0 tracks of tones [117], and [357] and [317] with a final stop [7].

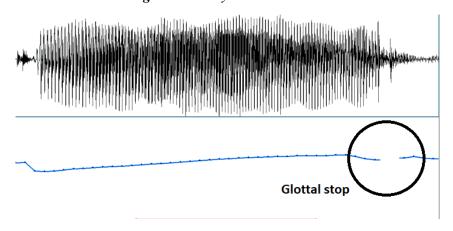


Figure 6: The syllable kɔ^{35?} 'rice'

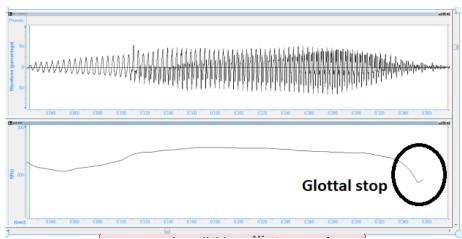
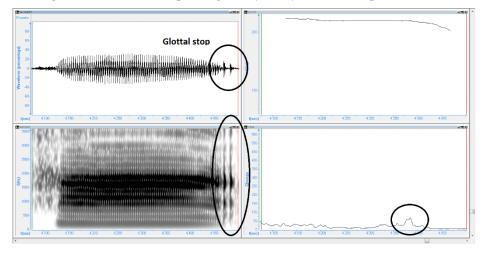


Figure 7: The syllable no^{31?} 'woman's breast'

Figure 8: Soundwave, spectrogram of the syllable ha^{11?} 'pebble stone'



6.4. Historical aspect of Khang tones

It is apparent that although Khang is an Austroasiatic language, it has borrowed many Tai words, and with them, their tonal values. Examples in Table 8 are given of Tai loanwords in Khang compared with and Proto-Tai values (Li 1977 and Pittayaporn 2009). The tone categories of these Tai loanwords in Khang match Proto-Tai tone categories. However, how tonal assignments to indigenous Austroasiatic words are governed is not clear at this time and is a question for further analysis.

Proto-Tai Proto-Tai Proto-Tai Khang Meaning Khang tone (Pittayaporn (Li 1977) **Tones** Words categories 2009) *hnan A num⁴⁴ skin *naŋ A1 suyn⁴⁴ *swu:n A *suan A1 garden *pi: A *pii A1 pi⁴⁴ year waj⁴⁴ *waai A1 rattan *C.wa:j A $1\varepsilon^{44} t^h \mathfrak{s} \mathfrak{n}^{44}$ bag *cron A *thun A1 44 **A**1 păk⁴³ tu⁴⁴ *tu: A *pra-tuu A1 door ?aj⁴⁴ hɔm⁴⁴ fragrant *ho:m A *hoom A1 high *suun A1 suŋ⁴⁴ *jaa A1 ia^{44} medicine A cmi^{?*} $lan^{44} he^{44}$ *hεε Α1 net

Table 8: Khang tones in loanwords

Meaning	Proto-Tai tone categories	tone (Pittayaporn		Khang Tones	Khang Words
three	categories	*sa:m A	*saam A1		sam ⁴⁴
sand		*zwwəj A	*saai A2		saj ^{35?}
mountain		*Ç.do:j A	*phuu A2		pu ^{35?}
field		*na: A	*naa A2		na ^{35?}
gold	A2		*kham A2	35?	kăm ^{35?}
drunk/intoxicated		*maw A	*mau A2		măw ^{35?}
expensive		*be:ŋ A	*phεεŋ A2		pεη ^{35?}
silver		_	*ŋəən A2		ŋɤ̃n ^{35?}
low			*tam B1		tăm ²¹²
bean	D1		*thua B1	212	thux ²¹²
empty	B1	*plyw B	*plau B1	212	păw ²¹²
to release			*plooi B1		ploj ²¹²
mother	В2	*me: B	*теє В2	31?	me^{317}
branch	B2		*ŋaa B2	317	ŋa ^{31?}
cotton			*faai C1		cuŋ ²¹² faj ³²³
wide			*kwaaŋ C1		kwaŋ ³²³
cave	1	*cram C	*tham C1		thăm ³²³
crossbow		*hnwwə C	*naa C1		na ³²³
five	C1	*ha: C	*haa C1	323	ha ³²³
nine		*kyw C	*kau C1		kăw ³²³
pot		*hmo:C	*mɔɔ C1		mo ³²³
to carry hanging		*tri:w C	*hiu C1		hiw ³²³
from hand					
to enter		*χaw C	*khau C1		$k^{h} \breve{a} w^{323}$
wood		*mwaj C	*mai C2		măj ^{11?}
to buy		*z.јш: С	*siï C2		sw ^{11?}
elephant	C2	*ја:ŋ С	*čhaaŋ C2	117	caŋ ^{11?}
hammer		*yo:1 C	*khoon C2		kon ^{11?} ti ⁴⁴
to chew		*giəw C	*khiau C2		kew ^{11?}
		Dead syllables (stop final)		
iron		*hlek D	*lek D1S		lik ¹²
chest		*?rk D	*?ok D1S		?xk ¹²
cockroach		*sa:p D	*saap D1L		mεŋ ^{35?} sap ¹²
cloud, fog		*hmo:k D	*mook D1L		muxk ¹²
frog	D1		*khiat D1L	12	khixt ¹²
seven		*cet D	*čet D1S		cet ¹²
ten			*sip D1S		sip ¹²
to dig			*khut D1S		khut ¹²
to peel		*po:k D	*pook D1L		pok ¹²
ant		*mrc D	*mot D2S		mot ⁴³
narrow		*gap D	*khap D2S		kăp ⁴³
to change	D2		*lεεk D2L	43	lek ⁴³
to love			*mak D2S		măk ⁴³
to wipe/clean		*Jet D	*čhet D2S		cut ⁴³

7. Conclusion

This paper has provided a summary of segmental and tonal phonology and lexicon of Nam Mu Khang. It is an Austroasiatic language under strong Tai influence in Vietnam, and it has become strongly monosyllabic and tonal, which may be a result of typological influence. Dialect comparison, especially the case of Khang Quang Lam phonology mentioned by Nguyen Van Huy, would be potentially interesting, but it remains to be fully researched. The phonological impact of Tai and Vietnamese loanwords in Khang dialects is clearly significant, and this language contact is also a significant prospect for further research.

