

A Phonological Sketch of Akha Buli

--- A Lolo-Burmese language of Muang Sing, Laos ---

HAYASHI Norihiko

1. Introduction

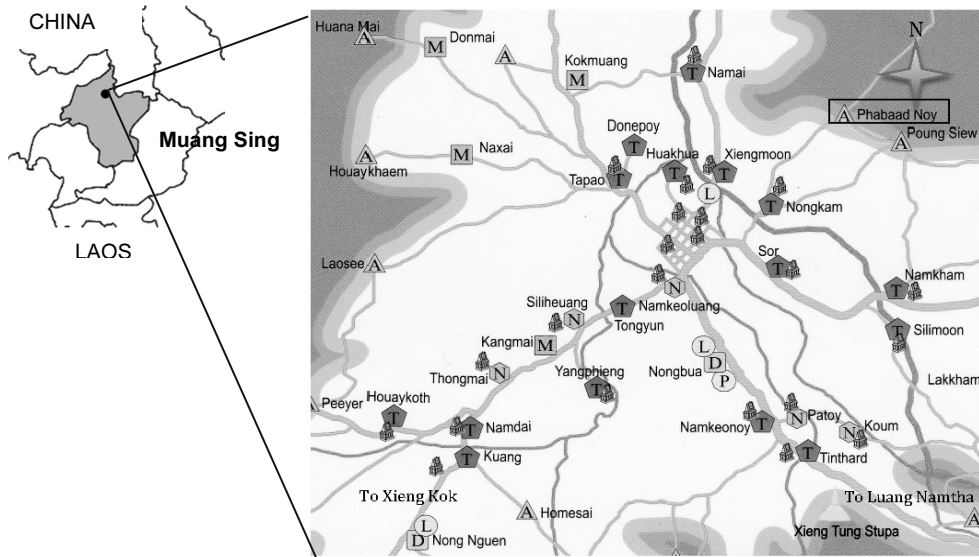
The Akha language is a member of the Akoid languages of the Lolo (Yipho)-Burmese branch of Tibeto-Burman linguistic stock (Bradley 1997). It is spoken widely across Mainland Southeast Asia, in areas such as Yunnan Province of China, Northern Thailand, Northern Burma/Myanmar, Northern Laos, and Northern Vietnam. Hansson (2003: 236) states that there are approximately 250,000 in China, 45,000 in Thailand, 200,000 in Burma/Myanmar, 100,000 in Laos, and 7,000 in Vietnam, though population figures are not reliable.

The Akha language has many linguistic varieties, like Akha Chicho, Akha Chepya, Akha Ulo, etc. This paper utilizes first-hand data¹ to illustrate the basic phonology and lexicon of Akha Buli (Puli),² which is an Akha variety spoken at Phabaad Noy Village in the district of Muang Sing in Luang Namtha Province, Laos (see Map 1).

An orientation to the paper follows. Section 2 introduces previous studies on the Akha Buli language. Sections 3 to 6 describe the synchronic phonology of this language, whereby Section 3 deals with syllable structure, Section 4 illustrates the consonants, Section 5 presents the vowels, and Section 6 outlines the tones. Finally, Section 7 concludes this paper. Moreover, a basic word list is added as **Appendix** at the last part of this paper.

¹ The data were collected as part of the author's linguistic fieldwork in Phabaad Noy village in the district of Muang Sing in Laos, which took place in two periods, namely, September 2014 and February 2016. I would like to express my deepest gratitude to the language consultants, Mr. A Eu (male, born in 1961) and Mr. A Pa (male, born in 1961), who kindly taught me the Akha Buli language. I also thank Prof. Sisamouth Sisomboon, Prof. Hommala Phensisanavong, and the National University of Laos for their academic and administrative support. This research is financially supported by JSPS KAKEN (#26370492), without which it would have been impossible to carry out.

² Note that the Akha Buli language is called "Puli" or "Ko-Puli" in other literatures.

Map 1: Muang Sing Center and Phabaad Noy Village³

2. Previous Studies on the Akha Buli Language

Akha is a relatively well-known language within the Lolo-Burmese branch and is one of the best described languages in Southeast Asian linguistics (Katsura 1966, Lewis 1968, Hansson 1989, Hansson 2003, Lewis 2008, and many others).⁴ Katsura (1966) describes the phonology of an Akha variety in Thailand. Lewis (1968) provides a detailed dictionary on Akha (Puli) in Burma/Myanmar. Hansson (1989) makes a comparison among Akha varieties in Thailand and China. Hansson (2003) outlines the linguistic features of Akha, while Lewis (2008) is a more comprehensive dictionary of Akha dialects. There are, however, very few studies that describe Akha varieties in Laos.

Kingsada and Shintani (1999) and Kato (2008) are considered to represent breakthrough research in the minority linguistics of Laos. Both of them present basic lexicons of some Akha varieties. However, with regard to Akha Buli in Laos, Kingsada and Shintani (1999) has been the only work to present the phonology and basic lexicons.⁵

³ The right hand side of Map 1 represents the district of Muang Sing, which is cited from the local tourist map created by Wolfgang Korn and German Development Service.

⁴ For more inclusive linguistic references on Akha, see Glottolog web page <http://glottolog.org/resource/languoid/id/akha1245> (accessed on June 13th, 2016).

⁵ With regard to Akha Buli (Puli) in Burma/Myanmar, Lewis (1968) is the only dictionary, though he states that the lexical data compiled in it may differ from Thailand. Nevertheless, Akha Buli

Kingsada and Shintani (1999) describe another Akha Buli variety (“the Ko-Puli language”) spoken in the district of Bun Tay in Phongsaly Province, whose phonology differs from that of Akha Buli in this paper. Nevertheless, their analysis needs further investigation because there is too little phonological explanation and linguistic information.

3. Syllable Structure

The syllable structure can be described as C1(M)VC2/T. C1 represents the onset, M the medial, V the vowel, C2 the coda, and T the tone. Akha Buli words are basically open syllable, though some closed syllables can be found with the nasal coda (See 4.1.3).

The syllabic nasal presents an exception to the above syllable structure, as will be discussed later (See 4.1.3).

4. Consonants

The consonants of Akha Buli⁶ can be summarized in the following chart. All of them are placed in the onset slot, with only the nasals occurring in the coda slot.

p b	t d		k g
ph	th		kh
	ts dz	tɕ dʒ	
	tsh	tɕh	
m	n	ŋ	ŋ
	s	ɕ	x
	z	j	ɣ
	l		

4.1 Consonantal Inventories

4.1.1 Stops/Plosives

There is a three-way contrast between voiced unaspirated, voiceless unaspirated,

dialects may be mutually intelligible in different countries.

⁶ The consonantal inventories of the Ko-Puli language described in Kingsada and Shintani (1999: 232) are as follows:

/p, ph, b, m; pj, phj, bj, mj; t, th, d, n, s, z, l; ts, tsh, dz, c, ch, ʃ, ɲ, f, j; k, kh, g, ŋ, x, ɣ; ʔ, h/ Lewis (1968: viii-x) recognizes that aspirated and unaspirated obstruents are in complementary distribution, such as: /p/ is articulated as [p] before laryngealized vowels (corresponding to “creaky vowels” in this paper) and as [p^h] before plain ones.

and voiceless aspirated stops. Creaky vowels occur only after unaspirated stops.

Three points of articulation can be found: bilabial, alveolar, and velar. Velar consonants are generally followed by back vowels.^{7,8} The examples are illustrated below. Note that each example shows the phonemic notation (/ /), phonetic articulation ([]), gloss (‘ ’), and the example number in the **Appendix** (#), as presented throughout this paper.

- /p/ [p]: /do21xa21tɛa33pɛ33/ [do21xɐ21tɛɰ33pɛ33] ‘phlegm’ (#9), /a55pa21/ [ɐ55pɛ21] ‘leaf’ (#213), /pɔ33/ [pɔ33] ‘to climb’ (#479)
- /ph/ [pʰ]: /a55jɛ33 pʰɛ33la55/ [ɐ55jɛ33 pʰɛ33lɐ55] ‘to bloom’ (#220),
/xa21pha21/ [xɐ21pʰɐ21] ‘frog’ (#200), /phɔ21tɛhø55/ [pʰɔ21tɛʰø55] ‘sugarcane’ (#247)
- /b/ [b]: /bɛ33lɔ33/ [bɛ33lɔ33] ‘to smell’ (#56), /jɔ33ba33/ [jɔ33bɔ33] ‘white’ (#407), /a33bɔ33/ [ɐ33bɔ33] ‘tree’ (#212)
- /t/ [t]: /jɔ33tɛ21/ [jɔ33tɛ21] ‘few’ (#95), /a21tɔ33/ [ɐ21tɔ33] ‘above’ (#462),
/pʰɛ55tɔ21/ [pʰɛ55tɔ21] ‘button’ (#276)
- /th/ [tʰ]: /phi21tʰe21/ [phi21tʰe21] ‘to close’ (#133), /ɔ33tʰa21/ [ɔ33tʰɐ21] ‘to put’ (#61), /m21tʰei33tʰɔ33/ [m21tʰei33tʰɔ33] ‘evening’ (#458)
- /d/ [d]: /ma55dɛ33/ [mɐ55dɛ33] ‘pumpkin’ (#233), /a21dɔ33/ [ɐ21dɔ33] ‘father’ (#330), /dɔ21/ [dɔ21] ‘to wait for’ (#362)
- /k/ [k]: /u21kɔ33/ [u21kɔ33] ‘comb’ (#13), /kɔ21/ [kɔ21] ‘to bite’ (#59),
/bø21kɔ33/ [bø21kɔ33] ‘turtle’ (#202)
- /kh/ [kʰ]: /kha33/ [kʰɐ33] ‘to plant’ (#249), /jɔ33kʰhø55/ [jɔ33kʰhø55] ‘quick, fast’ (#436), /khu55/ [kʰu55] ‘to call’ (#297)
- /g/ [g]: /gɔ33dza21/ [gɔ33dʒɐ21] ‘story’ (#308), /gɔ21jø21/ [gɔ21jø21] ‘stick’ (#155), /ɛa21gu21/ [ɛɐ21gu21] ‘tendon’ (#51)

4.1.2 Affricates

Affricates in this language also have a three-way contrast: voiced unaspirated, voiceless unaspirated, and voiceless aspirated stops. The voiceless aspirated stops do not occur before creaky vowels but before plain ones. From the viewpoint of point of articulation, there are two-way contrasts between alveolars and

⁷ The distinctions between front and back vowels will be mentioned in Section 5.1 and 5.2.

