

PROTO-KAREN (*k-rjaŋ^A) FAUNA

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Abstract

*Even though the reconstruction of Proto-Karen has already been attempted and presented in different ways by a few linguists, some serious disagreements among them on some major points have been found. The research objective, here, is to offer a new look at the Proto-Karen phonology and lexicon. However, the emphasis of this paper is on the reconstruction of Proto-Karen fauna. 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 seven 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^A) 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 drawn from Proto-Karen Phonology and Lexicon (L-Thongkum, 2013, ms.) 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 (Lewis 2009). 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, 1953 and 1961; 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

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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 help obtain a better solution since the data is equal in quality and, thus, compatible.

Because of his wide-ranging interest in the five language families of mainland Southeast Asia, Haudricourt seems to have a good sense of what Southeast Asian languages should be like from the diachronic perspective; for example, his reconstruction of the three categories of Proto-Karen initials, the preglottalised set (*ʔb *ʔd), the velar fricative set (*x *ɣ), the two tones (*A and *B) and later, the addition of one more tone (B') to cope with the greater number of patterns of tonal correspondences pointed out by Luce (1959) and Jones (1971). Mazaudon (1977) clarified and expanded Haudricourt's opinion on the Proto-Karen tones and their development in modern Karenic languages.

Following his lengthy negative comments on Jones (1961), which I agree with, Burling uses Jones' Northern Karen and Southern Karen data to re-analyse and present a new version of the Proto-Karen phonology and lexicon. Instead of two tones as reconstructed by Jones, he reconstructs six proto-tones, namely, *1 *2 *3 *4 *ʔ1 and *ʔ2, the first four tones occurring in non-checked syllables and the last two tones occurring in checked syllables. Moreover, Burling's reconstruction of the Proto-Karen lexicon, which consists of many hundred protoforms, is largely based on Sgaw and Pwo. Even though Pa-O is included, it seems to play a marginal

role due to the lack of cognates. The data on Central Karen languages is completely ignored in both Jones (1961) and Burling (1969) as are the valuable works on Proto-Karen by Haudricourt.

Manson contributed a few papers on his diachronic studies of Karen. Most of the language materials, the 11 Karenic languages used by Manson (2009, 2011), are from various documented sources. Even though he thinks that Haudricourt's analysis is the most natural and predictive among the existing reconstructions, he does not, in the same way as Haudricourt, reconstruct *ʔb, *ʔd, *x, *ɣ. Moreover, *hj, *hr, *ʔw and *ʔl are reconstructed whilst in Haudricourt they are not.

Solnit has worked on Proto-Karen since 2001 but his reconstruction has not yet been completed and published. Since I was aware of the previous reconstructions of Proto-Karen, somewhat different methods and different sets of Karen language data were used for my comparative study. When I compare my findings with those of other linguists, even though they are different in some major points, I feel that my reconstruction is quite similar to those of Haudricourt and Solnit. Please see my reconstruction of the Proto-Karen phonology in the Appendix.

The main aim of my research is to offer a new look at the Proto-Karen phonology and lexicon based on my fresh field data and the focus of this paper is on the etymology of Karen fauna which cannot be found in the other reconstructions.

Data

Funded by the Thailand Research Fund (TRF), the data on the six Karenic

languages spoken in Thailand was collected at seven 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 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 Table 1 and Table

2 of 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 3 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), Mazaudon (1977) and so on, I do appreciate Haudricourt's work on Proto-Karen the most.

***k-rjaŋ^A 'Karen'**

Based on the autonames ka³³jaŋ⁵³ (Kayan), kɛ¹¹je¹¹ (E. Kayah), kɔ³³jɔ³³ (Kayaw), (pya³³) ka³³jɔ³³ (Sgaw) and names known among Thai people, i.e. Kariang, Karang (Central Thai) and Yang (Northern Thai), the protoform *k-rjaŋ^A was reconstructed. This etymon has regular sound changes like the other etyma with the *-aŋ rhyme; for example,

- Ex.1 PK: *ʔbaŋ^B 'bamboo shoot'
 Pa-O: baŋ⁵⁵ B2 (N.), baŋ³³ B2 (S.)
 Kayan: baŋ¹¹ B
 Kayah: bɛ¹¹ B
 Bwe: ɓa³³ B
 Kayaw: bɔ¹¹ B
 Sgaw: bɔ³¹ B2 (N.), bɔ⁴⁵ B2 (S.)
 Pwo: bɛ̃³³ B2 (N.), bɔ̃⁵⁵ B2 (S.)
- Ex.2 PK: *laŋ^A 'to descend'
 Pa-O: laŋ³³ A3 (N.), laŋ⁵³ A3 (S.)

Kayan: laŋ³³ A3
 Kayah: lɛ¹¹ A3
 Bwe: la³³ A3
 Kayaw: lɔ³³ A3
 Sgaw: lɔ³³ A3 (N.), lɔ³³ A3 (S.)
 Pwo: lɛ̃⁵⁵ A3 (N.), lɔ̃³¹ A3 (S.)

Ex.3 PK: *khaŋ^B ‘foot, leg’
 Pa-O: khaŋ⁵⁵ B1 (N.), khaŋ³³ B1 (S.)
 Kayan: haŋ¹¹ B
 Kayah: khe¹¹ B
 Bwe: kha³³ B
 Kayaw: kho¹¹ B
 Sgaw: kho^{31~} B1 (N.), kho⁴⁵ B1 (S.)
 Pwo: khẽ³³ B1 (N.), khõ⁵⁵ B1 (S.)

Ex.4 PK: *thaŋ^B ‘to ascend’
 Pa-O: thaŋ⁵⁵ B1 (N.), thaŋ³³ B1 (S.)
 Kayan: thaŋ¹¹ B
 Kayah: the¹¹ B
 Bwe: tha³³ B
 Kayaw: ho¹¹ B
 Sgaw: tho^{31~} B1 (N.), tho⁴⁵ B1 (S.)
 Pwo: thẽ³³ B1 (N.), thõ⁵⁵ B1 (S.)

Proto-tones and their development

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

Haudricourt (1946, 1975): two or three tones (*A *B, *A *B *B’ in smooth syllables); Jones (1961): two tones (*’ *’ in both checked and non-checked syllables); Burling (1969): six tones (*1 *2 *3 *4 *ʔ1 *ʔ2); Solnit (2001): four tones (*A *B *B’ *D); 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 (A12), 33 (A3), 55 (B12), 53 (B3) and 21 (D12), 45 (D3) in Northern or Highland Pa-O; and 31 (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, *B > B12-3 and *D > D12-3.

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 which may be regarded as the fifth tone 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. While working with my E. Kayah and Kayaw language consultants at Huai Suea Thao village in Mae Hong Son province, I noticed that their low tones always

occurred with a breathy-voiced phonation and that, in the stressed position, the CV syllable always became CVʔ, or in other words, the -ʔ 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 Chiang Rai, Chiang Mai, 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 (A12), 33 (A3), 45' (B12), 31 (B3), 21' (D12) and 11 '' (D3). 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.

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. Southern Pwo or Western Pwo (Phillips, 2002) varieties are mostly spoken in the western areas of Central Thailand, especially in the provinces of Kanchanaburi, Uthai Thani, Ratchaburi, Petchaburi and Prachuap Khiri Khan. In the *D tone columns of Pwo, there is a tonal flip-flop: *D > D12 (high) – D3 (low) in Northern Pwo but *D > D12 (low) – D3 (high) in Southern Pwo. An

information on Karen tonal development can also be found in Mazaudon (1977).

In my analysis of Proto-Karen, three tones, i.e. *A, *B and *D were reconstructed. The correspondence patterns of the tones in modern Karenic language varieties are illustrated in Table 1 in the Appendix. The *A and *B tones occur in non-checked syllables while the *D tone occurs in checked syllables. Resulting from the eight patterns of tonal correspondence presented in Luce (1959) and the concept of the tone-box adopted, the *B' tone (equivalent to the *C tone in Tai languages) has been reconstructed by some linguists to solve the tonal problems in a small number of words, e.g. 'pus, paddy, blow, breathe, many, child,' etc., which have tone A in Sgaw but tone B in Pwo. In my opinion, it is, perhaps, too early to reconstruct the *B' tone (or *C). When carefully looking at the tone boxes in Shintani (2003) and Manson (2009), it is startling to see that the so-called B' tone in modern Karenic languages has completely merged with the A, B or D tone, unlike the C tone in Tai languages and dialects and in the Mien or Yao languages, which I have had the opportunity to work on. I feel that the development of the PK *B', based on the tone-box concept proposed by Shintani and Manson, is not convincing, even though their views can be traced back to Haudricourt's proposal in 1975. The uncommon type of tone splitting of the B tone in some Sgaw varieties, e.g. the Proto-Karen tone *B > B13-2 (CVʔ²¹), and *D > D12 (CVʔ⁴⁵)-3 (CV⁵³) may be the reason why the *B' tone was added. In my opinion, the three reconstructed tones, namely, *A, *B and *D, are sufficient to

handle the unusual development of tones B and D in some Sgaw varieties. Please see the correspondence patterns of the tones in modern Karenic languages in the Appendix.

Fauna etymology

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 Tibeto-Burman cognates drawn from Benedict/PB (1972) and/or Matisoff/JM (2003) are also given. Additional information is provided under *Note*. The diacritic ̣, e.g. 31̣, 11̣, indicates breathiness which is a phonetic correlate of the falling (31) and low (11) tones, and 31̃ is a creaky falling tone.

1. ANT *dəŋ^B

- Pa-O: thəŋ⁵³ (N.), təŋ⁵⁵ (S.)
 Kayan: tə¹¹
 Kayah: tə¹¹
 Bwe: do³³
 Kayaw: tə¹¹
 Sgaw: tə¹¹ (N.), tə³¹ (S.)
 Pwo: thā^{11̣} (N.), thāi³³ (S.)

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

2. BAMBOO RAT *(jow^B) khan^A

- Pa-O: (ju⁵³) khan^{31̣} (N.), - (S.)
 Kayan: (ju¹¹) khan⁵³
 Kayah: -
 Bwe: khe⁵⁵
 Kayaw: (ju¹¹) khə⁵⁵
 Sgaw: khə³³ (N.), khə⁵⁵ (S.)
 Pwo: khē³⁵ (N.), khə⁵³ (S.)

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

3. BAT *pla^{A/B}

- Pa-O: pla^{31̣} (N., S.)
 Kayan: bla¹¹
 Kayah: ple¹¹, ple³¹
 Bwe: ple¹¹
 Kayaw: pla¹¹
 Sgaw: bla³³ (N.), bla⁵⁵ (S.)
 Pwo: phla³³ (N.), phla⁵⁵ (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^A

- Pa-O: tham^{31̣} (N., S.)
 Kayan: thaŋ⁵³
 Kayah: the³³
 Bwe: the⁵⁵
 Kayaw: thə⁵⁵
 Sgaw: - (N., S.)

Pwo: (phi^{11~}) th³⁵ (N.), (phou⁵³) th⁵³ (S.)

Note: This etymon has been lost in all of the Sgaw varieties. It was replaced by the word ta³³ su³³ or ta³³ θu⁵⁵ which can be a euphemism for ‘bear’. There are curses in Sgaw, for example, “ta³³ su³³ wa⁴⁵ phyi³³ nə⁴⁵ me⁴⁵ sa¹¹”, meaning ‘(I wish) a bear hits your face with its paws’. The generic term for ‘bear’ maybe regarded as a taboo word.

5. BEDBUG *gram^A

Pa-O: sam³³(N.), sam^{53~}sa⁵³ (S.)

Kayan: ca³³

Kayah: khre¹¹

Bwe: -

Kayaw: c³³

Sgaw: x³³ (N.), x³³ (S.)

Pwo: - (N., S.)

Note: This etymon was replaced by ph⁵³ (S. Pwo) and ph³⁵ (N. Pwo).

6. BEE (Apis cerana) *kwat^D

Pa-O: wat²¹ (N.), wat²¹ (S.)

Kayan: hwe⁴⁵

Kayah: we⁵⁵

Bwe: we³³

Kayaw: hwe^{33~}khwe³³

Sgaw: kwe⁴⁵, kwe⁵⁵ (N.), kwe⁵⁵ (S.)

