

## Proto-Karen (\*k-rjaŋ<sup>A</sup>) Fauna

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### Abstract

A wordlist consisting of 2,000 items with English and Thai glosses divided into 21 sections based on semantic fields was devised. The data on the six Karenic languages spoken in Thailand, i.e. Pa-O (two varieties), Kayan, Kayah, Kayaw, Pwo (two varieties) and Sgaw (two varieties) was collected by the author at many research sites in Thailand from January 2009 – January 2012. They represent Northern, Central and Southern Karen languages. The cognate words found in the Bwe Karen Dictionary (Henderson, 1997) were added. To analyse the patterns of sound correspondence, the comparative method was applied with an awareness of areal linguistic features due to language contact. A Proto-Karen (\*k-rjaŋ<sup>A</sup>) phonology and lexicon were reconstructed. With regard to the Proto-Karen phonology, the relationship between the onsets and tones is quite straightforward, so it is not difficult to reconstruct, unlike the rhymes which, in some cases, are problematical resulting from vowel harmony and the loss of final consonants. The 73 reconstructed forms of Proto-Karen animals are presented and the Proto-Karen tones, onsets and rhymes are provided in the Appendix.

### Introduction

The Karenic languages are spoken in Myanmar and Thailand. There are eighteen different groups of Karen in Myanmar: Pa-O, Lahta, Kayan, Bwe, Geko, Geba, Brek, Western Kayah, Eastern Kayah, Yinbaw, Yintale, Manumanaw, Paku, Sgaw, Wewaw, Zayein, Eastern Pwo and Western Pwo (Ethnologue: 16<sup>th</sup> Edition, 2009, SIL International). In Thailand, only six groups are known of: Pa-O, Kayan, Kayah, Kayaw, Sgaw and Pwo. Among Burmese refugees and labourers, there may also be other groups. The total population of Karen is still debatable due to the lack of good official records; however, 4.5 million seems to be a reasonable estimation.

With regard to the reconstruction of a Proto-Karen phonology and lexicon, there have been a few attempts: Haudricourt, 1946 and 1953; Jones, 1961; Burling, 1969; Solnit, 2001; Manson, 2009). A literature review of the previous works on Karen comparative and historical linguistics can be found in Manson (2009). The classifications of Karen have been done by Jones (1961), Burling (1969), Kauffman (1993), Bradley (1997), Manson (2001) and Shintani (2003). Detailed information on the external and internal classifications of the Karenic languages can also be found in Manson (2009 and 2011). Among these classifications, I have adopted Kauffman's because of its geographical base which quite well suits the starting point of my present research work. Even though Proto-Karen was reconstructed earlier by a few linguists and more data on many Karenic languages is available at present, I still feel that I should start from zero. An attempt to do a comparative study using fresh data solely collected by one experienced field linguist may be able to help obtain a better solution since the data is equal in quality and, thus, compatible.

### Data

Funded by the Thailand Research Fund (TRF), the data on the six Karenic languages spoken in Thailand was collected at many research sites in Thailand from January 2009 – January 2012 with a devised wordlist of 2,000 items. The English and Thai glosses were divided into twenty-one sections based on semantic fields: action verbs, stative verbs, bodyparts and body secretions, health and disease, fauna, parts of plants, flora, natural objects and phenomenon, manmade objects and construction, food stuffs, culture and society, kinship terms, numerals, classifiers, measurements, colour terms, time, direction and location, pronouns, question words and miscellaneous. My personal corpus used for the reconstruction of a Proto-Karen phonology and lexicon consists of Northern Karen: two varieties of Pa-O; Central Karen: Kayan, Eastern Kayah, Kayaw; Southern Karen: two varieties of Sgaw and two varieties of Pwo. Clear cognates were selected for diachronic comparison. The cognate words found in the Bwe Karen Dictionary (Henderson, 1997) were added; therefore, altogether there are four Central Karen languages, i.e. Kayan, E. Kayah, Bwe (Blimaw) and Kayaw. The comparative method was applied with an awareness of language contact and areal linguistic features when analysing the patterns of sound correspondence.

With regard to the Proto-Karen (PK) phonology, the relationship between the onsets and tones is quite straightforward. Proto-Karen has three categories of initial consonants: Class-one consonants (voiceless aspirated stops, voiceless nasals, approximants and fricatives), Class-two consonants (voiceless unaspirated stops, preglottalised voiced stops or implosives, preglottalised nasals and approximants) and Class-three consonants (plain voiced stops, nasals and approximants). See the reconstructed PK three tones (\*A \*B \*D) and onsets (\*C- \*CC-) in Figure 1 and Table 1, respectively, in the Appendix. The reconstruction of PK rhymes is more problematical resulting from vowel harmony and the loss of final consonants. The examples of the PK rhymes can be found in Table 2 of the Appendix. I have never had the opportunity of reading Haudricourt's original papers on comparative Karen written in French (Haudricourt 1946, 1953 and 1961), however, from the secondary sources, e.g. Matisoff's additional notes in Sino-Tibetan: A conspectus (Benedict, 1972), Luce (1959), Henderson (1979), Court (1972) and so on, I do appreciate Haudricourt's work on Proto-Karen the most.

### \*k-rjaŋ<sup>A</sup> 'Karen'

Based on the autonames ka'jaŋ<sup>53</sup> (Kayan), ke<sup>11</sup>je<sup>11</sup> (E. Kayah), ko<sup>33</sup>jo<sup>33</sup> (Kayaw), (pɣa<sup>33</sup>) ka 'jo<sup>33</sup> (Sgaw) and names known among Thai people, i.e. Kariang, Karang (Central Thai) and Yang (Northern Thai), the protoform \*k-rjaŋ<sup>A</sup> was reconstructed. This etymon has regular sound changes like the other etyma with the \*-aŋ rhyme; for example,

Ex.1 PK: \*ʔbaŋ<sup>B</sup> 'bamboo shoot'

Pa-O: baŋ<sup>55</sup> B2 (N.), baŋ<sup>33</sup> B2 (S.)

Kayan: baŋ<sup>11</sup> B

Kayah: be<sup>11</sup> B

Bwe: ba<sup>33</sup> B

Kayaw: bo<sup>11</sup> B

Ex.2 PK: \*laŋ<sup>A</sup> 'to descend'

Pa-O: laŋ<sup>33</sup> A3 (N.), laŋ<sup>53</sup> A3 (S.)

Kayan: laŋ<sup>33</sup> A3

Kayah: le<sup>11</sup> A3

Bwe: la<sup>33</sup> A3

Kayaw: lo<sup>33</sup> A3

Sgaw: bɔ<sup>31</sup> B2 (N.), bɔ<sup>45</sup> B2 (S.)  
 Pwo: bɛ<sup>33</sup> B2 (N.), bɔ̄<sup>55</sup> B2 (S.)

Sgaw: lɔ<sup>33</sup> A3 (N.), lɔ<sup>33</sup> A3 (S.)  
 Pwo: lɛ<sup>55</sup> A3 (N.), lɔ̄<sup>31</sup> A3 (S.)

Ex.3 PK: \*khaŋ<sup>B</sup> 'foot, leg'  
 Pa-O: khaŋ<sup>55</sup> B1 (N.), khaŋ<sup>33</sup> B1 (S.)  
 Kayan: haŋ<sup>11</sup> B  
 Kayah: khe<sup>11</sup> B  
 Bwe: kha<sup>33</sup> B  
 Kayaw: khɔ̄<sup>11</sup> B  
 Sgaw: khɔ̄<sup>31</sup> B1 (N.), khɔ̄<sup>45</sup> B1 (S.)  
 Pwo: khɛ<sup>33</sup> B1 (N.), khɔ̄<sup>55</sup> B1 (S.)

Ex.4 PK: \*thaŋ<sup>B</sup> 'to ascend'  
 Pa-O: thaŋ<sup>55</sup> B1 (N.), thaŋ<sup>33</sup> B1 (S.)  
 Kayan: thaŋ<sup>11</sup> B  
 Kayah: the<sup>11</sup> B  
 Bwe: tha<sup>33</sup> B  
 Kayaw: hɔ̄<sup>11</sup> B  
 Sgaw: thɔ̄<sup>31</sup> B1 (N.), thɔ̄<sup>45</sup> B1 (S.)  
 Pwo: thɛ<sup>33</sup> B1 (N.), thɔ̄<sup>55</sup> B1 (S.)

### Tonal development

How many tones should be reconstructed, two, three, four or six? There are different opinions, as follows:

Haudricourt (1972): two tones ( A B )

Jones (1961): two tones ( ' ' )

Burling (1969): six tones ( 1 2 3 4 1' 2' )

Shintani (2003): four tones ( 1 2 2' 3 )

Manson (2009): four tones (\*A \*B \*B' \*C)

To support my view that three tones, namely \*A \*B \*D, should be reconstructed, the tone systems of Modern Karenic languages and their development will be discussed. Both of the Pa-O varieties have four tones in the smooth syllable and two tones in the checked syllable: 31<sup>~</sup> (A12), 33 (A3), 55 (B12), 53 (B3) and 21 (D12), 45 (D3) in Northern or Highland Pa-O; and 31<sup>~</sup> (A12), 53 (A3), 33 (B12), 55 (B3), 21 (D12) and 45 (D3) in Southern or Lowland Pa-O. This means that each of the proto-tones (\*A \*B \*D) has split into two tones, i.e. \*A > A12-3 or A1-23 \*B > B12-3 and \*D > D12-3 as shown in Figure 1 of the Appendix.

With regard to Central Karen, synchronically, Kayan and E. Kayah have four tones in the non-checked syllable and two tones in the checked one like Pa-O. However, the patterns of tone split and merger differ. It is also noticeable that the mid-falling tone in Kayan and E. Kayah rarely occurs and when it does, more often than not, the words turn out to be Burmese or Shan loanwords. Among the cognates, this tone has not been found. Perhaps, the mid-falling is a new-born tone in Kayan and E. Kayah. In Kayan, E. Kayah, Bwe and Kayaw, the \*A tone has split into two tones, i.e. A12-3, and there is no split in the \*B tone column. The \*D tone in Kayan, E. Kayah and Bwe has split into \*D12-3 while there is no split in the \*D tone column in Kayaw. There is a merger between \*A3 and \*B in E. Kayah and Bwe. In Bwe, interestingly, there is also a merger between \*B and \*D12, more details can be found in Figure 1. While working with my E. Kayah and Kayaw language consultants at Huai Sueda Thao village in Mae Hong Son province, I noticed that their low tones always occurred with a

breathily-voiced phonation and that, in the stressed position, the CV syllable always became CV?, or in other words, the -? disappeared in the unstressed position no matter what tone that syllable had.

As for Sgaw, I worked on many varieties of the N. Sgaw especially those spoken in the provinces of Chiangrai, Chiangmai, Lamphun and Mae Hong Son. The varieties of S. Sgaw are the ones spoken in the provinces of Petchaburi and Prachuap Khiri Khan. Since the Sgaw Karen in these areas have lived together with the Pwo Karen (Phlong, Phlou), language contact cannot be avoided. Resulting from this fact, the Pa La-U Sgaw has four tones: 55<sup>~</sup> (A12), 33 (A3), 45<sup>~</sup> (B12), 31 (B3), 21 (D12) and 11<sup>~</sup> (D3), see Sgaw (type 4) in Figure 1. Based on my fieldnotes, four patterns of tonal development have been found: *type 1*, no split in the \*A and \*B columns while \*D > D12-3; *type 2*, no split in the \*A column while \*B > B12-3 and \*D > D12-3; *type 3*: \*A > A12-3 and \*D > D12-3 while no split in the \*B column; and *type 4*: there is a split in every column, i.e. \*A > A12-3, \*B > B12-3 and \*D > D12-3. See the illustration of the patterns of tone split and merger in Figure 1.

Like Pa-O, all Pwo varieties have four tones with an unusual split in the \*A column, i.e. \*A > A1-23 while the split patterns in the \*B and \*D columns are typical, i.e. \*B > B12-3 and \*D > D12-3. In figure 1, Pwo (1) is Northern Pwo while Pwo (2) is Southern Pwo or Western Pwo (Phillips, 2002). The Pwo (2) varieties are mostly spoken in the western areas of Central Thailand, especially in the provinces of Kanchanaburi, Uthai Thani, Ratchaburi, Petchaburi and Prachuap Khirikhan. In the \*D tone columns of Pwo (1) and Pwo (2), there is a tonal flip-flop: \*D > D12 (high) – 3 (low) in Pwo (1) but \*D > D12 (low) – 3 (high) in Pwo (2), as shown in Figure 1.

### Fauna

Even though many protoforms in the twenty-one semantic fields (see details in the introductory part) were reconstructed, only the 73 etyma related to fauna or animals are presented in this paper. They are arranged in an alphabetical order A-Z started with the English gloss no. 1 'ant' and ending with no. 73 'weevil'. For each etymon, following the English gloss, is the reconstructed protoform. In some cases, the protoforms of TB cognates drawn from Benedict (1972) or Matisoff (2003) are also given. Additional information is provided under *Note*.

#### 1. ANT \*dɛŋ<sup>B</sup>

Pa-O: thɛŋ<sup>53</sup> (N.), tɛŋ<sup>55</sup> (S.)  
 Kayan: tɛ<sup>11</sup>  
 Kayah: tɔ<sup>11</sup>  
 Bwe: dɔ<sup>33</sup>  
 Kayaw: tɛ<sup>11</sup>  
 Sgaw: tɛ<sup>11</sup> (N.), tɛ<sup>31</sup> (S.)  
 Pwo: thɛ<sup>11</sup> (N.), thɛ<sup>33</sup> (S.)

*Note:* The plain voiced \*d- was reconstructed because of the onset d- in Western Bwe (Blimaw, Geba) which has /d/ vs /d/ (Henderson, 1997). It is also noticeable that PK \*ʔd- or \*d- is always d- in Modern Karen (see no. 30 'frog'), while \*d- has become t- or th-.

Sgaw (type 1)

	*A	*B	*D
1	33	11''	45
2	33	11''	45
3	33	11''	21

Sgaw (type 2)

	*A	*B	*D
1	33	31''/21'	45
2	33	31''/21'	45
3	33	11	21'/53

Sgaw (type 3)

	*A	*B	*D
1	55	11''	45
2	55	11''	45
3	33	11''	21

Sgaw (type 4)

	*A	*B	*D
1	55	45'	21
2	55	45'	21
3	33	31	11''

Pwo (1)

	*A	*B	*D
1	35	33	45
2	55	33	45
3	55	11''	21

Pwo (2)

	*A	*B	*D
1	31/53	55	21
2	11''/31''	55	21
3	11''/31''	33	45

Figure 1 Development of Sgaw and Pwo tones

2. BAMBOO RAT \*(jow<sup>B</sup>) khan<sup>A</sup>

- Pa-O: (ju<sup>53</sup>) khan<sup>31</sup> (N.), - (S.)  
 Kayan: (ju<sup>11</sup>) khaŋ<sup>53</sup>  
 Kayah: -  
 Bwe: khe<sup>55</sup>  
 Kayaw: (ju<sup>11</sup>) kho<sup>55</sup>  
 Sgaw: kho<sup>33</sup> (N.), kho<sup>55</sup> (S.)  
 Pwo: khē<sup>35</sup> (N.), khō<sup>53</sup> (S.)

Note: The Karen regard this rodent as a kind of rat or mouse (\*jow<sup>B</sup>, see no. 47) as can be seen in Pa-O, Kayan and Kayaw. See also no.43 'mole'.

3. BAT \*pla<sup>A</sup>, \*p/bla<sup>B</sup>

- Pa-O: pla<sup>31</sup> (N., S.)

- Kayan: bla<sup>11</sup>  
 Kayah: ple<sup>11</sup>, ple<sup>31</sup>  
 Bwe: ple<sup>11</sup>  
 Kayaw: pla<sup>11</sup>  
 Sgaw: bla<sup>33</sup> (N.), bla<sup>55</sup> (S.)  
 Pwo: phla<sup>33</sup> (N.), phla<sup>55</sup> (S.)

Note: Pa-O and Sgaw have tone A while Kayan, Kayah, Kayaw and Pwo have tone B. In this etymon, the PK cluster \*pl- has become bl- in Kayan and Sgaw but phl- in Pwo. The low tone (11) in Bwe suggests \*D. The initials and tones of the word 'bat' in Modern Karen seem irregular. I suspect that its cause is language contact.

4. BEAR \*tham<sup>A</sup>

- Pa-O: tham<sup>31</sup> (N., S.)  
 Kayan: thaŋ<sup>53</sup>  
 Kayah: the<sup>33</sup>  
 Bwe: the<sup>55</sup>  
 Kayaw: tho<sup>55</sup>  
 Sgaw: - (N., S.)  
 Pwo: (phī<sup>11</sup>) thō<sup>35</sup> (N.), (phōu<sup>53</sup>) thō<sup>53</sup> (S.)