⁸ /k/ and /g/ are followed only by back vowels in my fieldnotes, but there is one example of /kh/ with a front vowel, /dɔ21kʰe21kʰe21/ ‘to defecate’ (#41).

alveopalatals. The examples are shown below.

/ts/ [t̪s]: /a21khu21tse21/ [a21khu21tse21] ‘to bark’ (#180), /tsa21dɣ21tə33/
[t̪se21dɣ21tə33] ‘salty’ (#383), /la21tsu21/ [l̪e21t̪su21] ‘elbow’ (#30)
/tsh/ [t̪ʰ]: /tshɛ55/ [t̪ʰɛ55] ‘ten’ (#82), /tshɔ55xa21/ [t̪ʰɔ55xə21] ‘human’
(#350), /jɣ33tshu55/ [jɣ33t̪ʰu55] ‘fat’ (#439)
/dz/ [d̪z]: /dze33di55/ [d̪ze33di55] ‘to throw’ (#64), /dza21/ [d̪zə21] ‘to eat’ (#57),
/dzo21dzm33/ [d̪zo21d̪zm33]
/tɛ/ [t̪ɛ]: /m21tɛi21/ [m21t̪ɛi21] ‘night’, /tɛa21xm55/ [t̪ɛə21m̪m55] ‘hair’ (#1)
/tɛh/ [t̪ɛʰ]: /ma21tɛhɛ33/ [m̪ə21t̪ɛʰɛ33] ‘dull’ (#401), /phɔ21tɛhə55/
[p̪ʰɔ21t̪ɛʰə55] ‘sugarcane’ (#247), /tɛha55/ [t̪ɛʰə55] ‘song’ (#310)
/dz/ [d̪z]: /dza55tɛhɔ33/ [d̪zə55t̪ɛʰɔ33] ‘to seek’ (#54), /ŋa21dzɣ21dzɣ21/
[ŋə21d̪zɣ21d̪zɣ21] ‘to fish with a rod’ (#203), /dzɔ21/ [d̪zɔ21]
‘waist’ (#36)

4.1.3 Nasals

In the onset slot, four voiced nasals can be found: /m/, /n/, /ŋ/, and /ɲ/. The examples with nasal onsets are illustrated below.

/m/ [m]: /mi55tsha21/ [mi55t̪ʰə21] ‘earth, soil’ (#114), /ma55dɛ33/ [m̪ə55dɛ33]
‘pumpkin’ (#233), /mo33ne33/ [m̪o33ne33] ‘cattle’ (#182)
/n/ [n]: /nɛ21/ [n̪ɛ21] ‘god, spirit’ (#357), /la21nə55/ [l̪ə21nə55] ‘finger’ (#32),
/nɔ55/ [n̪ɔ55] ‘second person singular’ (#483)
/ŋ/ [ŋ]: /a21ŋi55/ [v̪21ŋi55] ‘younger brother/sister’ (#338, #340), /ŋə21tə21/
[ŋə21t̪ə21] ‘to love’ (#367), /a21ŋo21/ [v̪21ŋo21] ‘buffalo’ (#170)
/ɲ/ [ɲ]: /ɲɛ21/ [ɲ̪ɛ21] ‘to speak’ (#294), /ŋa55/ [ŋ̪ə55] ‘first person singular’
(#482), /ŋɔ55dɣ21m̪a21/ [ŋ̪ɔ55dɣ21m̪ə21] ‘first person plural (inclusive)’
(#485)

Most of the Akha Buli words are open syllable, but some are closed syllable with nasal coda. /-m/, /-n/, and /-ŋ/ are available in the coda slot, though the former two are found in only few words. The words with /n/-coda are loanwords from Lao.

/-m/: /jam21/ [j̪əm21] ‘season’ (#460, #461)

/-n/: /tshɛ55mun55/ [tʰɛ55mun55 ~ tʰɛ55mũ55] ‘one hundred thousand’
(<L.) (#92)

/-ŋ/: /phɤŋ33/ [pʰəŋ33]⁹ ‘to open’ (#132), /jɔ33lɔŋ55/ [jɔ33lɔŋ55] ‘hot’ (#375),
/bjɛŋ21tɛŋ33/ [bʰɛŋ21tɛŋ33] ‘Vientiane (the capital city of Laos)’ (<L.)
(#499, #500)

Another point to be made on nasals concerns syllabic /m/. /m/ can stand at the nucleus of a syllable and can have consonantal onsets in some cases,¹⁰ so that it might better be analyzed as a rhyme rather than as an onset/consonant.¹¹

(1) /m21dm21/ [m21dm21] ‘clouds’ (#99), /sm55/ [sm55] ‘three’ (#75),
/nm21ei21/ [nm21ei21] ‘sesame’ (#237), /tɛa21xm55/ [tɛa21m55] ‘hair’ (#1)

4.1.4 Fricatives

There are six fricatives in this language: /s/, /z/, /ɕ/, /j/, /x/, and /ɣ/. From the viewpoint of point of articulation, there is a three-way contrast: alveolar, alveopalatal, and velar. Most of the fricatives can be followed by both front and back vowels, whereas /z/ allows only back ones. The examples are given below.

/s/ [s]: /sɛ21nɔ33/ [sɛ21nɔ33] ‘shoes’ (#277), /jɤ21sa55/ [jɤ21sə55] ‘smooth’
(#397), /mɔ21sɤ55/ [mɔ21sɤ55] ‘pot’ (#263)

/z/ [z]: /za21gu21/ [zə21gu21] ‘young of age’ (#442), /xɔ33zɤ33/ [xɔ33zɤ33]
‘pillar’ (#134)

/ɕ/ [ɕ]: /ɕɛ55mɔ55/ [ɕɛ55mɔ55] ‘louse’ (#325), /ɛa21jɔ21/ [ɛə21jɔ21] ‘bone’
(#3), /kha55ɛɤ21/ [kʰə55ɛɤ21] ‘sand’ (#116)

/j/ [z~j]: /m21jɛ55/ [m21jɛ55] ‘rain (n.)’ (#106), /thi21ja55/ [tʰi21jə55]
‘one hundred’ (#87), /jɤ33gɔ55/ [jɤ33gɔ55] ‘tall, high’ (#387)

/x/ [x~xʰ]: /mɛ21xɛ55xɛ55/ [mɛ21xʰɛ55xʰɛ55] ‘to use’ (#364), /xa21la21/
[xə21lə21] ‘tiger’ (#159), /xɤ33dze21/ [xɤ33dʒɛ21] ‘this’ (#489),

/ɣ/ [ɣ]: /ɣø21/ [ɣø21] ‘nine’ (#81), /ɣa21ma33/ [ɣə21mə33] ‘to win’ (#312),
/ɣɤ33le21/ [ɣɤ33le21] ‘to pull’ (#63)

⁹ The vowel /-ɤ/ can be articulated as [ə] when it is connected with /ŋ/ coda.

¹⁰ In my fieldnotes, syllabic /-m/ occurs after /d-, g- dz- n-, ŋ-, s-, ɛ-, x-, l-/.

¹¹ Lewis (1968) and Hansson (2003) recognize the syllabic /m/ as a vowel in the phonological inventories.

There is one point that should be noted on the phonetic realization of /x/. In some cases /x/ is realized with an aspiration like [x^h], which is phonemicized as /xh/ by some scholars (Hansson 1989, 2003, etc.).¹² At least in this language, it is safe to say that [x] and [x^h] are allophones of /x/ and both sounds are in free variation.

4.1.5 Lateral

There is only one lateral: /l/. Some Lolo-Burmese languages (ex. Youle Jino [Hayashi 2009], etc.) attest a voiceless lateral, but this language does not. Some samples with lateral onset are illustrated below.

/l/ [l]: /o21le55/ [o21le55] ‘to return’ (#476), /la55/ [lɛ55] ‘to come’ (#474),
/xa21lo33/ [xɛ21lo33] ‘stone’ (#115)

4.2 Topics in Consonants

4.2.1 Medial

There is one medial, /-j-/, which has been mentioned in Section 3. It can have the four onsets including /p-, ph-, b-, m-/ in Akha Buli, as exemplified below.