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Appendix: Khang Wordlist

(916 entries)

Data collector: Tạ Quang Tùng

Kháng 6a ²¹²	Gloss
$6a^{212}$	mute/stupid
6a ²¹²	sour
6a ²¹² muxŋ ³²³	mango
6a ²¹² ŋaj ⁴⁴	face
6ak ⁴³ k ^h en ⁴⁴	ring
6an ²¹²	flower
ճan ³²³ , mшʏŋ ^{35?}	village

Kháng	Gloss
6an ⁴⁴ ho ⁴⁴	pannier
6an ⁴⁴ 1vj ⁴⁴	fan
6an ⁴⁴ ne ^{11?}	comb
бăŋ ⁴⁴	bamboo sprout
6ăt ¹² măj ^{31?}	greenery
6at ⁴³	wound
$6a^{212}$	uncle
65 ²¹² ?om ³²³	water source
65) ^{31?}	to cook sticky rice
65k ⁴³	teach
60g ³²³	blunt
60ŋ ⁴⁴	below
60ŋ ⁴⁴ ku ^{35?}	back of the head
60ŋ ⁴⁴ ku ^{35?}	to crow
65ŋ Ku 65ŋ ⁴⁴ lo ⁴⁴	
65t ⁴³	armpit pointed
$6\epsilon^{212}$	goat
$6\varepsilon^{212} \mathrm{di}^{35?}$	goat kid
$6\varepsilon^{212} \operatorname{pa}^{323}$	male goat
6εk ¹²	to carry
δεκ δεη ²¹²	to shoot
6xn ⁴⁴	long time
6xn ⁴⁴ 6xn ⁴⁴	sometime
6ixn ²¹²	sea
6irw ⁴⁴	deformed (become) (object)
6wym ²¹² ?om ³²³	puddle
6ωγη ^{11?}	foot, hand
6ωτη ^{11?} ti ⁴⁴	arm
6wk ⁴³	snot
6o ²¹²	animal
6o ²¹² 6on ⁴⁴	pangolin
6o ²¹² căn ²¹²	cicada
6o ⁴⁴	owl
6ot ⁴³	near
6ux ³²³	ash
6ux ⁴⁴	to pack
6uxn ²¹²	nappies
6ury ²¹²	spoon
6uk ¹²	white
6ut ¹²	blanket
căm ^{35?}	to burry
cam ⁴⁴	sneeze
can ^{11?}	lazy
căn ³²³	pretty
can ⁴⁴	thorn
caŋ ^{11?}	elephant
$ca\eta^{212}$	tasteless
căŋ ⁴⁴	bitter
căp ¹²	to tuck

Kháng	Gloss
căt ¹²	to scatter
căw ^{11?}	early/soon
căw ⁴⁴ na ⁴⁴	host
coj ³²³	to help
cok^{43}	hoe
ce ^{11?}	
ce ce ⁴⁴	to tear to pieces headlouse
	bird
cem ³²³	
$cem^{323} jăn^{212}$	sparrow
cet ¹²	seven
cen ⁴⁴	to fry
$cx^{44} ?a^{323}$	always
$cx^{44} ?a^{323}$	when
$cx^{44} ?a^{323}$	while
cělyp ⁴³	bright
ci ^{11?}	string
ci ²¹²	uncle (mother's younger brother)
ci ²¹²	young man
civm ⁴⁴	Thai
$\operatorname{cirn}^{212}$	to divide
cirn ^{35?}	to listen
cin ⁴⁴	to play
cin ⁴⁴ ŋăn ⁴⁴	to dry (food)
ciŋ ^{35?} ŋăn ⁴⁴	fire/kitchen/stove
cm ³²³	name
cury ²¹² 6iŋ ¹¹⁷	healing
curn ^{35?}	bed
cury ⁴⁴ tu ^{35?}	food
co ^{11?}	to chew (horse)
co ²¹²	ill/painful
co ³²³	to copulate
co ^{35?}	joyful
co ⁴⁴	grandchild
co ⁴⁴ kurn ⁴⁴	offspring
cux ⁴⁴	dog
cux ⁴⁴ ni ²¹²	wolf
cum ⁴⁴	to sink
cuŋ ²¹² faj ³²³	cotton plant
$cug^{212} ple^{44} ks^{44}$	gourd
cuŋ ^{35?} ŋek ⁴³	goitre
cut ⁴³	to wipe/clean
$da^{212} klo^{323}$	footprint
da^{323}	black
daj ^{11?}	to run
dăk ⁴³	thickened
dăn ⁴⁴	young
dan ⁴⁴ k ^h ux ⁴⁴	bridge
dan ^{k-us} dan ⁴⁴ pan ^{35?}	table
dan pan da	
นอาวา	brain

