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A Wordlist of Akha Buli Fauna with Reference to Areal Linguistics

メタデータ	言語: eng 出版者: 公開日: 2021-09-08 キーワード (Ja): キーワード (En): 作成者: 林, 範彦 メールアドレス: 所属:
URL	https://kobe-cufs.repo.nii.ac.jp/records/2584

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CHAPTER 5

A Wordlist of Akha Buli Fauna
with Reference to Areal Linguistics

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[要旨/ABSTRACT]

本稿はラオス・ルアンナムター県ムアンシン郡で話されるアカ・ブリ語(チベット・ビルマ語派ロロ・ビルマ語支ロロ語群)の動物語彙について現地調査によって得た資料をもとに記述を試みた。

本研究と最も関連するアカ語の先行研究は Lewis (1968, 2008)である。これらはミャンマーで話されるアカ・ブリ語をベースに編まれた辞書であり、多くの動物語彙も収録している。本稿でも関連する語彙について共通点・相違点に関する比較・対照を行なった。同時にメコン川流域の関連するロロ・ビルマ諸語やタイ系諸語のデータとの比較も合わせて行った。

他の同系言語との比較なども手がかりに、アカ・ブリ語の動物語彙における語形成の分析も行った。接頭辞による派生・複合・重複のほか擬音語などにより多くの動物語彙が生み出されていることを整理した。中でも、ロロ・ビルマ祖語(Proto-Lolo-Burmese)における動物接頭辞 (animal prefix) *k- (Benedict 1972, Bradley 1979) の反映形であると考えられる/xa²¹-/は非生産的ではありながらも、現代のアカ・ブリ語の動物接頭辞とみなされる。

1. Introduction

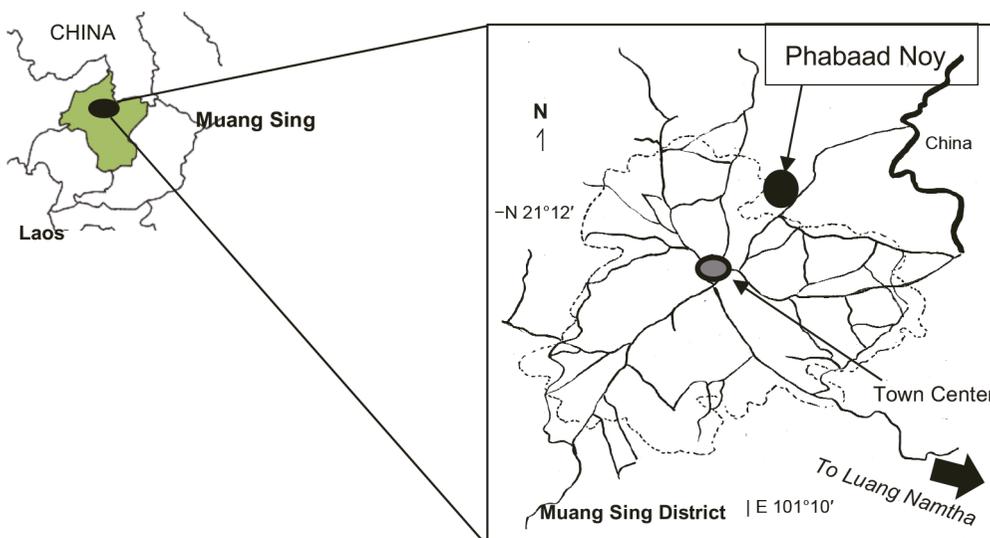
1.1 Akha Buli

The Akha language is a member of the Southern Loloish (Ngwi) language group on the Lolo-Burmese branch of the Tibeto-Burman family (Bradley 1997). It is widely spoken in Myanmar, Thailand, Laos, and China. Akha has many dialects, such as Buli (Puli), Chicho, Chepya, Kopien, Pixo, and Nukui. This paper addresses the Buli variety, which is spoken in the village of Phabaad Noy in Muang Sing district, Luang Namtha province, Laos (see Map).¹

1.2 Previous Works on the Akha Buli Language in Laos

As I mentioned in my previous paper on this language (Hayashi 2016), the Akha are a well-known ethnic group in mainland Southeast Asia; they have produced many academic literatures on various aspects. In the linguistics field, Lewis (1968) and Lewis (2008) have provided Akha dictionaries; the former describes the lexicon

¹ The map represents Muang Sing district. It is adapted from the local tourist map made by Wolfgang Korn and the German Development Service.



Map: Muang Sing District, Luang Namtha, Laos

of Akha (Puli) in Burma/Myanmar (Kengtung Akha, henceforth KT Akha), while the latter is a comprehensive dictionary of the Akha language.

Apart from the author's works, Kingsada and Shintani (1999) also wrote about the Akha Buli language in Laos. Their paper addressed the phonological inventory and the basic word list of another dialect of Akha Buli that is spoken in Bun Tay district, Phongsaly province, Laos. Although the paper describes a very important descriptive study, its subject matter would still benefit from more elaborate analyses of phonological problems and linguistic information.

1.3 Aim and the Organization of This Paper

This paper aims to describe the faunal terms of the Akha Buli language by utilizing first-hand data,^{2,3} as the author has already done with respect to the Saek language in the last volume of *Topics in Middle Mekong Linguistics* (Hayashi 2019). The paper attempts to analyze the terms from historical and areal linguistic viewpoints.

² The author conducted four rounds of linguistic fieldwork in Phabaad Noy village in Muang Sing district in Laos since September 2014. I 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 appreciate the academic and administrative assistance provided by Prof. Sisamouth Sisomboon, Prof. Hommala Phensisanavong, and the National University of Laos. This research would not have been possible without the financial support of JSPS KAKEN (#26370492, JP17H02335).

³ The methodology for eliciting faunal terms in Akha Buli is the same as the one that was adopted in the fieldwork on At Samart Saek (Hayashi 2019). That is, the author showed picture books to the consultants to explore the faunal terms. The books used were Francis (2001), Davidson (2009), and Koike (2010). Though this method is not superior to collecting data in natural settings, this type of elicitation is effective, given the short duration available for fieldwork.

3. The Description Scheme and the Analytical Framework

This paper adopts one of the simplest methods for describing faunal terms. It documents 185 faunal words in total and categorizes four major types of animals, namely {mammals} (54 words), {arthropods, crustaceans, and their related species} (42 words), {reptiles and fish} (8 words), and {birds} (81 words), which are to be exemplified in Sections 4, 5, 6, and 7, respectively. Based on previous literature in this field, such as Chamberlain (1977) and Badenoch (2019), among others, the faunal terms to be noted from the linguistic (either synchronic or diachronic) and cultural viewpoints are analyzed in more detail in each section.

Section 8 briefly offers an analysis of the morphology and semantic structure of Akha Buli faunal terms. The terms will be discussed from the viewpoint of syllable length and in relation to the concept of the life form (LF), which is also mentioned in earlier sections. The life form is primarily discussed in Berlin (1972) and Berlin et al. (1973) and is further discussed as the taxa that always dominated in the Unique Beginner hierarchy in Chamberlain (1977: 18–19) for Tai zoological linguistics, which is construed as “an etymon denoting a general group of animals that are perceived to be closely related” (Badenoch 2019: 46), clearly depicting recognition for the animal world in a specific language.

4. Mammals

This section will present the mammal terms of the Akha Buli language, based on the author’s fieldnotes. First, the mammal data that were collected during the author’s fieldwork are illustrated in Table 2. The listing order is as follows: Proboscidea (elephants), Scandentia (tree shrews), Primates, Rodentia (rodents), Lagomorpha (rabbits), Soricomorpha (shrews), Erinaceomorpha (hedgehogs and gymnures), Chiroptera (bats), Pholidota (pangolins), Carnivora (Felidae/cats, Viverridae/civets, etc.), Canidae (dogs, etc.), Ursidae (bears), Mustelidae (weasels, badgers, and otters), Perissodactyla (odd-toed ungulates, rhinoceroses, and horses), Artiodactyla (even-toed ungulates, deer, and bovines).

Table 2: Mammals in Akha Buli (Muang Sing, Laos)

Item No.	Gloss	Hayashi’s fieldnote
[4-1]	Elephant	ja ³³ ma ³³
[4-2]	Common tree shrew	xo ³³ tca ²¹ bi ⁵⁵ tche ³³
[4-3]	Monkey, macaque	a ³³ mjo ²¹
[4-4]	Agile gibbon	a ³³ mjo ²¹ na ³³
[4-5]	Pileated gibbon	a ³³ mjo ²¹ cu ⁵⁵
[4-6]	Silvered langur	a ³³ mjo ²¹ nø ⁵⁵
[4-7]	Slow loris	mjo ²¹ lon ⁵⁵
[4-8]	Assamese macaque	a ³³ mjo ²¹ ba ²¹ phju ⁵⁵
[4-9]	Southern pig-tailed macaque	a ³³ mjo ²¹ dzo ²¹ xa ³³
[4-10]	Arrowed-tailed flying squirrels	xo ³³ bjo ³³ ne ³³ , xo ³³ bjo ³³ phɿ ⁵⁵
[4-11]	Beautiful tree squirrels	u ⁵⁵ tca ³³ u ³³ ba ²¹
[4-12]	Giant squirrels	xo ³³ sa ³³
[4-13]	Himalayan striped squirrel	u ⁵⁵ tca ³³ bja ³³ tsho ²¹

[4-14]	Mouse	xo ³³ tɕa ²¹
[4-15]	House mouse	xo ³³ tɕa ²¹ tchi ⁵⁵ ne ⁵⁵ mi ²¹ khɔ ²¹
[4-16]	Burmese bandicoot rat	xo ³³ tɕa ²¹ xø ^{21 4}
[4-17]	Large bamboo rat	xo ³³ phi ²¹
[4-18]	Porcupine	xo ³³ phu ⁵⁵
[4-19]	Brush-tailed porcupine	xo ³³ xa ²¹
[4-20]	Rabbit	xo ³³
[4-21]	Savi's pygmy shrew	xo ³³ tɕa ²¹ xo ³³ ma ³³
[4-22]	Lesser gymnure	xo ³³ tɕa ²¹ xo ³³ xø ²¹
[4-23]	Moonrat	xo ³³ tɕa ²¹ phju ⁵⁵
[4-24]	Bat	bø ³³ xa ²¹
[4-25]	Short-nosed fruit bat	bø ³³ xa ²¹ la ²¹ tse ³³
[4-26]	Sunda pangolin	thɔŋ ²¹ khɾ ²¹
[4-27]	Cat	a ⁵⁵ mi ⁵⁵
[4-28]	Leopard	xa ²¹ dzi ²¹
[4-29]	Tiger	xa ²¹ la ²¹
[4-30]	Civet	phja ²¹ ji ²¹
[4-31]	Banded palm civet	phja ²¹ ji ²¹ tchɔ ⁵⁵
[4-32]	Common palm civet	phja ²¹ ji ²¹ phɾ ⁵⁵
[4-33]	Large Indian civet	tse ³³ ma ³³ lɔŋ ⁵⁵ dzo ⁵⁵
[4-34]	Little civet	ya ³³ ɕɾ ³³ a ³³ xɔŋ ⁵⁵
[4-35]	Malay civet	a ³³ xɔŋ ⁵⁵
[4-36]	Binturong	xm ⁵⁵ ŋɔ ²¹
[4-37]	Dog	ɕ ²¹ khɯ ²¹
[4-38]	Golden jackal	xa ²¹ je ³³
[4-39]	Bear, black bear	xa ²¹ xm ⁵⁵
[4-40]	Hog badger	mi ⁵⁵ phø ³³
[4-41]	Otter	ɾ ⁵⁵ ɕm ⁵⁵
[4-42]	Lesser one-horned rhinoceros	ne ³³ ja ⁵⁵ lɔŋ ⁵⁵ gɔ ²¹
[4-43]	Horse	mɾŋ ²¹
[4-44]	Buffalo	ɕ ²¹ nɔ ²¹
[4-45]	Cattle	mo ³³ ne ³³
[4-46]	Gaur	ne ²¹ nɔ ²¹
[4-47]	Pig	ɕ ²¹ ya ²¹
[4-48]	Eurasian wild pig	ya ²¹ the ²¹
[4-49]	Lesser mousedeer	tchi ⁵⁵ xa ²¹ da ⁵⁵ bɾŋ ^{33 5}
[4-50]	Muntjac	tchi ⁵⁵ xa ²¹
[4-51]	Sambar (deer)	xa ²¹ dze ³³
[4-52]	Southern serow	ja ²¹
[4-53]	Goat	tɕi ²¹ me ²¹

⁴ This word can be articulated as /xo³³tɕa³³xø²¹/ by some speakers as well.

