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Fishing the Uplands: A Linguistic Perspective on the Ethno-Ichthyology of Northern Laos

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CHAPTER 2

Fishing the Uplands: A Linguistic Perspective on
the Ethno-Ichthyology of Northern Laos

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[ABSTRACT]

The Bit people of northern Laos sometimes refer to themselves as the People of the Fishing Hook. This is a curious autonym for an upland ethnic group in Southeast Asia, who are most commonly known as forest people, with complex indigenous knowledge systems and worldviews encoded in their diverse languages. As livelihoods become increasingly stressed as a result of socio-economic and ecological transformations, the importance of local languages and local knowledge is paramount for their survival. This paper explores the fishing knowledge and practices of the Bit people of northern Laos – a rural population of approximately 2,400 people speaking an Austroasiatic language – discussing the confluence of history, livelihoods, social relations and construction of identity that can be observed through their language, language ideologies and linguistic practices. The prominence of fish is striking in the social, natural and cosmological worlds of the Bit. The natural and social ecologies of upland river systems differ from those of the lowland areas, and have remained unstudied. This paper is an investigation of the entanglements between technology, community and ritual, with a particular interest in how these social institutions are encoded in the Bit language. As a broad ethnographic study, the paper explores: representations of Bit identity, which are tied up with fishing, fish-naming practices, gender marking in aquatic lifeforms, mapping of technology to community institutions, linguistic clues to riverine cultural contact, taboos in linguistic change and expressive language used to describe fish.

1. Ecological knowledge: Language, livelihoods and worldviews

With rapid changes in the socio-economic landscape, the ecological setting for fishing is changing for the communities of upland Laos such as the Bit. Fishing is an integral part of the Bit livelihood system. Bit fishing practices are based on deep and intimate knowledge of their river ecosystems, while the language of fishing reflects the worldview of the Bit. Because uplanders in Southeast Asia are generally known as forest people, recent ethnographic accounts of human relations with nature have tended to look at "the hunter's dilemma" as a window on the cosmologies of upland people in Laos (Århem 2016; Springer 2016), while a larger ontological discussion of the need to move beyond anthropomorphic models of the people and their forests has sparked a question about 'how forests think' (Cohen 2013). A rare internal view on local hunting and fishing practices is provided by Kam Raw (Tayanin and Lindell 2012). He gives rich insights into hunting and fishing in the Kammu (Khmu) world,

an exposition of first-hand knowledge from one who spent the early part of his life hunting and fishing in the uplands of Luang Namtha province; he provides insights on the ecology, taxonomy, technology, management and ritual of these activities. His stories include chants, songs and sayings in Khmu. These help us understand these activities from the inside out, including important perspectives on the language of hunting and fishing. The Dictionary of Kammu Yuan (Svantesson et al 2014), which documents Kam Raw's encyclopedic eco-cultural knowledge, contains vast resources on the human-nature interactions of his people.

Knowledge of fish and aquatic ecosystems underpin the livelihood practices of many local communities in Laos. Indigenous or traditional knowledge of fish is also an integral part of these communities' cosmologies, particularly in the lowland societies that live so closely with the diverse hydrological systems of the areas. Ontological interfaces between local knowledge and Western scientific knowledge (Baird and Manorum 2019) are not always smooth or comfortable, but do offer critical and diverse perspectives on how human-environment interactions can be conceptualized. Indigenous knowledge is a broad framework, and there are many angles that can be taken in investigating how language, culture and ways of knowing map to ecological systems. In Laos, study of fishing culture has focused on the ethnic Lao living along the Mekong and its tributaries. These studies have looked at ecology, as well as local knowledge and practice, providing a useful framework for understanding the diverse human-river interactions in Laos (see for example, Roberts and Baird 1995).