Kháng	Gloss
์ dอก ⁴⁴ ทูนร ⁴⁴	cornflower
dɔŋ ⁴⁴	egg
d ₂ η ⁴⁴	feather
dɔŋ ⁴⁴ klak ⁴³	hair
င်္ဘာ ⁴⁴ mom ⁴⁴	beard
ຕົວຖ ⁴⁴ ກຸaj ⁴⁴	eyelash
de^{44}	we
$d\varepsilon^{44}$	to give
dyk^{12}	to take (things), to get married
dĩ k ¹² jui ³²³	to bring
$dvn^{44} klo^{357}$	heel
\mathfrak{di}^{212}	uncle (father's older brother)
di ^{35?}	small/little
di ⁴⁴	noon
तांभ्र ⁴³	short
$du^{44} d\epsilon^{44}$	to bring back
$du^{44} se^{44}$	to deviate
$\operatorname{diw}^{12} \operatorname{ju}^{323}$	pregnant
duŋ ⁴⁴	big/huge
do ³²³	out
dok^{12}	boiling pot
dok ¹²	warm
dom ⁴⁴	ripe
du ⁴⁴	to hide
dux^{212}	muscles (flesh)
fa ³²³	to dry
faj ²¹² de ⁴⁴ , p ^h en ⁴⁴ jix ⁴⁴	we (inclusive)
faj ⁴⁴	dam
fεw ³²³	to sweep
fxw ²¹² ŋăn ⁴⁴	ashes of burnt grass
fun ⁴⁴ fuk ⁴³	mat
fux ^{35?}	lake
ha ^{11?}	stone, pebble stone
ha ^{31?} wo ²¹²	ice
ha ³²³	five
ha ^{35?}	to wash (dishes)
$ha^{323} sip^{12}$	fifty
hai ^{35?} kuyn ⁴⁴	uterus
haj ¹¹⁷ svm ⁴⁴ năk ¹²	hard to breath
haj ^{31?} svm ⁴⁴	to breath
ham ⁴⁴	to carry with another person
hăn ²¹²	to slice
han ^{31?}	floor
hăŋ ³²³	rich
hăŋ ^{35?} na ⁴⁴	pillar
hap ⁴³	to burden
hap ⁴³	wall
hat ⁴³	rough
hɔj ¹¹⁷	hundred

Kháng	Gloss
hoj ⁴⁴ 6at ¹²	scar
hom ⁴⁴	onions
hom ⁴⁴ ki:p ⁴³	garlic
hon ⁴⁴	
11311 15 43	crest to have
hop ⁴³ he ^{35?}	
he ^{35?} cɛw ²¹²	mortar (wooden)
	pestle
hřm ³²³	shade
hix ¹¹⁷	root
hix ³⁵⁷	ginger
hixŋ ^{35?}	intestine
hiw ³²³	to carry hanging from hand
huŋ ^{35?}	tooth
huŋ ^{35?} nɛŋ ⁴⁴	canine tooth
huŋ ³⁵⁷ nεŋ ⁴⁴	fang
ho ³¹ ?	to bark
hok ¹²	six
hom ³²³	to cover
hot ⁴³	to smoke
huk ¹²	greedy
huŋ ²¹²	papaya
hwaj ^{35?}	tiger
$ka^{212} to^{323}$	all
ka ⁴⁴	fish
kaj ¹¹⁷	to deny
kam ^{35?}	bran
kăm ^{35?}	gold
kăm ^{35?} p ^h a ^{31?}	blade
kăm ⁴⁴	to throw
kăn ^{11?}	to squeeze
kăn ^{35?}	field bank
kăn ^{35?}	people
kăn ^{35?} haj ^{31?}	enemy
kăn ^{35?} haj ^{31?}	invader/enemy
kăn ⁴⁴	wife
kăn ⁴⁴ dî ^{35?}	second wife
kăn ⁴⁴ ɗuŋ ⁴⁴	wife (first)
kan ⁴⁴ hap ⁴³	yoke
kăn ⁴⁴ ku ³²³	you (same age)
kăn ⁴⁴ lix ⁴⁴	bee
kan ⁴⁴ păj ^{31?}	broom
kaŋ ^{35?}	hawk
kaŋ ⁴⁴	beak, mouth
kan ⁴⁴ wen ^{35?}	mirror
kăp ¹²	and, with
kap ⁴³	duck
kăp ⁴³	narrow
kăp ⁴³ fa ⁴⁴	turtle
kăw ³²³	nine

Kháng	Gloss
ko ^{11?}	to carry on one's back
ko ^{35?}	un-cooked rice
ko ⁴⁴ kε ⁴⁴	pigeon
kəj ⁴⁴	horn
kok ⁴³	crippled
kok ⁴³	worm (on leaf)
kən ⁴⁴	to scrabble
kən ¹¹⁷ ti ⁴⁴	hammer
kon ⁴⁴ tu ⁴⁴	latch
kɔŋ ^{11?} 6ɔn ⁴⁴	lizard
kělx ^{35?}	hiccups
$k\epsilon^{212}$	uncle
$k\epsilon^{323}$	to undress
kem ^{35?}	river bank
ken ²¹²	hard
ken ^{35?}	trumpet
kεŋ ⁴⁴ 6wx ⁴⁴	congee
kεη ⁴⁴ p ^h a ^{31?}	to shape a knife
kεp ⁴³	restricted
kεp ⁴³	to grill
ket ⁴³	to forget
kew ^{11?}	to chew
kew ⁴⁴	Viet
k š m ²¹²	to ban
$k^h a^{11?} n \breve{a} j^{35?}$	now
$k^{h}a^{212}$	lesser galangal
kha ³²³	alcohol
k^ha^{44}	mouse
k ^h aj ²¹²	to pour (water from small cup)
$\mathbf{k}^{\mathrm{h}}\mathbf{\check{a}}\mathbf{\check{j}}^{323}$	healthy
k^hak^{12}	other
k^hak^{43}	buffalo
$k^{h}ak^{43} t^{h} v k^{12}$	bull
k ^h an ⁴⁴	to answer
k ^h ăn ⁴⁴	towel
k^h ăn ⁴⁴ tw ²¹² ŋaj ⁴⁴	face towel
k^han^{212}	to drain
k ^h ăŋ ⁴⁴	dry
$k^h \breve{a} p^{12}$	to sing
$k^h ar{a} w^{323}$	to enter
khăw ⁴⁴	sharp
kho ³²³	poor
k ^h o ⁴⁴	bent
khok ⁴³	toad
$k^{h} \epsilon k^{12}$	guest
k ^h εn ⁴⁴	to praise/speak highly of
khix ^{31?}	crab
khixŋ ⁴⁴	month
khixt ¹²	frog