⁵ This word can be articulated as /tchi⁵⁵xa²¹za⁵⁵bɾŋ³³/ by some speakers as well.

4.1 Monkeys, Macaques, Gibbons, and Slow Lorises

Lewis (1968: 9) describes the word for “monkey” as $a^V myo\Lambda$ ($/\acute{a} mj\grave{o}/$) in KT Akha, which is very similar to Akha Buli’s $/a^{33}mj\grave{o}^{21}/$ in my fieldnotes [4-3].⁶ The tone of the prefix $/a-/$ differs between the two varieties, which is often the case.

$/a^{33}mj\grave{o}^{21}/$ in Akha Buli incorporates “monkey,” “macaque,” and “gibbon.” “Long-tailed macaque” in Table 2 above [4-3] is also recognized as $/a^{33}mj\grave{o}^{21}/$. The word for “Assamese macaque” is translated as $/a^{33}mj\grave{o}^{21}ba^{21}phju^{55}/$ [4-8], the last two syllables of which are not well-construed at the moment. “Southern pig-tailed macaque” $/a^{33}mj\grave{o}^{21}dzo^{21}xa^{33}/$ [4-9] belongs to the same group, although the last two syllables are difficult to analyze.⁷

“Agile gibbon” [4-4] and “pileated gibbon” [4-5] are translated into Akha Buli as $/a^{33}mj\grave{o}^{21}n\grave{a}^{33}/$ and $/a^{33}mj\grave{o}^{21}e\ddot{u}^{55}/$, respectively, both of which contain the color terms $/n\grave{a}^{33}/$ meaning “black” and $/e\ddot{u}^{55}/$ meaning “yellow,” reflecting the color of each animal’s body hair. Lewis (1968: 10) describes “gibbon” as $a^V myo\Lambda myo\Lambda na^A$ ($/\acute{a} mj\grave{o} mj\grave{o} n\grave{a}/$) or $a^V myo\Lambda na^A$ ($/\acute{a} mj\grave{o} n\grave{a}/$) in KT Akha, which clearly resembles Akha Buli. $a^V myo\Lambda myo\Lambda na^A$ is morphologically an ABBC type, which is usually found in the compounding of Akha dialects.⁸

“Silvered langur” [4-6] is translated into Akha Buli as $/a^{33}mj\grave{o}^{21}n\emptyset^{55}/$, the last syllable of which is also recognized as the color term “green” or $/n\emptyset^{55}/$. According to the explanation and the photo in Francis (2001: 52), the silvered langur has dark gray hair and a long tail. The similar word $a^V myo\Lambda myo\Lambda nyoe^V$ ($/\acute{a} mj\grave{o} mj\grave{o} nj\acute{o}/$) or $a^V myo\Lambda nyoe^V$ ($/\acute{a} mj\grave{o} nj\acute{o}/$) in KT Akha is considered to be the word for “wooly monkey” (gray with a long tail)⁹ in Lewis (1968: 10), which may be the same as “silvered langur.”

“Slow loris” is also recognized as a kind of monkey, and it is translated into Akha Buli as $/mj\grave{o}^{21}l\grave{o}n^{55}/$ [4-7], which, exceptionally, is not prefixed by $/a-/$. KT Akha represents this word as $myo\Lambda lah^V$ ($/mj\grave{o} l\acute{s}/$) in Lewis (1968: 214).¹⁰

4.2. Porcupines, Mice, Rats, Rabbits, and Squirrels

“Porcupine” in Akha Buli is $/xo^{33}phu^{55}/$ [4-18], which is shared with KT Akha’s $ho pu^V$ ($/ho p\acute{u}/$) (Lewis 1968: 132). Akha Buli’s $/xo^{33}/$ means “rabbit” in Muang Sing [4-20]. This can lead us to speculate that in this language, porcupines belong to the rabbit group. Additionally, the groups containing porcupines, mice/rats, squirrels, and rabbits might be recognized as the same in Akha Buli, although they are taxonomically different. Interestingly, “rabbit” in KT Akha is called lah^V ($/l\acute{s}/$) (Lewis 1968: 169), which the Akha in Thailand share as $/l\grave{o}n^{21}/$ (Katsura 1970: 32).

⁶ The author listed this word as $/a^{33}mj\grave{o}^{21}/$, the first syllable of which has creaky phonation. It is often found that the prefix $/a-/$ can be articulated with creaky phonation.

⁷ In KT Akha, Lewis (1968: 140) lists $jaw^V k'a^A$ ($/dz\grave{o} x\grave{a}/$) for “a poor type of rattan,” which might be related to this word.

⁸ This type of reduplication can also be found in Sida faunal terms (Badenoch 2019: 55-56).

⁹ James R. Chamberlain (p.c.) pointed out that wooly monkeys live only in South America.

¹⁰ Lewis (1968: 214) additionally explained that if Akha Puli people in Kengtung see the slow loris, they avoid it. The meaning of lah^V is uncertain, but it may be related to the verb lah^V -*eu* meaning “for something to feel hot” or “to wrap around” (Lewis 1968: 168).

“Mouse” in Akha Buli is /xo³³teǎ^{21/11} [4-14], which is shared with “Burmese bandicoot rat” /xo³³teǎ²¹xø^{21/} [4-16], “common tree shrew” /xo³³teǎ²¹bi⁵⁵tehe^{33/} [4-2], “house mouse” /xo³³teǎ²¹tehi⁵⁵ne⁵⁵mi²¹khø^{21/} [4-15], “moonrat” /xo³³teǎ²¹phju^{55/} [4-23], “Savi’s pygmy shrew” /xo³³teǎ²¹xo³³ma^{33/} [4-21], and so on. Lewis (1968: 131) explained that *ho ca*_A (/ho cà/) is “a general term for small rodents” or “a mouse or small rat” in KT Akha. The third syllable /xø^{21/} of “Burmese bandicoot rat” [4-16] is associated with “to steal.” Lewis (1968: 131) describes *ho ca*_A *ho k’oe*_V (/ho cà ho xø/) simply as “a rat (the thief rodent),” which corresponds to this word.

4.3 Bats

Bats in general are called /bø³³xa^{21/} in Akha Buli [4-24], which is *boe*_V *hav* (/bø hà/) in KT Akha (Lewis 1968: 36). The author’s fieldwork explored the Akha Buli word for “short-nosed fruit bat,” which can be described as /bø³³xa²¹la²¹tseǎ^{33/} [4-25]. The meaning of the last two syllables remains unclear, though it might be associated with /tseǎ^{33/} “to bark” or /je²¹tseǎ^{33/} “to cut.”

4.4 Cats, Tigers, Leopards, and Civets

Cats in Akha Buli are called /a⁵⁵mi^{55/} [4-27], which is considered a mimetic word for “the cry.” It is often found that the word for “cats” comes from an onomatopoeia in East and Southeast Asian languages, such as Mandarin Chinese *māo* 猫, Standard Thai *méew* แมว, At Samart Saek *mæew* (Hayashi 2019: 102). It is important to note that Akha Buli /a⁵⁵mi^{55/} underwent the prefixation of /a-/ , which can be analyzed as a nominal marker. The corresponding word in KT Akha is also *a*_V *mi*_V (/á mí/) (Lewis 1968: 9).

Tigers are often considered relatives to cats, but the word denoting “tiger” in Akha Buli is completely different from the one for “cats.” This word /xa²¹la^{21/} [4-29] shares cognates with Menglun Akeu’s /dza²¹la^{21/} (Hayashi and Gao 2019).

Leopards are genetically related to tigers, but notably, the word form for “leopard” /xa²¹dzi^{21/} [4-28] is distinct from the one for “tiger.”

The English language calls civet cats “civets,” although taxonomy differentiates between the two. The Akha people and most Southeast Asian speakers seem not to confuse these two species (James R. Chamberlain, p.c.). Civets [4-30] and the common palm civets [4-32] are members of the same group in Akha Buli, and the latter contains the morpheme /phɿ^{55/} in the last syllable, meaning “blue.” The banded palm civet [4-31] is also in the same group, though the meaning of the last morpheme /teho^{55/} remains unclear.

The little civet [4-34] and the Malay civet [4-35] are distinct from the mammals that belong to the civet group and are related to the word /a³³xoŋ^{55/}. The meaning of the first two syllables of the word for “little civet” is still unclear. Lewis (1968: 5) documented the word for “wild cat” as *a*_V *hah*_V (*maw*_V) (/á hǎ/), which has a slightly different form, though it may be related to the word for “little civet” in Akha Buli.

¹¹ The author listed this word as /xø²¹teǎ^{21/} in his previous work (Hayashi 2016); however, this should be corrected to /xo³³teǎ^{21/}, based on the recent fieldwork.

4.5 Bears and Binturongs

“Bear” and “black bear” in Akha Buli are both /xa²¹xm⁵⁵/ [4-39], which is the same as k’*a*_Vhm^V (/xà hm̄/) in KT Akha (Lewis 1968: 157). The first syllable /xa²¹/ appears to be the head of the word, but actually, the second syllable /xm⁵⁵/ is comparable with other Lolo-Burmese languages, like Youle Jino /a³³ø⁵⁵/ (Hayashi 2009) and Lahu /yè-mí-t5/ (Matisoff 2006), which can be reconstructed as PLB **d-wam*^{1/2} (Matisoff 2003: 618).

“Binturong” is a kind of civet, but in Akha Buli, it can be considered a type of bear, which is reflected in the word form /xm⁵⁵η²¹/ [4-36], containing /xm⁵⁵/.¹² KT Akha hm^Vngo^V (/hm̄ ηò/) means “a lesser panda” (Lewis 1968: 131), which should be noted for the difference.