Note: This etymon has been lost in all of the Sgaw varieties. It was replaced by the word ta<sup>33</sup> su<sup>33</sup> or ta<sup>33</sup> θu<sup>55</sup> which can be a euphemism for 'bear'. There are curses in Sgaw, for example, "ta<sup>33</sup> su<sup>33</sup> wa<sup>245</sup> phyi<sup>33</sup> nā<sup>745</sup> mē<sup>745</sup> sa<sup>11</sup>", meaning '(I wish) a bear hits your face with its paws'. The generic term for 'bear' maybe regarded as a taboo word.

5. BEDBUG \*jram<sup>A</sup>

- Pa-O: sam<sup>33</sup> (N.), sam<sup>53</sup> ~ saŋ<sup>53</sup> (S.)  
 Kayan: caŋ<sup>33</sup>  
 Kayah: khre<sup>11</sup>  
 Bwe: -  
 Kayaw: cō<sup>33</sup>  
 Sgaw: xō<sup>33</sup> (N.), xō<sup>33</sup> (S.)  
 Pwo: - (N., S.)

Note: This etymon was replaced by phā<sup>53</sup> (S. Pwo) and phā<sup>35</sup> (N. Pwo).

6. BEE (Apis cerana) \*k(h)wat<sup>D</sup>

- Pa-O: wat<sup>21</sup> (N.), wa<sup>21</sup> (S.)  
 Kayan: hwe<sup>745</sup>  
 Kayah: we<sup>55</sup>

Bwe: we<sup>33</sup>  
 Kayaw: hwe<sup>33</sup> ~ khwe<sup>33</sup>  
 Sgaw: kwe<sup>745</sup>, kwe<sup>55</sup> (N.), kwe<sup>55</sup> (S.)  
 Pwo: kwe<sup>55</sup> (N.), kwe<sup>31</sup> (S.)

*Note:* Pwo, S.Sgaw and some varieties of N.Sgaw have a smooth syllable with tone A instead of a checked syllable with tone D.

7. BEE (Apis dorsata) \*k-hne<sup>A</sup>

Pa-O: ne<sup>31</sup> (N., S.)  
 Kayan: nai<sup>53</sup>  
 Kayah: ni<sup>33</sup>  
 Bwe: gə-ni<sup>33</sup>  
 Kayaw: ni<sup>55</sup>  
 Sgaw: kə<sup>11</sup> ne<sup>33</sup>, kə<sup>11</sup> ne<sup>55</sup> (N.), ne<sup>55</sup> (S.)  
 Pwo: ni<sup>35</sup> (N.), ni<sup>53</sup> (S.)

8. BIRD \*tho<sup>B</sup>

Pa-O: - (N.), - (S.)  
 Kayan: thau<sup>11</sup>  
 Kayah: thu<sup>11</sup>  
 Bwe: tho<sup>33</sup>  
 Kayaw: thu<sup>11</sup>  
 Sgaw: tho<sup>31</sup>, tho<sup>11</sup> (N.), thu<sup>45'</sup> (S.)  
 Pwo: thu<sup>33</sup> (N.), thu<sup>55</sup> (S.)

*Note:* In Pa-O, it is wa<sup>53</sup> (N.) or wa<sup>55</sup> (S.). This can be regarded as a retention from TB \*wa (PB, JM) since the Pa-O branched out earlier than the rest of the Karenic peoples. It can also be interpreted as a loanword from the other TB language.

9. BOAR (wild ~) \*tho<sup>2D</sup> mi<sup>A</sup>

Pa-O: tho<sup>721</sup> mi<sup>33</sup> (N.), tho<sup>721</sup> mi<sup>53</sup> (S.)  
 Kayan: thau<sup>745</sup> mi<sup>33</sup>  
 Kayah: the<sup>55</sup> mi<sup>11</sup>  
 Bwe: -  
 Kayaw: tho<sup>33</sup> mi<sup>33</sup>  
 Sgaw: tho<sup>745</sup> mi<sup>33</sup> (N.), tho<sup>721</sup> mi<sup>33</sup> (S.)  
 Pwo: tho<sup>745</sup> mei<sup>55</sup> (N.), thu<sup>721</sup> mei<sup>31</sup>, thu<sup>721</sup> mei<sup>11</sup> (S.)

*Note:* See also no.53 'pig'.

10. BUFFALO (water ~) \*b-na<sup>B</sup>

Pa-O: pa<sup>721</sup> na<sup>53</sup> (N.), pa<sup>721</sup> na<sup>55</sup> (S.)  
 Kayan: bu<sup>745</sup> na<sup>11</sup>  
 Kayah: pe<sup>55</sup> ne<sup>11</sup>  
 Bwe: bə<sup>33</sup> ne<sup>33</sup>  
 Kayaw: pa<sup>33</sup> na<sup>11</sup>  
 Sgaw: pə<sup>33</sup> na<sup>11</sup>, pa<sup>721</sup> na<sup>11</sup>, pə<sup>745</sup> na<sup>11</sup> (N.), pə<sup>11</sup> na<sup>31</sup> (S.)  
 Pwo: pa<sup>721</sup> ne<sup>11</sup> (N.), pə<sup>721</sup> na<sup>33</sup> (S.)

*Note:* The reconstructed form \*bo<sup>B</sup> na<sup>B</sup> is also possible because \*bo<sup>B</sup> was reconstructed for 'ox' (see no. 48). The meaning of \*bo<sup>B</sup> could be 'bovine' or 'cattle'.

11. CATERPILLAR \*si<sup>2</sup> ~ (?)

Pa-O: se<sup>721</sup> (N.), si<sup>721</sup> (S.)  
 Kayan: θi<sup>745</sup>  
 Kayah: si<sup>55</sup>  
 Bwe: θa<sup>33</sup> (?)  
 Kayaw: si<sup>33</sup>  
 Sgaw: si<sup>745</sup>, si<sup>745</sup> (N.), sai<sup>721</sup> (S.)  
 Pwo: si<sup>35</sup> (N.), θei<sup>33</sup>, θei<sup>721</sup> (S.)

*Note:* N.Pwo and some varieties of S.Pwo have tone A1 instead of D1. There is also an irregular vowel correspondence.

12. CATFISH \*~ku<sup>A</sup>, \*~ku<sup>B</sup>

Pa-O: khu<sup>31</sup> (N., S.)  
 Kayan: ku<sup>53</sup>  
 Kayah: ku<sup>11</sup>  
 Bwe: -  
 Kayaw: ku<sup>11</sup>  
 Sgaw: - (N.), ku<sup>45'</sup> (S.)  
 Pwo: - (N.), ku<sup>55</sup> (S.)

*Note:* Pa-O and Kayan have tone A while Kayah, Kayaw, S.Sgaw and S.Pwo have tone B.

13. CENTIPEDE \*ʔda-ʔbaŋ<sup>A</sup>

Pa-O: ta<sup>745</sup> baŋ<sup>31</sup> (N., S.)  
 Kayan: ta<sup>11</sup> baŋ<sup>53</sup>  
 Kayah: -  
 Bwe: -  
 Kayaw: -

Sgaw: da<sup>245</sup> bɔ<sup>33</sup>, da<sup>245</sup> bɔ<sup>55</sup> (N.), da<sup>11</sup> bɔ<sup>55</sup> (S.)

Pwo: - (N.), da<sup>245</sup> bɔ<sup>31</sup>, da<sup>245</sup> bɔ<sup>11</sup> (S.)

Note: \*ʔban<sup>A</sup> means 'yellow'.

#### 14. CHAMELEON, LIZARD \*khwi<sup>B</sup>

Pa-O: kwi<sup>55</sup> (N.) kwi<sup>33</sup> (S.)

Kayan: khwi<sup>11</sup>

Kayah: khwi<sup>11</sup>

Bwe: khwi<sup>33</sup>

Kayaw: khi<sup>11</sup>

Sgaw: khwi<sup>31</sup>, khwi<sup>11</sup> (N.), khwi<sup>45</sup> (S.)

Pwo: khwi<sup>33</sup> (N.), khwi<sup>55</sup> (S.)

Note: See also no.44 and no.45 'monitor lizard'.

#### 15. CHICKEN \*chjaX<sup>A</sup>, \*chjaN<sup>A</sup>

Pa-O: ɕja<sup>31</sup> (N., S.)

Kayan: ɕi<sup>53</sup>

Kayah: cha<sup>33</sup>

Bwe: ʃi<sup>55</sup>

Kayaw: ɕi<sup>55</sup>

Sgaw: chɔ<sup>33</sup>, chɔ<sup>55</sup> (N.), chɔ<sup>55</sup> (S.)

Pwo: chɛ<sup>35</sup> (N.), chɔ<sup>53</sup> (S.)

Note: The final of this etymon cannot be reconstructed. The dummy \*-X became \*-N and then nasalised vowels in Pwo but was lost in the other Karenic languages. The pattern of vowel correspondence is rather unusual. If PK had the \*-aN rhyme, the normal correspondence would be -aN (Pa-O, Kayan), -e (Kayah), -ɛ (Bwe), -ɔ (Kayaw, Sgaw), -ɛ̃ (N.Pwo) and -ɔ̃ (S.Pwo) as in no.2, no.4 and no.5. The second element of the initial cluster (\*-j-) could also be the cause of vowel irregularity in this etymon. \*chjaN<sup>A</sup> could be another solution, i.e. it is a loanword from Proto-Monic \*tyaan (> \*chyaan in Proto-Nyah Kur) and > \*cajn in Proto-Mon) as reconstructed by Diffloth (1984).

#### 16. CICADA \*ɲjaj<sup>A</sup>

Pa-O: ɲja<sup>33</sup> (N.), - (S.)

Kayan: ji<sup>33</sup>

Kayah: ja<sup>11</sup>

Bwe: -

Kayaw: -

Sgaw: je<sup>33</sup>, ze<sup>33</sup> (N.), - (S.)

Pwo: jai<sup>55</sup> (N.), jai<sup>31</sup>, jai<sup>11</sup> (S.)

Note: In some N. Sgaw varieties, \*j- has become z-. The voiced palatal fricative [j] is, in fact, a variant of the onset j- in Karenic languages.

#### 17. CIVET CAT \*thu<sup>B</sup>

Pa-O: - (N.), - (S.)

Kayan: thu<sup>11</sup> (mi<sup>33</sup>)

Kayah: -

Bwe: thu<sup>33</sup>

Kayaw: thu<sup>11</sup> (mi<sup>33</sup>)

Sgaw: - (N.), - (S.)

Pwo: - (N.), thu<sup>55</sup> (thɔ<sup>11</sup>)

Note: Sgaw people call 'civet cat' thɔ<sup>245</sup> se<sup>31</sup> or thɔ<sup>245</sup> se<sup>11</sup> 'tree pig' (N.) or thɔ<sup>245</sup> tu<sup>33</sup> pə<sup>11</sup> ʔi<sup>55</sup> 'sticky-rice pig' (S.).

#### 18. CRAB \*chwe<sup>B</sup>

Pa-O: chwe<sup>55</sup> (N.), chwe<sup>33</sup> (S.)

Kayan: chwe<sup>11</sup>

Kayah: chwa<sup>11</sup>

Bwe: ʃwe<sup>33</sup>

Kayaw: che<sup>11</sup>

Sgaw: chwe<sup>31</sup>, chwe<sup>11</sup> (N.), chwe<sup>45</sup> (S.)

Pwo: chwe<sup>33</sup> (N.), chwe<sup>55</sup> (S.)

#### 19. CRICKET \*s-ki<sup>A</sup>

Pa-O: ki<sup>53</sup> (N.), ki<sup>31</sup> (S.)

Kayan: -

Kayah: ki<sup>33</sup>

Bwe: -

Kayaw: de<sup>11</sup> ki<sup>55</sup>

Sgaw: sə<sup>11</sup> ki<sup>33</sup>, θa<sup>21</sup> ki<sup>33</sup>, sə<sup>21</sup> ki<sup>33</sup> (N.), tə<sup>11</sup> ki<sup>55</sup> (S.)

Pwo: - (N., S.)

Note: N.Pa-O has tone A3 while the rest have tone A2. It is kha<sup>21</sup> rai<sup>245</sup> in S. Pwo which is not cognate.

#### 20. CROCODILE \*s-hma<sup>B</sup>, \*s-ʔma<sup>B</sup>

Pa-O: - (N.), - (S.)

Kayan: -

Kayah: -

Bwe: θə<sup>33</sup> mɛ<sup>33</sup>  
 Kayaw: ma<sup>11</sup>  
 Sgaw: sə<sup>33</sup> ma<sup>31~</sup>, θa<sup>33</sup> ma<sup>11</sup>, sə<sup>55</sup> ma<sup>11</sup>, sə<sup>745</sup> ma<sup>11</sup> (N.), ma<sup>45'</sup> (S.)  
 Pwo: ma<sup>33</sup> (N.), ma<sup>55</sup> (S.)

21. DEER (barking ~) \*d-khej<sup>A</sup> (TB \*d-key, \*d-kəy)

Pa-O: khi<sup>31</sup> (N., S.)  
 Kayan: khi<sup>53</sup>  
 Kayah: khə<sup>33</sup>  
 Bwe: do<sup>11</sup> khi<sup>55</sup>  
 Kayaw: khi<sup>55</sup>  
 Sgaw: - (N.), - (S.)  
 Pwo: - (N.), khi<sup>53</sup> b<sup>531</sup>, khi<sup>53</sup> b<sup>511</sup> (S.)

Note: In Sgaw, the etymon \*d-khej<sup>A</sup> had been lost and was replaced by the word ta<sup>33</sup>ho<sup>33</sup>, ta<sup>33</sup>ho<sup>55</sup> (N. Sgaw).

22. DEER (sambha ~) \*t-khro<sup>2D</sup>, \*t-gro<sup>A</sup> (TB \*d-yuk)

Pa-O: khjo<sup>721</sup> (N.), kjo<sup>721</sup> (S.)  
 Kayan: khjo<sup>745</sup>  
 Kayah: khro<sup>55</sup>  
 Bwe: kho<sup>33</sup>  
 Kayaw: khə<sup>33</sup>  
 Sgaw: ta<sup>33</sup> xo<sup>33</sup> (N.), tho<sup>55</sup> xo<sup>33</sup> (S.)  
 Pwo: ta<sup>33</sup> xo<sup>55</sup> (N.), chə<sup>33</sup> xo<sup>31</sup>, chə<sup>33</sup> xo<sup>11</sup> (S.)

Note: Northern and Central Karen have tone D (D12) while Southern Karen (Sgaw, Pwo) has tone A (A3) which suggests a voiced initial.

23. DOG \*thwi<sup>B</sup> (TB \*kwəy, \*kwiy)

Pa-O: thwi<sup>55</sup> (N.), thwi<sup>33</sup> (S.)  
 Kayan: thwi<sup>11</sup>  
 Kayah: thwi<sup>11</sup>  
 Bwe: thwi<sup>33</sup>  
 Kayaw: thi<sup>11</sup>  
 Sgaw: thwi<sup>31~</sup>, thwi<sup>11</sup>, chwi<sup>31~</sup>, chwi<sup>11</sup> (N.), thwi<sup>45'</sup> (S.)  
 Pwo: thwi<sup>33</sup> (N.), thwi<sup>55</sup> (S.)

24. DOVE \*(tho<sup>B</sup>) lwi<sup>B</sup>

Pa-O: (wa<sup>53</sup>) lwi<sup>53</sup> (N.), (wa<sup>55</sup>) lwi<sup>55</sup> (S.)  
 Kayan: thau<sup>11</sup> lwi<sup>11</sup>

Kayah: thu<sup>11</sup> lwi<sup>11</sup>

Bwe: tho<sup>33</sup> lwi<sup>33</sup>

Kayaw: thu<sup>11</sup> li<sup>11</sup>

Sgaw: tho<sup>31~</sup> lwi<sup>11</sup>, tho<sup>11</sup> lwi<sup>11</sup> (N.), thu<sup>45'</sup> lwi<sup>31</sup> (S.)

Pwo: thu<sup>33</sup> lei<sup>11</sup> (N.), thu<sup>55</sup> lwi<sup>33</sup> (S.)

25. EARTHWORM \*k-lje<sup>2D</sup>

Pa-O: je<sup>745</sup> (N., S.)

Kayan: je<sup>721</sup> (~ ca<sup>721</sup> kro<sup>53</sup>)

Kayah: ja<sup>33</sup> (~ khro<sup>33</sup>)

Bwe: -

Kayaw: je<sup>33</sup> (tha<sup>55</sup> ~)

Sgaw: kə<sup>33</sup> le<sup>721</sup> (thə<sup>745</sup> ~) (N.), kə<sup>11</sup> le<sup>11</sup> (tho<sup>721</sup> ~) (S.)