Pwo: kwe⁵⁵ (N.), kwe^{31~} (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^A

Pa-O: ne^{31~} (N., S.)

Kayan: nai⁵³

Kayah: ni³³

Bwe: gə-ni³³

Kayaw: ni⁵⁵

Sgaw: v kə¹¹ ne³³, kə¹¹ ne⁵⁵ (N.), ne⁵⁵ (S.)

Pwo: ni³⁵ (N.), ni⁵³ (S.)

8. BIRD *tho^B

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

Kayan: thau¹¹

Kayah: thu¹¹

Bwe: tho³³

Kayaw: thu¹¹

Sgaw: tho^{31~}, tho¹¹ (N.), thu⁴⁵ (S.)

Pwo: thu³³ (N.), thu⁵⁵ (S.)

Note: In Pa-O, it is wa⁵³ (N.) or wa⁵⁵ (S.). This can be regarded as a retention from Tibeto-Burman *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 Tibeto-Burman language.

9. BOAR (wild~) *tho^D mi^A

Pa-O: tho²¹ mi³³ (N.), tho²¹ mi⁵³ (S.)

Kayan: thau⁴⁵ mi³³

Kayah: the⁵⁵ mi¹¹

Bwe: -

Kayaw: tho³³ mi³³

Sgaw: tho⁴⁵ mi³³ (N.), tho²¹ mi³³ (S.)

Pwo: tho⁴⁵ mei⁵⁵ (N.), thu²¹ mei³¹,
thu²¹ mei^{31~} (S.)

Note: See also no.53 ‘pig’.

10. BUFFALO (water~) *p/b-na^B

Pa-O: pa²¹ na⁵³ (N.), pa²¹ na⁵⁵ (S.)

Kayan: buʔ⁴⁵ na¹¹
 Kayah: pe⁵⁵ ne¹¹
 Bwe: bə³³ ne³³
 Kayaw: pa³³ na¹¹
 Sgaw: pə³³ na¹¹, paʔ²¹ na¹¹, pəʔ⁴⁵ na¹¹
 (N.), pə¹¹ na³¹ (S.)
 Pwo: paʔ²¹ ne¹¹ (N.), pəʔ²¹ na³³ (S.)

Note: The reconstructed form *bo^B na^B is also possible because *bo^B was reconstructed for ‘ox’ (see no. 48). The meaning of *bo^B could be ‘bovine’ or ‘cattle’.

11. CATERPILLAR *siʔ^D

Pa-O: seʔ²¹ (N.), siʔ²¹ (S.)
 Kayan: θiʔ⁴⁵
 Kayah: si⁵⁵
 Bwe: θa³³ (?)
 Kayaw: si³³
 Sgaw: siʔ⁴⁵, siʔ⁴⁵ (N.), saiʔ²¹ (S.)
 Pwo: si³⁵ (N.), θei³³, θeiʔ²¹ (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^{A/B}

Pa-O: khu³¹ (N., S.)
 Kayan: ku⁵³
 Kayah: ku¹¹
 Bwe: -
 Kayaw: ku¹¹
 Sgaw: - (N.), ku⁴⁵ (S.)
 Pwo: - (N.), ku⁵⁵ (S.)

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

13. CENTIPEDE *t/daʔ^D-ʔbaŋ^A

Pa-O: taʔ⁴⁵ baŋ³¹ (N., S.)
 Kayan: ta¹¹ baŋ⁵³
 Kayah: -
 Bwe: -
 Kayaw: -
 Sgaw: daʔ⁴⁵ bə³³, daʔ⁴⁵ bə⁵⁵ (N.), da¹¹ bə⁵⁵ (S.)
 Pwo: - (N.), daʔ⁴⁵ bə³¹, daʔ⁴⁵ bə¹¹ (S.)

Note: *ʔbaŋ^A means ‘yellow’.

14. CHAMELEON, LIZARD *kwi^B

Pa-O: kwi⁵⁵ (N.) kwi³³ (S.)
 Kayan: khwi¹¹
 Kayah: khwi¹¹
 Bwe: khwi³³
 Kayaw: khi¹¹
 Sgaw: khwi³¹, khwi¹¹ (N.), khwi⁴⁵ (S.)
 Pwo: khwi³³ (N.), khwi⁵⁵ (S.)

Note: See also no.44 and no.45 ‘monitor lizard’.

15. CHICKEN *chjaX^A, *chjaN^A

Pa-O: ɕja³¹ (N., S.)
 Kayan: ɕi⁵³
 Kayah: cha³³
 Bwe: ʃi⁵⁵
 Kayaw: ɕi⁵⁵
 Sgaw: chə³³, chə⁵⁵ (N.), chə⁵⁵ (S.)
 Pwo: chē³⁵ (N.), chē⁵³ (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), -ε (Bwe), -ɔ (Kayaw, Sgaw), -ẽ (N.Pwo) and -õ (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^A could be another solution, i.e. it is a loanword from Proto-Monic *tyaŋ (> *chyaan in Proto-Nyah Kur) and >*caĩn in Proto-Mon) as reconstructed by Diffloth (1984). It is also possible to interpret that this etymon is an earlier Austroasiatic loanword, so the reconstruction of *-X may not be necessary.

16. CICADA *ŋjaj^A

Pa-O: ŋja³³ (N.), - (S.)
 Kayan: ji³³
 Kayah: ja¹¹
 Bwe: -
 Kayaw: -
 Sgaw: je³³, ze³³ (N.), - (S.)
 Pwo: jai⁵⁵ (N.), jai³¹, jai¹¹ (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^B

Pa-O: - (N.), - (S.)
 Kayan: thu¹¹ (mi³³)
 Kayah: -
 Bwe: thu³³
 Kayaw: thu¹¹ (mi³³)
 Sgaw: - (N.), - (S.)
 Pwo: - (N.), thu²¹ tho³¹, thu⁵⁵ tho¹¹ (S.)

Note: Sgaw people call 'civet cat' tho²¹ se³¹ or tho²¹ se¹¹ 'tree pig' (N.) or tho²¹ tu³³ pə¹¹ ʔi⁵⁵ 'sticky-rice pig' (S.).

18. CRAB *chwe^B

Pa-O: chwe⁵⁵ (N.), chwe³³ (S.)
 Kayan: chwe¹¹
 Kayah: chwa¹¹
 Bwe: ʃwe³³
 Kayaw: che¹¹
 Sgaw: chwe³¹, chwe¹¹ (N.), chwe⁴⁵ (S.)
 Pwo: chwe³³ (N.), chwe⁵⁵ (S.)

19. CRICKET *s-ki^A

Pa-O: ki³¹ (N.), ki³¹ (S.)
 Kayan: ki⁵³
 Kayah: ki³³
 Bwe: -
 Kayaw: de¹¹ ki⁵⁵
 Sgaw: sə¹¹ ki³³, θa²¹ ki³³, sə²¹ ki³³ (N.), tə¹¹ ki⁵⁵ (S.)
 Pwo: - (N., S.)

Note: N.Pa-O has tone A3 while the rest have tone A2. It is kha²¹ rai⁴⁵ in S. Pwo which is not cognate.

20. CROCODILE *s-hma^B

Pa-O: - (N.), - (S.)
 Kayan: -
 Kayah: -
 Bwe: θə³³ me³³
 Kayaw: ma¹¹
 Sgaw: sə³³ ma³¹, θa³³ ma¹¹, sə⁵⁵ ma¹¹, sə⁴⁵ ma¹¹ (N.), ma⁴⁵ (S.)
 Pwo: ma³³ (N.), ma⁵⁵ (S.)

21. DEER (barking ~) *d-khej^A
(TB *d-key, *d-kəy)

Pa-O: khi³¹ (N., S.)

Kayan: khi⁵³

Kayah: khə³³

Bwe: do¹¹ khi⁵⁵

Kayaw: khi⁵⁵

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

Pwo: - (N.), khi⁵³ bə³¹ (S.)

Note: In Sgaw, the etymon *d-khej^A had been lost and was replaced by the word ta³³ho³³, ta³³ho⁵⁵ (N. Sgaw).

22. DEER (sambha~) *t-khro^D
(TB *d-yuk)

Pa-O: khjo²¹ (N.), kjo²¹ (S.)

Kayan: khjo⁴⁵

Kayah: khro⁵⁵

Bwe: kho³³

Kayaw: khə³³

Sgaw: ta³³ xo³³ (N.), tho³³ xo⁵⁵ (S.)

Pwo: ta³³ xo⁵⁵ (N.), chə³³ xo³¹,
chə³³ xo¹¹ (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^B (TB *kwəy, *kwi^y)

Pa-O: thwi⁵⁵ (N.), thwi³³ (S.)

Kayan: thwi¹¹

Kayah: thwi¹¹

Bwe: thwi³³

Kayaw: thi¹¹

Sgaw: thwi³¹, thwi¹¹, chwi³¹, chwi¹¹
(N.), thwi⁴⁵ (S.)

Pwo: thwi³³ (N.), thwi⁵⁵ (S.)

24. DOVE *(tho^B) lwi^B

Pa-O: (wa⁵³) lwi⁵³ (N.), (wa⁵⁵) lwi⁵⁵ (S.)

Kayan: thau¹¹ lwi¹¹

Kayah: thu¹¹ lwi¹¹

Bwe: tho³³ lwi³³

Kayaw: thu¹¹ li¹¹

Sgaw: tho³¹ lwi¹¹, tho¹¹ lwi¹¹ (N.),
thu⁴⁵ lwi³¹ (S.)

Pwo: thu³³ lei¹¹ (N.), thu⁵⁵
lwi³³ (S.)

25. EARTHWORM *je^D

Pa-O: je⁴⁵ (N., S.)

Kayan: je²¹ (~ca²¹ kro⁵³)

Kayah: ja³³ (~khro³³)

Bwe: -

Kayaw: je³³ (tha⁵⁵~)

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

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

Note: The first parts of the compounds in Sgaw and Pwo, i.e. tho⁴⁵ or tho²¹; chə³⁵ or chə⁵³ mean ‘pig’ and ‘chicken’, respectively.

26. ELEPHANT *k-chaŋ^A
(TB *tshaŋ, *tsaŋ)

Pa-O: chaŋ³¹ (N., S.)

Kayan: chaŋ⁵³

Kayah: che³³

Bwe: gə-ŋa⁵⁵

Kayaw: rə¹¹ chə⁵⁵

Sgaw: kə¹¹ chə³³, kə¹¹ chə⁵⁵ (N.), kə¹¹
chə⁵⁵ (S.)

Pwo: ka¹¹ chə³⁵ (N.), kə¹¹ chə⁵³ (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 *daʔ^P

Pa-O: thaʔ⁴⁵ (N.), thaʔ⁴⁵ (S.) Kayan:
taʔ²¹

Kayah: te³³

Bwe: da¹¹ (-pho³³)

Kayaw: tɔ³³

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^{31~} pho³³, ja¹¹ pho³³ (N. Sgaw), ja⁴⁵ phu⁵⁵ (S. Sgaw); ja³³ phu³³ (N. Pwo), ja⁵⁵ phu⁵⁵ (S. Pwo).

28. FLEA *kli^A, *kliʔ^D (TB *s-liy, *s-ləy)

Pa-O: khli^{31~} (N.), - (S.)

Kayan: khliʔ⁴⁵

Kayah: kla⁵⁵

Bwe: kle³³

Kayaw: kle³³

Sgaw: kli⁵⁵ (N., S.)

Pwo: khlei³⁵ (N.), khlei⁵³ (S.)

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

29. FOX, WOLF *thwi^B mi^A

Pa-O: thwi⁵⁵ mi³³ (N.),

thwi³³ mi⁵³ (S.)

Kayan: thwi¹¹ mi³³

Kayah: thwi¹¹ mi¹¹

Bwe: -

Kayaw: thi¹¹ mi³³

Sgaw: thwi^{31~} mi³³, chwi¹¹ mi³³ (N.),

thwi⁴⁵ mi³³ (S.)

Pwo: - (N.), thwi⁵⁵ mei^{31~} (S.)

Note: This etymon is a compound meaning ‘wild dog’: thwi or chwi (B12) ‘dog’ and mi (A3) ‘wild’. See no. 23.