/pj-/ [p^j-]: /da33pjɿ33/ [dɛ33p^jɿ33] ‘bow’ (#327)
/phj-/ [p^h-]: /jɿ33phja55/ [jɿ33p^hɿ55] ‘light [weight] (adj.)’ (#411)
/bj-/ [b^j-]: /jɿ33bjɿ33/ [jɿ33b^jɿ33] ‘bright’ (#110)
/mj-/ [m^j-]: /ka33mja21/ [kɛ33m^jɿ21] ‘arrow’ (#328)

In my fieldnotes, words with /bj-/ or /mj-/ are found more than those with /pj-/ or /phj-/. Most words with a medial have back vowels, though those with /bj-/ can be followed by front vowels such as: /bjeŋ21teŋ33/ ‘Vientiane (the capital city of Laos)’ (#499, #500), /jɔ33bje33/ ‘soft’ (#415).

4.2.2 “Compounding Aspiration” in Numeral ‘one’

At present, there is an attested morphophonemic phenomenon regarding the word ‘one.’ The word ‘one’, /tj21/, makes its onset aspirated and its vowel

¹² Hansson (2003: 237) describes the three-way contrasts /x/: /xh/: /h/ in Thailand Akha. Lewis’s (1968: x) analysis seems to differ from Hansson’s. Lewis considers [x] and [x^h] to be in complementary distribution; /x/ is articulated as [x^h] before plain vowels and as [x] before laryngealized ones (corresponding to “creaky vowels” in this paper).

“de-laryngealized” (plain) when it becomes the first element of the numeral compounds. This phenomenon can be stated as in rule (2), which has been termed “compounding aspiration” in this paper.

(2) /tj21/ → thi21/ ___ + {NUM/ CLF}

The sample of (2) is illustrated in (3).

- (3) a. /tj21/ [tj21] ‘one’ (#073)
 b. /thi21ja55/ [t^hi21jə55] ‘one hundred’ (#087)
 c. /thi21ja55tj21/ [t^hi21jə55tj21] ‘one hundred and one’ (#088)
 d. /thi21ya21/ [t^hi21jə21] ‘one person’ (#97)

4.2.3 /ɣ/ from multiple origins

In this section, diachronic issues regarding Akha Buli /ɣ/ are briefly discussed. /ɣ/ is a relatively unstable phoneme in many Mainland Southeast Asian languages, whereas in Akha languages it is rather stable. Akha Buli words with /ɣ/ are exemplified in Table 1¹³, with reference to their Proto-Lolo-Burmese (PLB) origins.

Table 1: Multiple Origins of Akha Buli /ɣ/

PLB	Example of Akha Buli /ɣ/
a. *g-	/ɣø21/ ‘nine’ (#081), /ɣə33mə33/ ‘back (body)’ (#052)
b. *w-	/ə21ɣə21/ ‘pig’ (#173), /ɣx33/ ‘to buy’ (#285)
c. *kr-	/ɣə33təj33/ ‘chicken’ (#2-25), /ɣə21/ ‘to win’ (#312), /ə21ɣə21/ ‘needle’ (#268)

Table 1 summarizes the multiple origins of Akha Buli /ɣ/. Group (a) shows examples with /ɣ/ that can be dated back to *g at the PLB stage. /ɣø21/ ‘nine’ and /ɣə33mə33/ ‘back (body)’ are reconstructible to *gəw² and *guy¹,¹⁴

¹³ There is an exception, /ɣə33/ ‘to fly’ (#163), which might be dated back to PLB *byam¹ (Matisoff 2003), though most Lolo-Burmese languages have b- as the onset in the corresponding form to PLB. *b rarely changes to ɣ, but it is interesting to note that the Ganzi Danba Banshanmen dialect of the rGyalong form (Nagano and Prins 2013) for ‘to fly’ is /kə ʔjam/, which is derived from *byam.

¹⁴ The word for ‘back (body)’ might be better connected with the PLB form *k(r)aw ≈ k(y)aw

respectively (Matisoff 2003). These cases underwent a change of fricativization like PLB. *g- > Akha Buli ɣ-.

Group (b) includes words with /y/ that can be dated back to PLB. *w-. Matisoff (2003) reconstructed *wak and *way for the words ‘pig’ and ‘to buy,’ respectively. This change explains the phonemic absence of /w/ (or /v/) in the Akha Buli language, as in the other varieties of Akha.¹⁵

Group (c) illustrates the words with /y/ that can be traced back to PLB. *kr-. The words for ‘chicken’ and ‘to win’ are reconstructible to *k-rak^H (Matisoff 2003) and *k-ra² ‘strength’ (Matisoff 1978), respectively. The PLB form for ‘needle’ is reconstructed as *(t)-yap by Benedict (1972), which can be dated back to the PTB form *k-rap ≠ *k-ram (Matisoff 2003).

5. Vowels

The phonological inventory of Akha Buli vowels is summarized in the following chart.¹⁶ Note that there are no contrasts in length or diphthongs.

[Plain Vowels]				[Creaky Vowels]			
i	y	ɯ	u	ĩ	ȳ	ɯ̰	ṵ
e	ø	ɤ	o	ẽ	ø̰	ɤ̰	o̰
ɛ			ɔ	ɛ̰			ɔ̰
		a				ɑ̰	

As seen in the chart, there are two vowel groups, namely plain vowels vs. creaky vowels,¹⁷ examples of which are given in the following subsections.

5.1 Plain Vowels

There are eleven plain vowels, as exemplified below. /i, e, ɛ, y, ø/ are front

(Matisoff 2003), which demands further analysis.

¹⁵ Lewis (1968: x) recognizes /v/ in Puli of Kengtung (Burma/ Myanmar), though it only occurs in a few words borrowed from Shan.

¹⁶ The vowel inventories described in Kingsada and Shintani (1999: 232) are as follows:

[oral] /i, e, ɛ, ø, a, ɔ, ɤ, o, u, ɯ/
 [laryngealized (creaky vowel)] /ĩ, ẽ, ɛ̰, ɑ̰, ɔ̰, ɤ̰, ȳ, ɯ̰, ṵ/
 [nasal] /ĩ̃, ø̃, ũ̃/.

¹⁷ Kingsada and Shintani (1999) mention creaky vowels in the Ko-Puli language of Phongsaly Province as follows:

“Non-laryngealized/laryngealized distinction is not always very clear” (Kingsada and Shintani 1999: 233).

In my fieldwork it is sometimes very hard to distinguish creaky vowels from plain ones, though these two sets of vowels are viewed as phonemes in this paper.

vowels, and the remainders are back vowels.

- /i/ [i]: /mj̥a21bi33/ [m̥j̥a21bi33] ‘tears’ (#5), /dze33di55/ [d̥ze33di55] ‘to throw’ (#64), /bu33li33/ [bu33li33] ‘Akha Buli (people)’ (#351)
- /e/ [e]: /dɔ21khe21khe21/ [dɔ21k^he21k^he21] ‘to defecate’ (#41), /mo33ne33/ [mo33ne33] ‘cattle’ (#172), /o21le55/ [o21le55] ‘to return’ (#476)
- /ɛ/ [ɛ]: /mɛ21xɛ55xɛ55/ [mɛ21x^hɛ55x^hɛ55] ‘to use’ (#364), /jɔ33nɛ33/ [jɔ33nɛ33] ‘red’ (#404), /dza21le55/ [d̥zɛ21le55] ‘wind’ (#104)
- /y/ [y]: /a33ey21ey21/ [ɣ33ey21ey21] ‘to urinate’ (#42), /bu21dzy33/ [bu21d̥zy33] ‘earthworm’ (#193), /a21tehy55(tehy55)si21/ [ɣ21t^hɛ^hy55(t^hɛ^hy55)si21] ‘nipple’ (#35)
- /ø/ [ø]: /bø21ku33/ [bø21ku33] ‘turtle’ (#202), /nø21la55/ [nø21le55] ‘to get up’ (#318), /ɛi21lø33/ [ɛi21lø33] ‘orange’ (#243)
- /a/ [ɐ]: /ka33mja21/ [kɛ33m^hɛ21] ‘arrow’ (#328), /mi21za21/ [mi21zɐ21] ‘wife’ (#333), /xa21pha21/ [xɐ21p^hɛ21] ‘frog’ (#200)
- /ɔ/ [ɔ]: /bɔ33/ [bɔ33] ‘to blow’ (#105), /xɔ33mɔ55/ [xɔ33mɔ55] ‘to meet with’ (#361)
- /o/ [o]: /lɔ55bo21/ [lɔ55bo21] ‘tea’ (#258), /xo33/ [xo33] ‘rabbit’ (#177),
- /ɤ/ [ɤ]: /bɤ33kha33/ [bɤ33k^hɛ33] ‘mosquito net’ (#142), /jɔ33xɤ21/ [jɔ33xɤ21] ‘big’ (#385), /ɔ21mɤ33lɤ33/ [ɔ21mɤ33lɤ33] ‘tomato’ (#235)
- /u/ [u]: /a21bu55/ [ɐ21bu55] ‘girl’ (#349), /khu55/ [k^hu55] ‘to call’ (#297), /pu21/ [pu21] ‘to boil’ (#264)
- /u/ [u]: /u55/ [u55] ‘to laugh’ (#366), /bu21sa33a21ma33/ [bu21sɐ33 ɣ21mɤ33] ‘fly (insect)’ (#186), /ma55xu33/ [mɐ55xu33] ‘eggplant’ (<L.) (#234)

5.2 Creaky Vowels

There are 11 creaky vowels in Akha Buli.¹⁸ /y/ is rarely found in my present fieldnotes. /i, ɛ, ɛ̄, y, ø/ are front vowels and the remainders are back vowels.