Pwo: ka<sup>721</sup> le<sup>721</sup> (chē<sup>35</sup> ~) (N.), kə<sup>11</sup> le<sup>745</sup> (ch<sup>53</sup> ~) (S.)

Note: The first parts of the compounds in Sgaw and Pwo, i.e. tho<sup>745</sup> or tho<sup>721</sup>; chē<sup>35</sup> or ch<sup>53</sup> mean 'pig' and 'chicken', respectively.

26. ELEPHANT \*k-chaŋ<sup>A</sup> (TB \*tshaŋ, \*tsaŋ)

Pa-O: chaŋ<sup>31</sup> (N., S.)

Kayan: chaŋ<sup>53</sup>

Kayah: che<sup>33</sup>

Bwe: gə-ja<sup>55</sup>

Kayaw: rə<sup>11</sup> chə<sup>55</sup>

Sgaw: kə<sup>11</sup> chə<sup>33</sup>, kə<sup>11</sup> chə<sup>55</sup> (N.), kə<sup>11</sup> chə<sup>55</sup> (S.)

Pwo: ka<sup>11</sup> chē<sup>35</sup> (N.), kə<sup>11</sup> chə<sup>53</sup> (S.)

Note: This etymon is an Austroasiatic loanword. The etyma meaning 'elephant' were reconstructed as \*ksaŋ in Proto-Waic (Diffloth, 1980) and \*ciŋ in Proto-Monic (Diffloth, 1984).

27. FISH \*da<sup>2D</sup>

Pa-O: tha<sup>745</sup> (N.), ta<sup>745</sup> (S.)

Kayan: ta<sup>721</sup>

Kayah: te<sup>33</sup>

Bwe: da<sup>11</sup> (-pho<sup>33</sup>)

Kayaw: tə<sup>33</sup>

Sgaw: -

Pwo: -

Note: This etymon has been kept in Northern and Central Karen but has been lost in Southern

Karen. A shared innovation in Sgaw and Pwo for 'fish' is 'meat (animal) -offspring', i.e. ja<sup>31-</sup>pho<sup>33</sup>, ja<sup>11</sup>pho<sup>33</sup> (N. Sgaw), ja<sup>45</sup>phu<sup>55</sup> (S. Sgaw); ja<sup>33</sup>phu<sup>33</sup> (N. Pwo), ja<sup>55</sup>phu<sup>55</sup> (S. Pwo).

**28.FLEA \*kli<sup>A</sup>, \*kli<sup>D</sup> (TB \*s-liy, \*s-ləy)**

Pa-O: khli<sup>31</sup> (N.), - (S.)  
Kayah: khli<sup>245</sup>  
Kayah: kla<sup>55</sup>  
Bwe: kle<sup>33</sup>  
Kayaw: kle<sup>33</sup>  
Sgaw: kli<sup>55</sup> (N., S.)  
Pwo: khli<sup>35</sup> (N.), khli<sup>53</sup> (S.)

Note: The tones of Northern Karen (Pa-O) and Southern Karen (Sgaw, Pwo) suggest PK \*A while the ones of Central Karen (Kayah, Kayaw, Bwe, Kayaw) suggest PK \*D.

**29.FOX, WOLF \*thwi<sup>B</sup> mi<sup>A</sup>**

Pa-O: thwi<sup>55</sup> mi<sup>33</sup> (N.), thwi<sup>33</sup> mi<sup>53</sup> (S.)  
Kayah: thwi<sup>11</sup> mi<sup>33</sup>  
Kayah: thwi<sup>11</sup> mi<sup>11</sup>  
Bwe: -  
Kayaw: thi<sup>11</sup> mi<sup>33</sup>  
Sgaw: thi<sup>31-</sup> mi<sup>33</sup>, chwi<sup>11</sup> mi<sup>33</sup> (N.), thwi<sup>45</sup> mi<sup>33</sup> (S.)  
Pwo: - (N.), thwi<sup>55</sup> mei<sup>31</sup> (S.)

Note: This etymon is a compound meaning 'wild dog': thwi or chwi (B1-2) 'dog' and mi (A3) 'wild'. See no. 23.

**30.FROG \*ʔde<sup>B</sup>**

Pa-O: de<sup>55</sup> (N.), de<sup>33</sup> (S.)  
Kayah: dai<sup>11</sup>  
Kayah: di<sup>11</sup>  
Bwe: di<sup>33</sup>  
Kayaw: di<sup>33</sup>  
Sgaw: de<sup>31-</sup>, de<sup>221</sup> (N.), de<sup>45</sup> (S.)  
Pwo: di<sup>33</sup> (N.), di<sup>55</sup> (S.)

Note: See no. 69.

**31.GRASSHOPPER \*ʔdwe<sup>B</sup>**

Pa-O: dwe<sup>55</sup> (N.), dwe<sup>33</sup> (S.)  
Kayah: dwe<sup>11</sup>  
Kayah: -

Bwe: dɛ<sup>33</sup>  
Kayaw: dɛ<sup>11</sup>  
Sgaw: dwe<sup>31-</sup>, dwe<sup>221</sup> (N.), dwe<sup>45</sup> (S.)  
Pwo: thwe<sup>11</sup> (N.), thwe<sup>33</sup> (S.)

Note: There are some innovations in Pwo, i.e. PK \*ʔd > \*d > th and \*B > B3 while \*B > B12 in the other Karenic languages.

**32.HAWK \*lek<sup>D</sup>**

Pa-O: le<sup>245</sup> (N.), lek<sup>45</sup> (S.)  
Kayah: li<sup>221</sup>  
Kayah: la<sup>33</sup>  
Bwe: le<sup>11</sup>  
Kayaw: le<sup>33</sup>  
Sgaw: li<sup>221</sup>, li<sup>245</sup> (N.), lai<sup>11</sup> (S.)  
Pwo: lai<sup>221</sup> (N.), lai<sup>245</sup> (S.)

**33.HORNET \*phrim<sup>A</sup>, \*phrin<sup>A</sup>**

Pa-O: phrim<sup>31</sup> (N.), phrin<sup>31</sup> (S.)  
Kayah: phri<sup>53</sup>  
Kayah: phli<sup>33</sup>  
Bwe: phlu<sup>55</sup> 'wasp'  
Kayaw: phri<sup>55</sup>  
Sgaw: phlɔ<sup>33</sup>, phlɔ<sup>55</sup> (N.), phli<sup>55</sup> (S.)  
Pwo: phlɔ<sup>35</sup> (N.), phlɔi<sup>53</sup> (S.)

Note: In this etymon, \*phr- remains phr- in Northern Karen (Pa-O) but becomes phl- in Southern Karen (Sgaw and Pwo). With regards to Central Karen, both clusters, phr- and phl- can be found.

**34.HORSE \*k-se( )<sup>T</sup>**

Pa-O: se<sup>31</sup> (N., S.)  
Kayah: θi<sup>245</sup>  
Kayah: si<sup>55</sup>  
Bwe: θə-rɪ<sup>33</sup> (?)  
Kayaw: si<sup>33</sup> ri<sup>33</sup> (?)  
Sgaw: kɔ<sup>33</sup> se<sup>11</sup>, ka<sup>221</sup> θe<sup>11</sup> (N.), kɔ<sup>11</sup> se<sup>45</sup> (S.)  
Pwo: ka<sup>221</sup> si<sup>33</sup> (N.), ke<sup>11</sup> θi<sup>55</sup> (S.)

Note: This etymon is an Austroasiatic loanword. The reconstructed form for 'horse' in Proto-Monic is \*kseh (Diffloth, 1984). It is worth pointing out that the Modern Karenic languages have different tones, i.e. tone A in Northern Karen (Pa-O), tone D in Central Karen (Kayah, Kayaw, Bwe,

Kayaw) but tone B in Southern Karen (Sgaw, Pwo). This fact suggests the idea that \*-h was dropped in NK and SK but became -ʔ in CK.

**35. LEECH (land ~) \*swa<sup>2D</sup>**

Pa-O:	wa <sup>221</sup> (N.), wa <sup>221</sup> (S.)
Kayan:	θu <sup>245</sup>
Kayah:	swa <sup>55</sup>
Bwe:	-
Kayaw:	su <sup>33</sup>
Sgaw:	su <sup>245</sup> , θu <sup>245</sup> (N.), sɔu <sup>221</sup> (S.)
Pwo:	wa <sup>221</sup> (N.), wa <sup>245</sup> , βwa <sup>245</sup> (S.)

Note: Pa-O, Kayan, Kayah and Sgaw have tone D1-2 which suggests a voiceless onset, while Pwo has tone D3 which indicates a voiced one, so \*sw- seems to be a good solution for both ways of tonal development, i.e. \*D > \*D12 due to the first voiceless element \*-s- and \*D > D3 due to the second element \*-w- of the cluster onset which is a voiced sound.

**36. LEECH (water ~) \*k/s-lej<sup>A</sup>**

Pa-O:	leu <sup>33</sup> (N.), ljeu <sup>53</sup> (S.)
Kayan:	-
Kayah:	-
Bwe:	gə <sup>33</sup> lɪ <sup>33</sup>
Kayaw:	su <sup>11</sup> li <sup>33</sup>
Sgaw:	sə <sup>11</sup> li <sup>33</sup> , θa <sup>33</sup> li <sup>33</sup> , θə <sup>11</sup> li <sup>33</sup> (N.), li <sup>33</sup> (S.)
Pwo:	lei <sup>55</sup> (N.), lei <sup>31</sup> , lei <sup>11</sup> (S.)

Note: Pa-O seems to have a strange rhyme.

**37. LEMUR (flying ~) \*p/ble<sup>2D</sup>**

Pa-O:	phli <sup>221</sup> (N.), - (S.)
Kayan:	-
Kayah:	pla <sup>33</sup>
Bwe:	bli <sup>33</sup>
Kayaw:	ple <sup>33</sup>
Sgaw:	phli <sup>245</sup> , phli <sup>221</sup> (N.), plai <sup>11</sup> (S.)
Pwo:	phlai <sup>221</sup> (N.), phlai <sup>245</sup> (S.)

Note: Tone D12 in N. Pa-O, Bwe and some N. Sgaw varieties suggests PK \*pl- but tone D3 in Kayah, both N. and S. Pwo and also S. Sgaw indicates \*bl-. It is noticeable that both \*pl- and \*bl- become phl- in Modern Karen while \*phl- is likely to remain phl-.

**38. LORIS \*k-ch( )N<sup>A</sup>**

Pa-O:	- (N.), - (S.)
Kayan:	chə <sup>53</sup>
Kayah:	chə <sup>33</sup>
Bwe:	-
Kayaw:	chə <sup>55</sup>
Sgaw:	kə <sup>11</sup> che <sup>33</sup> (N.), chi <sup>55</sup> (S.)
Pwo:	chāi <sup>35</sup> (N.), chēi <sup>53</sup> , kə <sup>11</sup> chēi <sup>53</sup> (S.)

Note: The rhyme of this etymon is problematical, due to the lack of data from Pa-O.

**39. LOUSE, INSECT \*gra<sup>B</sup>**

Pa-O:	sa <sup>53</sup> (N.), ɕa <sup>55</sup> (S.)
Kayan:	ca <sup>11</sup>
Kayah:	khre <sup>11</sup>
Bwe:	-
Kayaw:	ca <sup>11</sup>
Sgaw:	xa <sup>11</sup> (N.), xa <sup>31</sup> (S.)
Pwo:	xa <sup>11</sup> (N.), xa <sup>33</sup> (S.)

Note: In Modern Karen, this etymon never occurs alone but always in compounds, such as chɔ̃<sup>53</sup> xa<sup>33</sup> 'chicken louse' (S.Pwo), ta<sup>11</sup> pho<sup>33</sup> xa<sup>11</sup> 'insect' (N. Sgaw) and so forth.

**40. LOUSE (head ~) \*swiX<sup>B</sup> (TB \*sar, śar)**

Pa-O:	si <sup>55</sup> (N.), si <sup>33</sup> (S.)
Kayan:	θi <sup>11</sup>
Kayah:	so <sup>11</sup>
Bwe:	θo <sup>11</sup>
Kayaw:	si <sup>11</sup>
Sgaw:	su <sup>31</sup> , su <sup>11</sup> (N.), su <sup>45</sup> (S.)
Pwo:	sā <sup>33</sup> (N.), θāi <sup>55</sup> (S.)

Note: Similar to the etymon 'chicken' (no. 15), the reconstructed final of the etymon 'head louse' is the dummy \*-X. This PK \*-X became \*-N and then -V̄Ø in Pwo Karen while it was dropped in the other Karenic languages. The second element of the cluster onset (-w-) causes the lip rounding and backness of the vowels in Kayah, Bwe, Sgaw and N. Pwo.

**41. MAGGOT \*hl/ʔloŋ<sup>B</sup>**

Pa-O:	loŋ <sup>55</sup> (N.), loŋ <sup>33</sup> (S.)
Kayan:	lo <sup>11</sup>
Kayah:	lɔ <sup>11</sup>
Bwe:	lo <sup>33</sup>



Kayaw: lə<sup>11</sup>  
 Sgaw: lə<sup>31</sup>, lə<sup>11</sup> (N.), li<sup>45</sup> (S.)  
 Pwo: lāu<sup>33</sup> (N.), lōu<sup>55</sup> (S.)

Note: With regard to the \*B column, there is no split as in Kayan, Kayah, Bwe, Kayaw and some Sgaw varieties, or a split between B12 and B3 as in Pa-O and Pwo. Due to the pattern of tone split in the \*A column of Pwo Karen, i.e. between A1 and A23, three types of lateral sounds were reconstructed: voiceless (\*hl), preglottalised (\*ʔl) and voiced (\*l). As for the split pattern of the \*B tone, it is impossible to tell whether the onset of this etymon is \*hl- or \*ʔl.

42. MILLIPEDE \*k/s-waj<sup>A</sup>, \*k/s-waj<sup>B</sup>

Pa-O: cə<sup>55</sup> we<sup>33</sup> (N.), cə<sup>11</sup> we<sup>53</sup> (S.)  
 Kayan: θa<sup>221</sup> kə<sup>11</sup> wi<sup>33</sup>  
 Kayah: si<sup>55</sup> kə<sup>55</sup> wi<sup>11</sup>  
 Bwe: -  
 Kayaw: (te<sup>11</sup>) we<sup>33</sup>  
 Sgaw: si<sup>745</sup> wə<sup>11</sup> (de<sup>33</sup>) (N.), si<sup>55</sup> wa<sup>31</sup> (de<sup>55</sup>) (S.)  
 Pwo: wai<sup>11</sup> (N.), wai<sup>31</sup>, wai<sup>11</sup>, βai<sup>11</sup> (S.)

Note: Pa-O, Central Karen and S. Pwo have tone A3 while Sgaw and N.Pwo have tone B3.

43. MOLE \*(jow<sup>B</sup>) wi<sup>A</sup> (TB \*bwi<sup>y</sup>, \*bwə<sup>y</sup>)

Pa-O: (ju<sup>53</sup>) wi<sup>33</sup> (N.), (ju<sup>55</sup>) wi<sup>53</sup> (S.)  
 Kayan: -  
 Kayah: (jo<sup>11</sup>) wi<sup>11</sup>  
 Bwe: wi<sup>33</sup>  
 Kayaw: (ju<sup>11</sup>) wi<sup>33</sup>  
 Sgaw: wi<sup>33</sup> (N.), wi<sup>33</sup> (S.)  
 Pwo: wei<sup>55</sup> (N.), wei<sup>31</sup>, wei<sup>11</sup>, βei<sup>11</sup> (S.)

Note: To the Karen, a 'mole' is a kind of rat. See also no. 2 'bamboo rat' and no. 47 'mouse, rat'. The Kayan use ju<sup>11</sup> ta<sup>11</sup> ha<sup>745</sup> which is not a cognate word.

44. MONITOR LIZARD (land ~) \*kho<sup>2D</sup>

Pa-O: - (N.), - (S.)  
 Kayan: (khwi<sup>11</sup> re<sup>33</sup>) khə<sup>745</sup>  
 Kayah: khwa<sup>55</sup>  
 Bwe: -  
 Kayaw: (to<sup>33</sup>) ko<sup>33</sup>  
 Sgaw: (tə<sup>11</sup>) khu<sup>745</sup> (N.), khəu<sup>721</sup> (S.)  
 Pwo: khau<sup>745</sup> (N.), khəu<sup>721</sup> (S.)

Note: The highland Pa-O (N. Pa-O) use lem<sup>53</sup> ~ len<sup>53</sup> and the lowland Pa-O (S. Pa-O) use lem<sup>33</sup> which is a Tai loan. Unlike the other Karenic languages, Kayaw has unaspirated onset.