In this paper, fish, aquatic ecosystems, fishing practices and technologies, ritual practices and other cultural institutions of the Bit people of upland northern Laos are considered. The analysis tries to offer two novel perspectives: that of uplanders as fishers, and that of language as a window on fishing culture. The Bit village in which this research was conducted is located in northern Luang Namtha province, not far from Kam Raw's village. While this paper is just a first step in the study of upland fishing among the Bit, it draws inspiration from the intertwined investigation of technology, community and ritual, with a particular interest on how these social institutions are encoded in the Bit language. As a broad ethnographic study, the paper explores

- representations of Bit identity, which are curiously tied up with fishing
- naming practices for fish
- gender marking in aquatic lifeforms
- mapping of technology to community institutions
- linguistic clues to riverine cultural contact
- taboos in linguistic change
- expressive language used to describe fish.

2. Fish and People: Beyond Livelihoods

The ethnic group that speaks the Bit language* in Luang Namtha, northwestern Laos, is happy to use the name Lao Bit, the one officially mandated by the government. Yet, they have other names for themselves that they use within the community, including the simple **psiij ʔii** ‘we people’ and **kbet**, a name that is now deemed to be pejorative because it includes the Tai word *kha* – they were formerly known as *Khabet* – which denotes slavery, or at least subservience, to the more powerful local Tai lords (See Badenoch and Tomita (2013) and Badenoch (2019a) for more on local ethnic relations in the history of Luang Namtha).

Another name they use for themselves is **tnrəəy** ‘fishing hook’, or more elaborately **tnrəəy ʔonŋ kək** ‘bent iron fish hook’. These are evasive terms, and classic examples of Bit language play. Although the etymology of **kbet** is not clear, *bet* is a Tai word that means ‘fishing hook’. The punned calque of the Tai *bet* and Bit **tnrəəy** reflects multilingual ideologies of language in which tabooed or evasive language is a survival strategy that draws upon a sense of cultural aesthetics. Play is a key element of Bit linguistic culture that has played an important role in deepening the lexicon of the language, creating layers of meaning, ambiguity and entertainment.

The evasive name is not simply a play on words, but is tied intricately into the diverse social mosaics in which the Bit live. Their position with the more numerous and powerful Tai groups is a key reference point. This excerpt from a traditional singing session was recorded during an annual ritual. The short text captures the sense of self, community and interethnic relations encoded in this playful term.

ʔiə tnrəəy ʔii dɛɛ	‘We Fishhook People’
noʔ bəɔn dai ʔɛɛ ʔii dɛŋ deɛ	‘Think of each other, wherever we live’
cap bə kndɛŋ ʔɛɛ ʔii maŋ deɛ yoʔ	‘If we meet on the road, let us greet each other’
ʔii bah kmlooc laʔ mɛɛn laaw	‘We won’t tell lies that we are Lao’
ʔii bah tɛʔ sawhaaw laʔ deɛ mɛɛn lii yoʔ	‘We won’t pretend like we are Lue’
tnrəəy ʔii ʔəə	‘We Fishhook People.’

Declaring that they will not try to pass themselves off as Tai (Lao or Lue) speaks to the long history of cultural contact and Bit proficiency in Tai languages. Yet, they will hide their real identity with a translingual pun on the name by which Others know them. Bit articulations of cultural intimacy (Herzfeld 2004) show how the role of language plays out in the complex balance of external discomfort and internal coherence that characterizes interethnic relations. It is worth pointing out that the concept of cultural intimacy is closely linked to poetics, a connection that should be taken quite literally in the case of the Bit. It is ironic that they use fishing as the main motif while they conceal that identity, because while the Bit and other Austroasiatic groups in Laos are viewed simple forest people, the Tai groups are well known for their elaborate and productive valley-bottom fishing. In courting songs, Bit men

* Bit words are given in phonemic notation; note that /-s/ is [-j^h].

often lament how their poverty, usually associated with agriculture, means they do not have anything to impress a woman and her parents with. In one such song, the performer Pheng recounts how the life of farming the mountain sides is difficult, but spending time together by the river is pleasant.

wa? po? paa cok kjaar dee	‘If I go looking for crabs with you’
?eer paa ?uuy bah pluə? yo?	‘Please don’t leave me behind’
yoo ?aac wa? cok m?uə po? paa dee	‘If I go looking for fish with you’
?eer paa ?uuy bah pla? yoo yo?	‘Please don’t abandon me.’

and if destiny does not allow it in this life, perhaps in the next

taa yoo ?aac paa ?at	‘If I die’
yoo kiət mləək co? rləəy no? po? paa	‘I will be reborn as a <i>mləək</i> and swim together with you’
yoo kiet syaa co? rləəy no? po? paa	‘I will be reborn as a <i>syaa</i> and swim together with you’
dee ?uuy siəm yat ?əəy	‘Oh, my beautiful.’