- /i/ [i]: /bi21/ [bi21] ‘to give’ (#363), /ɛi21/ [ɛi21] ‘seven’ (#79)

¹⁸ Kingsada and Shintani (1999) make the following observation on /ɛ/ and /ɛ̄/ in the Ko-Puli language of Phongsaly Province:

“ɛ̄/ɛ distinction may not be phonemic” (Kingsada and Shintani 1999: 233).

In my fieldnotes, there are no minimal pairs that distinguish these two vowels, though this paper regards each sound as a distinct phoneme at present.

- /ɛ/ [ɛ]: /jɔ33bjɛ33/ [jɔ33bjɛ33] ‘soft’ (#415), /sɛ21/ [sɛ21] ‘to kill’ (#207)
 /ɛ/ [ɛ]: /a55bɛ33/ [ɐ55bɛ33] ‘beans’ (#223), /a55jɛ33/ [ɐ55jɛ33] ‘flower’ (#219)
 /y/ [y]: /a33by21/ [ɐ33by21] ‘sprout’ (#210)
 /ø/ [ø]: /bø33lø33/ [bø33lø33] ‘navel’ (#38), /ø21/ [ø21] ‘four’ (#76)
 /a/ [ɐ]: /jɔ33ba33/ [jɔ33bɐ33] ‘white’ (#407), /a21da33/ [ɐ21dɐ33] ‘father’ (#330)
 /ɔ/ [ɔ]: /a21ɔ33/ [ɐ21ɔ33] ‘below’ (#463), /dɔ21/ [dɔ21] ‘to wait for’ (#363)
 /o/ [o]: /za21bø33/ [zɐ21bø33] ‘to give birth’ (#46), /dø33/ [dø33] ‘to exit’
 (#478)
 /ɣ/ [ɣ]: /bɣ33/ [bɣ33] ‘to shoot’ (#205), /tsa21dɣ21ta33/ [tsɛ21dɣ21tɛ33] ‘salty’
 (#383)
 /u/ [u]: /ɣ33tɛu21/ [ɣ33tɛu21] ‘water’ (#124), /ɣa33u33/ [ɣɛ33u33] ‘egg of
 chicken’ (#164)
 /ɯ/ [ɯ]: /a55bɯ33/ [ɐ55bɯ33] ‘covering’ (#140), /la21tsɯ21/ [lɛ21tsɯ21]
 ‘elbow’ (#30)

In many Lolo-Burmese languages, the creaky vowels are derived from compensation for the loss of the stop coda at the proto-language stage. Akha Buli creaky vowels in many cases can be traced back to plain vowels in the open syllables of PLB. For instance, /bɿ21/ ‘to give’ is reconstructible to PLB. *bɿy² (Matisoff 2003). The origin of creaky vowels in Akha Buli needs further investigation.

6. Tones

There are three tonemes in Akha Buli: /55/, /33/, and /21/.¹⁹ The tone bearing unit is the syllable. All tones can be found in words with plain vowels, whereas

¹⁹ Kingsada and Shintani (1999: 233) summarize the tones of the Ko-Puli language of Phongsaly province as in the following table.

	Tones with non-laryngealized vowels	Tones with laryngealized vowels
1(high)	55	<u>44</u>
2(middle)	33	
3(low)	11~21	<u>11</u>

In their lexicons, tones with laryngealized vowels (corresponding to “creaky vowels” in this paper) are counted as ‘44’, and this table seems to bear testimony that high tone occurs in the words with laryngealized vowels.

Lewis’s (1968: xii) dictionary of Puli in Kengtung (Burma/Myanmar) recognizes only two level tones, mid and low, occurring with laryngealized vowels, which also holds true in Akha Buli, as discussed in this paper. On this point, both Lewis’s and my own analyses of tones differ from Kingsada and Shintani’s (1999).

/55/ does not basically occur in words with creaky vowels.

/55/: /la55/ [lɛ55] ‘to come’ (#474), /dɔ55/ [dɔ55] ‘to drink’ (#58)

/33/: /ba33la33/ [bɛ33lɛ33] ‘moon/month’ (#102, #447), /a33bɔ33jɛ21dɔ33/
[ɛ33bɔ33jɛ21dɔ33] ‘trunk’ (#214)

/21/: /xa21la21/ [xɛ21lɛ21] ‘tiger’ (#159), /dɔ21mi21/ [dɔ21mi21] ‘tail’ (#156)

7. Conclusion

This paper has outlined the phonology of Akha Buli, as spoken in Muang Sing of Northern Laos. The phonological inventories presented in this paper are summarized as follows:

[Consonants]				[Plain Vowels]				[Creaky Vowels]			
p b	t d		k g	i	y	u	u	ĩ	ȷ	ɰ	ɰ
ph	th		kh	e	ø	ɤ	o	ɛ	ø	ɤ	ɔ
	ts dz	tɕ dz		ɛ			ɔ	ɛ			ɔ
	tsh	tɕh				a					ɑ
m	n	ɲ	ŋ								
	s	ɕ	x	[Tones] 55, 33, 21							
	z	j	ɣ								
	l										

There are, of course, many issues to be analyzed in future studies, such as the more-detailed look at phonetic-phonological interfaces and historical phonology, and many more.

Abbreviations

CLF: classifier; NUM: numeral; L: loanword from Lao; PLB: Proto-Lolo-Burmese

References

- Benedict, Paul K. 1972. *Sino-Tibetan: A Conspectus*. Cambridge: Cambridge University Press.
- Bradley, David. 1997. Tibeto-Burman languages and classification. In David

- Bradley (ed.), *Papers in Southeast Asian Linguistics No. 14: Tibeto-Burman Languages of the Himalayas, Pacific Linguistics Series A-86*. pp. 1–72. Canberra: Research School of Pacific and Asian Studies, The Australian National University.
- Hansson, Inga-Lill. 1989. A comparison of Akha and Hani and Khatu and Pijo. *Linguistics of the Tibeto-Burman Area*. 12.1: 6–91.
- 2003. Akha. In Graham Thurgood and Randy J. LaPolla (eds.), *The Sino-Tibetan Languages*. pp. 236–251. London: Routledge.
- Hayashi, Norihiko 2009. *Tino-go Bunpou (Yuuraku Hougen) no Kizyutu Kenkyuu* 「チノ語文法(悠楽方言)の記述研究」 [*A Descriptive Study on the Grammar of the Jino Language (Youle Dialect)*] (in Japanese)]. Kobe: Research Institute of Foreign Studies, Kobe City University of Foreign Studies.
- Kato, Takashi. 2008. *Linguistic Survey of Tibeto-Burman Languages in Lao P.D.R.* Tokyo (Fuchu): Research Institute for Languages and Cultures of Asia and Africa.
- Katsura, Makio. 桂満希郎 1966. Aka-go aruu-mura hougen no onso 「アカ語アルー村方言の音素」 [The Phonemes of the Alu Dialect of Akha (in Japanese)] Tonan Ajia Kenkyuu. 『東南アジア研究』[*Southeast Asian Studies*]. Vo.4 No.1. pp. 122–132. Kyoto: The Center for Southeast Asian Studies, Kyoto University.
- Kingsada, Thongpheth and Tadahiko Shintani. 1999. Ko-Puli. In Thongpheth Kingsada and Tadahiko Shintani (eds.), *Basic Vocabularies of the Languages Spoken in Phongxaly: Lao P. D. R.* pp. 232–252. Tokyo: Institute for the Study of Languages and Cultures of Asia and Africa.
- Lewis, Paul. 1968. *Akha-English Dictionary*. (Data Paper: No. 70) Ithaca: Cornell University, Southeast Asian Program.
- 2008. *Akha-English-Thai Dictionary*. Chiang Rai: Akha Foundation, Development and Agricultural Project for Akha (DAPA).
- Matisoff, James A. 1978. *Mpi and Lolo-Burmese Microlinguistics*. Monumenta Serindica (ILCAA, Tokyo) 4:1–36.
- 2003. *Handbook of Proto-Tibeto-Burman: System and Philosophy of Sino-Tibetan Reconstruction*. Berkeley, Los Angeles, London: University of California Press.

Nagano, Yasuhiko and Marielle Prins (eds.). 2013. *rGyalrongic Languages Database* (<http://htq.minpaku.ac.jp/databases/rGyalrong/>, accessed on June 13, 2016).

Acknowledgements

An earlier version of this paper was read by Weera Ostapirat (Mahidol University, Thailand) and Nathan Badenoch (Kyoto University, Japan), who provided me with many insightful comments. I deeply appreciate their academic suggestions. All errors and misunderstandings are, of course, of my own.