4.6 Buffalo and Cattle

In every place on the Southeast Asian continent, buffalos and cattle are quite distinct in the local languages. As in Table 2, buffalos and cattle are called /a²¹η²¹/ [4-44] and /mo³³ne³³/ [4-45], respectively, which will be briefly examined in this section.

The word for “buffalo” is composed of /a²¹/ [prefix]+ /η²¹/ [root], the former element of which has a creaky vowel due to some specific factors.¹³ This root is utilized for the word for “gaur” [4-46] /nɛ²¹η²¹/, which is also described (*neh*₁*nyo*_V /nɛ̣ ηò/) and literally analyzed as “spirit buffalo” in KT Akha, according to Lewis (1968: 227).

The word for “cattle” /mo³³ne³³/ is similar to KT Akha’s *maw*^V*neh*^V (/mó nɛ̣/) meaning “cow” (Lewis 1968: 197), with a slight difference in terms of the vowel and the tone. Lewis (1968: 196) describes *maw*^V (/mó/) as a classifier for animals (and sometimes also spirits), which can be seen in the word for “cattle.” If this is the case, the animal classifier is clipped from this word, and the Akha people may view the cow as an animal prototype.

Another interesting point to be made in comparative linguistics is that the Akha Buli words for “buffalos” and “cattle” correspond to the surrounding languages, such as Sida (Badenoch 2019) in Luang Namtha, Menglun Akeu (Hayashi and Gao 2019) and Youle Jino (Hayashi 2009) in Sipsongpanna (Xishuangbanna), Yunnan province, China, which are summarized in Table 3.

Table 3: “Buffalos” and “Cattle” in the Akha Buli and Loloish Languages

	Akha Buli	Sida	Menglun Akeu	Youle Jino	Proto- Loloish
“buffalos”	a ²¹ η ²¹	pò-nɛ̣	mo ²¹ na ³³	pu ⁵⁵ na ⁴²	*ηya ²
“cattle”	mo ³³ ne ³³	mó-ɲu	ηy ²¹ nɻ ⁵⁵	mɛ ³³ ηu ⁵⁵	*nwa ²

¹² Lahu has several names for “binturong,” like /yè-mí-t5≡mɛ̣=yì-ma/ (long-tailed bear) and /fãʔ-thoʔ≡yè-mí-t5/ (squirrel bear), most of which contain a syllable denoting “bear” (Matisoff 2006: 24). It should be noted that there is also /pā-vî=nɔ-ma/ (green civet) for “binturong.”

¹³ KT Akha features *a*_V*nyo*_V (/à ηò/) for “buffalo” (Lewis 1968: 22), which is almost the same as in Akha Buli.

Most Menglun Akeu speakers speak Akha as well, but it is noted that the word for “buffalo” in Menglun Akeu corresponds to the word for “cattle” in Akha Buli.

4.7 Pigs

“Pig” in Akha Buli is /a²¹ɣa²¹/ [4-47], which is different from KT Akha’s a_Vza_Λ(/à zà/) (Lewis 1968: 24). The root of this word /ɣa²¹/ is comparable with other Loloish languages such as Youle Jino’s /va⁵⁵/ (Hayashi 2009) and written Burmese’s wak ဝဏ် (Harada and Ohno 1979), which can be reconstructed as PLB *wak^L (Matisoff 2003).¹⁴ Akha Buli prefixed it after divergence from other Loloish languages.

“Eurasian wild pig” /ɣa²¹the²¹/ [4-48] in Akha Buli is compatible with KT Akha’s za_Λte_V(/zà tè/) (Lewis 1968: 24). The second syllable might be associated with “wild” and borrowed from Tai languages like Shan/Tai Lue *thrn*² ¹⁵(Hudak 2008: 168).

5. Arthropods, Crustaceans, and Their related species

This section describes the insect terms of the Akha Buli language, based on the author’s fieldnotes, which are illustrated in Table 4 below. The listing order of terms is as follows: hexapods (insects), chelicerates (spiders, mites, and scorpions), myriapods (millipedes and centipedes), earthworms, crustaceans (crabs and shrimp), and snails. Related species are located adjacently in Table 4.

Table 4: Arthropods, Crustaceans, and Their Related Species in Akha Buli (Muang Sing, Laos)

Item No.	Gloss	Hayashi’s fieldnote
[5-1]	Ant	a ³³ xo ³³
[5-2]	Bee	ɣa ²¹ bja ²¹ (bja ²¹ ma ³³)
[5-3]	Carpenter bee	bja ²¹ xɣŋ ²¹ lɣŋ ²¹ ma ³³
[5-4]	Wasp	bja ²¹ du ³³
[5-5]	Beetle	phu ²¹ ma ³³ ɕo ³³ lɔ ³³
[5-6]	Diving beetle	u ⁵⁵ tɕu ²¹ bø ²¹ muŋ ⁵⁵
[5-7]	Jewel beetle, Buprestidae	bø ²¹ muŋ ⁵⁵
[5-8]	Stag beetle	bø ²¹ the ²¹
[5-9]	Earth-boring dung beetle, Geotrupidae	nɔ ²¹ tche ²¹ bø ²¹ lɔŋ ³³
[5-10]	Copris ochus	khu ²¹ ɕy ³³
[5-11]	Megopsis sinica	ja ³³ kha ³³ mɔ ³³ ŋɛ ³³

¹⁴ As Hayashi (2016) discussed, Akha Buli /ɣ/ has multiple origins, such as *g-, *w-, *kr- at the PLB stage. The word for “to buy” /ɣɣ³³/ also derived from Proto-Lolo-Burmese *way (Matisoff 2003), which parallels the consonantal change in the word for “pig.”

¹⁵ The word for “wild” in Tai Lue is *thrn*² ɒθθɕ (Hanna 2012: 171).

[5-12]	Rhomborrhina polita	n _o ²¹ ja ²¹ dza ³³ tchu ⁵⁵ a ⁵⁵ mo ³³
[5-13]	Butterfly	a ³³ lu ³³
[5-14]	Geisha distinctissima	a ³³ lu ³³
[5-15]	Cicada	a ²¹ dze ²¹
[5-16]	Cockroach	a ²¹ phja ³³ phja ³³ ne ⁵⁵
[5-17]	Termite	a ³³ y ²¹ tchi ³³ ce ³³
[5-18]	Atractomorpha lata	n _i ⁵⁵ boŋ ⁵⁵ xo ²¹ tchø ³³
[5-19]	Cricket	xo ²¹ tchø ⁵⁵ xo ³³ lo ⁵⁵
[5-20]	Grasshopper	n _i ⁵⁵ boŋ ⁵⁵
[5-21]	Praying mantis	m _r ²¹ phu ³³ dr ⁵⁵ tshε ²¹
[5-22]	Tettigonia orientalis	ɔ ²¹ tsho ³³ ɔ ⁵⁵ tsho ²¹
[5-23]	Ruspolia lineosa	a ²¹ xo ³³ lo ²¹ dze ³³
[5-24]	Stick insects, Phasmatodea	gɔ ³³ m ²¹ gɔ ³³ tho ⁵⁵
[5-25]	Dragonfly	a ²¹ dze ²¹ tchy ²¹ mja ³³ la ⁵⁵ mja ³³
[5-26]	Earwig	tch _r ⁵⁵ kr ⁵⁵ tch _r ⁵⁵ ne ²¹
[5-27]	Fly	bu ²¹ sa ³³ a ²¹ ma ³³
[5-28]	Mosquito	(a ²¹ tcha ⁵⁵) tcha ⁵⁵ gɔ ²¹
[5-29]	Stink bugs	a ²¹ tcha ⁵⁵ gɔ ³³ bε ²¹ la ²¹ , a ²¹ tcha ⁵⁵ tcha ⁵⁵ gɔ ³³ bε ²¹ la ²¹ dze ²¹
[5-30]	Louse	ce ³³ mo ³³
[5-31]	Maggot	lu ³³ th _r ŋ ²¹
[5-32]	Scorpion	a ³³ kha ³³ bø ²¹ the ²¹
[5-33]	Spider	a ³³ phja ³³ la ²¹ ka ³³
[5-34]	Asian long-horned tick, Haemaphysalis longicornis	ts _r ³³ m _r ŋ ²¹
[5-35]	Strigamia maritima japonica (a kind of centipede)	a ²¹ yu ³³ dza ²¹ n _i ²¹
[5-36]	Centipede	a ²¹ ma ²¹ tchi ⁵⁵ ce ⁵⁵
[5-37]	Millipede	bø ²¹ bø ²¹ la ²¹ x _r ŋ ⁵⁵
[5-38]	Pill bug, pill-millipede	je ³³ ca ³³ na ²¹ tchi ²¹
[5-39]	Earthworm	bu ²¹ dzy ³³
[5-40]	Crab	a ³³ kha ²¹
[5-41]	Shrimp	n _i ³³ b _r ŋ ³³ tchi ⁵⁵ xo ²¹
[5-42]	Snail, shellfish	a ²¹ n _o ³³

5.1 /bø²¹/ and /(a²¹)ma³³/

As seen in Table 3, there are some insect terms with /bø²¹/ and /(a²¹)ma³³/, such as “bee” [5-2], “jewel beetle” [5-7], “fly” [5-27], etc., which are important morphemes in comparative linguistics.

/bø²¹/ is a general LF marker for “bug” in Akha Buli, and it can be traced back to Proto-Lolo-Burmese *baw² (Matisoff 2003).

5.2 Bees, Hornets, and Wasps

Table 3 shows that the word for “bee” is /ya²¹bja²¹(bja²¹mǎ³³)/ [5-2]. Lewis (1968: 43) lists *bya_V* (/bjà/) with the meanings “1. generic term for bee, 2. a specific kind of bee; they eat honey” in KT Akha; this is shared by the Akha Buli word for “bees.”¹⁶

Differentiating between hornets and wasps is sometimes confusing for Japanese speakers, but the two insects are distinct in Lao as /tɛ:n/ ຕຳນ and /tɔː/ ຕຳ, respectively (Kerr 1972). In the author’s fieldnotes, the word for “wasp” is /bja²¹du³³/ [5-4], which Lewis (1968:44) describes as *bya_V du_V* (/bjà dú/) meaning “a type of wasp that lives in the ground; they eat the young” in KT Akha. This word clearly corresponds to other Lolo-Burmese languages such as Sida’s /pjà-tù/ (Badenoch 2019: 70), Lahu’s /pê-tù/ (Matisoff 2006: 283), Lisu’s *bbiatdu* /bja²¹tu³³/ meaning “hornet” (Bradley 1994), and written Burmese’s *pyaa:-tuu* ဖျားတူ (Harada and Ohno 1979).

The language consultants who assisted the author said that /bja²¹du³³bja²¹ma³³/ is used to refer to “big wasps,” which can be morphologically translated as such. It can correspond to the word for “hornets” in general.

5.3 Beetles

One of the most commonly referred to insects in the above list is a type of beetle. When the consultants who assisted with this paper were shown photos of beetles, they reacted by saying /phu²¹ma³³ɔ³³lɔ³³/ [5-5]. This word is not listed in Lewis (1968), and the internal structure needs further analysis.