30. FROG *ʔde^B

Pa-O: de⁵⁵ (N.), de³³ (S.)

Kayan: dai¹¹

Kayah: di¹¹

Bwe: di³³

Kayaw: di¹¹

Sgaw: de^{31~}, deʔ²¹ (N.), de⁴⁵ (S.)

Pwo: di³³ (N.), di⁵⁵ (S.)

Note: See no. 69.

31. GRASSHOPPER *ʔdwe^B

Pa-O: dwe⁵⁵ (N.), dwe³³ (S.)

Kayan: dwe¹¹

Kayah: -

Bwe: dɛ³³

Kayaw: de¹¹

Sgaw: dwe^{31~}, dweʔ²¹ (N.),

dwe⁴⁵ (S.)

Pwo: thwe^{11~} (N.), thwe³³ (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^D

Pa-O: leʔ⁴⁵ (N.), lek⁴⁵ (S.)

Kayan: liʔ²¹

Kayah: la³³

Bwe: le¹¹

Kayaw: le³³

Sgaw: liʔ²¹, liʔ⁴⁵ (N.), lai¹¹ (S.)

Pwo: laiʔ²¹ (N.), laiʔ⁴⁵ (S.)

33. HORNET *phriN^A

Pa-O: phrim³¹ (N.), phrin³¹ (S.)

Kayan: phri⁵³

Kayah: phli³³

Bwe: phlu⁵⁵ ‘wasp’

Kayaw: phri⁵⁵

Sgaw: phlā³³, phlā⁵⁵ (N.), phli⁵⁵ (S.)

Pwo: phlā³⁵ (N.), phlāi⁵³ (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-sre^T

Pa-O: se³¹ (N., S.)

Kayan: θiʔ⁴⁵

Kayah: si⁵⁵

Bwe: θə-rī³³, θri³³

Kayaw: si³³ ri³³ (?)

Sgaw: kə³³ se¹¹, kaʔ²¹ θe¹¹ (N.), kə¹¹ se⁴⁵ (S.)

Pwo: kaʔ²¹ si³³ (N.), kə¹¹ θi⁵⁵ (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 (Kayan, Kayah, 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 ~) *s-waʔ^D

Pa-O: waʔ²¹ (N.), waʔ²¹ (S.)

Kayan: θuʔ⁴⁵

Kayah: swa⁵⁵

Bwe: -

Kayaw: su³³

Sgaw: suʔ⁴⁵, θuʔ⁴⁵ (N.), sɔuʔ²¹ (S.)

Pwo: waʔ²¹ (N.), waʔ⁴⁵, βwaʔ⁴⁵ (S.)

Note: Pa-O, Kayan, Kayah and Sgaw have tone D12 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 *-w-, the onset of the root, which is a voiced sound.

36. LEECH (water~) *k/s-lej^A

Pa-O: leu³³ (N.), ljeu⁵³ (S.)

Kayan: -

Kayah: -

Bwe: gə³³ li³³

Kayaw: su¹¹ li³³

Sgaw: sə¹¹ li³³, θa³³ li³³, θə¹¹

li³³ (N.), tə¹¹ li³³ (S.)

Pwo: lei⁵⁵ (N.), lei³¹, lei¹¹ (S.)

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

37. LEMUR (flying~) *p/bleʔ^D

Pa-O: phliʔ²¹ (N.), - (S.)

Kayan: -

Kayah: pla³³
 Bwe: bli³³
 Kayaw: ple³³
 Sgaw: phliʔ⁴⁵, phliʔ²¹ (N.), plai¹¹ (S.)
 Pwo: phlaiʔ²¹ (N.), phlaiʔ⁴⁵ (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^A

Pa-O: - (N.), - (S.)
 Kayan: chəŋ⁵³
 Kayah: chɔ³³
 Bwe: -
 Kayaw: chə⁵⁵
 Sgaw: kə¹¹ che³³ (N.), ta¹¹ chi⁵⁵ (S.)
 Pwo: chāi³⁵ (N.), chēi⁵³, kə¹¹chēi⁵³ (S.)

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

39. LOUSE, INSECT *gra^B

Pa-O: sa⁵³ (N.), ɕa⁵⁵ (S.)
 Kayan: ca¹¹
 Kayah: khre¹¹
 Bwe: -
 Kayaw: ca¹¹
 Sgaw: xa¹¹ (N.), xa³¹ (S.)
 Pwo: xa¹¹ (N.), xa³³ (S.)

Note: In Modern Karen, this etymon never occurs alone but always in compounds, such as chɔ⁵³ xa³³ ‘chicken louse’ (S.Pwo), ta¹¹ pho³³ xa¹¹ ‘insect’ (N. Sgaw) and so forth.

40. LOUSE (head~) *swiX^B, *swiN^B (TB *sar, śar)

Pa-O: si⁵⁵ (N.), si³³ (S.)
 Kayan: θi¹¹
 Kayah: so¹¹
 Bwe: θo¹¹
 Kayaw: si¹¹
 Sgaw: su³¹~, su¹¹ (N.), su⁴⁵ (S.)
 Pwo: sã³³ (N.), θãi⁵⁵ (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 -ṼØ 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. It is also possible to interpret that this etymon is an earlier Austroasiatic loanword as the etymon ‘chicken’ (no.15), so there may be no need for the reconstruction of *-X.

41. MAGGOT *hloŋ^B

Pa-O: loŋ⁵⁵ (N.), loŋ³³ (S.)
 Kayan: lo¹¹
 Kayah: lɔ¹¹
 Bwe: lo³³
 Kayaw: lə¹¹
 Sgaw: lə³¹~, lə¹¹ (N.), lə⁴⁵ (S.)
 Pwo: lāu³³ (N.), lōu⁵⁵ (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). The split pattern of the *B tone, i.e. B12-3 or no split at all, cannot help tell whether the onset of this etymon is *hl- or *ʔl.

42. MILLIPEDE *k/s-waj^{A/B}

Pa-O: cɔ⁵⁵ wɛ³³ (N.), cɔ¹¹ wɛ⁵³ (S.)

Kayan: θaʔ²¹ kə¹¹ wi³³

Kayah: si⁵⁵ kɔ⁵⁵ wi¹¹

Bwe: -

Kayaw: te¹¹ we³³

Sgaw: siʔ⁴⁵ wɔ¹¹ de³³ (N.), si⁵⁵ wa³¹ de⁵⁵ (S.)

Pwo: wai¹¹ (N.), wai³¹, wai¹¹,
βai¹¹ (S.)

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

43. MOLE *(jow^B) wi^A

(TB *bwɪy, *bwəy)

Pa-O: (ju⁵³) wi³³ (N.), (ju⁵⁵)
wi⁵³ (S.)

Kayan: -

Kayah: (jo¹¹) wi¹¹

Bwe: wi³³

Kayaw: (ju¹¹) wi³³

Sgaw: wi³³ (N.), wi³³ (S.)

Pwo: wei⁵⁵ (N.), wei³¹,
wei¹¹, βei¹¹ (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 ju¹¹ ta¹¹ haʔ⁴⁵ which is not a cognate word.

**44. MONITOR LIZARD (land ~)
*khwoʔ^D**

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

Kayan: (khwi¹¹ re³³) khɔʔ⁴⁵

Kayah: khwɔ⁵⁵

Bwe: -

Kayaw: (to³³) ko³³

Sgaw: (tə¹¹) khuʔ⁴⁵ (N.), khɔuʔ²¹ (S.)

Pwo: khauʔ⁴⁵ (N.), khɔuʔ²¹ (S.)

Note: The highland Pa-O (N. Pa-O) use lɛm⁵³~lɛn⁵³ and the lowland Pa-O (S. Pa-O) use lɛm³³ which is a Tai loan. Unlike the other Karenic languages, Kayaw has unaspirated onset.

45. MONITOR LIZARD (water~)

***k-reA/*treA**

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

Kayan: (khwi¹¹) re³³

Kayah: (ta¹¹ khwa⁵⁵ ta¹¹) re³³

Bwe: tre⁵⁵

Kayaw: (te⁵⁵) re⁵⁵

Sgaw: kreʔ⁴⁵, kə¹¹ re⁵⁵ (N.), re⁵⁵ (S.)

Pwo: - (N.), ʔei³¹, ʔei¹¹ (S.)

Note: Some varieties of N. Sgaw have tone D while most of the Karenic languages have tone A. In Bwe, *k-re becomes *t-re and the animal prefix *k- is dropped (*k-r->r-) in Kayan, Kayah, Kayaw and S. Sgaw, and >ʔ- in Pwo.

46. MONKEY/GIBBON(?) *k-joʔ^D

Pa-O: joʔ⁴⁵ (N.), juʔ⁴⁵ (S.)

Kayan: joʔ²¹

Kayah: jo³³

Bwe: jo¹¹

Kayaw: jo³³

Sgaw: kə¹¹ ju³³ (N.), kə¹¹ ju³³ (S.)

Pwo: kaʔ²¹ ji³³ (N.), kə³³ ji⁵³ (S.)

Note: There are lexical innovations in Southern Karen, i.e. mɔ¹¹ liʔ⁴⁵, pha³⁵ laiʔ²¹ and chə⁵⁵ ʔu³¹ in N. Sgaw, N. Pwo and S. Pwo, respectively, for ‘monkey’. Probably, the etymon *k-joʔ^D is related to the word ‘gibbon’ in Sgaw and Pwo: kə¹¹ ju³³, zu³³ pya¹¹ (N. Sgaw), kə¹¹ ju³³ pha³¹ (S. Sgaw), kaʔ²¹ ji³³ pha³³ (N. Pwo) and kə³³ ji⁵³ pha³³ (S. Pwo). In N. Sgaw, ju³³ (A) means ‘to swing’ and pya¹¹ (B) means ‘forest’; therefore, the literal meaning of the word ‘gibbon’ is ‘animal (*k-) swinging in the forest’.

47. MOUSE, RAT *jow^B

(TB *b-yuw, *b-yəw)

Pa-O: ju⁵³ (N.), ju⁵⁵ (S.)

Kayan: ju¹¹

Kayah: jo¹¹

Bwe: ju¹¹

Kayaw: ju¹¹

Sgaw: ji¹¹, zi¹¹ (N.), ji³¹ (S.)

Pwo: jou¹¹ (N.), jou³³ (S.)

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

48. OX *bo^B

Pa-O: pho⁵³ (N.), po⁵⁵ (S.)

Kayan: pau¹¹

Kayah: pu¹¹

Bwe: bo³³

Kayaw: pu¹¹

Sgaw: -

Pwo: -

Note: Some groups of Pwo people call an ox “something having horns”, e.g. chə⁵⁵ ni⁵³ (S. Pwo). In N. Sgaw, ‘ox’ is ta¹¹ tɔʔ⁴⁵

or klɔ¹¹. The word klɔ¹¹ could be a loanword from Mon, i.e. khlɔw (< Proto-Mon *klɛʔ (Diffloth 1984)).

49. PANGOLIN, ANTEATER *jo^A

Pa-O: ju³³ (N.), - (S.)

Kayan: jau³³

Kayah: ju¹¹, ju³¹

Bwe: ju³³ (-θo³³)

Kayaw: ju³³

Sgaw: jo³³ (hɔ^{31~}, hɔ¹¹), zo³³ (ho¹¹) (N.), ju³³ (hɔʔ⁴⁵) (S.)

Pwo: - (N.), ji^{31~}, ji¹¹ (S.)

50. PARROT *(tho^B) ki^B

Pa-O: ki⁵⁵ (N.), - (S.)

Kayan: khi¹¹

Kayah: khwi¹¹ (?)

Bwe: k(h)i³³

Kayaw: ki¹¹, khi¹¹

Sgaw: kiʔ²¹ (N.), ki⁴⁵ (S.)

Pwo: kei³³ (N.), kei⁵⁵ (S.)

Note: In N. Sgaw, this etymon should be ki^{31~} (tone B12) which is a creaky falling tone instead of ki²¹.

51. PEACOCK *(tho^B) braʔ^D

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

Kayan: praʔ²¹

Kayah: phre³³

Bwe: (tho³³-) ba¹¹

Kayaw: prɔ³³

Sgaw: byaʔ²¹, phyaʔ²¹, phraʔ²¹, pwaʔ²¹ (N.), pya^{11~} (S.)