Appendix: A Basic Wordlist of Akha Buli

	English	Lao	Akha Buli
1	body hair	ຂົນ	tca21xm33
2	skin	ພິວ, ໜັງ	ba33xo21
3	bone	ກະດູກ	ca21jθ21
4	blood	ເລືອດ	ci21
5	tears	ນ້ຳຕາ	mja21bi33
6	sweat	ເຫື້ອ	khu21phju55
7	pus	ຫນອງ(ຜີ)	ma33lo33
8	saliva	ນ້ຳລາຍ	do21xa21
9	phlegm	ຂີ້ກະເທີ້, ສະເຫວດ	do21xa21tea33pe33
10	head	ຫົວ	u21du21
11	forehead	ຫນ້າຜາກ	na55xo55
12	hair	ຜົມ	u21du21tshe55khaŋ55
13	comb	ຫວີ	u21ka33
14	face	ຫນ້າ	mja33phjo21
15	eyebrow	ຂົນຄ້ວ	mja33xŋ33mja33ce33
16	eyes	ຕາ	mja33nŋ33
17	ears	ຫູ	na21pa21
18	nose	ດັງ	na33bŋ21
19	mouth	ປາກ	xa21me33

20	tongue	ລິ້ນ	me21la55
21	teeth	ແຂ້ວ	sɿ21
22	beard/ mustache	ຫນວດ, ເຄົາ	(xa21mɛ33) me21mɿŋ21
23	neck	ຄໍ	khɿŋ21lɿŋ55
24	throat	ຄໍ, ລ່າຄ	khɿŋ21bjɿŋ21
25	shoulder	ປ່າ	bɿ21phu33
26	hand	ມື	ɿ21lɿ21
27	right-hand	ດ້ານຂວາ	a55ma55
28	left-hand	ດ້ານຊ້າຍ	a55tɕha55
29	arm	ແຂນ	lɿ21du33
30	elbow	ສອກ	lɿ21tsɿ21
31	palm	ຜາມື	lɿ21yɿ21a21o33pho33
32	finger	ນິ້ວ	lɿ21nø55
33	finger nail	ເລັບ	lɿ21sɿŋ21
34	breast	ໜ້າເອິກ	nɿ33xɿŋ21
35	nipple	ຫົວນົມ	ɿ21tɕhy55(tɕhy55)si21
36	waist	ແອວ	dzɿ21
37	belly	ທ້ອງ	m21ma33
38	navel	ສາຍປີ	bø33lø33
39	buttocks	ກັນ	ɿ21xm21
40	feces	ຖ່າຍໜັກ, ຂີ້	tɕhe21
41	to defecate	ຖ່າຍໜັກ	ɿ21khe21 khe21
42	urine	ນ້ຳຍ່ຽວ	ɿ33cy21cy21
43	to urinate	ຖ່າຍເປົາ, ຍ່ຽວ	ɿ33cy21cy21
44	to expel intestinal gas	ຕົດ	u21xa21 phe21
45	to have a fever	ມີໄຂ້ຫວັດ	tsɛ21thɿŋ33thɿŋ33
46	to give birth	ອອກລູກ, ເກີດລູກ	za21bo33
47	leg	ຂາ	ɿ21khu55
48	foot	ຕີນ	ɿ21khu55phe21ya21
49	thigh	ຂາໄຕ້	ɕa21phja21

50	knee	ຫົວຂ້າ	Ɂ21khu55phɔ21tsu21
51	tendon	ເອ້ນ, ເສັ້ນເອ້ນ	ea21gy21
52	back	ສັນຫລັງ	ɣɔ33mɔ33
53	to see, to look	ເບິ່ງ, ເຫັນ	xɔ33, xɔ33mɔ55
54	to seek	ຊອກ	dza55tchɔ33
55	to hear, to listen	ຟັງ, ໄດ້ຍິນ	ga21ma33, na55xa21
56	to smell	ດົມກິ່ນ	bɛ21la21
57	to eat	ກິນ	dza21
58	to drink	ດື່ມ	dɔ55
59	to bite	ກັດ	kɔ21
60	to hold with the hand	ຈັບໄວ້	nɪ21thɛ21, tsu21thɛ21
61	to put, to place in/on	ວາງ, ໃສ່, ຈັດ	ɔ33tha21
62	to push	ດັນ, ຊກ	thɤŋ21i55, dɛ21i55
63	to pull	ດຶງ	ɣɤ31Ɂ21, ɣɤ33le21, ɣɤ33i33le21
64	to throw	ໂຍນ	dze33di55
65	to pick up	ເກັບ	o33ma33dɛ21, ju33ma33dɛ21
66	to ladle	ຈອງ	kɔ21
67	to walk	ຍ່າງ	tchɤŋ33
68	to stop	ຢຸດ	na21, dɔ55
69	to run	ແລ່ນ	la21dze33dze33
70	to sit	ນັ່ງ	dɔ21nɤŋ55nɤŋ55
71	to stand up	ຢືນ	jɔ21thu55
72	to cough	ໄອ	u21tshø21tshø21
73	1	ຫນຶ່ງ	tɿ21
74	2	ສອງ	nɿ21
75	3	ສາມ	sm55
76	4	ສີ່	θ21
77	5	ຫ້າ	ŋa21
78	6	ຫົກ	kɔ21

79	7	ເຈັດ	ɕj21
80	8	ແປດ	je21
81	9	ເກົ້າ	ɣø21
82	10	ສິບ	tshɛ55
83	11	ສິບເອັດ	tshɛ55tj21
84	12	ສິບສອງ	tshɛ55nɿ21
85	20	ຊາວ	nɿ21tshɛ55
86	99	ເກົ້າສິບເກົ້າ	ɣø21tshɛ55ɣø21
87	100	ຫນຶ່ງຮ້ອຍ	thi21ja55
88	101	ຫນຶ່ງຮ້ອຍຫນຶ່ງ	thi21ja55a21tɕ33tj21
89	110	ຫນຶ່ງຮ້ອຍສິບ	thi21ja55a21tɕ33tshɛ55
90	1000	ຫນຶ່ງພັນ	thi21ba21
91	10000	ສິບພັນ	tshɛ55ba21
92	100000	ຫນຶ່ງແສນ	tshɛ55mun55
93	1000000	ຫນຶ່ງລ້ານ	tshɛ55sɛ33
94	many	ຫລາຍ	jo33mja21
95	few	ນ້ອຍ	jo33tɕj33, jo33tɕ21
96	all	ທັງຫມົດ	ma55to55(ma21)lɔ21, dʒi55tcho21lo21
97	only	~ດຽວ	thi21ya21(tɕ21) [one person]
98	sky	ຟ້າ	m21
99	cloud	ຂີ້ເຜີ້ອ	m21dm55
100	fog	ໝອກ	tchr21
101	sun	ຕາເວັນ	nɕ33ma33
102	moon	ເດືອນ	ba33la33
103	star	ດາວ	a21gu55
104	wind	ລົມ	dʒa21lɛ55
105	to blow	ພັດ, ເປົ່າ	bo33
106	rain	ຝົນ	m21je55
107	it rains	ຝົນຕົກ	m21je55 je55
108	light	ແສງ	na55gu55gu55la55na21ei33

109	shadow	ຕົງ	a55ba55(ba55je55)
110	bright	ແຈ້ງ, ສະຫວ່າງ	ja33bja33
111	dark	ມົດ	ja33yuaŋ55
112	thunder	ຟ້າຮ້ອງ	m21dze21dze21
113	it thunders	ຟາຜ່າ	m21dze21thuaŋ21te33te33
114	soil, earth	ດິນ	mi55tsha21
115	stone	ຫີນ	xa21lo33
116	sand	ຊາຍ	kha55ca21
117	iron	ເຫວັກ	coŋ55
118	rust	ຂີ້ໜັງງ	coŋ55kha33
119	gold	ຄຳ	co55
120	silver	ເງິນ	phju33
121	copper	ທອງ	yua21
122	hill, mountain	ຜູ	gva21dva21
123	valley	ເຫວ	xa21lo33lo33gu55
124	water	ນ້ຳ	ca33tey21
125	lake	ໜອງ	loŋ33ma33
126	river	ແມ່ນ້ຳ	lv33yva33
127	fire	ໄຟ	mi21dza21
128	smoke	ຄວັນ	(mi21dza21) u21xø21
129	house	ເຮືອນ	juŋ33
130	roof	ຫລັງຄາ	(juŋ33) kha21bø21
131	grave	ຫລຸມສົບ	lm21bjuaŋ55
132	to open	ເປີດ	phaŋ33
133	to close	ອັດ, ປິດ	phi21the21
134	pillar	ເສົາເຮືອນ	xa33za33
135	door	ປະຕູ	la55va33
136	window	ປ່ອງຢ້ຽມ	la55va33va33za21
137	floor	ຝັ່ນ	juŋ33dzoŋ33ya33
138	key	ລູກະແຈ	mo21ta21ta21du55