45. MONITOR LIZARD (water ~) \* ~ kre<sup>A</sup>

Pa-O: - (N.), - (S.)  
 Kayan: (khwi<sup>11</sup>) re<sup>33</sup>  
 Kayah: (ta<sup>11</sup> khwa<sup>55</sup> ta<sup>11</sup>) re<sup>33</sup>  
 Bwe: tre<sup>55</sup>  
 Kayaw: (te<sup>55</sup>) re<sup>55</sup>  
 Sgaw: kre<sup>745</sup>, kə<sup>11</sup> re<sup>55</sup> (N.), re<sup>55</sup> (S.)  
 Pwo: - (N.), yei<sup>31</sup>, yei<sup>11</sup> (S.)

Note: Some varieties of N. Sgaw have tone D while most of the Karenic languages have tone A. In Bwe, \*kr- becomes tr- and the first element of the cluster kr- is dropped (\*kr- > r-) in Kayan, Kayah, Kayaw, Pwo and S. Sgaw.

46. MONKEY \*k-jo<sup>2D</sup>

Pa-O: jo<sup>745</sup> (N.), ju<sup>745</sup> (S.)  
 Kayan: jə<sup>721</sup>  
 Kayah: jə<sup>33</sup>  
 Bwe: jo<sup>11</sup>  
 Kayaw: jə<sup>33</sup>  
 Sgaw: -  
 Pwo: -

Note: There are lexical innovations in Southern Karen, i.e. mə<sup>11</sup> li<sup>745</sup>, pha<sup>35</sup> lai<sup>721</sup> and cha<sup>55</sup> ʔəu<sup>31</sup> in N. Sgaw, N. Pwo and S. Pwo, respectively, for 'monkey'. Probably, the etymon \*k-jo<sup>2D</sup> is related to the word 'gibbon' in Sgaw and Pwo: kə<sup>11</sup> ju<sup>33</sup>, zu<sup>33</sup> pɣa<sup>11</sup> (N. Sgaw), kə<sup>11</sup> ju<sup>33</sup> pha<sup>31</sup> (S. Sgaw), ka<sup>721</sup> ji<sup>33</sup> pha<sup>33</sup> (N. Pwo) and kə<sup>33</sup> ji<sup>53</sup> pha<sup>33</sup> (S. Pwo). In N. Sgaw, ju<sup>33</sup> (A) means 'to swing' and pɣa<sup>11</sup> (B) means 'forest'; therefore, the literal meaning of the word 'gibbon' is 'animal (\*k-) swinging in the forest'.

47. MOUSE, RAT \*jow<sup>B</sup> (TB \*b-yuw, \*b-yəw)

Pa-O: ju<sup>53</sup> (N.), ju<sup>55</sup> (S.)  
 Kayan: ju<sup>11</sup>  
 Kayah: jo<sup>11</sup>  
 Bwe: ju<sup>11</sup>  
 Kayaw: ju<sup>11</sup>  
 Sgaw: ji<sup>11</sup>, zi<sup>11</sup> (N.), ji<sup>31</sup> (S.)  
 Pwo: jou<sup>11</sup> (N.), jou<sup>33</sup> (S.)

Note: See also no. 2 'bamboo rat' and no. 42 'mole'.

48.OX \*bo<sup>B</sup>

Pa-O: pho<sup>53</sup> (N.), po<sup>55</sup> (S.)  
Kayah: pau<sup>11</sup>  
Kayah: pu<sup>11</sup>  
Bwe: bo<sup>33</sup>  
Kayaw: pu<sup>11</sup>  
Sgaw: -  
Pwo: -

Note: Some groups of Pwo people call an ox "something having horns", e.g. chə<sup>55</sup> ni<sup>53</sup> (S. Pwo). In N. Sgaw, 'ox' is ta<sup>11</sup> tɔ<sup>45</sup> or klɔ<sup>11</sup>. The word klɔ<sup>11</sup> could be a loanword from Mon, i.e. khlɔ̃w (< Proto-Mon \*klɛ̃w (Diffloth, 1984)).

49.PANGOLIN, ANTEATER \*jo<sup>A</sup>

Pa-O: ju<sup>33</sup> (N.), - (S.)  
Kayah: jau<sup>33</sup>  
Kayah: ju<sup>11</sup>, ju<sup>31</sup>  
Bwe: jɔ<sup>33</sup> (-θɔ<sup>33</sup>)  
Kayaw: ju<sup>33</sup>  
Sgaw: jo<sup>33</sup> (hɔ<sup>31</sup>, hɔ<sup>11</sup>), zo<sup>33</sup> (ho<sup>11</sup>) (N.), ju<sup>33</sup> (hɔ<sup>245</sup>) (S.)  
Pwo: - (N.), ji<sup>31</sup>, ji<sup>11</sup> (S.)

50.PARROT \*(tho<sup>B</sup>) ki<sup>B</sup>

Pa-O: ki<sup>55</sup> (N.), - (S.)  
Kayah: khi<sup>11</sup>  
Kayah: khwi<sup>11</sup> (?)  
Bwe: k(h)i<sup>33</sup>  
Kayaw: ki<sup>11</sup>, khi<sup>11</sup>  
Sgaw: ki<sup>221</sup> (N.), ki<sup>45</sup> (S.)  
Pwo: kei<sup>33</sup> (N.), kei<sup>55</sup> (S.)

Note: This etymon should be ki<sup>31</sup> or ki<sup>11</sup> (tone B12) instead of ki<sup>221</sup> (tone D3) as in N. Sgaw.

51.PEACOCK \*(tho<sup>B</sup>) bra<sup>2D</sup>

Pa-O: - (N.), - (S.)  
Kayah: pra<sup>221</sup>  
Kayah: phre<sup>33</sup>  
Bwe: (tho<sup>33</sup>-) ba<sup>11</sup>  
Kayaw: prɔ<sup>33</sup>

Sgaw: bya<sup>221</sup>, phya<sup>221</sup>, phra<sup>221</sup>, pwa<sup>221</sup> (N.), pya<sup>11</sup> (S.)

Pwo: sja<sup>221</sup> (N.), chja<sup>221</sup> (S.)

52.PHEASANT \*(tho<sup>B</sup>) re<sup>2D</sup>

Pa-O: - (N.), - (S.)  
Kayah: -  
Kayah: ra<sup>33</sup>  
Bwe: -  
Kayaw: re<sup>33</sup>  
Sgaw: yi<sup>221</sup> (N.), yai<sup>11</sup> (S.)  
Pwo: yai<sup>221</sup> (N.), yai<sup>245</sup> (S.)

Note: It is chja<sup>33</sup> tham<sup>31</sup> in S. Pa-O. chja<sup>33</sup>, 'the first part of the compound, is in fact chja<sup>31</sup> 'chicken' (31 > 33). This suggests that Southern Pa-O people view 'pheasants' as 'chickens' not 'birds'.

53.PIG \*thɔ<sup>2D</sup>

Pa-O: thɔ<sup>221</sup> (N., S.)  
Kayah: thau<sup>245</sup>  
Kayah: the<sup>55</sup>  
Bwe: thɔ<sup>33</sup>  
Kayaw: tho<sup>33</sup>  
Sgaw: thɔ<sup>245</sup> (N.), thɔ<sup>221</sup> (S.)  
Pwo: tho<sup>245</sup> (N.), thu<sup>221</sup> (S.)

Note: See also no. 9 'wild boar'.

54.PORCUPINE (big kind) \*sun<sup>B</sup>

Pa-O: sun<sup>55</sup> (N.), sum<sup>33</sup>, sun<sup>33</sup> (S.)  
Kayah: θwanj<sup>11</sup>  
Kayah: si<sup>11</sup>  
Bwe: θu<sup>33</sup>  
Kayaw: su<sup>11</sup>  
Sgaw: - (N.), su<sup>45</sup> (S.)  
Pwo: - (N.), - (S.)

Note: The lexical innovations in N. Sgaw, N. Pwo and S. Pwo are pɔ<sup>33</sup> dɔ<sup>245</sup>, pa<sup>221</sup> dɔ<sup>245</sup> and chə<sup>33</sup> yau<sup>245</sup> chū<sup>55</sup> 'something shaking off its hair (spine)', respectively.

55.PORCUPINE (small kind) \*s-?ba<sup>A</sup>

Pa-O: - (N.), - (S.)  
Kayah: bi<sup>53</sup> (?)  
Kayah: se<sup>33</sup> be<sup>33</sup>

Bwe: -  
 Kayaw: sa<sup>55</sup> ba<sup>55</sup>  
 Sgaw: ba<sup>33</sup> (N.), ba<sup>55</sup> (S.)  
 Pwo: - (N.), θə<sup>55</sup> ba<sup>31</sup>, θə<sup>55</sup> ba<sup>11</sup> (S.)

Note: Kayan has an irregular vowel.

56. QUAIL \*(tho<sup>B</sup>) hr/?rwi<sup>T</sup> (?)

Pa-O: ri<sup>745</sup> (N.)  
 Kayan: rwi<sup>745</sup>  
 Kayah: rwi<sup>55</sup>  
 Bwe: -  
 Kayaw: ri<sup>33</sup>  
 Sgaw: pə<sup>11</sup> wi<sup>33</sup> (N.), pə<sup>11</sup> wi<sup>55</sup> (S.)  
 Pwo: phu<sup>33</sup> wei<sup>33</sup> (N.), wei<sup>55</sup> (S.)

Note: The reconstruction of the tone of this etymon is problematical, due to tonal variation, i.e. tone D in Northern and Central Karen, tone A in Sgaw but tone B in Pwo.

57. RABBIT, HARE \*p-ʔde<sup>A</sup>

Pa-O: - (N.), - (S.)  
 Kayan: de<sup>53</sup>  
 Kayah: de<sup>33</sup>  
 Bwe: pə<sup>33</sup> de<sup>33</sup>  
 Kayaw: de<sup>55</sup>  
 Sgaw: pə<sup>11</sup> de<sup>33</sup>, pə<sup>11</sup> de<sup>55</sup> (N.), pə<sup>11</sup> the<sup>721</sup> (S.)  
 Pwo: pa<sup>33</sup> de<sup>55</sup>, pə<sup>11</sup> de<sup>53</sup> (N.), pə<sup>31</sup> de<sup>31</sup>, pə<sup>33</sup> the<sup>721</sup> (S.)

Note: In some S. Sgaw and S. Pwo varieties, \*ʔd > \*d > th- and tone \*A > D.

58. SEROW, MOUNTAIN GOAT \*jaj<sup>A</sup> (TB \*kye.l, \*kyi[.l])

Pa-O: jai<sup>33</sup> (N.), - (S.)  
 Kayan: jai<sup>33</sup>  
 Kayah: je<sup>11</sup>  
 Bwe: ji<sup>33</sup>  
 Kayaw: ji<sup>33</sup>  
 Sgaw: - (N.), - (S.)  
 Pwo: - (N.), - (S.)

Note: There is a lexical innovation in Southern Karen: chə<sup>33</sup> pha<sup>721</sup> (S. Pwo) and ta<sup>33</sup> pha<sup>745</sup> (N. Sgaw).

59. SHEEP \*so<sup>A</sup>, \*so<sup>B</sup>

Pa-O: sə<sup>55</sup> (N.), so<sup>33</sup> (S.)  
 Kayan: θə<sup>33</sup>  
 Kayah: -  
 Bwe: θu<sup>55</sup>  
 Kayaw: so<sup>55</sup>  
 Sgaw: so<sup>33</sup>, so<sup>55</sup> (N.), su<sup>55</sup> (S.)  
 Pwo: - (N.), θu<sup>55</sup> (S.)

Note: This etymon has tone A in Kayan, Bwe, Kayaw and Sgaw but tone B in Pa-O and Pwo.

60. SKINK \*ble<sup>2D</sup>

Pa-O: ple<sup>745</sup> (N.), ple<sup>745</sup> (S.)  
 Kayan: ple<sup>721</sup>  
 Kayah: pla<sup>33</sup>  
 Bwe: bli<sup>11</sup> (ca<sup>55</sup>)  
 Kayaw: ple<sup>33</sup>  
 Sgaw: ple<sup>721</sup>, phle<sup>53</sup> (N.), ple<sup>11</sup> (S.)  
 Pwo: phle<sup>721</sup> (N.), phle<sup>745</sup> (S.)

61. SNAIL (land ~) \*khlo<sup>B</sup>

Pa-O: - (N.), - (S.)  
 Kayan: khlo<sup>53</sup> (?)  
 Kayah: -  
 Bwe: khlo<sup>33</sup>  
 Kayaw: -  
 Sgaw: khlo<sup>31</sup>-, khlo<sup>11</sup> (N.), khlu<sup>45</sup> (S.)  
 Pwo: khlu<sup>33</sup> (N.), khlu<sup>55</sup> (S.)

Note: In Kayan, this etymon has tone A instead of tone B like the rest. Also, the vowel should be au not o. Language contact could be a cause of vowel and tone irregularity in Kayan. See also no. 62 'water snail'

62. SNAIL (water ~) \*s-ŋwi<sup>B</sup>

Pa-O: ŋwi<sup>55</sup> (N.), ŋwi<sup>33</sup> (S.)  
 Kayan: ŋwi<sup>11</sup>  
 Kayah: -  
 Bwe: θə<sup>55</sup> mi<sup>33</sup>  
 Kayaw: si<sup>11</sup> mi<sup>11</sup>  
 Sgaw: - (N.), - (S.)  
 Pwo: - (N.), - (S.)

Note: This etymon has not been kept in Southern Karen. The word khlu (B12) is used for both 'water snail' and 'land snail' with different modifiers, for example, khlu<sup>55</sup> mi<sup>55</sup> 'water snail' and khlu<sup>55</sup> klai<sup>745</sup> 'land snail' in S. Pwo. See also no. 60 'land snail'.

63. SNAKE \*row<sup>B</sup> (TB \*b-ru.l)

Pa-O:	ru <sup>53</sup> (N.), ru <sup>55</sup> (S.)
Kayan:	rəu <sup>11</sup> (?)
Kayah:	ro <sup>11</sup> , ru <sup>31</sup>
Bwe:	Ru <sup>33</sup>
Kayaw:	ru <sup>11</sup>
Sgaw:	ŷi <sup>11</sup> (N.), ŷi <sup>31</sup> (S.)
Pwo:	you <sup>11</sup> , you <sup>31</sup> (N.), βou <sup>33</sup> , yū <sup>55</sup> (S.)

Note: Mostly, the PK final nasals were reconstructed from those that have been retained in Pa-O. This etymon in Pa-O has the CVØ syllable structure or open syllable. However, it is quite unusual that in some S. Sgaw and S. Pwo varieties, the word 'snake' has a nasalised vowel ɪ̃ (S. Sgaw) or the nasal vowel ū (S. Pwo). Perhaps, the final \*-w became nasal (\*-N) and then a nasalised vowel (ṽ).

64. SPIDER \*gaŋ<sup>A</sup>

Pa-O:	(kuŋ <sup>33</sup> ) kaŋ <sup>33</sup> (N.), (jɔŋ <sup>31</sup> ) kaŋ <sup>53</sup> (S.)
Kayan:	kaŋ <sup>33</sup>
Kayah:	-
Bwe:	ga <sup>11</sup> - gu <sup>11</sup>
Kayaw:	kɔ <sup>33</sup>
Sgaw:	- (N.), - (S.)
Pwo:	pu <sup>11</sup> khē <sup>55</sup> , phu <sup>55</sup> khā <sup>53</sup> (N.), khɔ <sup>11</sup> , khɔ <sup>31</sup> (S.)

Note: The etymon \*gaŋ<sup>A</sup> has been retained in almost all of the Karenic languages, except in Sgaw, 'spider' is an innovated word, i.e. kə<sup>11</sup> pɔ<sup>33</sup>.

65. SQUIRREL \*hl/ʔli<sup>B</sup>, \*hl/ʔli<sup>D</sup>

Pa-O:	li <sup>55</sup> (N.), li <sup>33</sup> (S.)
Kayan:	-
Kayah:	-
Bwe:	li <sup>11</sup> (?)
Kayaw:	-
Sgaw:	li <sup>745</sup> , li <sup>745</sup> lu <sup>11</sup> (N.), li <sup>45</sup> (S.)

Pwo: lei<sup>33</sup> (N.), lei<sup>55</sup> (S.)

Note: N. Sgaw has tone D12 and Bwe has tone D3 (suggesting \*l-), while the rest have tone B12. Tone B12 and tone D12 indicate a voiceless onset, \*hl- or \*ʔl.