In the above list, it is safe to say that the words for “diving beetle” [5-6] and “jewel beetle” [5-7] are clearly related to each other. /bø²¹muŋ⁵⁵/ consists of /bø²¹/ “bug (general)” + /muŋ⁵⁵/, the latter element of which represents the jewel beetle. Meanwhile, the word for “diving beetle” /u⁵⁵tey²¹bø²¹muŋ⁵⁵/ contains the word for “water” /u⁵⁵tey²¹/, which demonstrates the insect’s ecological situation.

The word for “earth-boring dung beetle” [5-9] is /ŋɔ²¹tche²¹bø²¹lɔŋ³³/, which differs morphologically from the above words. The first two syllables /ŋɔ²¹tche²¹/ are analyzed as compounding /ŋɔ²¹/ “buffalo” + /tche²¹/ “feces.” Lewis (1968: 238) lists a quite similar word *nyo_Vce_V boe_Vsui¹* (/ŋò tɛè bò sɯ/), which is construed as “dung beetle” in KT Akha.

The word for “stag beetle” will be mentioned next, in Section 5.4.

5.4 Earwigs, Scorpions, and Stag Beetles

According to the language consultants, the Akha Buli word for “earwig” is /tehr⁵⁵kr⁵⁵tehr⁵⁵ŋɛ²¹/ [5-26], which is morphologically different from KT Akha *boe_V teh_Vla_V teh_V* (/bò tè là tè/) (Lewis 1968: 38). The internal structure of the Akha Buli word demands further analysis.

¹⁶ Iwasa [this volume] investigates the entomological terms of Sani Yi [Loloish, Lolo-Burmese, Tibeto-Burman; Yunnan, China] from the geo-linguistic viewpoint and phonetically describes the word for “bee” as [dɬɔ²¹mɔ³³], the first syllable of which can be dated back to PLB **bya²* (Matisoff 2003). See more detail in Iwasa [this volume].

It is interesting to note, however, that there is definitely a relationship between the words for “scorpion” and “stag beetle” in this list, namely /a³³kha³³bø²¹the²¹/ [5-32] and /bø²¹the²¹/ [5-8], respectively, with the former containing the latter word. The consultants who assisted with this paper recognized these two insects as members of the same category. Note that Lewis (1968: 38) describes *boe_V teh_V* (/bø tɛ/) as meaning “large black beetle, something like [a] stag beetle” in KT Akha.

5.5 Flies, Mosquitoes, and Stink Bugs

According to the language consultants, the Akha Buli word for “fly” is /bu²¹sa³³a²¹mǎ³³/ [5-27]. This word does not appear in Lewis (1968); rather, Lewis (2008: 563) lists it as *pu_V sa^Λ* (/pù sa/) in KT Akha. The last two syllables of the Akha Buli word for “fly” /a²¹mǎ³³/ are quite similar to *a_V ma^Λ* (/à mǎ/), which denotes “horsefly” in KT Akha (Lewis 1968: 20).

The word for “mosquito” is /a²¹tcha⁵⁵ tcha⁵⁵gɔ²¹/ in Akha Buli [5-28], which corresponds to *ca_V gaw_V* (*maw^V*) (/tɛá gɔ́ mɔ́/) in KT Akha (Lewis 1968: 50). The words for “mosquito” in both dialects are quite similar to each other, but the long form of “mosquito” in Akha Buli shares elements with the word for “stink bug” /a²¹tcha⁵⁵gɔ³³bɛ²¹lǎ²¹, a²¹tcha⁵⁵ tcha⁵⁵gɔ³³bɛ²¹lǎ²¹dze²¹/ [5-29]. Lewis (1968: 15) describes the word for “stink bug” as *a_V ci_V a_V ca_V* (/à tɛí à tɛá/), which is slightly different from Akha Buli. /bɛ²¹lǎ²¹/ means “to smell” (corresponding to *beh^Λ la^Λ* (/bɛ̀ lǎ/), Lewis 1968: 42), hence the word for “stink bug” can be literally construed as “smelly mosquito” in Akha Buli.

5.6 Crabs, Shrimp, and Snails/Shellfish

“Crab” in Akha Buli is /a³³kha²¹/ [5-40], with a similar form being listed as *a_V ka* (*maw^V*) (/á ka mɔ́/) in KT Akha (Lewis 1968: 7). The word for “shrimp” /ŋ³³bɿŋ³³tehi⁵⁵xɔ²¹/ [5-41] does not seem to correspond with Lewis’s (1968) KT Akha list, although Menglun Akeu’s /nø⁵⁵bø⁵⁵tsj⁵⁵kɔ²¹/ (Hayashi and Gao 2019: 54) is interestingly similar to this Akha Buli word. It is arguable that the first two syllables of the Akha Buli word for “shrimp” correspond to Youle Jino’s /ne⁵⁵pju⁵⁵/ meaning “shrimp” (Hayashi 2009).

The word for “snail/ shellfish” is translated into Akha Buli as /a²¹ŋɔ³³/ [5-42]. Lewis (1968: 22) also describes it as *a_V nyo^Λ* (/à ŋɔ/) in KT Akha, with an affix phonation (/à/) that is different than in the author’s fieldnotes. This word resembles the word for “buffalo” [4-44] /a²¹ŋɔ²¹/, the root of which differs slightly in phonation and tone.

6. Reptiles and Fish

This section will list the terms for reptiles and fish in Akha Buli, based on the author’s fieldnotes. The terms and their fieldnotes are illustrated in Table 5 below.

Table 5: Reptiles and Fish in Akha Buli (Muang Sing, Laos)

Item No.	Gloss	Hayashi's fieldnote
[6-1]	Gecko	a ²¹ jɛ ³³ ma ⁵⁵ bjɛ ³³ , mɔ ⁵⁵ bjɛ ³³ ǎ ²¹ mǎ ³³
[6-2]	Snake	ǎ ³³ lɔ ³³ (ma ³³)
[6-3]	Turtle	bø ²¹ kɥ ³³
[6-4]	Frog	xa ²¹ pha ²¹ (tɛǎ ²¹)
[6-5]	Fish	ŋa ²¹ ɛa ²¹
[6-6]	Small fish	ŋa ²¹ dɛ ³³
[6-7]	Eel	dɛ ³³ sø ³³

6.1 Geckos, Snakes, Turtles, and Frogs

The word for “gecko” is often named mimetically in the Tibeto-Burman languages, like Sida’s /kɔ-kɛɛ/ (Badenoch 2019) and Lahu’s /tɔ̃-qɛ̃/ or /tɔ̃-tɛ̃/ (Matisoff 2006: 103), while the Akha Buli terms for “gecko” are /a²¹jɛ³³ma⁵⁵bjɛ³³/ and /mɔ⁵⁵bjɛ³³ǎ²¹mǎ³³/ [6-1], neither of which is mimetic. The morphological structure of these words remains uncertain at the moment, though /a²¹jɛ³³/ might be related to the word for “leech,” which Lewis (1968: 24) describes as *a_Vyeh_A* (/ǎ jɛ̃/) in KT Akha.

The words for “snake” /ǎ³³lɔ³³(ma³³)/ [6-2] and “turtle” /bø²¹kɥ³³/ [6-3] in Akha Buli are widely found in other Akha dialects, with slight phonological differences, like *a_Vlaw_V* (/ǎ lɔ̃/) and *boe_Vku_A* (/bø̃ kɥ/) in KT Akha (Lewis 1968). The latter word for “turtle” contains the root /bø²¹/, which denotes that the turtle is considered a “bug” in this language.¹⁷

“Frog” in Akha Buli is /xa²¹pha²¹ (tɛǎ²¹)/ [6-4], which looks the same as KT Akha’s *k’a_Vpa_V* (/xà pà/) (Lewis 1968: 159). The author’s linguistic consultants said that /xa²¹pha²¹/ can be translated as 𑜁𑜧𑜨 /kóp/, while /xa²¹pha²¹ tɛǎ²¹/ can be translated as 𑜁𑜧𑜨 /k^hia:t/ in Lao (Kerr 1972: 156). It is difficult to interpret the meaning of the latter word’s last syllable /tɛǎ²¹/, which might be related to the verb *ca_A-eu* (/tɛǎ -ɻ/) meaning “to cook in water” (Lewis 1968: 65).

6.2 Fish and Eels

Unlike Bit in Luang Namtha (Badenoch [this volume]), there are only two terms for fish in the author’s fieldnotes, namely /ŋa²¹ɛa²¹/ [6-5] and /ŋa²¹dɛ³³/ [6-6], the former of which is a generic term for fish, while the latter mainly specifies “small fish.”

/ŋa²¹ɛa²¹/ can be seen in many Akha dialects, like *nga_Vsha_V* (/ŋǎ šǎ/) in KT Akha (Lewis 1968: 231). This word is widely viewed as composed of two elements, namely /ŋa²¹/ and /ɛa²¹/; the former can be traced back to Proto-Loloish *ŋa²

¹⁷ There may be more names for snakes in Akha Buli, which should be revealed through later fieldwork.

(Bradley 1979), while the latter may be construed as the root /ea²¹dzi³³/ meaning “flesh/meat.”¹⁸

/ŋa²¹dε³³/ is also a generic term for small fish, which can be related to Lewis’s (2008: 349) listing of *ngavde^v* (/ŋa dé/) for “a minnow (somewhat generic)” in KT Akha. /ŋa²¹dε³³/ may correspond to Youle Jino’s /ŋo⁵⁵tɿ⁵⁵/ (“small fish,” as in Hayashi’s fieldnote) and Sida’s /ŋə-tɿ/ (“fish (general),” as in Badenoch (2019: 72)), though, otherwise, the second syllable might be related to the word for “irrigated field,” which is /dε³³ma³³/ or /dε³³ja⁵⁵/ (Hayashi 2016: 89).¹⁹

The word for “eel” in Akha Buli is /dε³³sø³³/ [6-7], which should be a cognate word, though the surrounding Loloish languages often borrowed from Tai Lue *ŋɛŋ* /jen²/ (Hanna 2012: 118), like Menglun Akeu’s /jen⁵³/ (Hayashi and Gao 2019) and Youle Jino’s /je⁵⁵/ (Hayashi’s fieldnote), or from the local dialect of Chinese 黄鳝 *huángshàn*, like Sida’s /hə-fě/ (Badenoch 2019). The first syllable /dε³³/ may be related to the word for “irrigated field,” as mentioned above.²⁰

7. Birds

This section will describe the bird terms in the Akha Buli language, based on the author’s fieldnotes, which are illustrated in Table 6. The terms are listed in the following order: egrets, ducks, geese, hawks, eagles, pheasants (chickens, junglefowls, and peacocks), cranes, sandpipers, pigeons, doves, cuckoos, owls, swiftlets, trogons, kingfishers, bee-eaters, rollers, hornbills, barbets, woodpeckers, broadbills, pittas, swallows, wagtails, scarlet minivets, bulbuls, thrushes, cisticolas, warblers, flycatchers, monarchs, laughingthrushes, babblers, sunbirds, spiderhunters, the mountain fulvetta, white-eyes, shrikes, drongos, crows, magpies, mynas, chestnut buntings. Related species are also listed adjacently in Table 6.