Kháng	Gloss
k ^h w ^{35?}	same
$k^h u n^{323}$	to ascend
k^hun^{44} , $t\epsilon k^{43}$ naj^{44}	to grow (tree)
khon ^{35?}	termite
k^h u r^{44}	ladder
k ^h ux ⁴⁴	to scrape
k ^h uxj ^{35?}	fly (insect)
khwix ²¹²	to stir
$k^h u j^{212}$	to ride
$k^h un^{212}$	dust
k ^h ut ¹²	to dig
khwăn ^{35?} hixt ⁴³	drugs (smoking)
khwăn ^{35?} lot ⁴³	cigarette
khwan ⁴⁴	to lay a bet to catch fish
ki ³²³	field (upland/terraced)
kivn ^{35?}	cucumber
kirn ⁴⁴	pineapple
kim ^{35?}	salty
kin ^{31?} hɔŋ ^{35?}	knee
kin ³²³	full
kit ¹²	to harvest
klak ⁴³	head
klap ⁴³	bark (noun)
kl3 ³²³	leg
kloŋ ⁴⁴	to call
$klon^{44} tăn^{35?}$	earrings
kle ⁴⁴	penis
klen ²¹² kla ⁴⁴	testes/testicles
kleŋ ⁴⁴	grass/thatchgrass
klep ⁴³	rice husk
klvj ^{11?}	squirrel
klšw ⁴⁴	Khmu
klix ^{31?}	parrot
klix ⁴⁴	rain
klix ⁴⁴ kăn ⁴⁴ lx ⁴⁴	hail
klix ⁴⁴ p ^h ăŋ ⁴⁴ măn ²¹²	drizzle
klixŋ ⁴⁴	orange
klixp ⁴³	locust
klin ⁴⁴	fat (adjective)
kliŋ ³⁵⁷	to roll
klip ¹²	scale
klung ³²³	mushroom
klu ⁴⁴	ox
$klu^{44}m\epsilon^{212}$	cow
kluxm ⁴⁴	liver
kury ²¹²	eggplant
kum ¹¹⁷	to hope
kum ^{11?}	to wait
kun ⁴⁴	before

Kháng	Gloss
kuŋ ²¹²	to push
kuw ²¹²	to secure
ko ²¹²	night
ko ⁴⁴	it (people)
ko ⁴⁴ ɗi ^{35?}	girl (little)
ko ⁴⁴ măj ^{31?}	forest
ko ⁴⁴ pha ^{35?}	old woman
kot ⁴³	shrimp
ku ³²³	to lend
kux ²¹²	wet
kuyn ⁴⁴	child
kuyn ⁴⁴ di ^{35?}	children
kurn ⁴⁴ kăn ⁴⁴	daughter
kurn ⁴⁴ k ^h urj ⁴⁴	son-in-law
kuyn ⁴⁴ kon ⁴⁴	boy
kum ⁴⁴ na ⁴⁴	roof
kwa ^{35?}	to mix
kwaj ⁴⁴	potato/manioc
kwaj ⁴⁴ ho ³²³	sweet potato
kwaj ⁴⁴ kʰəj ^{11?}	yam
kwaŋ ³²³	wide
kwen ⁴⁴	bowl
la^{212}	smooth
la ²¹² ɗoj ⁴⁴	couple
$la^{212} t^h o \eta^{212}$	half
la^{323}	who
lăj ^{11?}	to kneel
lăk ¹²	to wise
lak ⁴³	crow
lak ⁴³	stork
lak ⁴³	to draw (water)
lălan ⁴⁴	lightning
lăm ^{35?}	trunk
lăm ^{35?} 6o ²¹²	body
lăm ^{35?} paŋ ^{35?}	thigh
lăm ^{35?} tixŋ ⁴⁴	areca
lan ⁴⁴	orchid
laŋ ^{35?} măm ^{11?}	last year
laŋ ³⁵⁷ ʔe ⁴⁴	this year
lăŋ ⁴⁴	delicate
$la\eta^{44} h\epsilon^{44}$	net
laŋ ⁴⁴ moŋ ^{35?}	fishing net
law ^{11?}	to wring
law ⁴⁴	to cultivate virgin lands (on the mountain slope)
15 ⁴⁴	to worry
laj ³⁵⁷	to swim
lək ⁴³	coop (chicken, duck)
lon ^{35?}	to descend
\log^{44}	vegetables

Kháng	Gloss
le ⁴⁴	husband
lem ²¹²	needle (for sewing)
$1\epsilon^{212}$	much
$1\epsilon^{323}$	broken (hard and long things)
$1e^{35?}$	to look
$1\epsilon^{44} \mathrm{da}^{212}$	gallbladder
$1\epsilon^{44}$ day 212	shanty
$1\epsilon^{44}$ di ^{35?}	plate (small)
$1\epsilon^{44} \operatorname{duy}^{212}$	banana flower
$1e^{44}$ koy ^{11?}	
$1e^{44} \operatorname{ki} x^{44}$	gong vulva
lε ⁴⁴ kluγj ⁴⁴	bamboo basket with shoulder strap
$1e^{44} \text{ klu} $	drum
$1e^{-Ktufj}$ $1e^{44}$ luj ²¹²	whistle
$1e^{-1tJ}$ $1e^{44}$ mo ³²³	
$1e^{44}$ muy 9^{44}	pan basket
le Husij le ⁴⁴ pluj ^{31?}	umbilical
$1e^{-44}$ thon $1e^{44}$	
1ε ¹⁻³ 1] 1ε ⁴⁴ t ^h uŋ ^{35?}	bag bamboo basket
le ⁴⁴ jăj ^{35?}	beads
	boil
lε ⁴⁴ jo ⁴⁴ lεk ⁴³	
lem ²¹²	to change
lem ²¹² jo ^{35?}	to sleep to awake
lem 13	
$lem^{44} lix^{44}$	arrow
1xp ⁴³	honey morning
li ^{35?}	corn
lixn ³²³	salt
lik ¹²	iron, nail made from iron
lwrn ³²³	smooth and shining
luk ¹²	blind
lun ⁴⁴	to lick
lom ⁴⁴	to suck
luxŋ ^{35?}	dragon
lup ⁴³	to spread on
ma ^{11?}	horse
$ma^{117} n \check{a} t^{43}$	ghost
ma ³²³	rice
ma ⁴⁴	father's sister
măj ^{11?}	stick (noun)
măj ^{11?}	tree, wood
$m \ddot{a} j^{31?} k^h w i x^{212} t^h a n^{44}$	fire poker
măj ^{31?} tɛk ⁴³ ŋaj ⁴⁴	shoot
măk ⁴³	to love
mak ⁴³ 6it ¹²	hook
măk ⁴³ kăn ⁴⁴	girl
măk ⁴³ kăn ⁴⁴	woman
măk ⁴³ kɛw ³²³	scissors