66. TERMITE (winged ~) \*bi<sup>B</sup>

Pa-O:	phi <sup>53</sup> (N.), pi <sup>55</sup> (S.)
Kayan:	pi <sup>11</sup>
Kayah:	pi <sup>11</sup>
Bwe:	pə ʔi <sup>33</sup>
Kayaw:	pi <sup>11</sup> ʔi <sup>11</sup>
Sgaw:	pi <sup>11</sup> (N.), pi <sup>31</sup> (S.)
Pwo:	phai <sup>33</sup> , phe <sup>33</sup> (N.), phe <sup>31</sup> (S.)

Note: The B3 tone in Pa-O, S. Sgaw, some N. Sgaw varieties and S. Pwo indicate that the onset of this etymon should be \*b-. Pwo vowels are irregular. S. Pwo has tone A23, while N. Pwo has tone B12. The reduction of the original compound into a monosyllabic word could have been the cause of these irregularities.

67. TICK \*khej<sup>B</sup>

Pa-O:	ki <sup>55</sup> (N.), - (S.)
Kayan:	khi <sup>11</sup>
Kayah:	khə <sup>11</sup>
Bwe:	khi <sup>11</sup>
Kayaw:	khi <sup>11</sup>
Sgaw:	khi <sup>31</sup> , khi <sup>11</sup> (N.), khi <sup>45</sup> (S.)
Pwo:	khei <sup>33</sup> (N.), khei <sup>55</sup> (S.)

68. TIGER \*khe<sup>A</sup> (TB \*d-key, \*d-kəy, \*k-key)

Pa-O:	ke <sup>31</sup> (N., S.)
Kayan:	khai <sup>53</sup>
Kayah:	khi <sup>33</sup>
Bwe:	khi <sup>55</sup>
Kayaw:	khi <sup>55</sup>
Sgaw:	- (N.), - (S.)
Pwo:	khi <sup>35</sup> (N.), khi <sup>53</sup> (S.)

Note: The word meaning 'tiger' in Sgaw Karen is bɔ<sup>721</sup> so<sup>721</sup>, bɔ<sup>721</sup> θo<sup>11</sup>, bɔ<sup>721</sup> so<sup>53</sup>, bɔ<sup>721</sup> sə<sup>721</sup> ʔo<sup>721</sup> or bɔ<sup>11</sup> so<sup>745</sup> ʔo<sup>721</sup> depending upon each variety; however, khe<sup>33</sup> (A) is found in the compound meaning 'lion', i.e. khe<sup>33</sup> ji<sup>11</sup>.

69. TOAD \*(ʔde<sup>B</sup>) sow<sup>B</sup>

Pa-O:	de <sup>55</sup> su <sup>55</sup> (N.), de <sup>33</sup> su <sup>33</sup> (S.)
Kayan:	dai <sup>11</sup> θu <sup>33</sup>
Kayah:	di <sup>11</sup> so <sup>11</sup>
Bwe:	di <sup>33</sup> θu <sup>33</sup>
Kayaw:	di <sup>11</sup> su <sup>11</sup>
Sgaw:	de <sup>31~</sup> si <sup>31~</sup> (N.), de <sup>721</sup> si <sup>11</sup> (S.)
Pwo:	di <sup>33</sup> sou <sup>33</sup> , di <sup>33</sup> θu <sup>33</sup> (N.), di <sup>55</sup> sou <sup>55</sup> , di <sup>55</sup> θou <sup>55</sup> (S.)

#### 70. TORTOISE \*khli<sup>2D</sup>

Pa-O:	kle <sup>721</sup> (N.), kli <sup>721</sup> (S.)
Kayan:	khli <sup>745</sup>
Kayah:	kli <sup>55</sup>
Bwe:	khli <sup>33</sup>
Kayaw:	khli <sup>33</sup>
Sgaw:	khli <sup>745</sup> (N.), khlai <sup>721</sup> (S.)
Pwo:	khlai <sup>745</sup> (N.), khlai <sup>721</sup> , khlai <sup>731</sup> (S.)

#### 71. VULTURE \*hl/ʔlan<sup>A</sup> k-da<sup>2D</sup>, \*hl/ʔlan<sup>B</sup> k-da<sup>2D</sup>

Pa-O:	leŋ <sup>55</sup> ta <sup>745</sup> (N.), ta <sup>33</sup> loŋ <sup>33</sup> ta <sup>745</sup> (S.)
Kayan:	-
Kayah:	le <sup>11</sup> ta <sup>33</sup>
Bwe:	lə <sup>33</sup> da <sup>55</sup> (?)
Kayaw:	la <sup>11</sup> ta <sup>33</sup>
Sgaw:	lo <sup>33</sup> ka <sup>721</sup> ta <sup>721</sup> , lo <sup>33</sup> kə <sup>11</sup> ta <sup>721</sup> (N.), lo <sup>33</sup> kə <sup>11</sup> ta <sup>11</sup> (S.)
Pwo:	lɛ <sup>35</sup> ka <sup>721</sup> tha <sup>721</sup> (N.), lɔ <sup>53</sup> ka <sup>721</sup> tha <sup>721</sup> (S.)

Note: In some N. Sgaw varieties, vultures are called “tho<sup>31~</sup> ta<sup>11</sup> ʔi<sup>31~</sup>, tho<sup>11</sup> ta<sup>11</sup> ʔi<sup>745</sup> or tho<sup>11</sup> ta<sup>721</sup> ʔi<sup>721</sup>”, literally this means ‘rotten-thing birds’. This could be an Austroasiatic loanword. In Praok-Wa, the word meaning ‘vulture’ is (sim) klan cu<sup>7</sup> (from the author’s fieldnotes collected in December, 1995).

#### 72. WASP \*(dəŋ<sup>B</sup>) ʔde<sup>A</sup>

Pa-O:	lak <sup>45</sup> ka <sup>721</sup> de <sup>31</sup> (N.), - (S.)
Kayan:	dau <sup>745</sup> dai <sup>53</sup>
Kayah:	di <sup>33</sup>
Bwe:	-
Kayaw:	di <sup>55</sup>
Sgaw:	tə <sup>11</sup> de <sup>33</sup> , tə <sup>11</sup> de <sup>55</sup> (N.), ti <sup>31</sup> de <sup>55</sup> (S.)
Pwo:	thā <sup>11</sup> di <sup>55</sup> , thā <sup>11</sup> di <sup>53</sup> (N.), thā <sup>33</sup> di <sup>31</sup> , thā <sup>33</sup> di <sup>11</sup> (S.)

Note: To the Sgaw and Pwo, ‘wasp’ is a sub-species of ‘ant’. See also no. 1 ‘ant’.

#### 73. WEEVIL \*roŋ<sup>B</sup>

Pa-O:	roŋ <sup>53</sup> (N.), roŋ <sup>55</sup> (S.)
Kayan:	ro <sup>11</sup>
Kayah:	ro <sup>11</sup>
Bwe:	-
Kayaw:	rə <sup>11</sup>
Sgaw:	γə <sup>11</sup> (N.), γi <sup>31</sup> (S.)
Pwo:	γāu <sup>11</sup> (N.), βōu <sup>33</sup> , γō <sup>33</sup> (S.)

#### Conclusion and Discussion

Among the seventy-three etyma, twenty-one etyma, i.e. no. 1 ‘ant’, no. 7 ‘bee’ (*Apis dorsata*), no. 8 ‘bird’, no. 10 ‘buffalo’, no. 14 ‘chameleon’, no. 17 ‘crab’, no. 23 ‘dog’, no. 24 ‘dove’, no. 26 ‘elephant’, no. 28 ‘flea’, no. 30 ‘frog’, no. 32 ‘hawk’, no. 47 ‘rat’, no. 49 ‘pangolin’, no. 51 ‘peacock’, no. 53 ‘pig’, no. 57 ‘rabbit’, no. 60 ‘skink’, no. 67 ‘tick’, no. 69 ‘toad’ and no. 70 ‘tortoise’, are not problematical because of the availability of data for reconstruction from all of the languages selected as representatives of the three major branches of the Karenic languages. In addition, the Karen seemed to be familiar with these animals and could quickly recognise them when the pictures were shown to them during the interviews. It is also possible that some of the etyma are loanwords from Austroasiatic languages, especially Mon and Wa; for example, no. 15 ‘chicken’, no. 26 ‘elephant’, no. 34 ‘horse’ and no. 71 ‘vulture’. The names of some aggressive wild animals, such as no. 4 ‘bear’, no. 68 ‘tiger’ etc., have become taboo words and have been replaced by euphemisms as in Sgaw Karen. In the modernised mountainous areas of Thailand, I noticed that children remember fewer and fewer animal names in their own languages, especially non-domesticated animals, due to compulsory education with Thai as the medium of instruction, good transportation, the mass media and tourism. Sooner or later a similar phenomenon will occur in Myanmar. In the near future, only a few Karen animal names will be in the lexicon. A decrease of Karen words with an increase of Thai loanwords for animal names could provide a good case for studying “language change in progress” or “change in apparent time”, with regard to vocabulary loss and morphological change as well as sound change.

#### Acknowledgements

I would like to express my gratitude to the Thailand Research Fund (TRF) for funding the Karen Linguistics Project for three years from 2009-2012. Many thanks go to my Karen friends and the local authorities for their kind co-operation. I also feel thankful to my research assistants, Karnthida Kerdpol and Sujinat Jitwiriyant, for typing the manuscript and providing all kinds of

assistance. Lastly, useful comments and suggestions from James A. Matisoff, David Bradley and David B. Solnit made me be more careful when drafting my research report.

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**APPENDIX**

N. Pa-O

	*A	*B	*D
1	31''	55	21
2	31''	55	21'
3	33	53	45'

S. Pa-O

	*A	*B	*D
1	31''	33	21
2	31''	33	21
3	53	55	45

Kayan

	*A	*B	*D
1	53	11	45
2	53	11	45
3	33	11	21

E. Kayah

	*A	*B	*D
1	33	11	55
2	33	11	55
3	11	11	33

W. Bwe

	*A	*B	*D
1	55	33	33
2	55	33	33
3	33	33	11

Kayaw

	*A	*B	*D
1	55	11	33
2	55	11	33
3	33	11	33

N. Sgaw

	*A	*B	*D
1	33	31~	45
2	33	31~	45
3	33	11''	21

S. Sgaw

	*A	*B	*D
1	55	45'	21
2	55	45'	21
3	33	31	11''

N. Pwo

	*A	*B	*D
1	35	33	45
2	55	33	45
3	55	11''	21

S. Pwo

	*A	*B	*D
1	53	55	21
2	31''	55	21
3	31''	33	45

Figure 1 Proto-Karen tones and tonal development in Modern Karen



**Table 1** Proto-Karen onsets

Proto-Karen		N. Pa-O	S. Pa-O	Kayan	Kayah	Bwe	Kayaw	N. Sgaw	S. Sgaw	N. Pwo	S. Pwo	Gloss
*ph-	*phe <sup>A</sup>	phe <sup>31</sup> (A12)	phe <sup>31</sup> (A12)	phai <sup>53</sup> (A12)	phi <sup>33</sup> (A12)	--	phi <sup>55</sup> (A12)	phe <sup>33</sup> (A)	phe <sup>55</sup> (A12)	phi <sup>35</sup> (A1)	phi <sup>53</sup> (A1)	'chaff, bran'
*th-	*thej <sup>A</sup>	thi <sup>31</sup> (A12)	thi <sup>31</sup> (A12)	thi <sup>53</sup> (A12)	thə <sup>33</sup> (A12)	chi <sup>55</sup> (A12)	thi <sup>55</sup> (A12)	thi <sup>33</sup> (A)	thi <sup>55</sup> (A12)	thei <sup>35</sup> (A1)	thei <sup>53</sup> (A1)	'water'
*ch-	*cha <sup>A</sup>	cha <sup>31</sup> (A12)	cha <sup>31</sup> (A12)	cha <sup>53</sup> (A12)	che <sup>33</sup> (A12)	je <sup>55</sup> (A12)	cha <sup>55</sup> (A12)	cha <sup>33</sup> (A)	cha <sup>55</sup> (A12)	cha <sup>35</sup> (A1)	cha <sup>53</sup> (A1)	'ill, painful'
*kh-	*kha <sup>B</sup>	kha <sup>55</sup> (B12)	kha <sup>33</sup> (B12)	kha <sup>11</sup> (B)	khe <sup>11</sup> (B)	khe <sup>33</sup> (B)	kha <sup>11</sup> (B)	kha <sup>31~</sup> (B12)	kha <sup>45'</sup> (B12)	kha <sup>33</sup> (B12)	kha <sup>55</sup> (B12)	'bitter'
*hm-	*hma <sup>A</sup>	ma <sup>31</sup> (A12)	ma <sup>31</sup> (A12)	ma <sup>53</sup> (A12)	me <sup>33</sup> (A12)	me <sup>55</sup> (A12)	ma <sup>55</sup> (A12)	ma <sup>33</sup> (A)	ma <sup>55</sup> (A12)	ma <sup>35</sup> (A1)	ma <sup>53</sup> (A1)	'wife'
*hn-	*k-hne <sup>A</sup>	ne <sup>31</sup> (A12)	ne <sup>31</sup> (A12)	nai <sup>53</sup> (A12)	ni <sup>33</sup> (A12)	(gə) ni <sup>33</sup> (A3)	ni <sup>55</sup> (A12)	kə <sup>11</sup> ne <sup>33</sup> (A)	ne <sup>55</sup> (A12)	ni <sup>35</sup> (A1)	ni <sup>53</sup> (A1)	'bee (Apis dorsata)'
*hɲ-	*hɲaw <sup>A</sup>	jo <sup>31</sup> (A12)	jo <sup>31</sup> (A12)	jau <sup>53</sup> (A12)	ju <sup>33</sup> (A12)	jo <sup>55</sup> (A12)	ju <sup>55</sup> (A12)	jo <sup>33</sup> (A)	jo <sup>55</sup> (A12)	jo <sup>35</sup> (A1)	jo <sup>53</sup> (A1)	'easy'
*hɲ/ʔɲ-	*hɲa <sup>A</sup>	ɲa <sup>31</sup> (A12)	ɲa <sup>31</sup> (A12)	ɲa <sup>53</sup> (A12)	ɲe <sup>33</sup> (A12)	--	--	ɲa <sup>33</sup> (A)	ɲa <sup>55</sup> (A12)	--	--	'front'
*hw-	*hwa <sup>B</sup>	wa <sup>55</sup> (B12)	wa <sup>33</sup> (B12)	hwa <sup>11</sup> (B)	we <sup>11</sup> (B)	hu <sup>33</sup> (B)	--	wa <sup>31~</sup> (B12)	wa <sup>45'</sup> (B12)	wa <sup>33</sup> (B12)	wa <sup>55</sup> (B12)	'bamboo'
*hr/ʔr-	*hrun <sup>A</sup>	rən <sup>31</sup> (A12)	ruən <sup>31</sup> (A12)	rwan <sup>53</sup> (A12)	ri <sup>33</sup> (A12)	hu <sup>55</sup> (A12)	ru <sup>55</sup> (A12)	--	--	--	--	'silver, money'
*hl/ʔl-	*hla <sup>B</sup>	la <sup>55</sup> (B12)	la <sup>33</sup> (B12)	la <sup>11</sup> (B)	le <sup>11</sup> (B)	le <sup>33</sup> (B)	la <sup>11</sup> (B)	la <sup>31~</sup> (B12)	la <sup>45'</sup> (B12)	la <sup>33</sup> (B12)	la <sup>55</sup> (B12)	'leaf'
*s-	*sej <sup>A</sup>	si <sup>31</sup> (A12)	si <sup>31</sup> (A12)	θi <sup>53</sup> (A12)	sə <sup>33</sup> (A12)	θi <sup>55</sup> (A12)	si <sup>55</sup> (A12)	si <sup>33</sup> (A)	si <sup>55</sup> (A12)	sei <sup>35</sup> (A1)	θei <sup>53</sup> (A1)	'dead, to die'
*ç	*ça <sup>B</sup>	cha <sup>55</sup> (B12)	cha <sup>33</sup> (B12)	cha <sup>11</sup> (B)	che <sup>11</sup> (B)	ʃe <sup>33</sup> (B)	cha <sup>11</sup> (B)	cha <sup>31~</sup> (B12)	cha <sup>45'</sup> (B12)	sja <sup>33</sup> (B12)	cha <sup>55</sup> (B12)	'star'
*h-	*~ha <sup>A-B</sup>	~ha <sup>31</sup> (A12)	~ha <sup>33</sup> (A12)	~ha <sup>11</sup> (B)	~he <sup>33</sup> (A12)	~he <sup>33</sup> (B)	~ha <sup>55</sup> (A12)	ha <sup>33</sup> ~ (A)	~ha <sup>55</sup> (A12)	--	ya <sup>55</sup> (B12)	'last night, yesterday'
*p-	*pə <sup>B</sup>	pə <sup>55</sup> (B12)	pə <sup>33</sup> (B12)	pəi <sup>11</sup> (B)	po <sup>11</sup> (B)	bo <sup>33</sup> (B)	pə <sup>11</sup> (B)	--	--	--	--	'to look after (~ things)'
*t-	*tə <sup>B</sup>	tə <sup>55</sup> (B12)	tə <sup>33</sup> (B12)	təi <sup>11</sup> (B)	to <sup>11</sup> (B)	do <sup>33</sup> (B)	tə <sup>11</sup> (B)	--	--	--	--	'to arrive'
*c-	*cə <sup>B</sup>	cau <sup>55</sup> (B12)	cau <sup>33</sup> (B12)	cau <sup>11</sup> (B)	co <sup>11</sup> (B)	cə <sup>33</sup> (B)	co <sup>11</sup> (B)	cə <sup>31~</sup> (B12)	cə <sup>45'</sup> (B12)	cə <sup>33</sup> (B12)	co <sup>55</sup> (B12)	'wet'
*k-	*ka <sup>B</sup>	ka <sup>55</sup> (B12)	ka <sup>33</sup> (B12)	ka <sup>11</sup> (B)	khe <sup>11</sup> (B)	khe <sup>33</sup> (B)	kha <sup>11</sup> (B)	kha <sup>31~</sup> (B12)	kha <sup>45'</sup> (B12)	kha <sup>33</sup> (B12)	kha <sup>55</sup> (B12)	'chin'
*ʔ-	*ʔe <sup>B</sup>	ʔe <sup>55</sup> (B12)	ʔe <sup>33</sup> (B12)	ʔai <sup>11</sup> (B)	ʔi <sup>11</sup> (B)	i <sup>11</sup> (D3?)	ʔi <sup>11</sup> (B)	ʔe <sup>31~</sup> (B12)	ʔe <sup>45'</sup> (B12)	ʔi <sup>33</sup> (B12)	ʔi <sup>55</sup> (B12)	'dung, excrement'
*ʔb-	*ʔban <sup>B</sup>	ban <sup>55</sup> (B12)	ban <sup>33</sup> (B12)	ban <sup>11</sup> (B)	bə <sup>11</sup> (B)	ba <sup>33</sup> (B)	bə <sup>11</sup> (B)	bə <sup>31~</sup> (B12)	bə <sup>45'</sup> (B12)	bə <sup>33</sup> (B12)	bə <sup>55</sup> (B12)	'bamboo shoot'
*ʔd-	*ʔda <sup>A</sup>	da <sup>31</sup> (A12)	da <sup>31</sup> (A12)	da <sup>53</sup> (A12)	də <sup>33</sup> (A12)	də <sup>55</sup> (A12)	da <sup>55</sup> (A12)	da <sup>33</sup> (A)	da <sup>55</sup> (A12)	da <sup>31</sup> (A23)	da <sup>55</sup> (A23)	'to spread out (mats)'
*hm/ʔm-	*hme <sup>B</sup>	me <sup>55</sup> (B12)	me <sup>33</sup> (B12)	mai <sup>11</sup> (B)	mi <sup>11</sup> (B)	mi <sup>33</sup> (B)	mi <sup>11</sup> (B)	me <sup>31~</sup> (B12)	me <sup>45'</sup> (B12)	mi <sup>33</sup> (B12)	mi <sup>55</sup> (B12)	'fire'