Table 6: Birds in Akha Buli (Muang Sing, Laos)

Item No.	Gloss	Hayashi’s fieldnote
[7-1]	Little egret	ɿ ⁵⁵ dzø ²¹ ɿ ⁵⁵ ya ³³ phju ⁵⁵
[7-2]	Pacific reef egret	ɿ ⁵⁵ dzø ²¹ ɿ ⁵⁵ ya ³³ na ³³
[7-3]	Duck	ɿ ³³ a ³³
[7-4]	Goose	jɿ ³³ kha ³³ ɿ ³³ a ³³
[7-5]	Hawk, eagle	xa ²¹ dzε ⁵⁵
[7-6]	White-rumped vulture	nə ²¹ bu ³³ xa ²¹ dzε ⁵⁵
[7-7]	Chestnut-headed partridge	ŋa ³³ tɿε ⁵⁵

¹⁸ Nathan Badenoch (p.c.) pointed out that it is interesting to explore why the word for “fish” only contains “flesh/ meat” within its morphological structure. This demands further analysis, but arguably, we can add that the Youle Jino word for “fish” /ŋo⁵⁵ɿ⁵⁵/ (Hayashi 2009) also contains the morpheme /ɿ⁵⁵/ in the second syllable, possibly meaning “flesh.”

¹⁹ Nathan Badenoch (p.c.) led me to consider that this word might be linked to Proto-Karenic *da^ɰ “fish” (STEDT #7320, Luangthongkum 2013); however, this possibility requires more detailed analysis.

²⁰ James R. Chamberlain (p.c.) noted that the Tai Lue word /jen²/ is linked to “swamp eels” that live in irrigated fields, revealing a close association with paddy rice agriculture.

[7-8]	Chicken	ɣa ³³ tɕi ³³
[7-9]	Red junglefowl	ɣa ²¹ n̩i ²¹
[7-10]	Green peafowl, peacock	ɕm ⁵⁵ dø ²¹
[7-11]	Siamese fireback	ɣɣ ³³
[7-12]	Sarus crane	dɛ ³³ ma ³³ ɣ ³³ dzø ²¹
[7-13]	Common sandpiper	ɣ ⁵⁵ dzø ²¹ ɣ ⁵⁵ ɣa ³³
[7-14]	Pigeon	ɕa ³³ mi ³³ xɔ ²¹ xø ²¹
[7-15]	Mountain imperial pigeon	xa ²¹ go ³³ xɔŋ ²¹
[7-16]	Thick-billed green pigeon	xa ²¹ go ³³ n̩y ⁵⁵
[7-17]	Red-collared dove	xɔ ²¹ xø ³³ lɔ ⁵⁵ dzu ⁵⁵
[7-18]	Vernal hanging parrot	a ³³ dzi ³³ xa ²¹ dzɛ ²¹
[7-19]	Cuckoo	a ³³ dzi ³³ xa ²¹ dzɛ ⁵⁵
[7-20]	Violet cuckoo	a ³³ dzi ³³ ŋa ²¹ ɕa ²¹
[7-21]	Greater coucal	dy ³³ dy ³³
[7-22]	Owl	xɔ ²¹ bu ³³
[7-23]	Himalayan swiftlet	ɕo ³³ ma ³³ dɔŋ ⁵⁵ tɕha ²¹
[7-24]	Orange-breasted trogon	ŋa ³³ zɔ ²¹
[7-25]	Kingfisher	dzi ³³ xɔŋ ²¹
[7-26]	Bee-eater	thɔŋ ³³ lɔ ⁵⁵ tɔ ²¹
[7-27]	Indian roller	a ³³ dzi ³³ ŋa ³³ n̩y ⁵⁵
[7-28]	Great hornbill	xɔŋ ²¹ ɣø ⁵⁵
[7-29]	Oriental pied hornbill	xɔŋ ²¹ bja ³³
[7-30]	Rufous-necked hornbill	ka ³³ tɕɛ ⁵⁵
[7-31]	Black-browed barbet	thɔŋ ²¹ tɕo ³³ lɔ ³³
[7-32]	Red-vented barbet	tɕhu ⁵⁵ xu ²¹ lu ³³
[7-33]	Woodpecker	tɕhi ⁵⁵ ɔ ⁵⁵
[7-34]	Long-tailed broadbill	dza ³³ tɕhi ⁵⁵ ma ⁵⁵
[7-35]	Silver-breasted broadbill	dza ³³ tɕhi ⁵⁵ xa ²¹
[7-36]	Bar-bellied pitta	tɕhɔ ²¹ xø ³³ bɔ ²¹
[7-37]	Blue-rumped pitta	a ³³ dzi ³³ tɕhɔ ²¹ xø ³³
[7-38]	Barn swallow	dzo ²¹ dzi ³³ dzo ²¹ a ²¹
[7-39]	Forest wagtail	a ³³ dzi ³³ dza ³³ tɕhi ³³
[7-40]	Scarlet minivet	a ³³ dza ³³ dza ³³ pjɔ ³³ lɔ ³³ ne ⁵⁵
[7-41]	Ashy bulbul	a ³³ dzi ³³ sɔŋ ²¹ xa ³³ mo ³³ je ²¹
[7-42]	Black-crested bulbul	mo ³³ je ²¹ ɕu ⁵⁵
[7-43]	Flavescent bulbul	a ³³ dzi ³³ n̩y ³³ ɕ ²¹
[7-44]	Puff-throated bulbul	a ³³ dzi ³³ lɔŋ ³³ bja ²¹
[7-45]	Red-whiskered bulbul	mo ³³ je ²¹ ma ⁵⁵
[7-46]	Orange-headed thrush	ɕi ³³ ɕi ³³ ɕu ⁵⁵
[7-47]	Scaly thrush	ɕi ³³ ɕi ³³ bɔ ³³
[7-48]	Zitting cisticola	la ²¹ bu ²¹ a ²¹ ma ³³ khɣ ⁵⁵ bu ⁵⁵
[7-49]	Rufescent prinia	a ³³ dzi ³³ mi ²¹ tɕhi ⁵⁵ d̩i ⁵⁵ u ³³
[7-50]	Bianchi's warbler	a ³³ dzi ³³ ti ³³ u ²¹
[7-51]	Blyth's leaf warbler	pa ²¹ khu ²¹ a ³³ dzi ³³

[7-52]	Lemon-rumped warbler	tɿ ²¹ lɿ ³³ a ³³ dzi ³³
[7-53]	Manchurian reed warbler	a ³³ dzi ³³ ɕo ²¹ ɕe ²¹
[7-54]	Vernal hanging parrot	a ³³ dzi ³³ xa ²¹ dze ²¹
[7-55]	Flycatcher	a ³³ dzi ³³ xa ²¹ tɕ ²¹
[7-56]	Bluethroat	di ²¹ ɕɿ ⁵⁵ tɕho ²¹ xo ²¹
[7-57]	Grey bushchat	dza ³³ la ²¹ phɿ ⁵⁵
[7-58]	Rufous-bellied niltava	ma ³³ sa ²¹ a ³³ dzi ³³
[7-59]	Black-naped monarch	a ³³ dzi ³³ pjɿ ²¹
[7-60]	Laughingthrush	tɕho ³³ xo ³³ ba ²¹ na ³³
[7-61]	Abbott's babbler	a ³³ dzi ³³ tɕi ³³ o ²¹
[7-62]	Golden babbler	tɕo ²¹ xo ³³ ɕɿ ⁵⁵
[7-63]	Puff-throated babbler	la ³³ bɿ ³³ a ³³ ma ³³ khɿ ⁵⁵ bu ⁵⁵
[7-64]	Scaly-crowned babbler	a ³³ dzi ³³ ɕo ²¹ ɕe ²¹
[7-65]	Spot-necked babbler	ŋa ³³ tɕhe ⁵⁵ ŋa ³³ xo ²¹
[7-66]	Streak-breasted scimitar babbler	a ³³ dzi ³³ tɕo ²¹
[7-67]	Yellow-eyed babbler	a ³³ dzi ³³ khɿ ²¹ ɕa ³³ mja ³³ ne ⁵⁵
[7-68]	Red-billed scimitar	tɕo ²¹ xo ³³ bo ²¹
[7-69]	Green-tailed sunbird, little spiderhunter	a ³³ dzi ³³ dza ³³ ɕe ³³
[7-70]	Mountain fulvetta	u ²¹ du ³³ xa ²¹ ɕe ³³ tshɿ ⁵⁵ phɿ ⁵⁵
[7-71]	Oriental white-eye	a ³³ dzi ³³ ɕi ⁵⁵ u ²¹
[7-72]	Striated yuhina	a ³³ dzi ³³ tɕi ²¹ mɕ ²¹
[7-73]	Brown shrike	a ³³ dza ³³ dza ³³ pjo ³³ lo ³³ ɕu ⁵⁵
[7-74]	Burmese shrike	dza ³³ la ²¹
[7-75]	Black drongo	dzi ⁵⁵ dzy ³³ phɿ ⁵⁵
[7-76]	Crow	ɕ ²¹ a ²¹
[7-77]	Oriental magpie robin	dɿŋ ⁵⁵ ta ²¹ dɿŋ ⁵⁵ ɕi ³³
[7-78]	Gray treepie	ja ⁵⁵ sa ²¹ ɿo ³³ di ⁵⁵ ɿo ²¹ da ³³
[7-79]	Common myna	lo ³³ pa ²¹ a ³³ dzi ³³
[7-80]	White-vented myna	dɕe ³³ ma ³³ a ³³ dzi ³³
[7-81]	Chestnut bunting	a ³³ dzi ³³ dza ³³ xo ²¹ xo ²¹ ne ³³
[7-82]	Sparrow	xa ²¹ dza ³³ 21
[7-83]	Eurasian tree sparrow	a ³³ dzi ³³ dza ³³ xo ²¹

7.1 /a³³dzi³³/ + X or X +/a³³dzi³³/

The word for “bird” in Akha Buli is generally /a³³dzi³³/. As seen in Table 6, there are many bird names with /a³³dzi³³/, which either precedes or follows a certain morpheme. Table 7 lists more words that are preceded rather than followed by /a³³dzi³³/, which is interesting because if /a³³dzi³³/ is recognized as the head, the modifier is expected to precede the head noun in SOV languages like Akha Buli.²²

Table 7 summarizes the number of morpheme orders, as shown in Table 6.

²¹ Hayashi (2016) describes the last syllable’s tone as 55, which is corrected to 33 in this paper.

²² Nathan Badenoch (pc.) shared an interesting fact with me: the names for Sida fish are structured in the same way.

Table 7: /a³³dzi³³/ + X or X +/a³³dzi³³/

Morpheme order	Number of words
/a ³³ dzi ³³ / + X	24
X + /a ³³ dzi ³³ /	5

This lets us determine that the preceding /a³³dzi³³/ is a kind of categorial marker, which can be the same as /bø²¹/ in “stag beetle” /bø²¹thε²¹/ [5-8], and /ŋa²¹/ in “fish” /ŋa²¹ea²¹/ [6-5], etc.

7.2 Egrets and Sandpipers

The word for “common sandpiper” is /ɣ⁵⁵dzø²¹ɣ⁵⁵ɣa³³/ [7-13], the internal morphological structure of which is difficult to analyze; however, it should be noted that this word is also employed in the words for “little egret” /ɣ⁵⁵dzø²¹ɣ⁵⁵ɣa³³phju⁵⁵/ [7-1] and “Pacific reef egret” /ɣ⁵⁵dzø²¹ɣ⁵⁵ɣa³³na³³/ [7-2]. The last two words’ final syllables (/phju⁵⁵/ and /na³³/) denote the colors “white” and “black,” respectively.