Kháng	Gloss
măk ⁴³ k ^h aŋ ⁴⁴	ethnic name
măk ⁴³ k ^h wan ⁴⁴	axe
măk ⁴³ kon ⁴⁴	man
mak ⁴³ lem ²¹²	needle (for injection)
mak ⁴³ not ⁴³	chisel
$mak^{43} t^h \check{a}j^{44}$	plough
măm ¹¹⁷	to finish
man ⁴⁴	to ask
măn ⁴⁴	older sister-in-law
măn ⁴⁴	snake
măn ⁴⁴ ?un ⁴⁴	python
maŋ ⁴⁴	fin
măt ¹²	to take
mat ⁴³	tick (parasite)
măw ^{11?} măn ²¹²	brown
maw ^{31?}	color
măw ^{35?}	drunk/intoxicated
mo ³²³	pot
mon ⁴⁴	pillow
mon ⁴⁴	to know
me ^{11?} ŋe ^{11?}	yesterday
me ^{11?} ?e ⁴⁴	today
měďxk ⁴³	gum
mep ⁴³	to smell
met ⁴³	to paddle
met ⁴³ lɔŋ ^{35?}	to dive
mew ²¹²	cat
$m\varepsilon^{317}$	female
$m\varepsilon^{31?}$	mother
mε ^{31?} βορ ⁴³	wife's mother
$m\varepsilon^{317}$ ma^{44}	husband's mother
$m\varepsilon^{317}$ man ⁴⁴	soul
mε ^{31?} muγn ⁴⁴	daughter in law
mɛn ³²³	correct
mεn ⁴⁴ to ^{31?}	wrong
mεŋ ^{35?} kww ^{35?}	dragonfly
mεŋ ^{35?} ŋam ^{35?}	spider
mεŋ ^{35?} sap ¹²	cockroach
$m \varepsilon \eta^{357} tep^{43}$	flea (dog)
mεŋ ^{35?} wĭŋ ^{35?}	mosquito
meŋ ³⁵ ² jam ⁴⁴	cricket
mew ^{11?}	Hmong
mrj ^{35?}	to invite
mi ^{11?}	finger (hand, foot)
mi ^{11?}	jackfruit
mi ^{11?} ni ³²³	day before yesterday
mi ⁴⁴	you, thou (male)
mix ²¹²	new
mix ⁴⁴	sugarcane

Kháng	Gloss
mit ¹² moj ⁴⁴	day after tomorrow
$mit^{12} mxp^{43}$	tomorrow
mlon ⁴⁴	ass
mw ^{11?}	day
murj ⁴⁴	dewdrop
muvj ⁴⁴	frost
$muxj^{44} p^h ansuran muxj^{44} p^n ansura$	snow
mury ⁴⁴	drain
mun ²¹² mu ^{35?}	small bracelet
mut ⁴³	dark
moj ^{11?}	nose
mom ⁴⁴	grandfather
mot ⁴³	ant
mu ^{11?}	hat
mu^{212}	to blow (fire)
mur ^{35?}	season
murk ¹²	cloud
muxk ¹²	fog
muj ⁴⁴	fat (noun)
mup ⁴³	to claw
na ^{35?}	field
na ³²³	crossbow
na ⁴⁴	leaf
na ⁴⁴	home
na ⁴⁴ han ^{31?}	house on stilts
na ⁴⁴ kam ³²³	hip
$na^{44} k^{h}ak^{43}, kok^{43}$	shed (pigs, buffalo)
na ⁴⁴ mun ⁴⁴	grave
na ⁴⁴ pw ⁴⁴ nux ⁴⁴ / na ⁴⁴ pw ⁴⁴ li ³⁵⁷	storehouse
na ⁴⁴ sym ⁴⁴	heart
$na^{44} den^{212}$	forehead
naj ^{11?}	to laugh
лăj ⁴⁴	angry
nak ⁴³	otter
nak ⁴³	skin of fruit
nam ⁴⁴	to cry
nan ^{35?}	slow
nan ⁴⁴ dãn ³²³	late
năŋ ⁴⁴	wing
năt ¹²	difficult
no ²¹²	at
$1 \text{ po}^{212} \text{ ni}^{323}$	there (final particle)
\mathfrak{po}^{212} $\mathfrak{7}a^{323}$	where
ກວ ²¹² ?e ³²³	here
no ⁴⁴	colony/ nest
non ⁴⁴	neck
non ⁴⁴ sux ³⁵⁷	collar
noŋ ⁴⁴	pond
ກວŋ ⁴⁴ păŋ ^{35?}	marsh