**Table 1** Proto-Karen onsets (continued)

Proto-Karen		N. Pa-O	S. Pa-O	Kayan	Kayah	Bwe	Kayaw	N. Sgaw	S. Sgaw	N. Pwo	S. Pwo	Gloss
*ʔn-	*ʔneŋ <sup>B</sup>	neŋ <sup>55</sup> (B12)	neŋ <sup>33</sup> (B12)	ne <sup>11</sup> (B)	na <sup>11</sup> (B)	de <sup>33</sup> (B)	de <sup>11</sup> (B)	ni <sup>31-</sup> (B12)	ni <sup>45'</sup> (B12)	nāi <sup>33</sup> (B12)	nēi <sup>55</sup> (B12)	'year'
*ʔn/hŋ-	*ʔn/hŋa <sup>B</sup>	ja <sup>55</sup> (B12)	ja <sup>33</sup> (B12)	Ja <sup>11</sup> (B)	ja <sup>11</sup> (B)	--	ja <sup>11</sup> (B)	ŋa <sup>31-</sup> (B12)	ŋa <sup>45'</sup> (B12)	ja <sup>33</sup> (B12)	ja <sup>55</sup> (B12)	'flesh, meat'
*ʔw-	*ʔwi <sup>B</sup>	ʔwi <sup>55</sup> (B12)	ʔwi <sup>33</sup> (B12)	ʔwi <sup>11</sup> (B)	wi <sup>11</sup> (B)	--	wi <sup>11</sup> (B)	--	--	ʔwi <sup>33</sup> (B12)	ʔwi <sup>55</sup> (B12)	'delicious'
*ʔj-	*ʔjeN <sup>B</sup>	ʔen <sup>55</sup> (B12)	ʔem <sup>33</sup> (B12)	ʔjan <sup>11</sup> (B)	ʔi <sup>11</sup> (B)	--	ʔi <sup>11</sup> (B)	ʔi <sup>31-</sup> (B12)	ʔi <sup>45'</sup> (B12)	ʔai <sup>33</sup> (B12)	ʔai <sup>55</sup> (B12)	'narrow'
*ʔl-	*ʔla <sup>A</sup>	la <sup>31</sup> (A12)	la <sup>31</sup> (A12)	la <sup>53</sup> (A12)	le <sup>33</sup> (A12)	le <sup>55</sup> (A12)	la <sup>55</sup> (A12)	la <sup>33</sup> (A)	la <sup>55</sup> (A12)	la <sup>55</sup> (A23)	la <sup>31</sup> (A23)	'moon, month'
*b-	*bi <sup>2D</sup>	pe <sup>221</sup> (D12)	pi <sup>221</sup> (D12)	pi <sup>221</sup> (D3)	pi <sup>33</sup> (D3)	bi <sup>11</sup> (D3)	pi <sup>33</sup> (D)	phi <sup>221</sup> (D3)	pai <sup>11</sup> (D3)	phai <sup>221</sup> (D3)	phai <sup>245</sup> (D3)	'to extinguish'
*d-	*dow <sup>B</sup>	thu <sup>53</sup> (B3)	tu <sup>55</sup> (B3)	tu <sup>11</sup> (B)	to <sup>11</sup> (B)	du <sup>11</sup> (B)	tu <sup>11</sup> (B)	ti <sup>11</sup> (B3)	ti <sup>31</sup> (B3)	thou <sup>11</sup> (B3)	thou <sup>33</sup> (B3)	'to thread (needles)'
*j-	*Ja <sup>B</sup>	cha <sup>53</sup> (B3)	ca <sup>55</sup> (B3)	ca <sup>11</sup> (B)	ce <sup>11</sup> (B)	je <sup>33</sup> (B)	ca <sup>11</sup> (B)	--	ca <sup>31</sup> (B3)	--	--	'young, soft'
*g-	*go <sup>B</sup>	kho <sup>53</sup> (B3)	ko <sup>55</sup> (B3)	kau <sup>11</sup> (B)	ku <sup>11</sup> (B)	--	ku <sup>11</sup> (B)	ko <sup>11</sup> (B3)	ku <sup>31</sup> (B3)	khu <sup>11</sup> (B3)	khu <sup>33</sup> (B3)	'sunlight, hot'
*m-	*ma <sup>A</sup>	ma <sup>33</sup> (A3)	ma <sup>53</sup> (A3)	ma <sup>33</sup> (A3)	me <sup>11</sup> (A3)	me <sup>33</sup> (A3)	ma <sup>33</sup> (A3)	ma <sup>33</sup> (A)	ma <sup>33</sup> (A3)	me <sup>55</sup> (A3)	ma <sup>31</sup> (A3)	'to do, to make'
*n-	*na <sup>B</sup>	na <sup>53</sup> (B3)	na <sup>55</sup> (B3)	na <sup>11</sup> (B)	ne <sup>11</sup> (B)	ne <sup>33</sup> (B)	na <sup>11</sup> (B)	na <sup>11</sup> (B3)	na <sup>31</sup> (B3)	ne <sup>11</sup> (B3)	na <sup>33</sup> (B3)	'ear'
*ŋ-	*ŋa <sup>A</sup>	ja <sup>33</sup> (A3)	ja <sup>53</sup> (A3)	Ja <sup>33</sup> (A3)	ja <sup>11</sup> (A3)	--	--	ŋa <sup>33</sup> (A)	--	ja <sup>35</sup> (A1)	ja <sup>53</sup> (A1)	'palm (of the hand)'
*w-	*wi <sup>A</sup>	wi <sup>33</sup> (A3)	wi <sup>53</sup> (A3)	--	wi <sup>11</sup> (A3)	wi <sup>33</sup> (A3)	wi <sup>33</sup> (A3)	wi <sup>33</sup> (A)	wi <sup>33</sup> (A3)	wei <sup>55</sup> (A23)	wei <sup>31</sup> (A23)	'mole (rodent)'
*j-	*jow <sup>B</sup>	ju <sup>53</sup> (B3)	ju <sup>55</sup> (B3)	Ju <sup>11</sup> (B)	jo <sup>11</sup> (B)	ju <sup>11</sup> (D3?)	ju <sup>11</sup> (B)	ji <sup>11</sup> (B3)	ji <sup>31</sup> (B3)	jou <sup>11</sup> (B3)	jou <sup>33</sup> (B3)	'mouse, rat'
*r-	*re <sup>B</sup>	re <sup>53</sup> (B3)	re <sup>55</sup> (B3)	rai <sup>11</sup> (B)	ri <sup>11</sup> (B)	--	ri <sup>11</sup> (B)	ye <sup>11</sup> (B3)	ye <sup>31</sup> (B3)	yi <sup>11</sup> (B3)	yi <sup>33</sup> (B3)	'rattan'
*l-	*la <sup>2D</sup>	la <sup>245</sup> (D3)	la <sup>245</sup> (D3)	la <sup>221</sup> (D3)	le <sup>33</sup> (D3)	le <sup>11</sup> (D3)	lo <sup>33</sup> (D3)	la <sup>221</sup> (D3)	la <sup>11</sup> (D3)	la <sup>221</sup> (D3)	la <sup>245</sup> (D3)	'below, underneath'
*phr-	*phr <sup>ɔ</sup> A	--	--	phɔ <sup>53</sup> (A12)	pho <sup>33</sup> (A12)	phr <sup>ɔ</sup> 33 (A3)	pho <sup>55</sup> (A12)	pho <sup>33</sup> (A)	pho <sup>55</sup> (A12)	pho <sup>35</sup> (A1)	pho <sup>53</sup> (A1)	'to boil'
*khr-	*khrɛj <sup>B</sup>	khri <sup>55</sup> (B12)	khri <sup>33</sup> (B12)	--	khr <sup>ɛ</sup> 11 (B)	--	ci <sup>11</sup> (B)	xi <sup>31-</sup> (B12)	xi <sup>45'</sup> (B12)	kei <sup>33</sup> (B12)	kei <sup>55</sup> (B12)	'body dirt'
*sr-	*sra <sup>A</sup>	sa <sup>31</sup> (A12)	sa <sup>31</sup> (A12)	θa <sup>53</sup> (A12)	se <sup>33</sup> (A12)	θre <sup>55</sup> (A12)	sa <sup>55</sup> (A12)	ɕya <sup>33</sup> (A)	ɕya <sup>55</sup> (A12)	sja <sup>35</sup> (A1)	θa <sup>53</sup> (A1)	'bamboo strip'
*t/kr-	*kre <sup>A</sup>	--	--	re <sup>33</sup> (A3)	re <sup>33</sup> (A12)	tre <sup>55</sup> (A12)	re <sup>55</sup> (A12)	kə <sup>11</sup> re <sup>33</sup> (A)	re <sup>55</sup> (A12)	--	yei <sup>31</sup> (A23)	'monitor lizard (water ~)'
*br-	*s-bra <sup>B</sup>	phra <sup>53</sup> (B3)	phra <sup>55</sup> (B3)	pra <sup>11</sup> (B)	phre <sup>11</sup> (B)	(θa <sup>33</sup> ) bwɛ <sup>33</sup> (B)	pra <sup>11</sup> (B)	(sa <sup>245</sup> ) pya <sup>11</sup> (B3)	pya <sup>31</sup> (B3)	sja <sup>11</sup> (B3)	ɕha <sup>33</sup> (B3)	'old (of people)'
*Jr-	*Jram <sup>A</sup>	sam <sup>33</sup> (A3)	sam <sup>53</sup> (A3)	caŋ <sup>33</sup> (A3)	khre <sup>11</sup> (A3)	--	co <sup>33</sup> (A3)	xo <sup>33</sup> (A)	xo <sup>33</sup> (A3)	--	--	'bedbug'

Table 1 Proto-Karen onsets (continued)