The fish imagery – catching crabs and fish together, being reborn as **mləək** or **syaa** (both small, common fish found in the rivers that Bit fish) to swim together – in performances like this is common, and underscores the important position of fish and river systems in Bit culture.

The Bit village of Bomphiang is one of two villages in Luang Namtha province, located along the Tung River, known in Bit as **nmtruuj** (from compound and reduction of the borrowed Tai word *nam* ‘river’ and *truuj*, which is probably the original name of the river in the Khmu language). The Tung River flows into the Tha River south of the village, and is fed by a number of mountain tributaries, many of which are seasonal. According to Bit narrative they left Black River valley during the times of revolt and disorder in the second half of the 19th century, arriving in Luang Namtha in the late 1890s (Badenoch 2019a). In post-harvest ritual, the Bit will ‘call the rice spirit and river spirit’ **kr?iə srmaal sɲoo srmaal roo**. Families entice the rice spirits to bring fish back to their houses:

m?uə	nmtaa	syaa	nmtɛɛ
fish (genl)	Namtha	fish (sp)	Black River

The general word for fish is **m?uə**, while **syaa** (*Acrossocheilus xamensis*) is a type of ray-finned fish known as *paa caat* in Lao, reported as being endemic to the Xam River in Huaphan province of Laos, but occurring in Northern Laos and Yunnan as well (Kottelat 2011).¹

¹ The significance of this fish may be deeper than this even. On the Nakai plateau, during the mast, the Brou say the *paa caat* eat the flowers of the bamboo (the one that only blooms

Fish are very important to Bit livelihoods, which today consist of upland and irrigated agriculture and rubber cropping, and supplemented by hunting, gathering forest products and fishing. Fishing does not contribute significantly to the cash income of the village, but it is an important source of protein. A quick trip to the village would not give the impression that the Bit are dependent upon aquatic ecosystems, but a more leisurely stay with households reveals the socio-economic importance of fisheries resources. It is increasingly difficult to hunt, with forest regulations, deteriorating forests and decreasing wildlife, making fishing all the more important. But the importance of fishing has a longer history than the recent environmental crisis. In the story of Nang Nok Kuak, a destitute man inherits only a throw net from his dying father, starting his life as an orphan. The net is at once a symbol of their poverty and an embodiment of his hopes for future prosperity.

The Bit use a range of fishing traps and nets, and employ a number of methods for damming and diverting rivers to catch fish. These fishing methods provide for the people, but recognize the seasonal variation and reproductive patterns of fish, ensuring that they are not depleted. As discussed below, fishing gear also indicates how social relations are recreated through fishing activities. Considered all together, these components of livelihood contribute to the collective expression of identity for these upland people.

3. Naming fish: Multilingual strategies

Fish culture is an integral part of oral tradition, and many aspects of this culture, as well as history, is encoded in the language. In the Bit language, a member of the Austroasiatic family, the general word for ‘fish’ *mʔuə* is an innovation from a historical perspective, probably a product of lexical change through tabooing. The old Austroasiatic word for fish *kaʔ survives in just a few species names.

The naming of fish is problematic in the field of taxonomy. The interlinkages between scientific, common and folk naming systems are not understood, and the complex systems that underpin folk naming systems are not fully appreciated by those who study fish (Jernudd and Thuan 2008). The complexity of local fish-naming practices stresses a problem that is not only crucial to ichthyology, but at the same time is important for the study of language itself, as stressed by Jernudd and Thuan (2008):

It is an empirical fact that there are well-motivated local (or otherwise founded) fish-name systems; by geographic region, between competing groups of fishermen, by ethnic group, by language, by genre, by situation of speaking, that is to say, according to parameters of sociolinguistic description of speech variation (238).