Pwo: sjaʔ²¹ (N.), cjaʔ⁴⁵ (S.)

52. PHEASANT *(tho^B) reʔ^D

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

Kayan: -

Kayah: ra³³

Bwe: -

Kayaw: re³³

Sgaw: ɣiʔ²¹ (N.), ɣai¹¹ (S.)

Pwo: ɣaiʔ²¹ (N.), ɣaiʔ⁴⁵ (S.)

Note: It is ɕja³³ tham³¹ in S. Pa-O. ɕja³³, the first part of the compound, is in fact ɕja³¹ ‘chicken’ (31>33). This suggests that Southern Pa-O people view ‘pheasants’ as ‘chickens’ not ‘birds’.

53. PIG *thəʔ^D

Pa-O: thəʔ²¹ (N., S.)

Kayan: thauʔ⁴⁵

Kayah: the⁵⁵

Bwe: thəʔ³³

Kayaw: tho³³

Sgaw: thəʔ⁴⁵ (N.), thəʔ²¹ (S.)

Pwo: thoʔ⁴⁵ (N.), thuʔ²¹ (S.)

Note: See also no. 9 ‘wild boar’.

54. PORCUPINE (big kind) *sun^B

Pa-O: sun⁵⁵ (N.), səm³³, sən³³ (S.)

Kayan: θwaŋ¹¹

Kayah: si¹¹

Bwe: θu³³

Kayaw: su¹¹

Sgaw: - (N.), su⁴⁵ (S.)

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

Note: The lexical innovations in N. Sgaw, N. Pwo and S. Pwo are pə³³ dəʔ⁴⁵, paʔ²¹ dəʔ⁴⁵ and chə³³ ɣauʔ⁴⁵ chū⁵⁵ ‘something shaking off its hair (spine)’, respectively.

55. PORCUPINE (small kind)

***s-ʔba^A**

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

Kayan: bi⁵³ (?)

Kayah: se³³ be³³

Bwe: -

Kayaw: sa⁵⁵ ba⁵⁵

Sgaw: ba³³ (N.), ba⁵⁵ (S.)

Pwo: - (N.), θə⁵⁵ ba³¹, θə⁵⁵ ba¹¹ (S.)

Note: Kayan has an irregular vowel.

56. QUAIL *(tho^B) hrwi^T (?)

Pa-O: riʔ⁴⁵ (N.), - (S.)

Kayan: rwiʔ⁴⁵

Kayah: rwi⁵⁵

Bwe: -

Kayaw: ri³³

Sgaw: pə¹¹ wi³³ (N.), pə¹¹ wi⁵⁵ (S.)

Pwo: phu³³ wei³³ (N.), wei⁵⁵ (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-ʔdɛ^A

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

Kayan: dɛ⁵³

Kayah: dɛ³³

Bwe: pə³³ dɛ³³

Kayaw: dɛ⁵⁵

Sgaw: pə¹¹ dɛ³³, pə¹¹ dɛ⁵⁵ (N.), pə¹¹ theʔ²¹ (S.)

Pwo: pa³³ dɛ⁵⁵, pə¹¹ dɛ⁵³ (N.), pə³¹ dɛ³¹, pə³³ theʔ²¹ (S.)

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

58. SEROW, MOUNTAIN GOAT

***jaj**^A (TB *kye.l, *kyi[.l])

Pa-O: jaj³³ (N.), - (S.)

Kayan: jaj³³

Kayah: je¹¹

Bwe: ji³³

Kayaw: ji³³

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

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

Note: There is a lexical innovation in Southern Karen: chə³³ phaʔ²¹ (S. Pwo) and ta³³ phaʔ⁴⁵ (N. Sgaw).

59. SHEEP *so^{A/B}

Pa-O: sə⁵⁵ (N.), so³³ (S.)

Kayan: θɔ³³

Kayah: -

Bwe: θu⁵⁵

Kayaw: so⁵⁵

Sgaw: so³³, so⁵⁵ (N.), su⁵⁵ (S.)

Pwo: - (N.), θu⁵⁵ (S.)

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

60. SKINK *bleʔ^D

Pa-O: plɛʔ⁴⁵ (N.), plɛʔ⁴⁵ (S.)

Kayan: plɛʔ²¹

Kayah: pla³³

Bwe: bli¹¹ (ca⁵⁵)

Kayaw: ple³³

Sgaw: plɛʔ²¹, phleʔ²¹ (N.),
ple^{11~} (S.)

Pwo: phleʔ²¹ (N.), phleʔ⁴⁵ (S.)

61. SNAIL (land~) *khlo^{A/B}

Pa-O: khlo^{31~} (N.), - (S.)

Kayan: khlo⁵³ (?)

Kayah: -

Bwe: khlo³³

Kayaw: -

Sgaw: khlo^{31~}, khlo¹¹ (N.),
khlu^{45~} (S.)

Pwo: khlu³³ (N.), khlu⁵⁵ (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^B

Pa-O: ŋwi⁵⁵ (N.), ŋwi³³ (S.)

Kayan: ŋwi¹¹

Kayah: -

Bwe: θə⁵⁵ mi³³

Kayaw: si¹¹ mi¹¹

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, khlu⁵⁵ mɪ⁵⁵ 'water snail' and khlu⁵⁵ klaiʔ⁴⁵ 'land snail' in S. Pwo. See also no. 60 'land snail'.

63. SNAKE *row^B (TB *b-ru.l)

Pa-O: ru⁵³ (N.), ru⁵⁵ (S.)

Kayan: rəu¹¹ (?)

Kayah: ro¹¹, ru³¹

Bwe: Ru³³

Kayaw: ru¹¹

Sgaw: ɣi^{11~} (N.), ɣi³¹ (S.)

Pwo: ɣou^{11~}, ɣou³¹ (N.),
βou³³, ɣu⁵⁵ (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 ũ (S. Pwo). Perhaps, the final *-w became nasal (*-N) and then a nasalised vowel (ṽ).

64. SPIDER *gaŋ^A

- Pa-O: (kuŋ³³) kaŋ³³ (N.),
(jɔŋ³¹) kaŋ⁵³ (S.)
Kayan: kaŋ³³
Kayah: -
Bwe: ga¹¹ - gu¹¹
Kayaw: kɔ³³
Sgaw: - (N.), - (S.)
Pwo: pu¹¹ khɛ⁵⁵, phu⁵⁵ khã⁵³ (N.), khɔ̃¹¹,
khɔ̃³¹ (S.)

Note: The etymon *gaŋ^A has been retained in almost all of the Karenic languages, except in Sgaw, ‘spider’ is an innovated word, i.e. kə¹¹ pɔ³³.

65. SQUIRREL *hli^B

- Pa-O: li⁵⁵ (N.), li³³ (S.)
Kayan: -
Kayah: -
Bwe: li¹¹ (?)
Kayaw: -
Sgaw: liʔ⁴⁵, liʔ⁴⁵ lu¹¹ (N.), li⁴⁵ (S.)
Pwo: lei³³ (N.), lei⁵⁵ (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^B

- Pa-O: phi⁵³ (N.), pi⁵⁵ (S.)
Kayan: pi¹¹
Kayah: pi¹¹
Bwe: pə³³ ʔi³³
Kayaw: pi¹¹ ʔi¹¹
Sgaw: pi¹¹ (N.), pi³¹ (S.)
Pwo: phai³³, phɛi³³ (N.), phɛi³¹ (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^B

- Pa-O: ki⁵⁵ (N.), - (S.)
Kayan: khi¹¹
Kayah: khə¹¹
Bwe: khi³³
Kayaw: khi¹¹
Sgaw: khi³¹, khi¹¹ (N.), khi⁴⁵ (S.)
Pwo: khe³³ (N.), khe⁵⁵ (S.)

68. TIGER *k(h)e^A (TB *d-key, *d-kəy, *k-key)

- Pa-O: ke³¹ (N., S.)
Kayan: khai⁵³
Kayah: khi³³
Bwe: khi⁵⁵
Kayaw: khi⁵⁵
Sgaw: khe³³ ji¹¹ ‘lion’ (N.), - (S.)
Pwo: khi³⁵ (N.), khi⁵³ (S.)

Note: The word meaning ‘tiger’ in Sgaw Karen is bɔʔ²¹ soʔ²¹, bɔʔ²¹ θo¹¹, bɔʔ²¹ so⁵³,

bɔʔ²¹ səʔ²¹ ʔoʔ²¹ or bɔ¹¹ soʔ⁴⁵ ʔoʔ²¹
depending upon each variety; however,
khe³³ (A) is found in the compound
meaning ‘lion’, i.e. khe³³ ʃi¹¹.

69. TOAD *(ʔde^B) sow^B

Pa-O: de⁵⁵ su⁵⁵ (N.), de³³ su³³ (S.)

Kayan: dai¹¹ θu¹¹

Kayah: di¹¹ so¹¹

Bwe: di³³ θu³³

Kayaw: di¹¹ su¹¹

Sgaw: de^{31~} si^{31~} (N.), de^{45~}
si^{45~} (S.)

Pwo: di³³ sou³³, di³³ θu³³
(N.), di⁵⁵ sou⁵⁵, di⁵⁵ θou⁵⁵ (S.)

70. TORTOISE *k(h)liʔ^D

Pa-O: kleʔ²¹ (N.), kliʔ²¹ (S.)

Kayan: khliʔ⁴⁵

Kayah: kli⁵⁵

Bwe: khli³³

Kayaw: khli³³

Sgaw: khliʔ⁴⁵ (N.), khliʔ²¹ (S.)

Pwo: khliʔ⁴⁵ (N.), khliʔ²¹, khliʔ³¹ (S.)

71. VULTURE *hlaŋ^{A/B} k-daʔ^D

Pa-O: leŋ⁵⁵ taʔ⁴⁵ (N.), ta³³
lɔŋ³³ taʔ⁴⁵ (S.)

Kayan: -

Kayah: le¹¹ ta³³

Bwe: lə³³ da⁵⁵ (?)

Kayaw: la¹¹ ta³³

Sgaw: lɔ³³ kaʔ²¹ taʔ²¹, lɔ³³ kə¹¹ taʔ²¹ (N.),
lɔ³³ kə^{11~} ta^{11~} (S.)

Pwo: lē³⁵ kaʔ²¹ thaʔ²¹ (N.), lō⁵³ kaʔ²¹
thaʔ²¹ (S.)

Note: In some N. Sgaw varieties, vultures
are called “tho^{31~} ta¹¹ ʔi^{31~}, tho¹¹ ta¹¹ ʔi⁴⁵
or tho¹¹ ta²¹ ʔi²¹”, literally this means
‘rotten-thing birds’. This could be an
Austroasiatic loanword. In Praok-Wa, the
word meaning ‘vulture’ is (sim) klaŋ cuʔ
(from the author’s fieldnotes collected in
December 1995).

72. WASP *(dəŋ^B) ʔde^A

Pa-O: lak⁴⁵ kaʔ²¹ de^{31~} (N.), - (S.)

Kayan: dau⁴⁵ dai⁵³

Kayah: di³³

Bwe: -

Kayaw: di⁵⁵

Sgaw: tə^{11~} de³³, tə¹¹ de⁵⁵ (N.), tī³¹ de⁵⁵ (S.)

Pwo: thā^{11~} di⁵⁵, thā¹¹ di⁵³ (N.), thā³³
di^{31~}, thā³³ di¹¹ (S.)

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

73. WEEVIL *roŋ^B

Pa-O: roŋ⁵³ (N.), roŋ⁵⁵ (S.)

Kayan: ro¹¹

Kayah: rɔ¹¹

Bwe: -

Kayaw: rə¹¹

Sgaw: ʔə^{11~} (N.), ʔi³¹ (S.)

Pwo: ʔāu^{11~} (N.), βōu³³, ʔō³³ (S.)

Conclusion and Discussion

Among the seventy-three etyma, twenty
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. 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 my data collection. 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” with regard to vocabulary loss and morphological change as well as sound change.