3Proto-Karen		N. Pa-O	S. Pa-O	Kayan	Kayah	Bwe	Kayaw	N. Sgaw	S. Sgaw	N. Pwo	S. Pwo	Gloss
*gr-	*gra <sup>B</sup>	sa <sup>53</sup> (B3)	ca <sup>55</sup> (B3)	ca <sup>11</sup> (B)	khre <sup>11</sup> (B)	--	ca <sup>11</sup> (B)	xa <sup>11</sup> (B3)	xa <sup>31</sup> (B3)	xa <sup>11</sup> (B3)	xa <sup>33</sup> (B3)	'louse, insect'
*phl-	*phlon <sup>B</sup>	phron <sup>55</sup> (B12)	plon <sup>33</sup> (B12)	phləu <sup>11</sup> (B)	phlə <sup>11</sup> (B)	--	phlə <sup>11</sup> (B)	phlə <sup>31~</sup> (B12)	phli <sup>45'</sup> (B12)	phāu <sup>33</sup> (B12)	phlōu <sup>55</sup> (B12)	'clf. [-human, + flat]'
*khl-	*khlɔ <sup>B</sup>	khau <sup>55</sup> (B12)	klau <sup>33</sup> (B12)	--	--	khlɔ <sup>33</sup> (B)	--	khlɔ <sup>31~</sup> (B12)	khlɔ <sup>45'</sup> (B12)	khlɔ <sup>33</sup> (B12)	khlɔ <sup>55</sup> (B12)	'mat'
*pl-	*pla <sup>A-B</sup>	pla <sup>31</sup> (A12)	pla <sup>31</sup> (A12)	bla <sup>11</sup> (B)	ple <sup>11</sup> (B)	plɛ <sup>11</sup> (D3?)	pla <sup>11</sup> (B)	bla <sup>33</sup> (A)	bla <sup>55</sup> (A12)	phla <sup>33</sup> (B12)	phla <sup>55</sup> (B12)	'bat'
*kl-	*kla <sup>A</sup>	khra <sup>31</sup> (A12)	kla <sup>31</sup> (A12)	--	kle <sup>33</sup> (A12)	--	ka <sup>55</sup> (A12)	kla <sup>45</sup> (D12)	kla <sup>55</sup> (A12)	kla <sup>55</sup> (A23)	kla <sup>31</sup> (A23)	'forest, jungle'
*?bl-	*?bla <sup>A</sup>	pla <sup>31</sup> (A12)	--	bla <sup>53</sup> (A12)	--	plɛ <sup>55</sup> (A12)	--	bla <sup>33</sup> (A)	bla <sup>55</sup> (A12)	bla <sup>55</sup> (A23)	bla <sup>31</sup> (A23)	'tasteless, pale'
*bl-	*bla <sup>B</sup>	phra <sup>53</sup> (B3)	pla <sup>55</sup> (B3)	pla <sup>11</sup> (B)	ple <sup>11</sup> (B)	bl(a) <sup>33</sup> (B)	pla <sup>11</sup> (B)	pla <sup>11</sup> (B3)	pla <sup>31</sup> (B3)	phla <sup>11</sup> (B3)	phla <sup>33</sup> (B3)	'to wash (face)'
*gl-	*glɛ <sup>A</sup>	--	klai <sup>53</sup> (A3)	khle <sup>33</sup> (A3)	kle <sup>33</sup> (A12)	kle <sup>33</sup> (A3)	kle <sup>33</sup> (A3)	kle <sup>33</sup> (A)	kle <sup>33</sup> (A3)	kle <sup>55</sup> (A23)	--	'path, way'
*ml-	*k-mlɔ <sup>NA</sup>	--	mɔ <sup>53</sup> (A3)	mɔ <sup>33</sup> (A3)	mo <sup>11</sup> (A3)	-blɔ <sup>11</sup> (D3?)	--	kə <sup>11</sup> mlɔ <sup>33</sup> (A)	mlu <sup>33</sup> (A3)	mlɔ <sup>55</sup> (A23)	mlɔ <sup>31</sup> (A23)	'trunk (of an elephant)'
*phr-	*phri <sup>A</sup>	phwi <sup>31</sup> (A12)	phwi <sup>31</sup> (A12)	phwi <sup>53</sup> (A12)	phwi <sup>33</sup> (A12)	phwi <sup>55</sup> (A12)	phi <sup>55</sup> (A12)	phyi <sup>33</sup> (A)	phyi <sup>55</sup> (A12)	khwi <sup>35</sup> (A1)	khwi <sup>53</sup> (A12)	'light (adj.)'
*thw-	*thwi <sup>B</sup>	thwi <sup>55</sup> (B12)	thwi <sup>33</sup> (B12)	thwi <sup>11</sup> (B)	thwi <sup>11</sup> (B)	thwi <sup>33</sup> (B)	thi <sup>11</sup> (B)	thwi <sup>31~</sup> (B12)	thwi <sup>45'</sup> (B12)	thwi <sup>33</sup> (B12)	thwi <sup>55</sup> (B12)	'dog'
*chw-	*chwe <sup>B</sup>	chwe <sup>55</sup> (B12)	chwe <sup>33</sup> (B12)	chwe <sup>11</sup> (B)	chwa <sup>11</sup> (B)	ʃwe <sup>33</sup> (B)	che <sup>11</sup> (B)	chwe <sup>31~</sup> (B12)	chwe <sup>45'</sup> (B12)	chwe <sup>33</sup> (B12)	chwe <sup>55</sup> (B12)	'crab'
*khw-	*khwa <sup>A</sup>	kho <sup>31</sup> (A12)	kho <sup>31</sup> (A12)	khau <sup>53</sup> (A12)	khu <sup>33</sup> (A12)	~kho <sup>55</sup> (A12)	khu <sup>55</sup> (A12)	khwa <sup>33</sup> (A)	khwa <sup>55</sup> (A12)	khwa <sup>35</sup> (A1)	khwa <sup>53</sup> (A1)	'man'
*hn/?nw-	*hn/?nwe <sup>B</sup>	nwe <sup>55</sup> (B12)	nwe <sup>33</sup> (B12)	nwe <sup>11</sup> (B)	--	nwe <sup>33</sup> (B)	nɛ <sup>11</sup> (B)	nwe <sup>11</sup> (B3?)	nwe <sup>45'</sup> (B12)	nɛ <sup>33</sup> (B12)	nɛ <sup>55</sup> (B12)	'yam'
*sw-	*swi <sup>B</sup>	swi <sup>55</sup> (B12)	swi <sup>33</sup> (B12)	θwi <sup>11</sup> (B)	swi <sup>11</sup> (B)	θwi <sup>33</sup> (B)	su <sup>11</sup> (B)	swi <sup>31~</sup> (B12)	swi <sup>45'</sup> (B12)	swi <sup>33</sup> (B12)	θwi <sup>55</sup> (B12)	'blood'
*cw-	*cwik <sup>D</sup>	cok <sup>21</sup> (D12)	cu <sup>21</sup> (D12)	cwi <sup>245</sup> (D12)	cwi <sup>55</sup> (D12)	--	ci <sup>33</sup> (D)	(sə <sup>11</sup> ) wi <sup>245</sup> (D12)	--	--	(θə <sup>11</sup> ) wai <sup>231</sup> (D12)	'to suck'
*kw-	*~ki <sup>B</sup>	~ki <sup>55</sup> (B12)	--	~khi <sup>11</sup> (B)	~khwi <sup>11</sup> (B)	~k(h)i <sup>33</sup> (B)	~ki <sup>11</sup> (B)	~ki <sup>221</sup> (D3?)	~ki <sup>45'</sup> (B12)	~kei <sup>33</sup> (B12)	~kei <sup>55</sup> (B12)	'parrot'
*?bw-	*?bwa <sup>A</sup>	bwa <sup>31</sup> (A12)	bwa <sup>31</sup> (A12)	bau <sup>53</sup> (A12)	bu <sup>33</sup> (A12)	bu <sup>55</sup> (A12)	bu <sup>55</sup> (A12)	wa <sup>33</sup> (A)	wa <sup>55</sup> (A12)	?we <sup>42</sup> (A23)	kwa <sup>31</sup> (A2-3)	'white'
*?dw-	*?dwe <sup>B</sup>	dwe <sup>55</sup> (B12)	dwe <sup>33</sup> (B12)	dwe <sup>11</sup> (B)	--	dɛ <sup>33</sup> (B)	dɛ <sup>11</sup> (B)	dwe <sup>31~</sup> (B12)	dwe <sup>45'</sup> (B12)	thwe <sup>11</sup> (B3)	thwe <sup>33</sup> (B3)	'grasshopper'
*dw-	*dwe <sup>2D</sup>	the <sup>245</sup> (D3)	te <sup>245</sup> (D3)	tu <sup>221</sup> (D3)	tu <sup>33</sup> (D3)	the <sup>33</sup> (D12)	tu <sup>33</sup> (D3)	the <sup>221</sup> (D3)	te <sup>11</sup> (D3)	the <sup>221</sup> (D3)	the <sup>245</sup> (D3)	'torn'
*gw-	*gwa <sup>A</sup>	wa <sup>33</sup> (A3)	wa <sup>53</sup> (A3)	gwa <sup>33</sup> (A3)	we <sup>11</sup> (A3)	wa <sup>33</sup> (A3)	wu <sup>33</sup> (A3)	wa <sup>33</sup> (A)	wa <sup>33</sup> (A3)	wa <sup>55</sup> (A23)	wa <sup>31</sup> (A23)	'husband'
*mw-	*mwe <sup>B</sup>	mwe <sup>53</sup> (B3)	mwe <sup>55</sup> (B3)	mwe <sup>11</sup> (B)	ma <sup>11</sup> (B)	--	mɛ <sup>11</sup> (B)	me <sup>11</sup> (B3)	mɛ <sup>31</sup> (B3)	mɛ <sup>11</sup> (B3)	mwe <sup>33</sup> (B3)	'yes'

**Table 1** Proto-Karen onsets (continued)

Proto-Karen		N. Pa-O	S. Pa-O	Kayan	Kayah	Bwe	Kayaw	N. Sgaw	S. Sgaw	N. Pwo	S. Pwo	Gloss
*ɲw-	*s-ɲwi <sup>B</sup>	ɲwi <sup>55</sup> (B12)	ɲwi <sup>33</sup> (B12)	ɲwi <sup>11</sup> (B)	--	(θə <sup>55</sup> ) mi <sup>33</sup> (B)	(si <sup>11</sup> ) mi <sup>11</sup> (B)	--	--	--	--	'water snail'
*rw-	*rwi <sup>B</sup>	rwi <sup>53</sup> (B3)	rwi <sup>55</sup> (B3)	rwi <sup>11</sup> (B)	rwi <sup>11</sup> (B)	(kha <sup>33</sup> ) wi <sup>33</sup> (B)	ri <sup>11</sup> (B)	ɣi <sup>11</sup> (B3)	ɣi <sup>31</sup> (B3)	ɣei <sup>11</sup> (B3)	βei <sup>33</sup> (B3)	'root'
*lw-	*~lwi <sup>B</sup>	~lwi <sup>53</sup> (B3)	~lwi <sup>55</sup> (B3)	~lwi <sup>11</sup> (B)	~lwi <sup>11</sup> (B)	~lwi <sup>33</sup> (B)	~li <sup>11</sup> (B)	~lwi <sup>11</sup> (B3)	~lwi <sup>31</sup> (B3)	~lei <sup>11</sup> (B3)	~lwi <sup>33</sup> (B3)	'dove'
*chj-	*chja <sup>N<sup>A</sup></sup>	ɕhja <sup>31</sup> (A12)	ɕhja <sup>31</sup> (A12)	ɕhi <sup>53</sup> (A12)	cha <sup>33</sup> (A12)	ʃi <sup>55</sup> (A12)	chi <sup>55</sup> (A12)	chə <sup>33</sup> (A)	chə <sup>55</sup> (A12)	chē <sup>35</sup> (A1)	chə <sup>53</sup> (A1)	'chicken'
*kj-	*kja <sup>D</sup>	khja <sup>221</sup> (D12)	khja <sup>221</sup> (D12)	khi <sup>245</sup> (D12)	khja <sup>55</sup> (D12)	--	--	ki <sup>245</sup> (D12)	kai <sup>221</sup> (D12)	kai <sup>245</sup> (D12)	kai <sup>231</sup> (D12)	'astringent'
*ʔbj-	*ʔbja <sup>B</sup>	pja <sup>53</sup> (B12)	pja <sup>33</sup> (B12)	bja <sup>11</sup> (B)	--	(bɛ <sup>33</sup> ) ba <sup>33</sup> (B)	--	--	--	pa <sup>33</sup> (B12)	bai <sup>55</sup> (B12)	'flat'
*ɲj-	*ɲja <sup>D</sup>	ɲja <sup>245</sup> (D3)	ɲja <sup>245</sup> (D3)	ɲi <sup>221</sup> (D3)	ɲja <sup>33</sup> (D3)	(ɔ <sup>33</sup> .) ji <sup>11</sup> (D3)	ji <sup>33</sup> (D)	ji <sup>221</sup> (D3)	jai <sup>11</sup> (D3)	jai <sup>221</sup> (D3)	jai <sup>245</sup> (D3)	'long (of time)'
*rj-	*rja <sup>A</sup>	rja <sup>33</sup> (A3)	rja <sup>53</sup> (A3)	ja <sup>33</sup> (A3)	je <sup>11</sup> (B)	(gə)-je <sup>33</sup> (B)	ja <sup>11</sup> (B)	ja <sup>33</sup> (A)	ja <sup>33</sup> (A3)	ja <sup>55</sup> (A23)	ja <sup>31</sup> (A23)	'hundred'
*khrw-	*khrwit <sup>D</sup>	chut <sup>21</sup> (D12)	chut <sup>21</sup> (D12)	chwi <sup>245</sup> (D12)	khrwi <sup>55</sup> (D12)	khwi <sup>33</sup> (D12)	chu <sup>33</sup> (D)	xi <sup>33</sup> (A)	(ta <sup>11</sup> ) xi <sup>55</sup> (A12)	xei <sup>33</sup> (B12)	xwi <sup>55</sup> (B12)	'bone'

Table 2 Proto-Karen rhymes

Proto-Karen	N. Pa-O	S. Pa-O	Kayan	Kayah	Bwe	Kayaw	N. Sgaw	S. Sgaw	N. Pwo	S. Pwo	Gloss	
*i	*mi <sup>A</sup>	mi <sup>33</sup> (A3)	mi <sup>53</sup> (A3)	mi <sup>33</sup> (A3)	mi <sup>11</sup> (A3)	--	mi <sup>33</sup> (A3)	mi <sup>33</sup> (A)	mi <sup>33</sup> (A3)	mei <sup>55</sup> (A23)	mei <sup>31</sup> (A23)	'wild, e.g. ~ boar'
*e	*ce <sup>B</sup>	ce <sup>55</sup> (B12)	ce <sup>33</sup> (B12)	cai <sup>33</sup> (B12)	ci <sup>11</sup> (B)	cr <sup>33</sup> (B)	ci <sup>11</sup> (B)	ce <sup>31~</sup> (B12)	ce <sup>45'</sup> (B12)	ci <sup>33</sup> (B12)	ci <sup>55</sup> (B12)	'left side'
*ɛ	*lɛ <sup>B</sup>	lai <sup>53</sup> (B3)	lai <sup>55</sup> (B3)	lɛ <sup>11</sup> (B)	lɛ <sup>11</sup> (B)	lɛ <sup>33</sup> (B)	lɛ <sup>11</sup> (B)	lɛ <sup>11</sup> (B3)	lɛ <sup>31</sup> (B3)	lɛ <sup>11</sup> (B3)	lɛ <sup>33</sup> (B3)	'wide'
*i	*hm/?mi <sup>B</sup>	mi <sup>53</sup> (B3)	mi <sup>33</sup> (B12)	mi <sup>11</sup> (B)	mɔ <sup>11</sup> (B)	mo <sup>33</sup> (B)	mi <sup>11</sup> (B)	mi <sup>31~</sup> (B12)	mi <sup>45'</sup> (B12)	mi <sup>33</sup> (B12)	mi <sup>55</sup> (B12)	'woman, female'
*ə	*phə <sup>B</sup>	phə <sup>55</sup> (B12)	phə <sup>33</sup> (B12)	phəi <sup>11</sup> (B)	pho <sup>11</sup> (B)	--	phəi <sup>11</sup> (B)	phi <sup>31~</sup> (B12)	phi <sup>45'</sup> (B12)	phəi <sup>33</sup> (B12)	phi <sup>55</sup> (B12)	'short, low'
*a	*cha <sup>A</sup>	ca <sup>31</sup> (A12)	ca <sup>31</sup> (A12)	cha <sup>53</sup> (A12)	che <sup>33</sup> (A12)	ʃɛ <sup>55</sup> (A12)	cha <sup>55</sup> (A12)	cha <sup>33</sup> (A)	cha <sup>55</sup> (A12)	cha <sup>35</sup> (A1)	cha <sup>53</sup> (A1)	'to sell'
*u	*ʔu <sup>A</sup>	ʔu <sup>31</sup> (A12)	ʔu <sup>31</sup> (A12)	ʔu <sup>53</sup> (A12)	ʔu <sup>33</sup> (A12)	u <sup>33</sup> (B)	ʔu <sup>55</sup> (A12)	ʔu <sup>33</sup> (A)	ʔu <sup>55</sup> (A12)	ʔu <sup>55</sup> (A23)	ʔu <sup>31</sup> (A23)	'to blow'
*o	*do <sup>B</sup>	tho <sup>53</sup> (B3)	to <sup>55</sup> (B3)	--	tu <sup>11</sup> (B)	do <sup>33</sup> (B)	tu <sup>11</sup> (B)	to <sup>11</sup> (B3)	tu <sup>31</sup> (B3)	thu <sup>11</sup> (B3)	thu <sup>33</sup> (B3)	'handle (n.)'
*ɔ	*sɔ <sup>B</sup>	sau <sup>55</sup> (B12)	ɕau <sup>33</sup> (B12)	θau <sup>11</sup> (B)	so <sup>11</sup> (B)	θɔ <sup>33</sup> (B)	so <sup>11</sup> (B)	ɕɔ <sup>31~</sup> (B12)	ɕɔ <sup>45'</sup> (B12)	ɕjo <sup>33</sup> (B12)	θo <sup>55</sup> (B12)	'hemp'
*ej	*ʔdej <sup>B</sup>	di <sup>55</sup> (B12)	di <sup>33</sup> (B12)	ti <sup>11</sup> (B)	də <sup>11</sup> (B)	ɗi <sup>33</sup> (B)	di <sup>11</sup> (B)	di <sup>31~</sup> (B12)	di <sup>45'</sup> (B12)	dei <sup>33</sup> (B12)	dei <sup>55</sup> (B12)	'egg'
*aj	*hl/?laj <sup>B</sup>	--	lai <sup>33</sup> (B12)	lai <sup>11</sup> (B)	--	lr <sup>33</sup> (B)	li <sup>11</sup> (B)	le <sup>31~</sup> (B12)	li <sup>45'</sup> (B12)	--	lai <sup>55</sup> (B12)	'to lick'
*aw	*thaw <sup>A</sup>	tho <sup>31</sup> (A12)	tho <sup>31</sup> (A12)	thau <sup>53</sup> (A12)	thu <sup>33</sup> (A12)	tho <sup>55</sup> (A12)	thu <sup>55</sup> (A12)	tho <sup>33</sup> (A)	tho <sup>55</sup> (A12)	tho <sup>35</sup> (A1)	tho <sup>53</sup> (A1)	'long, tall'
*ow	*hl/?low <sup>B</sup>	lu <sup>55</sup> (B12)	lu <sup>33</sup> (B12)	lu <sup>11</sup> (B)	lo <sup>11</sup> (B)	lu <sup>33</sup> (B)	lu <sup>11</sup> (B)	li <sup>31~</sup> (B12)	li <sup>45'</sup> (B12)	lou <sup>33</sup> (B12)	lou <sup>55</sup> (B12)	'cotton thread'
*im	*ʃim <sup>B</sup>	cim <sup>55</sup> (B12)	cim <sup>33</sup> (B12)	ci <sup>11</sup> (B)	ci <sup>11</sup> (B)	ci <sup>33</sup> (B)	ci <sup>11</sup> (B)	ci <sup>11</sup> (B3)	ci <sup>31</sup> (B3)	chāi <sup>11</sup> (B3)	chēi <sup>33</sup> (B3)	'to squeeze, to ooze'
*in	*hmin <sup>A</sup>	min <sup>31</sup> (A12)	min <sup>31</sup> (A12)	mjəŋ <sup>53</sup> (A12)	mi <sup>33</sup> (A12)	mi <sup>55</sup> (A12)	mi <sup>55</sup> (A12)	mi <sup>33</sup> (A)	mi <sup>55</sup> (A12)	māi <sup>35</sup> (A1)	mēi <sup>53</sup> (A1)	'ripe, cooked'
*iŋ	*~khiŋ <sup>A-B</sup>	~khiŋ <sup>55</sup> (B12)	khiŋ <sup>33</sup> (B12)	khi <sup>53</sup> (A12)	khi <sup>33</sup> (A12)	--	khi <sup>55</sup> (A12)	~khi <sup>33</sup> (A)	--	khāi <sup>35</sup> (A1)	~khēi <sup>53</sup> (A1)	'tilted'
*eŋ	*ʔneŋ <sup>B</sup>	neŋ <sup>55</sup> (B12)	neŋ <sup>33</sup> (B12)	ne <sup>11</sup> (B)	na <sup>11</sup> (B)	ɗe <sup>33</sup> (B)	de <sup>11</sup> (B)	ni <sup>31~</sup> (B12)	ni <sup>45'</sup> (B12)	nāi <sup>33</sup> (B12)	nēi <sup>55</sup> (B12)	'year'
*ɛm	*hl/?ljem <sup>B</sup>	lem <sup>55</sup> (B12)	lɛm <sup>33</sup> (B12)	ljaŋ <sup>11</sup> (B)	ja <sup>11</sup> (B)	--	li <sup>11</sup> (B)	le <sup>31~</sup> (B12)	li <sup>45'</sup> (B12)	lāi <sup>33</sup> (B12)	lāi <sup>55</sup> (B12)	'to put out (~ the tongue)'
*ɛn	*ʔɛn <sup>B</sup>	ʔeŋ <sup>55</sup> (B12)	ʔɛm/n <sup>33</sup> (B12)	ʔi <sup>11</sup> (B)	ʔa <sup>11</sup> (B)	--	--	ʔe <sup>31~</sup> (B12)	ʔi <sup>45'</sup> (B12)	ʔāi <sup>33</sup> (B12)	ʔāi <sup>55</sup> (B12)	'to bite'
*eŋ	*theŋ <sup>A</sup>	theŋ <sup>31</sup> (A12)	theŋ <sup>33</sup> (A12)	thi <sup>53</sup> (A12)	tha <sup>33</sup> (A12)	the <sup>55</sup> (A12)	thi <sup>55</sup> (A12)	the <sup>33</sup> (A)	thi <sup>55</sup> (A12)	thāi <sup>35</sup> (A1)	thāi <sup>53</sup> (A1)	'to weave (baskets)'
*im	*dim <sup>A</sup>	thom <sup>33</sup> (A3)	təm <sup>53</sup> (A3)	tɪ <sup>33</sup> (A3)	tɪ <sup>11</sup> (A3)	--	tɪ <sup>33</sup> (A3)	tə <sup>33</sup> (A)	tɪ <sup>33</sup> (A3)	thā <sup>55</sup> (A23)	thā <sup>31</sup> (A23)	'a linear measure (½ yard)'
*in	*phrim/n <sup>A</sup>	phrim <sup>31</sup> (A12)	phrin <sup>31</sup> (A12)	phri <sup>53</sup> (A12)	phli <sup>33</sup> (A12)	phlu <sup>55</sup> (A12)	phri <sup>55</sup> (A12)	phlə <sup>33</sup> (A)	phli <sup>55</sup> (A12)	phlā <sup>35</sup> (A1)	phlāi <sup>53</sup> (A1)	'hornet'