Because of the difficulty in eliciting and identifying fish (problems that severely constrain the current work as well), knowledge of local fish naming practices in

every 10 years during the mast), and metamorphosize into the *nou khwii* rats that devour the forest in great swaths (Jim Chamberlain, pers. com.)

Southeast Asia remains low outside of the large fishing communities and national languages of the Mekong. Recent work on fauna names, following in the tradition of Chamberlain (1975) has produced deep historical insights from comparative work on animal names (Chamberlain 2018; Chamberlain 2019a; Chamberlain 2019; Chamberlain this volume), valuable descriptive elaboration (Hayashi 2019; Kurabe, this volume) and the ethnopoetics of naming systems (Badenoch 2019b).

In the process of documenting the Bit language, from 2011 to the present, I found a large number of Bit names for fish and other aquatic life, and was struck by the many distinct names and lack of a common element meaning ‘fish’ in the names, as might be expected in the region. A total of 51 fish names, as well as other aquatic life, were recorded (and many eaten) with villagers at Ban Bomphiang, Luang Namtha. This was done by participating in small-scale fishing activities, conducting individual and group interviews, identification (from Kottelat 2001) and general discussion in the village about livelihoods. Basic fish were identified during fishing trips, according to what was caught. Scientific names given are those corresponding to photos used to identify them, in group discussions with knowledgeable individuals. Samples were not collected for identification, and villagers did not always know the Lao names, which in any case can vary by region, so there are significant gaps in the data. The information is analyzed as linguistic data, and not presented as an ecological or biological survey.

In the Bit language, there are three patterns of fish naming. The first are names composed of native Bit words and compounds. The second type of fish name uses the Austroasiatic morpheme *kaa* ‘fish’, followed by a descriptive modifier of Bit etymology. These fish names are the fewest of the three types. There is also some semantic overflow into other types of fauna. The third type is names borrowed from a local Tai language² such as Lao, or perhaps Tai Dam/Daeng or Lue, corresponding directly to the fish of that name. In a few cases, Bit morphology or lexical items are used to further modify the borrowed Lao name.

3.1 Fish with Bit names

This is the largest group of fish names. The size of this list demonstrates the importance of fishing to the Bit. They have been living in the area outside of Luang Namtha since the early 1890s, fishing in small and mid-size mountain streams as a key element of their livelihood strategies at the watershed divide between the Ou and Black River valleys. With thirty-one varieties identified in this category of what could be postulated to be ‘old’ names, it is likely that the Bit have been living in a similar aquatic-ecosystem for a very long time. It should be noted that the general term for fish *mʔuə* is never used as a life form element with an etymological fish name, as is the case with Tai languages’ use of FISH **plaa* (Chamberlain 1977), nor does it combine with a descriptive element.

² I refer to Tai languages in this paper, because the Bit have been in contact with Tai Dam, Tai Khao, Lue and Lao for centuries. It is not always possible to identify the specific origin, although many Tai borrowings may show old characteristics.

Table 1: Fish with native Bit names

Bit name	Lao name	scientific name	
slaap ree rɛŋ	paa laat	<i>Anguilla marmorata</i>	
kaan ree rɛŋ ree rɛŋ diip trɔɔc		<i>Abbottina rivularis</i> <i>Crossocheilus atrilemes</i>	kɔɔn ‘child’ diip trɔɔc ‘pointed mouth’
syaa syaa rɔɔk	paa caat	<i>Accrossocheilus xamensis</i> <i>Balantiocheilus melanopterus</i>	shark minnow rɔɔk ‘toad’
tliiŋ tliiŋ ʔɔɔc rmec dal		<i>Bangana elegans</i> <i>Garra caudofasciata</i> <i>Albulichthys albuloides</i> <i>Bangana elegans</i>	ʔɔɔc ‘red’
twar koom	paa lɔɔ	<i>Garra cyclostomata</i> <i>Hemibarbus labeo</i>	
srɛɛŋ srɛɛŋ rɔʔ srɛɛŋ tɔɔŋ	paa siw	<i>Opsarius pulchellus</i>	
trliiy trliiy jeek trliiy waak	paa phan paa buu	<i>Acanthopsoides gracilentus</i> <i>Pangio fusca</i>	alternative pronunciation trlii waak ‘earthworm’
trliiy luul			luul ‘stupid’ in this case large and awkward
trliiy bus			bus ‘dirt’ because lives near sandy beach areas and makes hole in the sand
blɔɔŋ clar		<i>Channa gachua</i>	type of small albino fish loach identity of fish is not currently known, the fish is a ritual taboo group
mlɔɔk sŋtoor	paa khɛɛm paa kot	<i>Clarias batrachus</i> <i>Clarias fuscus</i>	sntoor alternative pronunciation