139	mat	ສາດ	ʎa33lɔ33
140	covering	(ເຄື່ອງຄຸມ)	a55bu33
141	pillow	ໝອນ	u21gm21pha55si21
142	mosquito net	ມັງ	bɤ33kha33
143	table	ໂຕະ	dʒɔ21xɔ33xɔ21dʒɛ33, a55bo55xɔ21dʒɛ33
144	chair	ຕັ້ງອັ້	nɤŋ55dʒɛ33, nɤŋ55gɔ21, nɤŋ55bo21
145	to sweep	ປັດ	ja21phjo55 ja21 ²⁰
146	to splash water	ສາດ	ɤ33tɛy21 xɔ21dʒɛ33
147	knife	ມົດ	mi21tɕɛ33dʒi33ba21, mi21tɕɛ33thɔ21tɕhø21
148	sword	ດາບ, ງ້າວ	mi21tɕɛ33thɔ33ma33
149	sickle	ກ່ຽວ	jɛ33xɔ21
150	to cut	ຕັດ, ບາດ	lu33tsɛ33, jɛ21pɔ33, jɛ21tsɛ33
151	nail	ຕະບູ	ɕoŋ55tɕɛ33
152	ladder	ຂັ້ນໄດ	dzo21dzm33
153	basket	ກະຕ່າ	xa21kha33, kha21thu55, etc
154	rope	ເຊືອກ	a33tɕa21
155	stick	ໄມ້ຄ້ອນເທົ້າ	gɔ21jø21
156	tail	ຫາງ	dɔ21mi21
157	horn	ເຂົ້າ	u21tɕhy55
158	wing	ປີກ	a21dɤŋ55
159	tiger	ເສືອ	xa21la21
160	elephant	ຊ້າງ	ja33ma33
161	mouse	ໝູ	xɔ21tɕa21
162	bird	ນົກ	ɔ33dʒi33
163	to fly	ບິນ	ʎɔ33
164	egg	ໄຂ່	ʎa33u33
165	to lay eggs	ອອກໄຂ່	ʎa33u33 kha33
166	sparrow	ນົກຈອກ	xa21dʒa55

²⁰ /ja21phjo55/ means ‘bloom’, hence the verb root for ‘to sweep’ is /ja21/.

167	crow	ກາ	ɔ̌21a21
168	hawk	ແຫວວ	xa21dze55
169	peacock	ນົກຢຸງ	ɛm55dø21
170	buffalo	ຄວາຍ	a21no21
171	cat	ແມວ	a55mi55
172	beef	ຊີ້ນງົວ	mo33ne33ɛa21dʒi33
173	pig	ໝູ	a21ya21
174	pork	ຊີ້ນໝູ	a21ya21ɛa21dʒi33
175	monkey	ນົງ	a33mjo21
176	horse	ມ້າ	mɔŋ21
177	rabbit	ກະຕ່າຍ	xo33
178	bear	ໝີ	xa21xm55
179	dog	ໝາ	a21khu21
180	to bark	ເຫົ່າ	a21khu21tse21
181	goat	ແປ້	tej21me21
182	cattle	ງົວ	mo33ne33
183	chicken	ຊີ້ນໄກ່	ya33tej33ɛa21dʒi33
184	duck	ດັບ	ɔ̌33a33 ²¹
185	bee	ແມ່ເຫຼັງ	ya21bja21bja21ma33
186	fly	ແມງວັນ	buu21sa33a21ma33
187	mosquito	ຢຸງ	a21tcha55tcha55gɔ21
188	spider	ແມງມຸມ	a33phja33la21ka33
189	maggot	ໂຕໜອນ	lu33thɔŋ21
190	ant	ມົດ	a33xo33
191	butterfly	ແມງກະເບື້ອ	a33lu33
192	cicada	ແມງຈັກຈັນ	a21dʒe21
193	earthworm	ຂີ້ກະເດືອນ	bu21dʒy33

²¹ The word for ‘duck’ in my field note is /ɔ̌33a33/, which tonally differs from the word for ‘crow’ /ɔ̌21a21/ (#167). Both of them are derived from onomatopoeic words, though ‘duck’ and ‘crow’ are described as /pi55pi55/ and /ɔ̌11a55/, respectively, in Ko-Puli by Kingsada and Shintani (1999: 240).

194	centipede	ຂີ້ເຂັບ	Ɂ21mɁ21tchi55ɕɕ55
195	snake	ງ	Ɂ33lɔ33(ma33)
196	gecko	ຈີຈຽມ	a21je33ma55bje33, mɔ55bje33Ɂ21mɁ33
197	fish	ປາ	ŋa21ɕa21
198	shrimp	ກັງ	ŋi33bɔŋ33tchi55xɔ21
199	crab	ກະບູ	Ɂ33kha21
200	frog	ກົບ, ຂຽດ	xa21pha21, xa21pha33tɕɁ21
201	eel	ອ່ຽນ	dɛ33sɔ33
202	turtle	ເຕົ່າ	bθ21kɥ33
203	to fish with a rod	ຕຶກປາ	ŋa21dzɔ21dzɔ21
204	to hunt	ວ່າເນື້ອ, ວ່າສັດ	ɕa21dɔ21the33
205	to shoot	ຍິງ	(ŋiŋ21bɔ33) bɔ33
206	musket	ປືນສັນ, ປືນໃຫຍ່	mi21bɔ33jɔ33dɔ33, mi21bɔ33jɔ33məŋ55
207	to kill	ຂົ່ງ	sɛ21
208	seed	ແກ່ນ, ເມັດ	a55nɔŋ33
209	to seed	ເອົາແກ່ນອອກ	a55nɔŋ33ju55dɔ33
210	sprout	ໜ່ວຍ	a33by21
211	stem	ກ້ານ	a55pa21pa21khɔŋ21
212	tree	ຕົ້ນໄມ້	a33bɔ33
213	leaf	ໃບ	a55pa21
214	trunk	ວ່າຕົ້ນ	a33bɔ33jɔ21dɔ33
215	root	ຮາກ	du21tchi55
216	grass	ຫຍ້າ	ja55mɔ21
217	to grow	ເຕີບໃຫຍ່	ja33xɔ21xɔ21i55
218	to wither	ຫຼົງເຫຼ້ງ, ຮ່ອງໂຮຍ	ja33gɔ21gɔ21i55
219	flower	ດອກໄມ້	a55jɛ33
220	to bloom	ບານ	a55jɛ33 phe33la55
221	poppy	ດອກຝັນ	je21je33a55jɛ33
222	thorn	ໜາມ	Ɂ21yɔŋ33

223	bean	ໝາກຖົ່ວ	a55bɛ33
224	bamboo	ໄມ້ໃຜ່	ma33sa21
225	bamboo shoot	ຫົ່ມໄມ້	ma33sa21a55by21
226	mushroom	ເຫັດ	a33xm55
227	paddy plant	ຕົ້ນເຂົ້າ	tɕhe55tɕhe55bo55
228	rice	ເຂົ້າ	xo21, tɕhe55
229	corn	ເຂົ້າໂພດ, ເຂົ້າສາລີ	a55du33
230	wax gourd	ໝາກເຕົ້າ	(u21dzu21)u55phu21
231	cucumber	ໝາກແຕງ	ɕi21xo21
232	bitter melon	ຜັກຂົມ	ɕi21xo21xa21 ²²
233	pumpkin	ໝາກອີ	ma55dɛ33
234	eggplant	ໝາກເຂືອ	ma55xu33
235	tomato	ໝາກເລັ່ນ	ɔ21mɔ33ɬɔ33
236	papaya	ໝາກຫຸ່ງ	tɕhi55dzɔŋ55ŋa33bɛ33
237	sesame	ໝາກງາ	nuŋ21ɕi21~nm21ɕi21
238	peanut	ໝາກຖົ່ວດິນ	nɔŋ33phoŋ21, la21bɔ21nɔ33phɔŋ21
239	ginger	ຫົວຂິງ	tsho21tsu21
240	fruit	ໝາກໄມ້	a55ɕi21
241	banana	ໝາກກ້ອຍ	ŋa33bɛ33
242	mango	ໝາກມ່ວງ	dzi55ɔ21(a55ɕi21)
243	orange	ໝາກກ້ຽງ	ɕi21lɔ33
244	mangosteen	ໝາກມັງກຸດ	—
245	tamarind	ໝາກກ້ຽງ	ɕi21tɕha21ma55kha55
246	hogplums	ໝາກກອກ	phɛ33lo21a33ɕi21
247	jackfruits	ໝາກມ້	ma55mi21
248	sugar cane	ຕົ້ນອ້ອຍ	pho21tɕhø55
249	betel nut	ໝາກຂັງວ	dza21dza21a33ɕi21
250	to plant	ປຸກ	kha33

²² The syllable of this word /xa21/ can be construed as ‘bitter’.