Kháng	Gloss
$non^{44} tx^{44}$	clear
$n\epsilon^{44}$ $7a^{323}$	how
nšm ³²³	blood
ni ³²³	that, there
nixp ⁴³	bat
J118p 43	
րip ⁴³ րшʏ ^{31?}	to sew
Jims	plastic
nur ³²³	meat
nuin ³²³	one
nuŋ³5?	if
nun ⁴⁴	skin
no ^{31?}	breast
no ⁴⁴ nε ⁴⁴	jar
$10^{44} \mathrm{m}^{24}$	to crumple
nok ¹²	to kiss
non ⁴⁴	to sit
nuvn ⁴⁴	boat, to float
nury ⁴⁴	core
ηa ^{35?}	itchy
ηa^{212}	sesame
ŋa ^{31?}	branch
ŋa ⁴⁴	it (plant and animal)
ŋaj ⁴⁴	eye
ŋaj ⁴⁴ ka ⁴⁴	ankle
\mathfrak{g} aj 44 k $^{\mathrm{h}}$ i \mathfrak{r} \mathfrak{g}	moon
ŋaj ⁴⁴ ŋe ⁴⁴	sun
ŋăm ²¹²	to think
ŋăm ²¹² haj ¹¹⁷	to plot
ŋăn ⁴⁴	fire kitchen
ηap^{43}	gill
ŋap ⁴³	to yawn
ŋăt ¹²	dead, to die
ŋăt ¹² ʔɔm ³²³	to drown
ηaw^{212}	to scratch
ηοm ⁴⁴ lixη ⁴⁴	shoulder
ηe^{44}	sunny
\mathfrak{g}^{323}	to kill
ŋɛt ⁴³	to break off
ηγ̃n ^{35?}	silver
ŋin ⁴⁴	base of tree
\mathfrak{go}^{212}	bad
\mathfrak{got}^{43}	to drink
์ ทูนร ⁴⁴	paddy
$\eta u r^{44} s \epsilon^{323}$	rice (glutinous)
nux ⁴⁴ jum ⁴⁴	sticky rice
ŋwăj ^{35?}	fast, quick
pa ^{11?}	to flow (waterway in general)
$pa^{317} m \varepsilon^{317}$	parents
pa ^{31?} ju ⁴⁴	father-in-law

Kháng	Gloss
pa ^{31?}	father
pa ⁴⁴	to stick
pa ⁴⁴	you, thou (fem.)
paj ^{11?}	to wash (clothes)
pak ⁴³ mloŋ ⁴⁴	buttocks
pak ⁴³	dock
păk ⁴³	to cut
păk ⁴³	to tight
păk ⁴³ tu ⁴⁴	door
păm ³⁵⁷ poj ²¹²	butterfly
pam ⁴⁴ kăp ¹²	to trap
păn ^{35?}	thousand
păn ^{35?}	to wrap/to tie (round)
$\begin{array}{c} pan \\ p\check{a\check{\eta}^{212}} \ ta\check{\eta^{212}} \end{array}$	window
păŋ ^{35?}	mud
păŋ ⁴⁴	to pay
păt ¹²	to catch
păw ²¹²	
paw ^{35?} pu ²¹²	empty ancestor
po ³²³	to complete
po ³⁵⁷ ŋaj ⁴⁴	eyebrow
poj ¹¹²	muntjac
pok ¹²	to open, to peel
pok ⁴³	waist
pom ²¹²	bulb
pom ³²³	round
pom ⁴⁴ puxk ⁴³	sponge
pon ^{35?}	claw/nail (finger, toe)
pen ^{35?}	corn pumpkin
$\mathfrak{p}\varepsilon^{31?}$	to put
pe^{323}	to grind
pεŋ ^{35?}	expensive
pet ¹²	eight
pha ²¹²	to split
pha ^{31?}	knife
pha ^{31?} sa ⁴⁴	head cold
pha ^{35?}	old (people)
$p^{h}a^{44}$	push button
phaj ²¹² pix ⁴⁴	you all
p ^h aj ²¹² kăn ⁴⁴	wife's family
phaj ²¹² le ⁴⁴	husband's family
phaj ³²³	cloth
$p^h \check{a} k^{12} k^h u x^{212}$	tortoise
phak ⁴³	to send
phăn ³²³	to spin
$p^{h} \bar{a} w^{212} sa^{212}$	soot
phon ⁴⁴	limestone
phem ⁴⁴	old (thing)
p ^h εn ⁴⁴ no ²¹² , p ^h εn ⁴⁴ ko ⁴⁴	they

Kháng	Gloss
phin ^{35?}	louse
phot ⁴³	to take out
phux ⁴⁴ ?om ³²³	river
phur ⁴⁴ ?om ³²³	stream
pi ^{11?}	to kick
pi ⁴⁴	year
pi ⁴⁴ mix ²¹²	next year
pin ²¹²	to fly
pin ^{35?}	thick
pin ⁴⁴ dɔj ³²³	diarrhea
pin ⁴⁴ kuxt ⁴³	cough
pin ⁴⁴ ŋaj ²¹²	crazy
piŋ ⁴⁴	leech
pit ¹²	to get
plaj ⁴⁴	top of tree
plăw ²¹²	hollow
ploj ²¹²	to release
ple ²¹²	flute/panflute
ple^{212}	to break
$pl\epsilon^{44}$	fruit
$pl\epsilon^{44} com^{44}$	lemon
$pl\epsilon^{44}$ mak ⁴³ sală η^{44}	kidney
$pl\epsilon^{44} pom^{212}$	button
$ple^{44} ti^{212}$	banana
plvm ⁴⁴	leech (jungle type)
pui ³²³	to place
pm ⁴⁴ dε ⁴⁴	to let, allow
purŋ ⁴⁴ ngur ⁴⁴	straw
puŋ ⁴⁴	to crawl
pu ^{35?}	mountain/slope
pu ^{35?}	to float
puxk ⁴³	bamboo (dendrocalamus munro)
purt ⁴³ pu ^{35?}	lung
puk ⁴³	pomelo
pum ⁴⁴	stomach
pum ⁴⁴ 6a ²¹²	abdomen
puŋ ⁴⁴	to blow (pan flute)
pup ⁴³ pup ⁴³ pa ^{31?}	back
sa ⁴⁴	back of knife blade
saj ³⁵⁷	monkey sand
săj ³⁵⁷	
saj ⁴⁴	good fiber/rope
saj ⁴⁴ 6it ¹²	fishing line
saj ⁴⁴ ?om ³²³	spring line
$\frac{\text{say}}{\text{sak}^{43}}$	deer
săk ⁴³ lak ⁴³	group (more than two)
sam ⁴⁴	three
$\operatorname{sam}^{44} \operatorname{sip}^{12}$	thirty
ouiii oip	umty