7.3 Crows, Ducks, and Geese

One of the word complications in Akha Buli lies in the difference between “crow” and “duck.” In general, these two birds are quite easy to distinguish, considering their respective shapes and habitats. However, Table 6 shows that the words for “crow” and “duck” in this variety of Akha Buli are /ɔ²¹a²¹/ [7-76] and /ɔ³³a³³/ [7-3], respectively, with slightly different tones. It is arguable that both words were coined mimetically, but this type of naming is very confusing.

As listed in [7-4] of Table 6, the word for “goose” is /jɣ³³kha³³ɔ³³a³³/, which can be a type of duck. The first two syllables may be a kind of adjective, though the meaning is unclear at present.

7.4 Eagles, Hawks, Cuckoos, and Vultures

Eagles, hawks, cuckoos, and vultures are generally recognized as distinct, but in Akha Buli, their names all contain /xa²¹dze⁵⁵/ within their lexical domains.

/xa²¹dze⁵⁵/ itself means “hawk” [7-5]. The author’s language consultants described this word as denoting both “eagle” and “hawk.” The word for “cuckoo” is /a³³dzi³³xa²¹dze⁵⁵/ [7-19], preceding /a³³dzi³³/ “bird” with /xa²¹dze⁵⁵/, which is literally translated as “hawk-like bird.” On the other hand, the word for “white-rumped vulture” /ŋo²¹bu³³xa²¹dze⁵⁵/ [7-6] also contains /xa²¹dze⁵⁵/, although the meaning of the first two syllables remains unclear at the moment.

The word for “vernal hanging parrot” /a³³dzi³³xa²¹dze²¹/ [7-18] looks similar to “cuckoo,” but these two words are actually different. The former word may come from the sound of the bird’s call.

7.5 Doves and Pigeons

The English terms “dove” and “pigeon” are both translated into *hato* ハト in Japanese and are generally recognized as belonging to the same group. The author’s linguistic consultants answered /ea³³mi³³xo²¹xø²¹/ [7-14] when they were asked what they generally call a “dove/pigeon” in Akha Buli. The last two syllables of this word

are also found in the first two syllables of the word for “red-collared dove” /xɔ²¹xø³³lɔ⁵⁵dzu⁵⁵/ [7-17]. The morpheme order is different, but they are closely related. /xɔ²¹xø³³/ can be a generic term for “dove” in this language.

Another type of “dove/ pigeon” to be noted is /xa²¹go³³/, which is found in the words for “mountain imperial pigeon” /xa²¹go³³xɔŋ²¹/ [7-15] and “thick-billed green pigeon” /xa²¹go³³ŋy⁵⁵/ [7-16]. The meaning of /xɔŋ²¹/ is uncertain at the moment; however, /ŋy⁵⁵/ means “green.”

7.6 Orange-Breasted Trogons

The name for “orange-breasted trogon” is /ŋa³³zɔ²¹/ [7-24], which is interesting for comparison with Youle Jino’s /ŋa³³zɔ⁵⁵/ (Hayashi 2009) and written Burmese’s *hngak* ငှက် (Harada and Ohno 1979). These forms in Youle Jino and written Burmese constitute a generic term for birds, which is /a³³dzi³³/ in Akha Buli. This is a type of semantic narrowing, from a generic term to a specific type, which can also be seen in the shift from Old English’s *fugol* to Modern English’s *fowl* (Campbell 1999: 255).

7.7 Buntings, Broadbills, Shrikes, Sparrows, Spiderhunters, Sunbirds, and Wagtails

Some species of buntings, broadbills, shrikes, sparrows, spiderhunters, sunbirds, and wagtails share the morphological structure /a³³dzi³³+ dza³³+X/ in Akha Buli.

The first focus will be on the word for “sparrow” /xa²¹dza³³/ [7-82], in which the first syllable is a kind of animal prefix, as will be discussed in Section 8. The second syllable /dza³³/ specifically denotes “sparrow,” which can be considered a prototype of the /dza³³/ group.

Second, we should pay attention to the word for “Burmese shrike” /dza³³la²¹/ [7-74], which can be considered to consist of /dza³³/ + /la²¹/. /la²¹/ in this word may be related to the word for “tiger” /xa²¹la²¹/. The word for “grey bushchat” /dza³³la²¹phr⁵⁵/ [7-57] leads us to believe that the animal is recognized as a kind of Burmese shrike. The last syllable /phr⁵⁵/ corresponds to the root *yaw pui*^V (/jɔ pú/), meaning “a light blue, a gray blue” in KT Akha (Lewis 1968: 338).

The broadbill is a member of the /dza³³/ category. The words for “long-tailed broadbill” and “silver-breasted broadbill” are /dza³³tchi⁵⁵ma⁵⁵/ [7-34] and /dza³³tchi⁵⁵xa²¹/ [7-35], respectively. Davidson (2009: 73) describes the former as being 24–27 cm, while the latter is 16–17 cm; hence the former contains /ma⁵⁵/ meaning “big” in the last syllable. It is interesting to note that the word for “forest wagtail” is /a³³dzi³³dza³³tchi⁵⁵/, which also belongs to the same group.

The word for “Eurasian tree sparrow” is /a³³dzi³³dza³³xo²¹/ [7-83], which shares its word form with /a³³dzi³³dza³³xo²¹xo²¹ne³³/ meaning “chestnut bunting” [7-81]. Both species are the same size, around 14 cm (Davidson 2009: 131, 137), and the chestnut bunting’s hair looks crimson, as reflected in the last syllable /ne³³/ meaning “red.”²³

The green-tailed sunbird and the little spiderhunter are referred to using the same name /a³³dzi³³dza³³le³³/ [7-69], also in the /dza³³/ group. Davidson’s (2009:

²³ Normally the word for ‘red’ is articulated as /ne⁵⁵/, while in some cases, the tone is replaced with /33/, as in this bird name.

128, 129) photos show that the female green-tailed sunbird is very similar in appearance to the little spiderhunter.

The author's language consultants called the brown shrike and the scarlet minivet /a³³dza³³dza³³pjɔ³³lɔ³³œu⁵⁵/ [7-73] and /a³³dza³³dza³³pjɔ³³lɔ³³ne⁵⁵/ [7-40], respectively. It is difficult to analyze the function of each morpheme, though these two species are also in the /dza³³/ group, and the last syllables, /œu⁵⁵/ and /ne⁵⁵/, denote the colors "yellow" and "red," respectively.

8. The Morphology and Semantic Structure of Akha Buli Faunal Terms

8.1 Monosyllabic Elements

The roots of the Tibeto-Burman languages were originally monosyllabic (Benedict 1972, among others), although most have undergone word disyllabification. The Akha Buli language is one of them, but some faunal morphemes can be picked up as monosyllabic ones, which are considered life forms or widely-used generic (G) level taxa in their zoological naming system (Chamberlain 1977), as summarized in Table 8 below.

Table 8: Monosyllabic Elements of Life Forms and G-level taxa in Akha Buli

xo ³³ "mouse, rabbit" [LF]	ŋa ²¹ "fish" [LF]	bø ²¹ "bug" [LF]	
mjɔ ²¹ "monkey" [G]	ŋo ²¹ "buffalo" [G]	ɣa ²¹ "pig" [G]	bja ²¹ "bee" [G]

Most of the life forms correspond to the relevant scientific classification, but there are some exceptions. As mentioned in Section 6, the word for "turtle" /bø²¹ku²¹/ [6-3] contains the life form "bug."

Additionally, note that there are a few monosyllabic words in the Akha Buli faunal lexicon, such as /ja²¹/ meaning "southern serow" [4-52], /ɣɣ³³/ meaning "Siamese fireback" [7-11], etc., which are varietal-level terms (Berlin et al. 1973), rather than life forms.

8.2 Polysyllabic Words

8.2.1 Prefixation

8.2.1.1 /a-, a-/

The prefixation of /a-, a-/ is common in the disyllabic morphology of Akha Buli fauna, as exemplified in Table 9.

Table 9: Samples of /a-, a-/ Prefixed Terms in Akha Buli

a ²¹ khu ²¹ "dog"	a ²¹ ŋo ²¹ "buffalo"	a ³³ mjɔ ²¹ "monkey"	a ²¹ xɔŋ ⁵⁵ "Malay civet"
a ²¹ ɣa ²¹ "pig"	a ³³ xo ³³ "ant"	a ³³ lu ³³ "butterfly"	a ²¹ dzɛ ²¹ "cicada"
a ²¹ kha ²¹ "crab"	a ²¹ ŋo ³³ "snail"	a ³³ lɔ ³³ (ma) ³³ "snake"	a ³³ dzi ³³ "bird"

As seen in Table 9, /a-, ɔ-/ is prefixed to a wide range of animal names, hence the root is definitely a semantic head, which is arguable based on the evidence presented in Table 10 below. Data from Sangkong (Li 2002), which is a Loloish language in Yunnan province, are added for comparison.

Table 10: Corresponding Sets of Some Faunal Words With /a-, ɔ-/ in Akha Buli

Languages	“Cat”	“Dog”	“Monkey”	“Crab”	“Bird”
Akha Buli	a⁵⁵mi⁵⁵	ɔ²¹khu²¹	a³³mjo²¹	ɔ²¹kha²¹	a³³dzi³³
KT Akha	a ^v mi ^v	a ^v kui ^v	a ^v myo ^Λ	a ^v ka	a ^v ji ^v
ML Akeu	ɔ ³³ mi ³³	ku²¹	a ⁵⁵ mɔ ²¹	a ⁵⁵ kje ³³	kja²¹
Sida	mí-mí	mó-khù	[hɣ-pɣ]	pì-khja	khì-jà
Youle Jino	jo ³³ mɛ ⁵⁵	khur³³ɲi⁵⁵	xo ³³ mɔ ⁵⁵	pu ⁵⁵ khjɔ ⁴⁴	[ɲa ³³ zɔ ⁵⁵]
Sangkong	a ⁵⁵ mi ⁵⁵	khur³¹	mjo³¹	[laŋ ⁵⁵ to ³¹]	[ha ³³ ŋga ³¹]
WB	[kronj]	khwei:	myok	ga-nan:	[hngak]
PL	[*k-roŋ ¹]	*kwe ²	myok ^L	*ga/ kya ³	[s-ŋyak ^H]

Table 10 illustrates corresponding sets of some Akha Buli faunal terms with /a-, ɔ-/. The syllables in bold face can be viewed as the roots. Table 10 shows that most forms of these faunal terms are disyllabic words, but the prefixation of /a-, ɔ-/ occurs freely in the related languages. This leads us to speculate that Akha Buli may have undergone prefixation after its divergence from other Loloish languages.²⁴

8.2.1.1 /xa²¹-/

There are a variety of faunal terms that begin with /xa²¹/, as exemplified in Table 11 below.