251	plow	ໄຖ	tshe21
252	irrigated field	ນາ	dɛ33ma33, dɛ33ja55
253	upland field	ໄຮ່	dɔŋ33ta21, dɔŋ33ja33
254	oil	ນ້ຳມັນ	ɣa21tshi55 [pig's oil]
255	salt	ເກືອ	tsha21dʒ21
256	sugar	ນ້ຳຕານ	nam21ta33 (< L.), pho21tɕa21
257	chilli	ໝາກເຜັດ	la21phi55
258	tea	ຊາ	lɔ55bo21
259	wine	ເຫລົ້າ	dʒi55ba21
260	cigarette/ tobacco	ຢາສຸບ, ຢາເຮັ່ນ	ja55xɔ21, ja55xɔ21xa33
261	to cook rice	ຫຼງເຂົ້າ	xɔ21 m55 ²³
262	firewood	ຜົນ	mi21dza21
263	pot	ຫໍ່	mɔ21sɔ55, ɣɔ21phəŋ55
264	to boil	ຕົ້ມ	pu21
265	to roast	ປີ້ງ	pu33
266	cloth	ເຄື່ອງນຸ່ງ	phɛ55xɔŋ21mi21tɕhɛ55, mjo21tshø21
267	to sew	ຫຍິບ	mjo21tshø33ɣu21
268	needle	ເຂັມ	ɕ21ɣu21
269	thread	ເສັ້ນດ້າຍ	sa21khɔŋ55
270	to knit	ຖັກ	a33jɛ33tsɔ33
271	to dye	ຍ້ອມ	sa33pha55 pu21
272	to wash clothes	ຊັກ	lɛ21tshi21
273	to sun clothes	ຕາກ, ແຫ້ງ, ຕາກແດດ	ɣɔ33lɔ21, lɔ21ɣɔ33, u21tsha55ɣɔ55lɔ33
274	clothes	ເສື້ອຜ້າ, ເຄື່ອງນຸ່ງ	phɛ55xɔŋ21
275	hat	ໝວກ	u21xɔ33
276	button	ກະດຸມ	phɛ55tɔ21
277	shoes	ເກືບ	sɛ21nɔ33

²³ /xɔ21/ and /m55/ in this phrase are construed as 'meal' and 'to make', respectively.

278	to make	ເຮັດ	m55mjo21m55
279	to break	ແຕກ	ɟɔ33pɔ33
280	to wear	ນຸ່ງ	dm33
281	to undress	ແກ້ຜ້າ, ບ້ານ	lɛ33
282	road	ຖະໜົນ	ga55ma33
283	village	ໝູ່ບ້ານ, ບ້ານ	phu33
284	to carry on the back	ຜັດ	phi33
285	to buy	ຊື້	ɣɯ33
286	to sell	ຂາຍ	ɕŋ21
287	to get	ໄດ້	lɔ33ɣɔ33
288	to lose	ເສືອງຫາຍ	m55mjo21 pi21i55
289	market	ຕະຫລາດ	ga33
290	money	ເງິນ	(su55ɣa21)phju55
291	rich	ຮັ່ງມີ	sm55mɕŋ21a21ni55
292	poor	ທຸກຍາກ	ji55ca21ji55tho33
293	to steal	ລັກ	suŋ55xø21xø21
294	to speak	ເວົ້າ, ປາກ	ŋɛ21, do21ŋɛ21ŋɛ21
295	to ask	ຖາມ, ຂໍ	do21na55na55xa21
296	to answer	ຕອບ	dza33mɛ21
297	to call	ເອີ້ນ	khu55
298	Buli language	ພາສາ~	bu33li21a21kha33ɕ21khu55dʒɛ21
299	Lao language	ພາສາລາວ	la33o33ɕ33do21
300	Chinese language	ພາສາຈີນ	la33bɕ33ɕ33do21
301	to write	ຂຽນ	(sɕ21ɣa21) bɔ21
302	to read	ອ່ານ	(sɕ21ɣa21) ɣɯ33
303	letter	ຈົດໝາຍ	sɕ21ɣa21 ca55la21ŋa33, sɕ21ɣa21 ca55i21ŋa33
304	book	ປຶ້ມ	sɕ21ɣa21 pa55dm21
305	paper	ເຈ້ຍ	sɕ21ɣa21 ~so21ɣa21
306	to stick	ຕືດ	(dɛ21)mjɕŋ21

307	to play	ຫລິ້ນ	ɣa33i55
308	story	ເລື່ອງ, ນິຍາຍ	gə33dza21
309	to tell a story	ເລົ່າເລື່ອງ	gə33dza21 dza33
310	song	ເພງ	tcha55
311	to dance	ເຕັ້ມ	ga33nɛ33nɛ33, tshə21
312	to win	ຊະນະ, ໄດ້ໄຊ	ɣa21ma33
313	to lose a game	ແພ້, ຈາຍ	ma21ɣa21
314	to get tired	ເມື່ອຍ	ɣa21dθ33dθ33
315	to rest	ພັກຜ່ອນ	ɣa21na21na21
316	to sleep	ນອນ	ju21xa33
317	to dream	ຜັນ	ju21ma33ma33
318	to get up	ຕົ້ນນອນ	nθ21la55
319	to die	ຕາຍ	ci33xa21
320	age	ອາຍຸ	a33xə21
321	to be ill	ບໍ່ສະບາຍ, ບໍ່ວຍ	dzo55sa55ma21do33
322	painful	ເຈັບປວດ	jo33phi55jo33lɔŋ55(lɔŋ55)
323	to hiccough	ສະເອີ	ɰ33tɰ21tɰ21
324	to talk in one's sleep	ເລີ	də21ŋɛ33ŋɛ33mə33mə33
325	louse	ເຫົ່າ	ɕɛ55mɔ55, khu21ɕɛ55
326	medicine	ຢາ	ja21ɣa21
327	bow	ຄົນທະນູ	da33pjɿ33
328	arrow	ລູກສອນ	ka33mja21
329	name	ຊື່	tshə33mjɿŋ33
330	father	ພໍ່	a21da33
331	mother	ແມ່	a21mə33
332	husband	ຜົວ	xa21dʒi55
333	wife	ເມຍ	mi21za21
334	son	ລູກຊາຍ	a21jə33
335	daughter	ລູກສາວ	a21bu33
336	child	ເດັກນ້ອຍ	dza33dza21ti55

337	elder brother	ອ້າຍ	a33gɔ33
338	younger brother	ນ້ອງຊາຍ	a21nɪ55
339	elder sister	ອ້ອຍ	a55jɔ21
340	younger sister	ນ້ອງສາວ	a21nɪ55
341	grandfather	ພໍ່ເຖົ້າ	a21bɔ55
342	grandmother	ແມ່ເຖົ້າ	a21phi21
343	grandchild	ຫລານ	ø21pha21
344	uncle	ລຸງ, ອາວ, ນ້າບ່າວ	da55da33, a21yɔ55, a21yø33, ø55xa21
345	aunt	ປ່າ, ອາ, ນ້າສາວ	a21xo21, a21nɪ55, tchi55ma55
346	cousin	ລຸກອ້າຍລຸກນ້ອງ	a21jɔ33za21, a21nɪ55za21
347	friend	ໝູ່	lɔ21gɔ33 [male], a21je55 [female]
348	male/ man	ຜູ້ຊາຍ	a21jo33
349	female/ woman	ຜູ້ຍິງ, ແມ່ຍິງ	a21bu55
350	man/ human being	ມະນຸດ, ຄົນ	tshɔ55xa21
351	Akha Buli people	ຄົນ~	bu33li33a21kha21ɔ21tshɔ55xa21
352	Lao people	ຄົນລາວ	la33ɔ33ɔ33 tshɔ55xa21
353	Chinese people	ຄົນຈີນ	la21bɔ21 ɔ33 tshɔ55xa21
354	doctor	ໝໍ	nai21mɔ33 (<L.)
355	teacher	ຄູ, ອາຈານ	nai21khu21 (<L.), a33tɕan33 (<L.>)
356	shaman	ຫົ່ມຜີ	tche55tshi21tchi33xɔ33
357	god, spirit	ຜີ	nɛ21
358	temple	ວັດ	—
359	priest	ພະ	—
360	to marry	ແຕ່ງດອງ, ແຕ່ງ	mi21za21tɕɔ21dɕɔ21dza21
361	to meet with	ພົບພໍ້	xɔ33mɔ55
362	to wait for	ລໍ, ລໍຖ້າ	dɔ21
363	to give to	ໃຫ້	bi21

364	to use	ໃຊ້	mɛ21xɛ55 xɛ55
365	to look for	ຫາ, ຊອກ	tɕha55tɕhɔ33
366	to laugh	ຫົວ	u55
367	to love	ຮັກ	nø21tə21
368	to fear, to be afraid of	ຢ້ານ	ɡu21(la33)nə21e33
369	to be frightened	ຕົ້ນຕົກໃຈຢ້ານ	nɔ33ma33ɡa33kha33nə21e33
370	to be surprised	ຕົກໃຈ	nɔ33ma33ɡa33kha33 ²⁴
371	to know	ຮູ້	ɕi21nə33
372	to remember	ຈື່ຈໍາ, ລໍາລຶກ	nø21du21tha21ma33
373	to forget	ລືມ	ŋɛ55(nə33)
374	cold	ເຢັນ	ɟə33ŋɛ55(ŋɛ55)
375	hot	ຮ້ອນ	ɟə33lɔŋ55
376	hungry	ຫິວເຂົ້າ	xə21mɛ21
377	thirsty	ຫິວນໍ້າ	ɔ33tɕu21mɛ21
378	drunk	ເມົາ	ɟɛ21
379	delicious	ແຊບ	ɟə33khu55
380	sweet	ຫວານ	ɟə33tɕhø55
381	sour	ສົ້ມ	ɟə33tɕhɛ55
382	pepper-hot	ເຜັດ	la21phi55(phi55)
383	salty	ເຄັມ	tsə21dɕɿ21 tə33
384	thing	ເຄື່ອງຂອງ	mɛ21ɡɔŋ21, m55mjo21
385	big	ໃຫຍ່	ɟə33xɔ21
386	small	ນ້ອຍ	ɟə33nɛi55
387	tall, high	ສູງ	ɟə33ɡu55 ²⁵
388	low	ຕໍ່າ	ɟə33ɿɿ33

²⁴ This Akha Buli phrase is literally construed as “the mind (/nɔ33ma33/) falls (/ɡa33kha33/)”.