Kháng	Gloss
săn ³²³	to vibrate
săn ⁴⁴	bear
săn ⁴⁴	to steal
săŋ ²¹² pw ³²³	to promise
san ^{35?}	bamboo
săŋ ⁴⁴ mɪn ⁴⁴	star
saw ²¹² lăj ⁴⁴	equal
$saw^{212} 2a^{323}$	how many/much (more than 10)
saw ²¹² ?a ³²³ ?o ^{35?}	how many (less than 10)
săw ³²³	to shake
saw ^{35?}	twenty
saw ^{35?} ?et ¹²	twenty-one
să?an ⁴⁴ / sš?an ⁴⁴	sputum
so ²¹²	red
sɔŋ ⁴⁴	two
se ⁴⁴	behind
sš?un ⁴⁴	sky
sš?un ⁴⁴ tur ⁴⁴	thunderstorm
se ^{35?}	to jump/dance
$s\epsilon^{44}$	firewood
$s\epsilon^{44}$ ma ⁴⁴	cheek
sew ⁴⁴	to follow
sym ⁴⁴ ɗuŋ ⁴⁴	bravery
syn ⁴⁴	to vomit
s v n ⁴⁴	yard
si ^{35?}	four
\sin^{212}	sweet
sixt ⁴³	muck worm
sip ¹²	ten
sip ¹² cet ¹²	seventeen
$sip^{12} ha^{323}$	fifteen
sip ¹² hok ¹²	sixteen
sip ¹² kăw ³²³	nineteen
sip ¹² pɛt ¹²	eighteen
sip ¹² sam ⁴⁴	thirteen
$sip^{12} son^{44}$	twelve
$sip^{12} si^{35?}$	fourteen
sip ¹² ?et ¹²	eleven
sw ^{11?}	to buy
sui ³²³	honest
sury ³²³	shirt
$sum^{44} k^h \epsilon^{44}$	to want
so ²¹²	raw
so ²¹²	unripe
som ⁴⁴	to bathe
sot ⁴³	porcupine
su ²¹²	broken (of string, thread, rope)
surn ⁴⁴	garden
$suxy^{323}$	trousers

Kháng	Gloss
$sun^{44} si^{44}$	storm
\sin^{44}	high
$ta^{212} ko^{212}$	or
ta Ko	tail
taj ^{11?}	for (because)
taj ⁴⁴ haj ^{11?}	poisoned
tăk ¹²	to spoon up
$t \check{a} \check{k}^{12} t \varepsilon^{35}$	gecko
tak ⁴³	tongue
tam ²¹²	to light candle
tăm ²¹²	low
tăm ⁴⁴	heavy
tăm ⁴⁴	right (side)
tăm ⁴⁴ păt ⁴³	to boil
$t \tilde{a} m^{44}, c \varepsilon^{323}$	to shrink
tăn 357	ear
tăn ^{35?} lut ⁴³	deaf
tan ⁴⁴	to knit
taŋ ^{11?} ?ɔm ³²³	waterfall
tăŋ ³²³	to hit
tăp ¹²	to flap
tăp ⁴³	to beat (a drum)
tăp ⁴³ di ¹¹⁷	to fight/combat
tăp ⁴³ nan ⁴⁴	centipede
tap ⁴³ ŋaj ⁴⁴	eyelid
tăt ¹²	to tear
tăt ¹² la ⁴⁴	specie of bamboo
taw ^{31?}	God
to ^{31?}	to stab
$ton^{212} dxp^{43}$	lip
toŋ ^{35?}	section of field
teŋ ^{35?}	road (way)
teŋ ^{35?} juu ³²³	track
$t\epsilon^{317} ca^{323}$	why
$t\varepsilon^{317}$ ma ³²³	to cook
$t\varepsilon^{31?}$ po ^{35?}	dream/to dream
te ^{35?}	to work
tεk ⁴³	broken (glass)
tek ⁴³	to explode
tem ⁴⁴	to write
tx ⁴⁴	that (far from speaker and hearer)
thaj ⁴⁴	to plough
$t^h \check{a} j^{44} t \varepsilon^{317} hon^{323}$	to plough into lines
thăm ³²³	cave
t ^h ăm ⁴⁴	cliff (wall)
th ₃ 323	rabbit
thok ⁴³	to pour
t ^h om ²¹²	to search
thom ²¹² po ³¹⁷	to look for

Kháng	Gloss
thon ²¹²	to sink down (of water)
t ^h oη ⁴⁴ surγ ³²³	pocket
thxk12, kon323, pa323	male
thi ²¹²	stingy
$t^h u^{212}$	chopstick
$t^h u x^{212}$	bean
$t^{h}ux^{212} lok^{43}$	peanut
thuk ¹² ; ha ^{35?}	to rub
ti ³²³	location
ti ³²³	to fall
ti ⁴⁴	hand
$ti^{44} me^{212}$	thumb
$ti^{44} t\epsilon^{357} pok^{12}$	to drip
tix^{44}	land
tirk ⁴³	to lie
tixn ⁴⁴	betel
tim ⁴⁴	astringent
tin ^{35?} duxn ⁴⁴	stairs
$tin^{44} ha^{11?}$	cliff (in cave)
$tin^{44} hus^{11?}$	fence
tin ²¹²	to count
tm ²¹²	smoke
tw ⁴⁴	to howl/scream
tuk ⁴³	roundworm (in stomach)
tun ⁴⁴	to scratch off/strip
to ^{35?}	to speak
to ^{35?} 6aj ^{35?}	to talk/tell a story
toj ^{31?}	crime
tok ¹²	to rope
tok ¹²	to tie
tot ⁴³	to light
tu ³²³	tattered
tu ^{35?}	hole
tu ^{35?}	to eat/to feed
tu ⁴⁴ num ⁴⁴	throat
tux ⁴⁴	to spit out
tury ²¹²	big bracelet
tum ^{35?}	on/above
tun ⁴⁴	to burn
wa ²¹² jw ³²³	to step
waj ⁴⁴	rattan
wak ⁴³	earthworm
wăn ^{11?}	to twist
wan ⁴⁴ ?ɔm ³²³	whirlpool
we ⁴⁴	left (side)
wəŋ ⁴⁴	chin .
we ²¹²	to paint
wen ⁴⁴	to sell
wǐw ^{31?} năŋ ^{35?}	to insult