**Table 2** Proto-Karen rhymes (continued)

Proto-Karen		N. Pa-O	S. Pa-O	Kayan	Kayah	Bwe	Kayaw	N. Sgaw	S. Sgaw	N. Pwo	S. Pwo	Gloss
*iŋ	*niŋ <sup>A</sup>	nəŋ <sup>33</sup> (A3)	nəŋ <sup>53</sup> (A3)	ni <sup>33</sup> (A3)	ni <sup>11</sup> (A3)	--	--	nə <sup>33</sup> (A)	ni <sup>33</sup> (A)	nā <sup>55</sup> (A23)	nāi <sup>31</sup> (A23)	'to win'
*əm	*səm <sup>A</sup>	səm <sup>31</sup> (A12)	səm <sup>31</sup> (A12)	θə <sup>53</sup> (A12)	sɔ <sup>33</sup> (A12)	θo <sup>55</sup> (A12)	sə <sup>55</sup> (A12)	sə <sup>33</sup> (A)	sə <sup>55</sup> (A12)	sā <sup>35</sup> (A1)	sə <sup>53</sup> (A1)	'three'
*əŋ	*thəŋ <sup>B</sup>	thoŋ <sup>55</sup> (B12)	thəŋ <sup>33</sup> (B12)	thə <sup>11</sup> (B)	thɔ <sup>11</sup> (B)	~ tho <sup>33</sup> (B)	tə <sup>11</sup> (B)	~ thə <sup>31-</sup> (B12)	thə <sup>45</sup> (B12)	thā <sup>33</sup> (B12)	thə <sup>55</sup> (B12)	'to stand'
*am	*ʔam <sup>B</sup>	ʔam <sup>55</sup> (B12)	ʔam <sup>33</sup> (B12)	ʔaŋ <sup>11</sup> (B)	ʔe <sup>11</sup> (B)	ʔa <sup>33</sup> (B)	ʔɔ <sup>33</sup> (B)	ʔɔ <sup>31-</sup> (B12)	ʔɔ <sup>45</sup> (B12)	ʔe <sup>33</sup> (B12)	ʔə <sup>55</sup> (B12)	'to eat'
*an	*~khan <sup>A</sup>	~khan <sup>31</sup> (A12)	~khan <sup>31</sup> (A12)	~khaŋ <sup>53</sup> (A12)	--	khə <sup>55</sup> (A12)	~khs <sup>55</sup> (A12)	khɔ <sup>33</sup> (A)	khɔ <sup>55</sup> (A12)	khə <sup>35</sup> (A1)	khə <sup>53</sup> (A1)	'bamboo rat'
*aŋ	*laŋ <sup>A</sup>	laŋ <sup>33</sup> (A3)	laŋ <sup>53</sup> (A3)	laŋ <sup>33</sup> (A3)	le <sup>11</sup> (A3)	la <sup>33</sup> (A3)	lɔ <sup>33</sup> (A3)	lɔ <sup>33</sup> (A)	lɔ <sup>33</sup> (A3)	lē <sup>55</sup> (A23)	lɔ <sup>31</sup> (A23)	'to descend'
*um/n	*chum/n <sup>B</sup>	chən <sup>55</sup> (B12)	chum <sup>33</sup> (B12)	chwəŋ <sup>11</sup> (B)	chi <sup>11</sup> (B)	ʃu <sup>33</sup> (B)	chu <sup>11</sup> (B)	chu <sup>31-</sup> (B12)	chu <sup>45</sup> (B12)	chā <sup>33</sup> (B12)	chō <sup>55</sup> (B12)	'hair, fur, feather'
*uŋ	*ʔbluŋ <sup>B</sup>	pləŋ <sup>55</sup> (B12)	pwəŋ <sup>33</sup> (B12)	bwaŋ <sup>11</sup> (B)	bi <sup>11</sup> (B)	ʃu <sup>33</sup> (B)	bu <sup>11</sup> (B)	bɔ <sup>31-</sup> (B12)	bɔ <sup>45</sup> (B12)	bā <sup>33</sup> (B12)	bō <sup>55</sup> (B12)	'fat (adj.)'
*om	*plom <sup>B</sup>	pom <sup>55</sup> (B12)	pom <sup>33</sup> (B12)	blo <sup>11</sup> (B)	plu <sup>11</sup> (B)	plo <sup>33</sup> (B)	plə <sup>11</sup> (B)	pu <sup>31-</sup> (B12)	pu <sup>45</sup> (B12)	pāu <sup>33</sup> (B12)	pōu <sup>55</sup> (B12)	'pile (clf.)'
*oŋ	*loŋ <sup>B</sup>	loŋ <sup>53</sup> (B3)	loŋ <sup>55</sup> (B3)	ləu <sup>11</sup> (B)	lɔ <sup>11</sup> (B)	lo <sup>33</sup> (B)	lə <sup>11</sup> (B)	lə <sup>11</sup> (B3)	li <sup>31</sup> (B3)	lāu <sup>11</sup> (B3)	lōu <sup>33</sup> (B3)	'stone, rock'
*ɔŋ	*dɔŋ <sup>B</sup>	thɔŋ <sup>53</sup> (B3)	tɔŋ <sup>55</sup> (B3)	tɔ <sup>11</sup> (B)	--	dɔ <sup>33</sup> (B)	to <sup>11</sup> (B)	to <sup>11</sup> (B3)	tu <sup>31</sup> (B3)	--	thō <sup>33</sup> (B3)	'to pound'
*it	*khrwit <sup>D</sup>	chut <sup>21</sup> (D12)	chut <sup>21</sup> (D12)	chwɪ <sup>745</sup> (D12)	khrwi <sup>55</sup> (D12)	khwi <sup>33</sup> (D12)	chu <sup>33</sup> (D)	xi <sup>33</sup> (A)	xi <sup>55</sup> (A12)	xei <sup>33</sup> (B12)	xwi <sup>55</sup> (B12)	'bone'
*ik	*cwik <sup>D</sup>	cuk <sup>21</sup> (D12)	cu <sup>21</sup> (D12)	cwi <sup>745</sup> (D12)	cwi <sup>55</sup> (D12)	--	ci <sup>33</sup> (D)	s-wi <sup>745</sup> (D12)	--	--	θ-wai <sup>731</sup> (D12)	'to suck'
*iʔ	*khi <sup>7D</sup>	khe <sup>721</sup> (D12)	khi <sup>721</sup> (D12)	khi <sup>745</sup> (D12)	khi <sup>55</sup> (D12)	khi <sup>33</sup> (D12)	khi <sup>33</sup> (D)	khi <sup>745</sup> (D12)	khai <sup>721</sup> (D12)	khai <sup>745</sup> (D12)	khai <sup>731</sup> (D12)	'dark'
*ek	*lek <sup>D</sup>	le <sup>745</sup> (D3)	lek <sup>45</sup> (D3)	li <sup>721</sup> (D3)	la <sup>33</sup> (D3)	le <sup>11</sup> (D3)	le <sup>33</sup> (D)	li <sup>721</sup> (D3)	lai <sup>11</sup> (D3)	lai <sup>721</sup> (D3)	lai <sup>745</sup> (D3)	'hawk'
*eʔ	*ʔde <sup>7D</sup>	de <sup>721</sup> (D12)	di <sup>721</sup> (D12)	--	da <sup>55</sup> (D12)	də <sup>33</sup> (D12)	de <sup>33</sup> (D)	di <sup>745</sup> (D12)	dai <sup>721</sup> (D12)	dai <sup>745</sup> (D12)	dai <sup>731</sup> (D12)	'wing'
*eʔ	*dɛ <sup>7D</sup>	the <sup>745</sup> (D3)	tɛ <sup>745</sup> (D3)	tɛ <sup>721</sup> (D3)	ta <sup>33</sup> (D3)	də <sup>11</sup> (D3)	te <sup>33</sup> (D)	tɛ <sup>721</sup> (D3)	tɛ <sup>11</sup> (D3)	the <sup>721</sup> (D3)	the <sup>745</sup> (D3)	'to fall'
*əʔ	*rə <sup>7D</sup>	rə <sup>745</sup> (D3)	rə <sup>745</sup> (D3)	rə <sup>721</sup> (D3)	rɔ <sup>33</sup> (D3)	--	rə <sup>33</sup> (D)	ʔu <sup>721</sup> (D3)	ʔə <sup>11</sup> (D3)	ʔaə <sup>721</sup> (D3)	ʔaə <sup>745</sup> (D3)	'flank (n.)'
*ap/t	*ŋjap/t <sup>D</sup>	ŋat <sup>45</sup> (D3)	ŋap <sup>45</sup> (D3)	ŋe <sup>721</sup> (D3)	ŋe <sup>33</sup> (D3)	je <sup>11</sup> (D3)	je <sup>33</sup> (D)	je <sup>11</sup> (B3)	je <sup>31</sup> (B3)	je <sup>11</sup> (B3)	je <sup>33</sup> (B3)	'five'
*ak	*~dak <sup>D</sup>	(ta <sup>33</sup> ) dak <sup>45</sup> (D3)	(ta <sup>33</sup> ) da <sup>745</sup> (D3)	(ka <sup>11</sup> ) da <sup>721</sup> (D3)	(ke <sup>55</sup> ) de <sup>33</sup> (D3)	--	(kha <sup>11</sup> ) dɔ <sup>33</sup> (D)	(kɔ <sup>721</sup> ) la <sup>721</sup> (D3)	(tha <sup>55</sup> ) la <sup>11</sup> (D3)	(kha <sup>33</sup> ) tha <sup>721</sup> (D3)	(ka <sup>721</sup> ) la <sup>745</sup> (D3)	'palate, to click'
*aʔ	*sa <sup>7D</sup>	sa <sup>721</sup> (D12)	sa <sup>721</sup> (D12)	θa <sup>745</sup> (D12)	se <sup>55</sup> (D12)	θa <sup>33</sup> (D12)	sɔ <sup>33</sup> (D)	sa <sup>745</sup> (D12)	sa <sup>721</sup> (D12)	sa <sup>745</sup> (D12)	θa <sup>721</sup> (D12)	'heart'
*uk	*kuk <sup>D</sup>	khuk <sup>721</sup> (D12)	--	khu <sup>745</sup> (D12)	khi <sup>55</sup> (D12)	θə <sup>55</sup> khu <sup>33</sup> (D12)	khi <sup>33</sup> (D)	ku <sup>745</sup> (D12)	kɔu <sup>721</sup> (D12)	kau <sup>745</sup> (D12)	kɔu <sup>731</sup> (D12)	'to cough'

Table 2 Proto-Karen rhymes (continued)

Proto-Karen	N. Pa-O	S. Pa-O	Kayan	Kayah	Bwe	Kayaw	N. Sgaw	S. Sgaw	N. Pwo	S. Pwo	Gloss	
*u <sup>?</sup>	*thu <sup>7D</sup>	--	--	thi <sup>55</sup> (D12)	--	thi <sup>33</sup> (D)	thu <sup>245</sup> (D12)	thɔu <sup>221</sup> (D12)	thau <sup>245</sup> (D12)	thɔu <sup>231</sup> (D12)	'wart'	
*ok	*~nok <sup>D</sup>	~nok <sup>45</sup> (D3)	~nu <sup>245</sup> (D3)	~nɔ <sup>221</sup> (D3)	~nɔ <sup>33</sup> (D3)	~no <sup>11</sup> (D3)	~nə <sup>33</sup> (D)	~nu <sup>221</sup> (D3)	~nɔ <sup>11</sup> (D3)	~nau <sup>221</sup> (D3)	~nɔu <sup>245</sup> (D3)	'brain'
*o <sup>?</sup>	*ʔbo <sup>7D</sup>	bo <sup>221</sup> (D12)	bu <sup>221</sup> (D12)	bɔ <sup>245</sup> (D12)	bɔ <sup>55</sup> (D12)	--	bə <sup>33</sup> (D)	bi <sup>245</sup> (D12)	bɔu <sup>221</sup> (D12)	bau <sup>245</sup> (D12)	bɔu <sup>231</sup> (D12)	'to reach into'
*ɔt	*kh/grɔt <sup>D</sup>	sɔt <sup>21</sup> (D12)	sɔt <sup>45</sup> (D3)	chau <sup>245</sup> (D12)	--	xɔ <sup>11</sup> (D3)	--	xɔ <sup>245</sup> (D12)	xo <sup>221</sup> (D12)	xo <sup>221</sup> (D3)	xu <sup>245</sup> (D3)	'eight'
*ɔ <sup>?</sup>	*prɔ <sup>7D</sup>	phrɔ <sup>221</sup> (D12)	phrɔ <sup>221</sup> (D12)	phrau <sup>245</sup> (D12)	phre <sup>55</sup> (D12)	pɔ <sup>33</sup> (D12)	pro <sup>33</sup> (D)	bɣɔ <sup>245</sup> (D12)	bɣo <sup>221</sup> (D12)	pjo <sup>245</sup> (D12)	pju <sup>221</sup> (D12)	'to vomit'