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Appendix

Table 1 Correspondence patterns of the tones

PROTO-KAREN	N. Pa-O	S. Pa-O	Kayan	Kayah	W. Bwe	Kayaw	N. Sgaw	S. Sgaw	N. Pwo	S. Pwo
*A > A1	$\begin{bmatrix} 31'' \end{bmatrix}$	$\begin{bmatrix} 31'' \end{bmatrix}$	$\begin{bmatrix} 53 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 55 \end{bmatrix}$	$\begin{bmatrix} 55 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 55 \end{bmatrix}$	35	53
> A2	$\begin{bmatrix} 31'' \end{bmatrix}$	$\begin{bmatrix} 31'' \end{bmatrix}$	$\begin{bmatrix} 53 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 55 \end{bmatrix}$	$\begin{bmatrix} 55 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 55 \end{bmatrix}$	$\begin{bmatrix} 55 \end{bmatrix}$	$\begin{bmatrix} 31'' \end{bmatrix}$
> A3	33	53	33	11	33	33	$\begin{bmatrix} 33 \end{bmatrix}$	33	$\begin{bmatrix} 55 \end{bmatrix}$	$\begin{bmatrix} 31'' \end{bmatrix}$
*B > B1	$\begin{bmatrix} 55 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 11 \end{bmatrix}$	$\begin{bmatrix} 11 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 11 \end{bmatrix}$	$\begin{bmatrix} 31'' \end{bmatrix}$	$\begin{bmatrix} 45' \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 55 \end{bmatrix}$
> B2	$\begin{bmatrix} 55 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 11 \end{bmatrix}$	$\begin{bmatrix} 11 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 11 \end{bmatrix}$	$\begin{bmatrix} 31'' \end{bmatrix}$	$\begin{bmatrix} 45' \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 55 \end{bmatrix}$
> B3	53	55	$\begin{bmatrix} 11 \end{bmatrix}$	$\begin{bmatrix} 11 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 11 \end{bmatrix}$	11''	31	11''	33
*D > D1	$\begin{bmatrix} 21' \end{bmatrix}$	$\begin{bmatrix} 21' \end{bmatrix}$	$\begin{bmatrix} 45' \end{bmatrix}$	$\begin{bmatrix} 55 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 45' \end{bmatrix}$	$\begin{bmatrix} 21' \end{bmatrix}$	$\begin{bmatrix} 45' \end{bmatrix}$	$\begin{bmatrix} 21'/31' \end{bmatrix}$
> D2	$\begin{bmatrix} 21' \end{bmatrix}$	$\begin{bmatrix} 21' \end{bmatrix}$	$\begin{bmatrix} 45' \end{bmatrix}$	$\begin{bmatrix} 55 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 33 \end{bmatrix}$	$\begin{bmatrix} 45' \end{bmatrix}$	$\begin{bmatrix} 21' \end{bmatrix}$	$\begin{bmatrix} 45' \end{bmatrix}$	$\begin{bmatrix} 21'/31' \end{bmatrix}$
> D3	45'	45'	21'	33	11	$\begin{bmatrix} 33 \end{bmatrix}$	21'	11''	21'	33'/45'

Note: Glottalised tone, e.g. 21' is in fact CV?²¹ (checked syllable having tone 21).

Table 2 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 ^A	phe ³¹ (A12)	phe ³¹ (A12)	phai ⁵³ (A12)	phi ³³ (A12)	--	phi ⁵⁵ (A12)	phe ³³ (A)	phe ⁵⁵ (A12)	phi ³⁵ (A1)	phi ⁵³ (A1)	‘chaff, bran’
*th-	*thej ^A	thi ³¹ (A12)	thi ³¹ (A12)	thi ⁵³ (A12)	thə ³³ (A12)	chi ⁵⁵ (A12)	thi ⁵⁵ (A12)	thi ³³ (A)	thi ⁵⁵ (A12)	thei ³⁵ (A1)	thei ⁵³ (A1)	‘water’
*ch-	*cha ^A	cha ³¹ (A12)	cha ³¹ (A12)	cha ⁵³ (A12)	che ³³ (A12)	ʃe ⁵⁵ (A12)	cha ⁵⁵ (A12)	cha ³³ (A)	cha ⁵⁵ (A12)	cha ³⁵ (A1)	cha ⁵³ (A1)	‘ill, painful’
*kh-	*kha ^B	kha ⁵⁵ (B12)	kha ³³ (B12)	kha ¹¹ (B)	khe ¹¹ (B)	khe ³³ (B)	kha ¹¹ (B)	kha ^{31~} (B12)	kha ^{45'} (B12)	kha ³³ (B12)	kha ⁵⁵ (B12)	‘bitter’
*hm-	*hma ^A	ma ³¹ (A12)	ma ³¹ (A12)	ma ⁵³ (A12)	me ³³ (A12)	mɛ ⁵⁵ (A12)	ma ⁵⁵ (A12)	ma ³³ (A)	ma ⁵⁵ (A12)	ma ³⁵ (A1)	ma ⁵³ (A1)	‘wife’
*hn-	*k-hne ^A	ne ³¹ (A12)	ne ³¹ (A12)	nai ⁵³ (A12)	ni ³³ (A12)	(gə) ni ³³ (A3)	ni ⁵⁵ (A12)	kə ¹¹ nɛ ³³ (A)	nɛ ⁵⁵ (A12)	ni ³⁵ (A1)	ni ⁵³ (A1)	‘bee (<i>Apis dorsata</i>)’
*hɲ-	*hɲaw ^A	jo ³¹ (A12)	jo ³¹ (A12)	jau ⁵³ (A12)	ju ³³ (A12)	jo ⁵⁵ (A12)	ju ⁵⁵ (A12)	ɲɔ ³³ (A)	ɲɔ ⁵⁵ (A12)	jo ³⁵ (A1)	jo ⁵³ (A1)	‘easy’
*hŋ/?ŋ-	*hŋa ^A	ŋa ³¹ (A12)	ŋa ³¹ (A12)	ŋa ⁵³ (A12)	ŋe ³³ (A12)	--	--	ɲa ³³ (A)	ɲa ⁵⁵ (A12)	--	--	‘front’
*hw-	*hwa ^B	wa ⁵⁵ (B12)	wa ³³ (B12)	hwa ¹¹ (B)	we ¹¹ (B)	hu ³³ (B)	--	wa ^{31~} (B12)	wa ^{45'} (B12)	wa ³³ (B12)	wa ⁵⁵ (B12)	‘bamboo’

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
*hr/?r-	*hru ^{nA}	rən ³¹ (A12)	ruən ³¹ (A12)	rwaŋ ⁵³ (A12)	rɪ ³³ (A12)	hu ⁵⁵ (A12)	ru ⁵⁵ (A12)	--	--	--	--	‘silver, money’
*hl/?l-	*hla ^B	la ⁵⁵ (B12)	la ³³ (B12)	la ¹¹ (B)	le ¹¹ (B)	le ³³ (B)	la ¹¹ (B)	la ^{31~} (B12)	la ^{45'} (B12)	la ³³ (B12)	la ⁵⁵ (B12)	‘leaf’
*s-	*sej ^A	si ³¹ (A12)	si ³¹ (A12)	θi ⁵³ (A12)	sə ³³ (A12)	θi ⁵⁵ (A12)	si ⁵⁵ (A12)	si ³³ (A)	si ⁵⁵ (A12)	sei ³⁵ (A1)	θei ⁵³ (A1)	‘dead, to die’
*ç	*ça ^B	cha ⁵⁵ (B12)	cha ³³ (B12)	cha ¹¹ (B)	che ¹¹ (B)	ʃe ³³ (B)	cha ¹¹ (B)	cha ^{31~} (B12)	cha ^{45'} (B12)	sja ³³ (B12)	çha ⁵⁵ (B12)	‘star’
*h-	*~ha ^{A~B}	~ha ³¹ (A12)	~ha ³³ (A12)	~ha ¹¹ (B)	~he ³³ (A12)	~he ³³ (B)	~ha ⁵⁵ (A12)	ha ^{33~} (A)	~ha ⁵⁵ (A12)	--	ya ⁵⁵ (B12)	‘last night, yesterday’
*p-	*pə ^B	pə ⁵⁵ (B12)	pə ³³ (B12)	pəi ¹¹ (B)	po ¹¹ (B)	bo ³³ (B)	pə ¹¹ (B)	--	--	--	--	‘to look after (~ things)’
*t-	*tə ^B	tə ⁵⁵ (B12)	tə ³³ (B12)	təi ¹¹ (B)	to ¹¹ (B)	do ³³ (B)	tə ¹¹ (B)	--	--	--	--	‘to arrive’
*c-	*cə ^B	cau ⁵⁵ (B12)	cau ³³ (B12)	cau ¹¹ (B)	co ¹¹ (B)	cə ³³ (B)	co ¹¹ (B)	cə ^{31~} (B12)	cə ^{45'} (B12)	cə ³³ (B12)	co ⁵⁵ (B12)	‘wet’
*k-	*ka ^B	ka ⁵⁵ (B12)	ka ³³ (B12)	ka ¹¹ (B)	khe ¹¹ (B)	khe ³³ (B)	kha ¹¹ (B)	kha ^{31~} (B12)	kha ^{45'} (B12)	kha ³³ (B12)	kha ⁵⁵ (B12)	‘chin’

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
*ʔ-	*ʔe ^B	ʔe ⁵⁵ (B12)	ʔe ³³ (B12)	ʔai ¹¹ (B)	ʔi ¹¹ (B)	i ¹¹ (D3?)	ʔi ¹¹ (B)	ʔe ^{31~} (B12)	ʔe ^{45'} (B12)	ʔi ³³ (B12)	ʔi ⁵⁵ (B12)	‘dung, excrement’
*ʔb-	*ʔbaŋ ^B	baŋ ⁵⁵ (B12)	baŋ ³³ (B12)	baŋ ¹¹ (B)	bɛ ¹¹ (B)	ba ³³ (B)	bɔ ¹¹ (B)	bɔ ^{31~} (B12)	bɔ ^{45'} (B12)	bɛ̃ ³³ (B12)	bɔ̃ ⁵⁵ (B12)	‘bamboo shoot’
*ʔd-	*ʔda ^A	da ³¹ (A12)	da ³¹ (A12)	da ⁵³ (A12)	de ³³ (A12)	dɛ ⁵⁵ (A12)	da ⁵⁵ (A12)	da ³³ (A)	da ⁵⁵ (A12)	da ³¹ (A23)	da ⁵⁵ (A23)	‘to spread out (mats)’
*hm/ʔm-	*hme ^B	me ⁵⁵ (B12)	me ³³ (B12)	mai ¹¹ (B)	mi ¹¹ (B)	mi ³³ (B)	mi ¹¹ (B)	me ^{31~} (B12)	me ^{45'} (B12)	mi ³³ (B12)	mi ⁵⁵ (B12)	‘fire’
*ʔn-	*ʔneŋ ^B	neŋ ⁵⁵ (B12)	neŋ ³³ (B12)	ne ¹¹ (B)	na ¹¹ (B)	dɛ ³³ (B)	de ¹¹ (B)	ni ^{31~} (B12)	ni ^{45'} (B12)	nāi ³³ (B12)	nēi ⁵⁵ (B12)	‘year’
*ʔn/hŋ-	*ʔn/hŋa ^B	ja ⁵⁵ (B12)	ja ³³ (B12)	ja ¹¹ (B)	ja ¹¹ (B)	--	ja ¹¹ (B)	ja ^{31~} (B12)	ja ^{45'} (B12)	ja ³³ (B12)	ja ⁵⁵ (B12)	‘flesh, meat’
*ʔw-	*ʔwi ^B	ʔwi ⁵⁵ (B12)	ʔwi ³³ (B12)	ʔwi ¹¹ (B)	wi ¹¹ (B)	--	wi ¹¹ (B)	--	--	ʔwi ³³ (B12)	ʔwi ⁵⁵ (B12)	‘delicious’
*ʔj-	*ʔjɛN ^B	ʔɛn ⁵⁵ (B12)	ʔɛm ³³ (B12)	ʔjaŋ ¹¹ (B)	ʔi ¹¹ (B)	--	ʔi ¹¹ (B)	ʔi ^{31~} (B12)	ʔi ^{45'} (B12)	ʔāi ³³ (B12)	ʔāi ⁵⁵ (B12)	‘narrow’
*ʔl-	*ʔla ^A	la ³¹ (A12)	la ³¹ (A12)	la ⁵³ (A12)	le ³³ (A12)	le ⁵⁵ (A12)	la ⁵⁵ (A12)	la ³³ (A)	la ⁵⁵ (A12)	la ⁵⁵ (A23)	la ³¹ (A23)	‘moon, month’