²⁵ The citation form of Akha Buli adjectives in Laos consists of a prefix and a root. The adjective prefix is *ɟə-* or *ɟɿ-*, the latter of which may not be found in other Akha Buli varieties. As for the word ‘tall’, Kingsada and Shintani (1999: 247) describes /ɟə33ɡo55/ in Ko-Puli of Phongsaly (Laos), and Lewis (1968: 334) states *yaw go*²⁵ (approximately /ɟəɿ ɡol/) in Jɛu, ɡ’oe, (Puli) of Kengtung (Burma/ Myanmar).

389	long	ຍາວ	ja33maŋ55
390	short	ສັ້ນ	ja33na55
391	broad, wide	ກວ້າງ	ja33dɛ55
392	narrow	ແຄບ	ja33su21
393	thick	ໜາ	ja33thu55
394	thin	ບາງ	ja33ba21
395	deep	ເລິກ	ja33na21
396	shallow	ຕື້ນ	ma21na21
397	smooth	ຮາບຮຽງ, ຮຽບ	ja33sa55
398	rough	ຫຍາບ	ja33ne21
399	round	ກົມ	ja33loŋ33
400	sharp	ຄົມ	ja33tɕ33
401	dull	ບໍ່ແຫວມ	ma21ta33, ma21tɕe33
402	pointed	ແຫວມ	(ja33)tɕe33, ja33da33, ja33jɔ33
403	color	ສີ	si33 (<L.)
404	red	ແດງ	ja33ne33
405	yellow	ເຫລືອງ	ja33ɛu55
406	blue	ຟ້າ	ja33pha55
407	white	ຂາວ	ja33ba33
408	black	ດຳ	ja33na33
409	green	ຂຽວ	ja33nɔ55
410	sound, noise	ສຽງ	the55sa55
411	light	ເບົາ	ja33pha55
412	heavy	ໜັກ	ja33khaŋ33
413	dry	ແຫ້ງ	ja33gɯ33
414	wet	ປຽກ	ja33tɕ21
415	soft	ອ່ອນ	ja33bje33
416	hard	ແຂງ	ja33yɔŋ55
417	full	ເຕັມ	bjɔŋ33la55
418	new	ໃໝ່	ja33ɛu21

419	old	ເກົ່າ	ɟɔ33θ55
420	raw	ຂອງດິບ	ɟɔ33dɯm21
421	done, ripe	ສຸກ	ɟɔ33dɯa21
422	good	ດີ	ɟɔ33mu21
423	bad	ບໍ່ດີ, ຊົ່ວ	ma21mu21
424	difficult	ຍາກ	ɟɔ33xɔ33
425	easy	ງ່າຍ	ɟɔ33yɔ21
426	expensive	ແພງ	ɟɔ33phθ21, a55phθ21ɟɔ33xa55
427	cheap	ຖືກ	ma21phθ21
428	clean	ສະອາດ	ɟɔ33ɕɔ55
429	dirty	ເປື້ອນ	ɟɔ33tɕa21
430	gentle	ໃຈດີ	nɔ33ma33ɟɔ33mu21
431	angry	ຮ້າຍ	nɔ33ma33ma21mu21
432	happy, glad	ມີຄວາມສຸກ	nɔ33nθ21ɟɔ33sa55
433	ashamed	ໜ້າອາຍ	ɕa21dɔ55bɔ33, ɕa21dɔ55dɔ55
434	stupid	ໂງ່	ɕa21dzɔ21a21ka21
435	clever	ສະຫລາດ	ma21dzɔ21ma21ka21
436	quick, fast	ໄວ	ɟɔ33khɔ55
437	slow	ຊ້າ	ma21khɔ55, ɟɔ33ga33
438	early	ເຊົ້າ	ɟɔ33na21
439	fat	ອ້ວນ, ຕຸ້ຍ	ɟɔ33tshu55
440	thin	ຈອຍ	ɟɔ33jɕ21
441	old of age	ເກົ່າ	mo21i55
442	young of age	ໜຸ່ມ	za21gu21
443	year	ປີ	a55xɔ21
444	this year	ປີນີ້	tsu33nɔ33xɔ21
445	last year	ປີກາຍ	mi55nɔ33xɔ21
446	next year	ປີໜ້າ	nɕ21ja21xɔ21
447	month	ເດືອນ	ba33la33
448	this month	ເດືອນນີ້	ba33la33nɕm55ɕi21

449	last month	ເດືອນທີແລ້ວ	ba33la33mi55nɤŋ21ɕi21
450	next month	ເດືອນໜ້າ	ba33la33a21kha55ɕi21
451	now	ດຽວນີ້, ເວລານີ້, ຕອນນີ້	nɤm33
452	today	ມື້ນີ້	i21nɤŋ33
453	yesterday	ມື້ວານ	mi55nɤŋ33
454	tomorrow	ມື້ອື່ນ	nɤŋ33ɕə21nɤŋ33
455	everyday	ທຸກມື້	a21jə21nɤŋ33a21jə21
456	morning	ຕອນເຊົ້າ	u21ɕə21jɤ33nɤ21
457	noon	ຕອນກາງເວັນ, ຕອນສວາຍ	nɤŋ33jɤŋ55
458	evening	ຕອນແລງ	m21tɕi33thə33
459	night	ຕອນກາງຄືນ, ຕອນຄ່ຳ	m21tɕi21
460	rainy season	ລະດູຝົນ	jɕ33jɤŋ33jam21
461	cold season	ລະດູໜາວ	tɕɛ21ga33jam21
462	above	ເທິງ	xə33tɕa33, a21tɕa33
463	below	ລຸ່ມ, ກ້ອງ	a21ɤ33
464	inside	ໃນ	la21xə55
465	outside	ນອກ	la21nɕi55
466	front	ທາງໜ້າ	mi21ɕi55phə55
467	back	ທາງຫລັງ	na55xɤŋ33phə33
468	north	ທິດເໜືອ	a21tɕa33phə33
469	south	ທິດໃຕ້	a21ɤ33phə33
470	east	ທິດຕາເວັນອອກ	nɤ55ma33də21la55phə33
471	west	ທິດຕາເວັນຕົກ	nɤ55ma33ga33i55phə33
472	far	ໄກ	jɤ33mɤŋ55kha21
473	near	ໃກ້, ມຸ່	də21phɕ33
474	to come	ມາ	la55
475	to go	ໄປ	i55
476	to return	ກັບໄປ, ກັບມາ	o21le55, o21la55
477	to enter	ເຂົ້າ	u55(la55)
478	to exit	ອອກ	də33(i55)

479	to climb, to ascend	ປິນ, ຂຶ້ນ	pɔ̄33, da33le55
480	to descend	ລົງ	da21kha55le55
481	to fall	ຕົກ	ga33kha33
482	I	ຂ້ອຍ	ŋa55
483	you, thou	ເຈົ້າ	no55
484	he, she	ລາວ	thɤ55ya21/ no55 ²⁶
485	we	ພວກເຮົາ, ພວກຂ້ອຍ	ŋɔ55dɤ21ma21, ŋa33mə21(EXCL)
486	you, ye	ພວກເຈົ້າ	nuŋ33mə21
487	they	ພວກລາວ	xø55bo21
488	who	ໃຜ	a21su33ya21
489	this	ອັນນີ້	xɤ33dɛ21
490	that	ອັນນັ້ນ	xø55dɛ21
491	what	ຫຍັງ	a21dɛ21
492	where	ບ່ອນໃດ, ຢູ່ໃສ	a21ga55(dɛ55)
493	why	ເປັນຫຍັງ, ຍ້ອນຫຍັງ	a21dɛ21ŋa21
494	very	~ຫລາຍ	jo33muu21mi55na33(very good)
495	still	ຍັງບໍ່ທັນ~	ma21dza21ɤ33ci21 (I have not eaten yet)
496	I am Akha Buli.	ຂ້ອຍແມ່ນ~	ŋa55 bu33li21 ɤ21 a21kha21.
497	I am not Akha Buli.	ຂ້ອຍບໍ່ແມ່ນ~	ŋa55 bu33li21 ɤ21 a21kha21ma21ŋu55
498	I have ...	ຂ້ອຍມີ~	ŋa55 za21 sm55ya21 dzo55ma55. (I have three children), ŋa55 phju55 dza33 ma55. (I have money.)
499	I came from Vientiane.	ຂ້ອຍມາແຕ່ວຽງຈັນ	ŋa55 bien21tɕaŋ33 nɛ21 la53 ɤ21 ma33.
500	I will go to Vientiane.	ຂ້ອຍຊິໄປວຽງຈັນ	ŋa55 bien21tɕaŋ33 lɛ21 i55 ma55.

²⁶ /thɤ55ya21/ literally means ‘that person’ (thɤ55 ‘that’ + ya21 ‘classifier for human’). /no55/ originally denotes second person singular, but in Akha Buli natural conversation it can be used for third person singular as well. Kingsada and Shintani (1999: 251) describe /xu55ya11/ for ‘he, she’, which literally seems to mean ‘this person’. This issue should be examined in later analyses.

Keywords: Akha Buli (Puli), Lolo (Yipho)-Burmese, Tibeto-Burman,
Phonology, Laos