Table 11: Disyllabic Akha Buli Faunal Terms Beginning With /xa²¹/

/xa²¹dzi²¹/ “leopard” [4-28], /xa²¹la²¹/ “tiger” [4-29], /xa²¹xm⁵⁵/ “bear” [4-39], /xa²¹dzɛ³³/ “sambar (deer)” [4-51], /xa²¹pha²¹/ “frog” [6-4], /xa²¹dze⁵⁵/ “hawk” [7-5], /xa²¹go³³/ “pigeon” [7-15/ 16], /xa²¹dza³³/ “sparrow” [7-82]

This list may lead us to believe that these words are compounds that include /xa²¹/, but the meaning of /xa²¹/ is uncertain. Interestingly, it does not co-occur with insect morphemes. James R. Chamberlain (p.c.) pointed out that the commonality among the animals with /xa²¹/ in their names is that they are prominent or well known. In

²⁴ Nathan Badenoch (p.c.) gave me reason to agree that this holds true in the Akoid languages in general.

his KT Akha dictionary, Lewis (2008: 243) explains that *k'av* (/xà/) means “type of spirit which enters people and makes them gasp for breath,” which may not be directly related to the morpheme /xa²¹/ here.

The words listed in Table 12 can appear in corresponding sets, as shown.

Table 12: Corresponding Sets of Some Faunal Words With /xa²¹-/ in Akha Buli and Lolo-Burmese

Languages	“Bear”	“Tiger”	“Frog”
Akha Buli	<i>xa²¹xm⁵⁵</i>	<i>xa²¹la²¹</i>	<i>xa²¹pha²¹</i>
KT Akha	k ⁷ a _v hm ^v	k ⁷ a _v lav	k ⁷ a _v pav
ML Akeu	ɔ ³³ mi ³³	dza ²¹ la ²¹	pa ²¹ ja ²¹
Sida	[â-á]	la-ma	phà-nṅ
Sangkong	-----	qha ³¹ la ³¹	pha ³¹ ŋga ³¹
Youle Jino	a ³³ ø ⁵⁵	lɔ ⁵⁵ mu ⁴⁴	phɔ ⁵⁵ thɛ ⁴⁴
Lahu	yè=mí=tī	lâ	pā
WB	wam	kyaa:	phaa:
PL	*k-d-wam ¹	*k-la ²	*k-ʔ-pa ²

Table 12 illustrates clear correspondences between the second syllable of Akha Buli forms and the syllables that are written in bold face in other Lolo-Burmese languages. The italicized Akha Buli forms *xa²¹* can be dated back to the Proto-Loloish prefix *k- (Bradley 1979: 116), which is discussed in Benedict (1972: 2), Matisoff (1973, 2003), and others as an “animal prefix.” Arguably, in modern Akha Buli, /xa²¹-/ remains an animal prefix, though, unlike its status in the other Akha dialects, it is no longer productive.^{25, 26, 27, 28}

²⁵ One of the languages near the middle Mekong region, in which faunal terms are manifested as relic forms of this animal prefix *k-, is Sedang [Bahnaric, Austroasiatic; Kon Tum province, Vietnam] (Smith 1975). In Sedang, a certain number of faunal terms begin with /k-/, /ko-/, /kl-/, etc.

²⁶ In a Thailand variety of Akha, Hansson (2003: 240) noted that “[S]ome prefixes are limited to certain kinds of animals, [such] as *bò-* for many insects, *ho-* for rats and rodents, *ŋà-* for fishes [*sic*] (<*ŋà-sjhà* ‘fish’) and *xhà-* for some birds and beasts: *xhà-hm* ‘bear,’ *xhà-là* ‘tiger,’ *xhà-xhò* ‘dove,’ *xhà-phà* ‘frog.’”

²⁷ There are several words with /xa²¹/ at the word-final, like /xo³³xa²¹/ meaning “brush-tailed porcupine” [4-19], /bø³³xa²¹/ meaning “bat” [4-24], /tchi⁵⁵xa²¹/ meaning “muntjac” [4-50], etc. They may be related to each other or to the change of the prefix /xa²¹-/, which demands further analysis. Note that with regard to Thailand’s Akha, Hansson (2003: 240) noted that *hà* (which can be related here) in *bò-hà* for “bat” has no clear meaning.

²⁸ Kurabe (2019) discussed another animal prefix *s- at the Proto-Tibeto-Burman stage (Benedict 1972: 106—108, Matisoff 2003: 102) and recognized that it is reflected as /ɛə-/ ~/jə/ in some mammals’ and anthropods’ names in Jinghpaw [Tibeto-Burman; Myanmar, China]. This type of animal prefix is not currently found in Akha Buli.

8.2.2 Compounding

There are many compounding words among the Akha Buli faunal terms that can be morphologically analyzed, as shown in Table 13 below.

Table 13: Compounding and Polysyllabic Words in Akha Buli

Syllable		Patterns	Structure
Disyllable	[1]	AB	A+B
Trisyllable	[2]	AAB	AA+B
	[3]	ABC	AB+C
Quadrisyllable	[4]	AABC	AA+BC
	[5]	ABBC	AB+BC
	[6]	ABAC	AB+AC
	[7]	ABCD	AB+CD
Pentasyllable	[8]	ABCDE	AB+CD+E
	[9]		AB+C+DE
Hexasyllable	[10]	ABCDEF	AB+CD+EF

In general, the polysyllabic words among the faunal terms have semantic structures such as {category (Life form) + X}. The first element normally has two syllables, although it is monosyllabic in disyllabic words. This refers to the animal's category (or life form marker). The slot X functions as a kind of modifier and has semantic varieties, such as size, color, ecological situation, and metaphor, which are described in the following subsections.²⁹

8.2.2.1 X = Size

The words with the X element denoting size normally have three or more syllables³⁰ in Akha Buli, such as /a³³lɔ³³**ma**³³/ meaning “(big) snake” [6-2], /xa²¹dze³³dze³³**ma**³³/ meaning “big hawk,” /xa²¹dze³³dze³³**za**³³/ meaning “small hawk,” etc. The last morphemes in these examples, namely /ma³³/ (sometimes /ma³³/) and /za³³/, represent size, that is, “big” and “small,” respectively.

8.2.2.2 X = Color

The morpheme denoting color can be found rather frequently in Akha Buli faunal terms, though most have more than two syllables, for instance, /a³³mjo²¹**na**³³/ meaning “agile gibbon” [4-4], /xo³³bjɔ³³**phɣ**⁵⁵/ meaning “arrowed-tailed flying squirrel” [4-10], /xu²¹tea²¹**phju**⁵⁵/ meaning “moonrat” [4-23], /a³³mjo²¹**cu**⁵⁵/ meaning “pileated gibbon” [4-5], /a³³dzi³³dza³³xo²¹xo²¹**ne**³³/ meaning “chestnut bunting” [7-81], /xa²¹go³³**ny**⁵⁵/ meaning “thick-billed green pigeon” [7-16], etc. The

²⁹ Japanese also employs metaphors and metonymies for the semantic extension of faunal and floral terms, like *hotaruika* ホタルイカ meaning “firefly squid” (*hotaru* ホタル “firefly” + *ika* イカ ‘squid’), *akame* アカメ meaning “Japanese lates” (*aka* アカ “red” + *me* メ “eye”), etc. (Nagasawa 2019).

³⁰ The word for “elephant” is /ja³³ma³³/ [4-1], the first syllable of which can be dated back to Proto-Loloish **ɣa*³ (Bradley 1979), while the second syllable means “big.” This may be an exceptional case.

last syllables of these words contain color terms that mostly describe the color of a particular animal's coat: /nǎ³³/ meaning “black,” /phju⁵⁵/ meaning “white,” /ɛw⁵⁵/ meaning “yellow,” /ne³³/ meaning “red,” /ŋy⁵⁵/ meaning “green,” etc.

8.2.2.3 X = Ecological Situation

As in many other languages, the ecological situation is also involved in Akha Buli faunal terms' word formation.

For instance, /u⁵⁵tɛy²¹/ in /u⁵⁵tɛy²¹bø²¹muŋ⁵⁵/ for “diving beetle” [5-6] means “water,” which is a reference to the insect's habitat. Similarly, the first two syllables of /ŋo²¹tehe²¹bø²¹lɔŋ³³/ for “earth-boring dung beetle” [5-9] literally mean “buffalo feces, which describes what the insect usually carries in the field.

/dɛ³³ma³³/ meaning “irrigated field” (Hayashi 2016) is also added to several faunal terms like /dɛ³³ma³³ɣ³³dzø²¹/ for “sarus crane” [7-12], /dɛ³³ma³³a³³dzi³³/ for “white-vented myna” [7-80], etc.

8.2.2.4 X = Metaphor

Metaphors are also employed in Akha Buli faunal terms' word formation. The words for “striated yuhina” and “violet cuckoo” are /a³³dzi³³tɛj²¹mɛ²¹/ [7-72] and /a³³dzi³³ŋa²¹ɛa²¹/ [7-20], respectively. /tɛj²¹mɛ²¹/ and /ŋa²¹ɛa²¹/ mean “goat” and “fish,” respectively, hence these birds' names are literally translated as “goat-like bird” and “fish-like bird,” respectively.³¹

8.2.3 Reduplication

Among Akha Buli faunal terms, there are some words that feature either full or partial reduplication.

Full reduplication is rarely found, but it does exist in some cases. For example, the word for “*Tettigonia orientalis*” /ɔ²¹tshɔ³³ɔ⁵⁵tshɔ²¹/ [5-22] has undergone full reduplication, although the tones of the latter two syllables are different from the first two. Further, the word for “millipede” is /bø²¹bø²¹la²¹xɪŋ⁵⁵/ [5-37], the reduplicated first syllable of which means “bug.”

It should be noted that ABBC and ABAC, as listed in Table 13, are not reduplicated words because the third syllable is set up as the host for the last syllable, which is a kind of modifier.

Partial reduplication is more frequent than full reduplication, but the former's morphology has a special feature. This is the type of partial reduplication that copies the rhyme in the second or third syllable, with /l/ as the onset. This sort of reduplication is also attested in the surrounding Loloish languages, such as Sida

³¹ James R. Chamberlain (p.c.) pointed out that there is a semantic convention in which when two animals or plants are involved, certain categories take precedence; that is, you can have a “goat bird,” but not a “*bird goat.” He also noted that fish and birds are equal because since they are both life forms, it does not matter. This type of cosmological ordering—“Where physical characters are concerned, plants may be named after animals, but animals may not be named after plants.”—in Proro-Tai zoology is discussed in Chamberlain (1977: 25). The author has not yet discovered such a word order, though this is an interesting topic for further analysis with regard to Akha Buli.

(Badenoch 2019) and Youle Jino (Hayashi 2009).³² Among the Akha Buli fauna terms, the words for “short-nosed fruit bat” [4-25] and “carpenter bee” [5-3] both copy the rhyme of the second syllable (/a/ and /ɲŋ/, respectively), with /l-/ as the onset in the third syllable (/bø³³xa²¹l²¹tsɛ³³/ ³³ and /bja²¹xŋ²¹l²¹ŋ²¹m²¹ma³³/, respectively).