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
*b-	*bi ^{2D}	pe ⁷²¹ (D12)	pi ⁷²¹ (D12)	pi ⁷²¹ (D3)	pi ³³ (D3)	bi ¹¹ (D3)	pi ³³ (D)	phi ⁷²¹ (D3)	pai ¹¹ (D3)	phai ⁷²¹ (D3)	phai ⁷⁴⁵ (D3)	‘to extinguish’
*d-	*dow ^B	thu ⁵³ (B3)	tu ⁵⁵ (B3)	tu ¹¹ (B)	to ¹¹ (B)	du ¹¹ (B)	tu ¹¹ (B)	ti ¹¹ (B3)	ti ³¹ (B3)	thou ¹¹ (B3)	thou ³³ (B3)	‘to thread (needles)’
*j -	*ja ^B	cha ⁵³ (B3)	ca ⁵⁵ (B3)	ca ¹¹ (B)	ce ¹¹ (B)	je ³³ (B)	ca ¹¹ (B)	--	ca ³¹ (B3)	--	--	‘young, soft’
*g-	*go ^B	kho ⁵³ (B3)	ko ⁵⁵ (B3)	kau ¹¹ (B)	ku ¹¹ (B)	--	ku ¹¹ (B)	ko ¹¹ (B3)	ku ³¹ (B3)	khu ¹¹ (B3)	khu ³³ (B3)	‘sunlight, hot’
*m-	*ma ^A	ma ³³ (A3)	ma ⁵³ (A3)	ma ³³ (A3)	me ¹¹ (A3)	me ³³ (A3)	ma ³³ (A3)	ma ³³ (A)	ma ³³ (A3)	me ⁵⁵ (A3)	ma ³¹ (A3)	‘to do, to make’
*n-	*na ^B	na ⁵³ (B3)	na ⁵⁵ (B3)	na ¹¹ (B)	ne ¹¹ (B)	ne ³³ (B)	na ¹¹ (B)	na ¹¹ (B3)	na ³¹ (B3)	ne ¹¹ (B3)	na ³³ (B3)	‘ear’
*ɲ-	*ɲa ^A	ja ³³ (A3)	ja ⁵³ (A3)	ja ³³ (A3)	ja ¹¹ (A3)	--	--	ɲa ³³ (A)	--	ja ³⁵ (A1)	ja ⁵³ (A1)	‘palm (of the hand)’
*w-	*wi ^A	wi ³³ (A3)	wi ⁵³ (A3)	--	wi ¹¹ (A3)	wi ³³ (A3)	wi ³³ (A3)	wi ³³ (A)	wi ³³ (A3)	wei ⁵⁵ (A23)	wei ³¹ (A23)	‘mole (rodent)’
*j-	*jow ^B	ju ⁵³ (B3)	ju ⁵⁵ (B3)	ju ¹¹ (B)	jo ¹¹ (B)	ju ¹¹ (D3?)	ju ¹¹ (B)	ji ¹¹ (B3)	ji ³¹ (B3)	jou ¹¹ (B3)	jou ³³ (B3)	‘mouse, rat’

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
*r-	*re ^B	re ⁵³ (B3)	re ⁵⁵ (B3)	rai ¹¹ (B)	ri ¹¹ (B)	--	ri ¹¹ (B)	ye ¹¹ (B3)	ye ³¹ (B3)	yi ¹¹ (B3)	yi ³³ (B3)	‘rattan’
*l-	*la ^{7D}	la ⁷⁴⁵ (D3)	la ⁷⁴⁵ (D3)	la ⁷²¹ (D3)	le ³³ (D3)	le ¹¹ (D3)	lo ³³ (D3)	la ⁷²¹ (D3)	la ¹¹ (D3)	la ⁷²¹ (D3)	la ⁷⁴⁵ (D3)	‘below, underneath’
*phr-	*phrɔ ^A	--	--	phɔ ⁵³ (A12)	pho ³³ (A12)	phrɔ ³³ (A3)	pho ⁵⁵ (A12)	phɔ ³³ (A)	phɔ ⁵⁵ (A12)	phɔ ³⁵ (A1)	pho ⁵³ (A1)	‘to boil’
*khr-	*khrej ^B	khri ⁵⁵ (B12)	khri ³³ (B12)	--	khre ¹¹ (B)	--	ci ¹¹ (B)	xi ^{31~} (B12)	xi ^{45~} (B12)	kei ³³ (B12)	kei ⁵⁵ (B12)	‘body dirt’
*sr-	*sra ^A	sa ³¹ (A12)	sa ³¹ (A12)	θa ⁵³ (A12)	se ³³ (A12)	θre ⁵⁵ (A12)	sa ⁵⁵ (A12)	ɕya ³³ (A)	ɕya ⁵⁵ (A12)	sja ³⁵ (A1)	θa ⁵³ (A1)	‘bamboo strip’
*t/kr-	*kre ^A	--	--	re ³³ (A3)	re ³³ (A12)	tre ⁵⁵ (A12)	re ⁵⁵ (A12)	ka ¹¹ re ³³ (A)	re ⁵⁵ (A12)	--	yei ³¹ (A23)	‘monitor lizard (water~)’
*br-	*s-bra ^B	phra ⁵³ (B3)	phra ⁵⁵ (B3)	pra ¹¹ (B)	phre ¹¹ (B)	(θa ³³) bwe ³³ (B)	pra ¹¹ (B)	(sa ⁷⁴⁵) pya ¹¹ (B3)	pya ³¹ (B3)	sja ¹¹ (B3)	ɕha ³³ (B3)	‘old (of people)’
*jr-	*jram ^A	sam ³³ (A3)	sam ⁵³ (A3)	caj ³³ (A3)	khre ¹¹ (A3)	--	cɔ ³³ (A3)	xɔ ³³ (A)	xɔ ³³ (A3)	--	--	‘bedbug’
*gr-	*gra ^B	sa ⁵³ (B3)	ɕa ⁵⁵ (B3)	ca ¹¹ (B)	khre ¹¹ (B)	--	ca ¹¹ (B)	xa ¹¹ (B3)	xa ³¹ (B3)	xa ¹¹ (B3)	xa ³³ (B3)	‘louse, insect’

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
*phl-	*phlon ^B	phron ⁵⁵ (B12)	ploŋ ³³ (B12)	phləu ¹¹ (B)	phlɔ ¹¹ (B)	--	phlə ¹¹ (B)	phlə ^{31~} (B12)	phli ^{45'} (B12)	phǎu ³³ (B12)	phlōu ⁵⁵ (B12)	‘clf. [-human, + flat]’
*khl-	*khlɔ ^B	khau ⁵⁵ (B12)	klau ³³ (B12)	--	--	khlɔ ³³ (B)	--	khlɔ ^{31~} (B12)	khlɔ ^{45'} (B12)	khlɔ ³³ (B12)	khlɔ ⁵⁵ (B12)	‘mat’
*pl-	*pla ^{A~B}	pla ³¹ (A12)	pla ³¹ (A12)	bla ¹¹ (B)	ple ¹¹ (B)	ple ¹¹ (D3?)	pla ¹¹ (B)	bla ³³ (A)	bla ⁵⁵ (A12)	phla ³³ (B12)	phla ⁵⁵ (B12)	‘bat’
*kl-	*kla ^A	khra ³¹ (A12)	kla ³¹ (A12)	--	kle ³³ (A12)	--	ka ⁵⁵ (A12)	kla ⁷⁴⁵ (D12)	kla ⁵⁵ (A12)	kla ⁵⁵ (A23)	kla ³¹ (A23)	‘forest, jungle’
*ʔbl-	*ʔbla ^A	pla ³¹ (A12)	--	bla ⁵³ (A12)	--	ple ⁵⁵ (A12)	--	bla ³³ (A)	bla ⁵⁵ (A12)	bla ⁵⁵ (A23)	bla ³¹ (A23)	‘tasteless, pale’
*bl-	*bla ^B	phra ⁵³ (B3)	pla ⁵⁵ (B3)	pla ¹¹ (B)	ple ¹¹ (B)	bl(a) ³³ (B)	pla ¹¹ (B)	pla ¹¹ (B3)	pla ³¹ (B3)	phla ¹¹ (B3)	phla ³³ (B3)	‘to wash (face)’
*gl-	*glɛ ^A	--	klai ⁵³ (A3)	khle ³³ (A3)	kle ³³ (A12)	kle ³³ (A3)	kle ³³ (A3)	kle ³³ (A)	kle ³³ (A3)	kle ⁵⁵ (A23)	--	‘path, way’
*ml-	*k-mlɔN ^A	--	mɔ ⁵³ (A3)	mɔ ³³ (A3)	mo ¹¹ (A3)	-blɔ ¹¹ (D3?)	--	ka ¹¹ mlɔ ³³ (A)	mlu ³³ (A3)	mlɔ ⁵⁵ (A23)	mlɔ ³¹ (A23)	‘trunk (of an elephant)’
*phr-	*phri ^A	phwi ³¹ (A12)	phwi ³¹ (A12)	phwi ⁵³ (A12)	phwi ³³ (A12)	phwi ⁵⁵ (A12)	phi ⁵⁵ (A12)	phyi ³³ (A)	phyi ⁵⁵ (A12)	khwi ³⁵ (A1)	khwi ⁵³ (A12)	‘light (adj.)’

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
*thw-	*thwi ^B	thwi ⁵⁵ (B12)	thwi ³³ (B12)	thwi ¹¹ (B)	thwi ¹¹ (B)	thwi ³³ (B)	thi ¹¹ (B)	thwi ^{31~} (B12)	thwi ^{45'} (B12)	thwi ³³ (B12)	thwi ⁵⁵ (B12)	‘dog’
*chw-	*chwe ^B	chwe ⁵⁵ (B12)	chwe ³³ (B12)	chwe ¹¹ (B)	chwa ¹¹ (B)	ɰwe ³³ (B)	che ¹¹ (B)	chwe ^{31~} (B12)	chwe ^{45'} (B12)	chwe ³³ (B12)	chwe ⁵⁵ (B12)	‘crab’
*khw-	*khwa ^A	kho ³¹ (A12)	kho ³¹ (A12)	khau ⁵³ (A12)	khu ³³ (A12)	~kho ⁵⁵ (A12)	khu ⁵⁵ (A12)	khwa ³³ (A)	khwa ⁵⁵ (A12)	khwa ³⁵ (A1)	khwa ⁵³ (A1)	‘man’
*hn/?nw-	*hn/?nwe ^B	nwe ⁵⁵ (B12)	nwe ³³ (B12)	nwe ¹¹ (B)	--	nwe ³³ (B)	ne ¹¹ (B)	nwe ¹¹ (B3?)	nwe ^{45'} (B12)	ne ³³ (B12)	ne ⁵⁵ (B12)	‘yam’
*sw-	*swi ^B	swi ⁵⁵ (B12)	swi ³³ (B12)	θwi ¹¹ (B)	swi ¹¹ (B)	θwi ³³ (B)	su ¹¹ (B)	swi ^{31~} (B12)	swi ^{45'} (B12)	swi ³³ (B12)	θwi ⁵⁵ (B12)	‘blood’
*cw-	*cwik ^D	cok ²¹ (D12)	cu ⁷²¹ (D12)	cwi ⁷⁴⁵ (D12)	cwi ⁵⁵ (D12)	--	ci ³³ (D)	(sə ¹¹) wi ⁷⁴⁵ (D12)	--	--	(θə ¹¹) wai ⁷³¹ (D12)	‘to suck’
*kw-	*~ki ^B	~ki ⁵⁵ (B12)	--	~khi ¹¹ (B)	~khwi ¹¹ (B)	~k(h)i ³³ (B)	~ki ¹¹ (B)	~ki ⁷²¹ (D3?)	~ki ^{45'} (B12)	~kei ³³ (B12)	~kei ⁵⁵ (B12)	‘parrot’
*?bw-	*?bwa ^A	bwa ³¹ (A12)	bwa ³¹ (A12)	bau ⁵³ (A12)	bu ³³ (A12)	bu ⁵⁵ (A12)	bu ⁵⁵ (A12)	wa ³³ (A)	wa ⁵⁵ (A12)	?we ⁴² (A23) ?wa ⁵⁵ (A23)	kwa ³¹ (A23)	‘white’