Kháng	Gloss
win ⁴⁴	wind
ja^{212}	internal grandmother
ja ⁴⁴	medicine
ja^{44} dok ⁴³	poison
jan ⁴⁴	light
jăŋ ^{11?}	to rest
jăŋ ³¹ k ^h ăj ³²³	rested
jăŋ ⁴⁴	snail
jăŋ ⁴⁴ jăn ⁴⁴	rainbow
jay ^{35?}	
jaw jo ⁴⁴	long I
] jo	
joj ¹¹⁷	to stream
jom ³²³	to hunt
jon ^{11?}	to borrow
$j\varepsilon^{212}$	cheap
$j\varepsilon^{212} \cot^{43}$	rag for cleaning
jen ⁴⁴	to stand
jixk ⁴³	excrement
jixk ⁴³ tăn ^{35?}	earlobe
jixk ⁴³ tăn ^{35?}	earwax
jixn ²¹²	eel
jixn ⁴⁴	chicken
jixn ⁴⁴ di ³⁵⁷	chick
jixn ⁴⁴ kon ⁴⁴	cock
$jivn^{44} me^{212}$	hen
jixŋ ²¹²	well
jin ⁴⁴	afternoon
jw ²¹²	far
ju^{323}	to go
jur ^{11?}	coconut
jurm ⁴⁴	easy
juŋ ⁴⁴	soft
?a ^{35?}	spicy
$a^{44} de^{317}$	final particle (contrasting opinion)
?ai ⁴⁴ ?xj ^{11?}	stink
?ăj ³²³	swollen
?aj ^{35?}	older brother
?aj ⁴⁴ 6u:t ⁴³	stale
Paj ⁴⁴ hom ⁴⁴	fragrant
?ăj ⁴⁴ mlaŋ ⁴⁴	fetid
?ăk¹²	to bite
₹ Păk ¹²	to chew (cow, buffalo)
?ăm ⁴⁴	clean
?ăm ⁴⁴	kind
?ăn ²¹² ?wn ⁴⁴	shy
Păn ⁴⁴	to hear
?ăn ⁴⁴ ca ³²³	what
?ăn ⁴⁴ căŋ ^{35?}	to hate
7 ăn ⁴⁴ c ε ¹¹⁷	ashamed

Kháng	Gloss
Păn ⁴⁴ huŋ ⁴⁴	jealous
Păn ⁴⁴ kăt ¹²	cold
?ăn ⁴⁴ măk ⁴³	to like
?ăn ⁴⁴ mɔm ³²³	sad
?ăn ⁴⁴ muxn ^{35?}	to be delighted
?ăn ⁴⁴ săn ³²³	urgent
?ăn ⁴⁴ to ²¹²	to miss
?ăn ⁴⁴ to ²¹²	to remember
?aŋ ⁴⁴ kaŋ ⁴⁴	to open mouth
?ăŋ ⁴⁴ mom ⁴⁴	grandparents
?at ⁴³	older brother-in-law
?ăw ³²³	hot
?ɔj ²¹²	bait/lure
?ວj ²¹² ŋăn ⁴⁴	to light (stove, fire)
?ɔj ⁴⁴	infant (human)
?ɔj ⁴⁴ kăn ⁴⁴	younger sister
?ວj ⁴⁴ kʰພາງ ⁴⁴	younger brother-in-law
?ⴢj ⁴⁴ kon ⁴⁴	younger brother
?ວj ⁴⁴ muxn ⁴⁴	younger sister-in-law
?∍k ⁴³	to exit
?om ³²³	water
75m ³²³ dom ³²³	mucus
75m ³²³ lat ⁴³	flood
?om ³²³ no ^{31?}	milk
?om ³²³ nom ³²³	urine
75m ³²³ ŋaj ⁴⁴	tear
70m ³²³ jurn ⁴⁴	saliva
7om ⁴⁴ pw ³²³	to keep
?om ⁴⁴ ?uxt ⁴³	blue
?on ⁴⁴	mother's younger sister
?on ⁴⁴ jw ³²³	to guide
?oŋ ³²³	external grandmother
?e ²¹² nom ³²³	to urinate
?e ²¹² jixk ⁴³	to excrete
?e ⁴⁴	this (distal)
?em ³²³	alive
?en ⁴⁴	to please
?ɛk ⁴³ ?ɛk ⁴³ di ³⁵⁷	pig
7ek ⁴³ kon ³²³	piglet
Pek 48 loj ⁴⁴	boar wild boar
7\varepsilon \text{10J} \\ 7\varepsilon \text{k}^{43} \text{me}^{212}	
7ep 12	sow learn
2x ²¹²	
$\frac{1}{2}$ χ^{212} , jo^{357}	final particle to make question yet
?rj ^{11?} sum ⁴⁴	to decay
3xj 112	rotten
?rj ^{11?} sum ⁴⁴	decomposed (become)
78k ¹²	chest

Kháng	Gloss	
?xn ⁴⁴	to wear	
?rp ⁴³ ŋăn ⁴⁴	charcoal	
$2ixw^{212}$	weak	
?ixw ²¹² , kem ²¹²	terrible	
?in ⁴⁴	ablaze	
?in ⁴⁴	cooked (already)	
?ur ²¹²	pumpkin	
?w ²¹²	thin	
?ur ⁴⁴	yes	
?uryj ³²³	older sister	
?wrt ⁴³	chilly	
?wn ⁴⁴	afraid	
?uɪŋ ⁴⁴	bone	
$\mu^{44} p^h k^{43}$	ribs	
?ադ ⁴⁴ pup ⁴³	backbone	
?wp ⁴³ ŋăn ⁴⁴	crib	
?o ²¹²	aunt	
?urj ²¹²	dirty	
?uxj ³²³	guava	
?urt ⁴³	green	
?um ³²³	to hug	
?um ⁴⁴	to leave	
?um ⁴⁴	to return	
?un ⁴⁴	dress	
?uŋ ²¹²	gun	
?uŋ ²¹²	to shut mouth	
?uŋ ⁴⁴	to come/arrive	

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