8.2.4 Mimetics

The wordlists presented in this paper provide some mimetic/onomatopoetic faunal terms in Akha Buli, which are named after animals’ calls, such as /a⁵⁵mi⁵⁵/ for “cat” [4-27], /a²¹dze²¹/ for “cicada” [5-15], /ɔ³³a³³/ for “duck” [7-3], /dy³³dy³³/ for “greater coucal” [7-21], /ei³³ei³³eu⁵⁵/ for “orange-headed thrush” [7-46],³⁴ /ei³³ei³³bɔ³³/ for “scaly thrush” [7-47], /ɔ²¹a²¹/ for “crow” [7-76], etc. /dy³³dy³³/ and /ei³³ei³³/ are reduplicated to represent each call’s salient feature, as discussed in Badenoch (2019: 53).

9. Concluding Remarks

This paper described the faunal terms of the Akha Buli language by utilizing the results of the author’s fieldwork. The author mentioned some similarities and differences within the data pertaining to KT Akha that are presented in Lewis (1968, 2008). This is the first fruit of the synchronic and diachronic analyses of the Akha Buli language’s internal faunal system. Like other Akha dialects, Akha Buli also retains the relic form of the animal prefix *k-, which was reconstructed at the Proto-Loloish stage. Similar to the other Middle Mekong languages, Akha Buli also utilizes compounding, reduplication, and mimetics to create faunal terms. Compounding includes metaphorical extension in semantics, which should be explored in more detail in future studies.

It could be misunderstood that the excavation of faunal terms seems to merely document a certain small portion of the lexicon, but those who are engaged in zoological linguistics recognize that they are not. Describing and analyzing faunal terms in a given language requires a full understanding of the ecology in the language’s speaking area and comprehensive lexical data on non-faunal terms as well. The problems that remain regarding Akha Buli faunal terms require more extensive fieldwork and finer analyses from the descriptive and historical linguistic perspectives.

Data Sources

Akha Buli [Loloish, Lolo-Burmese, Tibeto-Burman; Luang Namtha, Laos]: Hayashi (2016), Hayashi’s field notes

Akha Puli variety of Kengtung [Loloish, Lolo-Burmese, Tibeto-Burman; Shan State, Myanmar]: Lewis (1968) (N.B. Phonological transcription by the author.)

³² In Youle Jino, this is called ‘l-reduplication,’ which, in some cases, functions as an adjective intensifier (Hayashi 2009).

³³ The creaky vowel occurs sporadically, probably due to the influence of the creaky rhyme in the Akha Buli syllable that immediately follows.

³⁴ /ei³³ei³³eu⁵⁵/ consists of /ei³³ei³³/ meaning “thrush” + /eu⁵⁵/ meaning “yellow.”

- Lahu** [Loloish, Lolo-Burmese, Tibeto-Burman, Chiang Rai, Thailand; Matisoff (2006)]
- Lao** [Southwestern Tai, Tai-Kadai, Laos, and Northeastern Thailand]: Kerr (1972)
- Lisu** [Loloish, Lolo-Burmese, Tibeto-Burman; China, Myanmar, Thailand]: Bradley (1994)
- Proto-Loloish**: Bradley (1979)
- Menglun Akeu** [Loloish, Lolo-Burmese, Tibeto-Burman; Sipsongpanna, Yunnan, China]: Hayashi and Gao (2019)
- Saek (At Samart dialect)** [Northern Tai, Tai-Kadai; Nakhon Phanom, Thailand]: Hayashi (2019).
- Sangkong** [Loloish, Lolo-Burmese, Tibeto-Burman; Sipsongpanna, Yunnan, China]: Li (2002)
- Sida** [Loloish, Lolo-Burmese, Tibeto-Burman; Luang Namtha, Laos]: Badenoch (2019)
- Tai Lue** [Southwestern Tai, Tai-Kadai, Chiang Mai, Thailand]: Hanna (2012)
- Written Burmese** [Burmish, Lolo-Burmese, Tibeto-Burman, Myanmar]: Harada and Ohno (1979)
- Youle Jino** [Loloish, Lolo-Burmese, Tibeto-Burman; Sipsongpanna, Yunnan, China]: Hayashi (2009), Hayashi's field notes

Abbreviation

KT Akha: Akha Puli variety of Kengtung, Shan State, Myanmar, PL: Proto-Loloish, PLB: Proto-Lolo-Burmese

References

- Badenoch, Nathan. 2019. The Ethnopoetics of Sida Animal Names. In Norihiko Hayashi (ed.), *Topics in Middle Mekong Linguistics*:39-73. Kobe: Research Institute of Foreign Studies, Kobe City University of Foreign Studies.
- Benedict, Paul K. 1972. *Sino-Tibetan: A Conspectus*. Cambridge: Cambridge University Press.
- Berlin, Brent. 1972. Speculations on the growth of ethnobotanical nomenclature. *Language in society* 1: 51—86.
- Berlin, Brent, Dennis E. Breedlove and Peter H. Raven. 1973. General Principles of Classification and Nomenclature in Folk Biology. *American Anthropologist* 75: 214—242.
- Bradley, David. 1979. *Proto-Loloish*. London and Malmö: Curzon Press.
- _____. 1994. *A dictionary of the northern dialect of Lisu (China and southeast Asia)* (Pacific Linguistics Series, C-126). Canberra: Australian National University.
- _____. 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—71. Canberra: The Australian National University.
- Campbell, Lyle. 1999. *Historical Linguistics: An Introduction (2nd Edition)*. MIT Press.
- Chamberlain, James R. 1977. An Introduction to Proto-Tai Zoology. Ph.D. Dissertation. University of Michigan, Ann Arbor.

- Davidson, Peter. 2009. *A Photographic Guide to Birds of Vietnam, Cambodia and Laos*. London: New Holland Publishers.
- Francis, Charles M. 2001. *A Photographic Guide to Mammals of Thailand & South-East Asia: Including Thailand, Malaysia, Singapore, Myanmar, Laos, Cambodia, Vietnam, Java, Sumatra, Bali and Borneo*. Bangkok: Asia Books.
- Hanna, William J. 2012. *Dai Lue-English Dictionary*. Chiang Mai: Silkworm Books.
- Hansson, Inga-Lill. 1989. *A comparison of Akha, Hani, Khatu, and Pijo. Linguistics of Tibeto-Burman Area* 12.1:1-91. Accessed via STEDT database <<http://stedt.berkeley.edu/search/>> on 2020-06-12.
- . 2003. Akha. In Graham Thurgood and Randy J. LaPolla (eds.), *The Sino-Tibetan Languages*. pp. 236-251. London: Routledge.
- Harada, Masaharu (原田正春) and Ohno Tohru. (大野徹) 1979. *Biruma-go Ziten*. 『ビルマ語辞典』 (*A Burmese-Japanese Dictionary*.) Osaka: Nihon Biruma Bunka Kyoukai.
- Hayashi, Norihiko. (林範彦) 2009. *Tino-go Bunpou (Yuuraku Hougen) no Kizytukenkyuu*. 『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)*) Kobe: Research Institute of Foreign Studies, Kobe City University of Foreign Studies.
- . 2016. A Phonological Sketch of Akha Buli: A Lolo-Burmese language of Muang Sing, Laos. *Researches in Asian Languages* Vol.10 (Annals of Foreign Studies Vol. 92): 67—98. v Kobe: Research Institute of Foreign Studies, Kobe City University of Foreign Studies.
- . 2019. Notes on Faunal Terms in At Samart Saek. In Norihiko Hayashi (ed.), *Topics in Middle Mekong Linguistics*.: 97-119. Kobe: Research Institute of Foreign Studies, Kobe City University of Foreign Studies.
- Hayashi, Norihiko (林范彦) and Gao Xiang. (高翔) 2019. Zhongguo Yunnansheng Menglun Akeyu Yinxi Jianjie. 《中国云南省勐仑阿克语音系简介》 (“A Phonological Sketch of Menglun Akeu, Yunnan, China.”) *The Kobe City University Journal* Vol. 70 No.1: 37-66.
- Hudak, Thomas John. 2008. *William J. Gedney's Comparative Tai Source Book*. University of Hawai'i Press.
- Iwasa, Kazue. (this volume) A Preliminary Report on Entomological Vocabulary in Sani Yi. In Norihiko Hayashi (ed.), *Topics in Middle Mekong Linguistics* 2. Kobe: Research Institute of Foreign Studies, Kobe City University of Foreign Studies.
- Katsura, Makio. 1970. An Outline of the Structure of the Akha Language (Part 1): Introduction and Phonemics. *Tonan Ajia Kenkyuu* 8 (1): 16—35. (<http://hdl.handle.net/2433/55609>).
- Kerr, Allen D. 1972. *Lao-English Dictionary*. Bangkok: White Lotus.
- Kingsada, Thongpheth and Tadahiko Shintani. 1999. Ko-Puli. In Thongpheth Kinsada 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.

- Koike, Keiichi. (小池啓一) (et al. eds.) 2010. *NEO POCKET Kontyuu*. 『NEO POCKET 昆虫』 [*Mini Photographic Guide to Insects for Elementary School Children*. (in Japanese)] Tokyo: Shogakukan.
- Kurabe, Keita. 2019. Animal nomenclature in Jinghpaw. In Norihiko Hayashi (ed.), *Topics in Middle Mekong Linguistics*: 75-95. Kobe: Research Institute of Foreign Studies, Kobe City University of Foreign Studies.
- Lewis, Paul. 1968. *Akha-English Dictionary*. Data Paper No.70. Ithaca : Southeast Asia Program, Dept. of Asian Studies, Cornell University.
- _____. 2008. *Akha-English-Thai Dictionary*. Chiang Rai: Development of Agricultural Project for Akha (DAPA), Akha Foundation
- Li, Yongsui. (李永燧) 2002. *Sangkongyu Yanjiu*. 《桑孔语研究》 Beijing: Zhongyang Minzu Daxue Chubanshe.
- Luangthongkum, Theraphan. 2013. *A view on Proto-Karen phonology and lexicon*. (unpublished ms. contributed to STEDT). Accessed via STEDT database <<http://stedt.berkeley.edu/search/>> on 2020-08-20.
- Nagasawa, Itsuki. (永澤濟) 2019. Seibutu no wamei/ zokumei ni okeru imikatutyuu. 「生物の和名・俗名における意味拡張」 (“Semantic extension in the Japanese original names and popular names of fauna and flora.”) In Yuuichi Mori, Yoshiki Nishimura and Haruka Hasegawa (eds.), *Nintigengogaku wo tumugu*. 『認知言語学を紡ぐ』 pp. 93—114. Tokyo: Kuroshio Syuppan.
- Matisoff, James A. 1973. Tonogenesis in Southeast Asia. In Larry M. Hyman (ed.), *Consonant Types and Tone*. pp. 71-96. Los Angeles: University of California.
- _____. 2003. *Handbook of Proto-Tibeto-Burman*. Berkeley: University of California Press.
- _____. 2006. *English-Lahu Lexicon*. Berkeley: University of California Press.
- Smith, Kenneth D. 1975. The Velar Animal Prefix Relic in Vietnam Languages. *Linguistics of the Tibeto-Burman Area*. Vol. 2 No. 1: 1—18.

Acknowledgements

Dr. Nathan Badenoch and Dr. James R. Chamberlain both provided the author with many insightful comments and suggestions for this paper. The author expresses his deepest gratitude to these two experts. Any misunderstandings and errors that may be present in this paper are the author’s responsibility.