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
*ʔdw-	*ʔdwe ^B	dwe ⁵⁵ (B12)	dwe ³³ (B12)	dwe ¹¹ (B)	--	dɛ ³³ (B)	dɛ ¹¹ (B)	dwe ^{31~} (B12)	dwe ^{45'} (B12)	thwe ¹¹ (B3)	thwe ³³ (B3)	‘grasshopper’
*dw-	*dwe ^{7D}	the ⁷⁴⁵ (D3)	tɛ ⁷⁴⁵ (D3)	tu ⁷²¹ (D3)	tu ³³ (D3)	the ³³ (D12)	tu ³³ (D3)	the ⁷²¹ (D3)	tɛ ¹¹ (D3)	the ⁷²¹ (D3)	the ⁷⁴⁵ (D3)	‘torn’
*gw-	*gwa ^A	wa ³³ (A3)	wa ⁵³ (A3)	gwa ³³ (A3)	we ¹¹ (A3)	wa ³³ (A3)	wu ³³ (A3)	wa ³³ (A)	wa ³³ (A3)	wa ⁵⁵ (A23)	wa ³¹ (A23)	‘husband’
*mw-	*mwe ^B	mwe ⁵³ (B3)	mwe ⁵⁵ (B3)	mwe ¹¹ (B)	ma ¹¹ (B)	--	mɛ ¹¹ (B)	me ¹¹ (B3)	mɛ ³¹ (B3)	mɛ ¹¹ (B3)	mwe ³³ (B3)	‘yes’
*ŋw-	*s-ŋwi ^B	ŋwi ⁵⁵ (B12)	ŋwi ³³ (B12)	ŋwi ¹¹ (B)	--	(θə ⁵⁵) mi ³³ (B)	(si ¹¹) mi ¹¹ (B)	--	--	--	--	‘water snail’
*rw-	*rwi ^B	rwi ⁵³ (B3)	rwi ⁵⁵ (B3)	rwi ¹¹ (B)	rwi ¹¹ (B)	(kha ³³) wi ³³ (B)	ri ¹¹ (B)	yi ¹¹ (B3)	yi ³¹ (B3)	yei ¹¹ (B3)	βei ³³ (B3)	‘root’
*lw-	*~lwi ^B	~lwi ⁵³ (B3)	~lwi ⁵⁵ (B3)	~lwi ¹¹ (B)	~lwi ¹¹ (B)	~lwi ³³ (B)	~li ¹¹ (B)	~lwi ¹¹ (B3)	~lwi ³¹ (B3)	~lei ¹¹ (B3)	~lwi ³³ (B3)	‘dove’
*chj-	*chja ^{NA}	ɕhja ³¹ (A12)	ɕhja ³¹ (A12)	ɕhi ⁵³ (A12)	cha ³³ (A12)	ʃi ⁵⁵ (A12)	ɕhi ⁵⁵ (A12)	cho ³³ (A)	cho ⁵⁵ (A12)	chɛ ³⁵ (A1)	chɔ ⁵³ (A1)	‘chicken’
*kj-	*kja ^{7D}	khja ⁷²¹ (D12)	khja ⁷²¹ (D12)	khi ⁷⁴⁵ (D12)	khja ⁵⁵ (D12)	--	--	ki ⁷⁴⁵ (D12)	kai ⁷²¹ (D12)	kai ⁷⁴⁵ (D12)	kai ⁷³¹ (D12)	‘astringent’

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
*ʔbj-	*ʔbja ^B	pja ⁵³ (B12)	pja ³³ (B12)	bja ¹¹ (B)	--	(be ³³) ba ³³ (B)	--	--	--	pa ³³ (B12)	bai ⁵⁵ (B12)	‘flat’
*ɲj-	*ɲja ^{7D}	ɲja ⁷⁴⁵ (D3)	ɲja ⁷⁴⁵ (D3)	ɲi ⁷²¹ (D3)	ɲja ³³ (D3)	(ɔ ³³ -) ji ¹¹ (D3)	ji ³³ (D)	ji ⁷²¹ (D3)	jai ¹¹ (D3)	jai ⁷²¹ (D3)	jai ⁷⁴⁵ (D3)	‘long (of time)’
*rj-	*rja ^A	rja ³³ (A3)	rja ⁵³ (A3)	ja ³³ (A3)	je ¹¹ (B)	(gə)-je ³³ (B)	ja ¹¹ (B)	ja ³³ (A)	ja ³³ (A3)	ja ⁵⁵ (A23)	ja ³¹ (A23)	‘hundred’
*khrw-	*khrwit ^D	chut ²¹ (D12)	chut ²¹ (D12)	chwi ⁷⁴⁵ (D12)	khrwi ⁵⁵ (D12)	khwi ³³ (D12)	chu ³³ (D)	xi ³³ (A)	(ta ¹¹) xi ⁵⁵ (A12)	xei ³³ (B12)	xwi ⁵⁵ (B12)	‘bone’

Table 3 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 ^A	mi ³³ (A3)	mi ⁵³ (A3)	mi ³³ (A3)	mi ¹¹ (A3)	--	mi ³³ (A3)	mi ³³ (A)	mi ³³ (A3)	mei ⁵⁵ (A23)	mei ³¹ (A23)	‘wild, e.g. ~boar’
*e	*ce ^B	ce ⁵⁵ (B12)	ce ³³ (B12)	cai ³³ (B12)	ci ¹¹ (B)	ci ³³ (B)	ci ¹¹ (B)	ce ^{31~} (B12)	ce ^{45'} (B12)	ci ³³ (B12)	ci ⁵⁵ (B12)	‘left side’
*ɛ	*lɛ ^B	lai ⁵³ (B3)	lai ⁵⁵ (B3)	lɛ ¹¹ (B)	lɛ ¹¹ (B)	lɛ ³³ (B)	lɛ ¹¹ (B)	lɛ ¹¹ (B3)	lɛ ³¹ (B3)	lɛ ¹¹ (B3)	lɛ ³³ (B3)	‘wide’
*i	*hm/?mi ^B	mi ⁵³ (B3)	mi ³³ (B12)	mi ¹¹ (B)	mɔ ¹¹ (B)	mo ³³ (B)	mi ¹¹ (B)	mi ^{31~} (B12)	mi ^{45'} (B12)	mi ³³ (B12)	mi ⁵⁵ (B12)	‘woman, female’
*ə	*phə ^B	phə ⁵⁵ (B12)	phə ³³ (B12)	phəi ¹¹ (B)	pho ¹¹ (B)	--	phə ¹¹ (B)	phi ^{31~} (B12)	phi ^{45'} (B12)	phəi ³³ (B12)	phi ⁵⁵ (B12)	‘short, low’
*a	*cha ^A	ca ³¹ (A12)	ca ³¹ (A12)	cha ⁵³ (A12)	che ³³ (A12)	ʃɛ ⁵⁵ (A12)	cha ⁵⁵ (A12)	cha ³³ (A)	cha ⁵⁵ (A12)	cha ³⁵ (A1)	cha ⁵³ (A1)	‘to sell’
*u	*ʔu ^A	ʔu ³¹ (A12)	ʔu ³¹ (A12)	ʔu ⁵³ (A12)	ʔu ³³ (A12)	u ³³ (B)	ʔu ⁵⁵ (A12)	ʔu ³³ (A)	ʔu ⁵⁵ (A12)	ʔu ⁵⁵ (A23)	ʔu ³¹ (A23)	‘to blow’
*o	*do ^B	tho ⁵³ (B3)	to ⁵⁵ (B3)	--	tu ¹¹ (B)	do ³³ (B)	tu ¹¹ (B)	to ¹¹ (B3)	tu ³¹ (B3)	thu ¹¹ (B3)	thu ³³ (B3)	‘handle (n.)’
*ɔ	*sɔ ^B	sau ⁵⁵ (B12)	ɕau ³³ (B12)	θau ¹¹ (B)	so ¹¹ (B)	θɔ ³³ (B)	so ¹¹ (B)	ɕɣɔ ^{31~} (B12)	ɕɣɔ ^{45'} (B12)	ɕjo ³³ (B12)	θo ⁵⁵ (B12)	‘hemp’

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
*ej	*ʔdej ^B	di ⁵⁵ (B12)	di ³³ (B12)	ti ¹¹ (B)	də ¹¹ (B)	ɗi ³³ (B)	di ¹¹ (B)	di ^{31~} (B12)	di ^{45'} (B12)	dei ³³ (B12)	dei ⁵⁵ (B12)	‘egg’
*aj	*hl/ʔlaj ^B	--	lai ³³ (B12)	lai ¹¹ (B)	--	lɪ ³³ (B)	li ¹¹ (B)	le ^{31~} (B12)	li ^{45'} (B12)	--	lai ⁵⁵ (B12)	‘to lick’
*aw	*thaw ^A	tho ³¹ (A12)	tho ³¹ (A12)	thau ⁵³ (A12)	thu ³³ (A12)	tho ⁵⁵ (A12)	thu ⁵⁵ (A12)	tho ³³ (A)	tho ⁵⁵ (A12)	tho ³⁵ (A1)	tho ⁵³ (A1)	‘long, tall’
*ow	*hl/ʔlow ^B	lu ⁵⁵ (B12)	lu ³³ (B12)	lu ¹¹ (B)	lo ¹¹ (B)	lu ³³ (B)	lu ¹¹ (B)	li ^{31~} (B12)	li ^{45'} (B12)	lou ³³ (B12)	lou ⁵⁵ (B12)	‘cotton thread’
*im	*Jim ^B	cim ⁵⁵ (B12)	cim ³³ (B12)	ci ¹¹ (B)	ci ¹¹ (B)	ci ³³ (B)	ci ¹¹ (B)	ci ¹¹ (B3)	ci ³¹ (B3)	chāi ¹¹ (B3)	chēi ³³ (B3)	‘to squeeze, to ooze’
*in	*hmin ^A	min ³¹ (A12)	min ³¹ (A12)	mjaŋ ⁵³ (A12)	mi ³³ (A12)	mi ⁵⁵ (A12)	mi ⁵⁵ (A12)	mi ³³ (A)	mi ⁵⁵ (A12)	māi ³⁵ (A1)	mēi ⁵³ (A1)	‘ripe, cooked’
*iŋ	*~khiŋ ^{A~B}	~khiŋ ⁵⁵ (B12)	khiŋ ³³ (B12)	khi ⁵³ (A12)	khi ³³ (A12)	--	khi ⁵⁵ (A12)	~khi ³³ (A)	--	khāi ³⁵ (A1)	~khēi ⁵³ (A1)	‘tilted’
*eŋ	*ʔneŋ ^B	neŋ ⁵⁵ (B12)	neŋ ³³ (B12)	ne ¹¹ (B)	na ¹¹ (B)	dɛ ³³ (B)	dɛ ¹¹ (B)	ni ^{31~} (B12)	ni ^{45'} (B12)	nāi ³³ (B12)	nēi ⁵⁵ (B12)	‘year’
*ɛm	*hl/ʔljɛm ^B	lɛm ⁵⁵ (B12)	lɛm ³³ (B12)	ljaŋ ¹¹ (B)	ja ¹¹ (B)	--	li ¹¹ (B)	le ^{31~} (B12)	li ^{45'} (B12)	lāi ³³ (B12)	lāi ⁵⁵ (B12)	‘to put out (~the tongue)’

Table 3 Proto-Karen rhymes

Proto-Karen		N. Pa-O	S. Pa-O	Kayan	Kayah	Bwe	Kayaw	N. Sgaw	S. Sgaw	N. Pwo	S. Pwo	Gloss
*ɛn	*ʔɛn ^B	ʔɛŋ ⁵⁵ (B12)	ʔɛm/n ³³ (B12)	ʔi ¹¹ (B)	ʔa ¹¹ (B)	--	--	ʔe ^{31~} (B12)	ʔi ^{45'} (B12)	ʔāi ³³ (B12)	ʔāi ⁵⁵ (B12)	‘to bite’
*ɛŋ	*thɛŋ ^A	thɛŋ ³¹ (A12)	thɛŋ ³³ (A12)	thi ⁵³ (A12)	tha ³³ (A12)	the ⁵⁵ (A12)	thi ⁵⁵ (A12)	the ³³ (A)	thi ⁵⁵ (A12)	thāi ³⁵ (A1)	thāi ⁵³ (A1)	‘to weave (baskets)’
*im	*dim ^A	thom ³³ (A3)	təm ⁵³ (A3)	ti ³³ (A3)	ti ¹¹ (A3)	--	ti ³³ (A3)	tə ³³ (A)	ti ³³ (A3)	thā ⁵⁵ (A23)	thāi ³¹ (A23)	‘a linear measure (½ yard)’
*in	*phrim/n ^A	phrim ³¹ (A12)	phrin ³¹ (A12)	phri ⁵³ (A12)	phli ³³ (A12)	phlu ⁵⁵ (A12)	phri ⁵⁵ (A12)	phlā ³³ (A)	phli ⁵⁵ (A12)	phlā ³⁵ (A1)	phlāi ⁵³ (A1)	‘hornet’
*iŋ	*niŋ ^A	nəŋ ³³ (A3)	nəŋ ⁵³ (A3)	ni ³³ (A3)	ni ¹¹ (A3)	--	--	nə ³³ (A)	ni ³³ (A)	nā ⁵⁵ (A23)	nāi ³¹ (A23)	‘to win’
*əm	*səm ^A	som ³¹ (A12)	səm ³¹ (A12)	θə ⁵³ (A12)	sɔ ³³ (A12)	θo ⁵⁵ (A12)	sə ⁵⁵ (A12)	sə ³³ (A)	sə ⁵⁵ (A12)	sā ³⁵ (A1)	sā ⁵³ (A1)	‘three’
*əŋ	*thəŋ ^B	thoŋ ⁵⁵ (B12)	thəŋ ³³ (B12)	thə ¹¹ (B)	thɔ ¹¹ (B)	~tho ³³ (B)	tə ¹¹ (B)	~thə ^{31~} (B12)	thə ^{45'} (B12)	thā ³³ (B12)	thā ⁵⁵ (B12)	‘to stand’
*am	*ʔam ^B	ʔam ⁵⁵ (B12)	ʔam ³³ (B12)	ʔaŋ ¹¹ (B)	ʔɛ ¹¹ (B)	ʔa ³³ (B)	ʔə ³³ (B)	ʔə ^{31~} (B12)	ʔə ^{45'} (B12)	ʔə ³³ (B12)	ʔə ⁵⁵ (B12)	‘to eat’
*an	*~khan ^A	~khan ³¹ (A12)	~khan ³¹ (A12)	~khaŋ ⁵³ (A12)	--	khɛ ⁵⁵ (A12)	~kha ⁵⁵ (A12)	khə ³³ (A)	khə ⁵⁵ (A12)	khē ³⁵ (A1)	khə ⁵³ (A1)	‘bamboo rat’

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
*aŋ	*laŋ ^A	laŋ ³³ (A3)	laŋ ⁵³ (A3)	laŋ ³³ (A3)	le ¹¹ (A3)	la ³³ (A3)	lɔ ³³ (A3)	lɔ ³³ (A)	lɔ ³³ (A3)	le ⁵⁵ (A23)	lɔ ³¹ (A23)	‘to descend’
*um/n	*chum/n ^B	chən ⁵⁵ (B12)	chum ³³ (B12)	chwaŋ ¹¹ (B)	chi ¹¹ (B)	ʃu ³³ (B)	chu ¹¹ (B)	chu ^{31~} (B12)	chu ^{45'} (B12)	chã ³³ (B12)	chõ ⁵⁵ (B12)	‘hair, fur, feather’
*uŋ	*ʔbluŋ ^B	pləŋ ⁵⁵ (B12)	pwəŋ ³³ (B12)	bwaŋ ¹¹ (B)	bi ¹¹ (B)	ʃo ³³ (B)	bu ¹¹ (B)	bɔ ^{31~} (B12)	bɔ ^{45'} (B12)	bã ³³ (B12)	bõ ⁵⁵ (B12)	‘fat (adj.)’
*om	*plom ^B	pom ⁵⁵ (B12)	pom ³³ (B12)	blo ¹¹ (B)	plu ¹¹ (B)	plo ³³ (B)	plə ¹¹ (B)	pu ^{31~} (B12)	pu ^{45'} (B12)	pãu ³³ (B12)	põu ⁵⁵ (B12)	‘pile (clf.)’
*oŋ	*loŋ ^B	loŋ ⁵³ (B3)	loŋ ⁵⁵ (B3)	ləu ¹¹ (B)	lɔ ¹¹ (B)	lo ³³ (B)	lə ¹¹ (B)	lə ¹¹ (B3)	li ³¹ (B3)	lãu ¹¹ (B3)	lõu ³³ (B3)	‘stone, rock’
*ɔŋ	*dɔŋ ^B	thɔŋ ⁵³ (B3)	tɔŋ ⁵⁵ (B3)	tɔ ¹¹ (B)	--	dɔ ³³ (B)	to ¹¹ (B)	to ¹¹ (B3)	tu ³¹ (B3)	--	thõ ³³ (B3)	‘to pound’
*it	*khrwit ^D	chut ²¹ (D12)	chut ²¹ (D12)	chwi ⁷⁴⁵ (D12)	khrwi ⁵⁵ (D12)	khwi ³³ (D12)	chu ³³ (D)	xi ³³ (A)	xi ⁵⁵ (A12)	xei ³³ (B12)	xwi ⁵⁵ (B12)	‘bone’
*ik	*cwik ^D	cuk ²¹ (D12)	cu ⁷²¹ (D12)	cwi ⁷⁴⁵ (D12)	cwi ⁵⁵ (D12)	--	ci ³³ (D)	s-wi ⁷⁴⁵ (D12)	--	--	θ-wai ⁷³¹ (D12)	‘to suck’
*i ⁷	*khi ^{7D}	khe ⁷²¹ (D12)	khi ⁷²¹ (D12)	khi ⁷⁴⁵ (D12)	khi ⁵⁵ (D12)	khi ³³ (D12)	khi ³³ (D)	khi ⁷⁴⁵ (D12)	khai ⁷²¹ (D12)	khai ⁷⁴⁵ (D12)	khai ⁷³¹ (D12)	‘dark’

Table 3 Proto-Karen rhymes

Proto-Karen		N. Pa-O	S. Pa-O	Kayan	Kayah	Bwe	Kayaw	N. Sgaw	S. Sgaw	N. Pwo	S. Pwo	Gloss
*ek	*lek ^D	le ⁷⁴⁵ (D3)	lek ⁴⁵ (D3)	li ⁷²¹ (D3)	la ³³ (D3)	le ¹¹ (D3)	le ³³ (D)	li ⁷²¹ (D3)	lai ¹¹ (D3)	lai ⁷²¹ (D3)	lai ⁷⁴⁵ (D3)	‘hawk’
*e [?]	*ʔde ^{2D}	de ⁷²¹ (D12)	di ⁷²¹ (D12)	--	da ⁵⁵ (D12)	de ³³ (D12)	de ³³ (D)	di ⁷⁴⁵ (D12)	dai ⁷²¹ (D12)	dai ⁷⁴⁵ (D12)	dai ⁷³¹ (D12)	‘wing’
*e [?]	*de ^{2D}	the ⁷⁴⁵ (D3)	tɛ ⁷⁴⁵ (D3)	tɛ ⁷²¹ (D3)	ta ³³ (D3)	de ¹¹ (D3)	te ³³ (D)	tɛ ⁷²¹ (D3)	te ¹¹ (D3)	the ⁷²¹ (D3)	the ⁷⁴⁵ (D3)	‘to fall’
*ə [?]	*rə ^{2D}	rə ⁷⁴⁵ (D3)	rə ⁷⁴⁵ (D3)	rə ⁷²¹ (D3)	rɔ ³³ (D3)	--	rə ³³ (D)	ɣu ⁷²¹ (D3)	ɣə ¹¹ (D3)	ɣaə ⁷²¹ (D3)	ɣaə ⁷⁴⁵ (D3)	‘flank (n.)’
*ap/t	*ɲjap/t ^D	ɲat ⁴⁵ (D3)	ɲap ⁴⁵ (D3)	ɲɛ ⁷²¹ (D3)	ɲɛ ³³ (D3)	jɛ ¹¹ (D3)	jɛ ³³ (D)	jɛ ¹¹ (B3)	jɛ ³¹ (B3)	jɛ ¹¹ (B3)	jɛ ³³ (B3)	‘five’
*ak	*~dak ^D	(ta ³³) dak ⁴⁵ (D3)	(ta ³³) da ⁷⁴⁵ (D3)	(ka ¹¹) da ⁷²¹ (D3)	(kɛ ⁵⁵) de ³³ (D3)	--	(kha ¹¹) dɔ ³³ (D)	(kɔ ⁷²¹) la ⁷²¹ (D3)	(tha ⁵⁵) la ¹¹ (D3)	(kha ³³) tha ⁷²¹ (D3)	(ka ⁷²¹) la ⁷⁴⁵ (D3)	‘palate, to click’
*a [?]	*sa ^{2D}	sa ⁷²¹ (D12)	sa ⁷²¹ (D12)	θa ⁷⁴⁵ (D12)	se ⁵⁵ (D12)	θa ³³ (D12)	sɔ ³³ (D)	sa ⁷⁴⁵ (D12)	sa ⁷²¹ (D12)	sa ⁷⁴⁵ (D12)	θa ⁷²¹ (D12)	‘heart’
*uk	*kuk ^D	khuk ⁷²¹ (D12)	--	khu ⁷⁴⁵ (D12)	khi ⁵⁵ (D12)	θə ⁵⁵ khu ³³ (D12)	khi ³³ (D)	ku ⁷⁴⁵ (D12)	kɔu ⁷²¹ (D12)	kau ⁷⁴⁵ (D12)	kɔu ⁷³¹ (D12)	‘to cough’
*u [?]	*thu ^{2D}	--	--	--	thi ⁵⁵ (D12)	--	thi ³³ (D)	thu ⁷⁴⁵ (D12)	thɔu ⁷²¹ (D12)	thau ⁷⁴⁵ (D12)	thɔu ⁷³¹ (D12)	‘wart’

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
*ok	*~nok ^D	~nok ⁴⁵ (D3)	~nu ⁷⁴⁵ (D3)	~nɔ̌ ⁷²¹ (D3)	~nɔ̌ ³³ (D3)	~no ¹¹ (D3)	~nə ³³ (D)	~nu ⁷²¹ (D3)	~nɔ̌ ¹¹ (D3)	~nau ⁷²¹ (D3)	~nɔ̌u ⁷⁴⁵ (D3)	‘brain’
*oʔ	*ʔbo ^{7D}	bo ⁷²¹ (D12)	bu ⁷²¹ (D12)	bɔ̌ ⁷⁴⁵ (D12)	bɔ̌ ⁵⁵ (D12)	--	bə ³³ (D)	bi ⁷⁴⁵ (D12)	bɔ̌u ⁷²¹ (D12)	bau ⁷⁴⁵ (D12)	bɔ̌u ⁷³¹ (D12)	‘to reach into’
*ɔ̌t	*kh/ɡrɔ̌t ^D	sɔ̌t ²¹ (D12)	sɔ̌t ⁴⁵ (D3)	chau ⁷⁴⁵ (D12)	--	xɔ̌ ¹¹ (D3)	--	xɔ̌ ⁷⁴⁵ (D12)	xo ⁷²¹ (D12)	xo ⁷²¹ (D3)	xu ⁷⁴⁵ (D3)	‘eight’
*ɔ̌ʔ	*prɔ̌ ^{7D}	phrɔ̌ ⁷²¹ (D12)	phrɔ̌ ⁷²¹ (D12)	phrau ⁷⁴⁵ (D12)	phrɛ ⁵⁵ (D12)	pɔ̌ ³³ (D12)	pro ³³ (D)	bɣɔ̌ ⁷⁴⁵ (D12)	bɣo ⁷²¹ (D12)	pjo ⁷⁴⁵ (D12)	pju ⁷²¹ (D12)	‘to vomit’