			sn- morphology on toor ‘ear’?
crleem ʔuəy jaa ʔaap		<i>Rhinogobius milleri</i>	
cldəp poŋ ʔok ʔaak	mɛɛŋ khaa liəŋ	<i>Monotrete turgidus</i>	mistakenly classified, should be kaa?
crʔaap luəŋ		<i>Balitora kwangiensis</i>	crʔaap is expressive form, describing open mouth that provides suction, luəŋ ‘rock’
ʔaaŋ ʔuul		<i>Pseudomystus bomboides</i>	
jaar saa cldəp bas		<i>Akysis inermis</i> <i>Glyptothorax lampris</i>	‘bottom-rice steamer’, clings to the bottom of rocks
sntaa sŋaa			‘tail-rice’, small fish, sticks to rocks
baaŋ yaak srwɛɛr buu			eats raw meat type of small fish, found in the past, now disappeared from small streams

Within the 35 native Bit names, there are two groups: those with simplex etymological terms, and those with descriptive names. The latter group, including **cldəp bas** (‘bottom-rice steamer’), **crʔaap luəŋ** (‘mouth open-rock’), **sntaa sŋaa** (tail-rice) and others are not referred to as kaa, even though their names typologically resemble descriptive elements. It is possible that at some point in the past they were, but there is no evidence of this in current Bit usage. Some of these names cannot be glossed as distinct lexical words, for example **srlɛɛŋ** has two distinct varieties **srlɛɛŋ rəʔ** and **srlɛɛŋ tɔŋ**, but informants could not provide a meaning for the second elements, suggesting that they might be archaic or borrowed words.

3.2 Fish with kaa element

Six fish names with the Austroasiatic kaa element were collected. kaa is a very old word, reconstructed as proto-MK *kaʔ³, and known as the general word for fish across most of the Austroasiatic family. The word, as a distinct lexeme, is not present in the Bit language, but it does remain as a bound morpheme in the names of some fishes (and insects). The meanings of modifying element that follows kaa in these names are not clear, with the exception of ʔᵛᵛᵛ ‘red’. Nonetheless, the descriptive elements seem to be native Bit morphemes.

Table 2: Fish names with /kaa/

A very limited number of fish have names that are Bit, and resemble structurally the common Tai construction (see below).

Bit name	Lao name	scientific name	
kaa ʔᵛᵛᵛ		<i>Hypsibarbus pierrei</i>	‘fish-red’
kaan kaa ʔᵛᵛᵛ			‘child-fish-red’
kaa tiŋ			offspring of ʔok ʔaak
kaa daaŋ	pa khem		long, pointed mouth

In these names, kaa functions as the life form term, followed by the name element. **kaa ʔᵛᵛᵛ** is larger than the others in this group, and used as a source of food. Aside from ʔᵛᵛᵛ ‘red’, it is not possible to parse these names. It is interesting to note that kaa is also used for several insect names. kaa tiŋ is the offspring of ʔok ʔaak, which is classified as mɛɛŋ ‘insect’ in Lao. Other insects with kaa include kaa kᵛᵛ ‘flashing firefly’, and kaa dᵛᵛŋ ‘type of biting ant (large and small varieties)’ and kaa ruŋ ‘type of small lizard (L: cɪpᵛᵛm)’ *Calotes*. A working hypothesis is that this group of fish is somehow less intimate to the Bit, perhaps in that they are generally small suckers and not so important as sources of food.

3.3. Fish with Lao paa element in name

The common template for fish names in Tai languages involves the life form term FISH; {paa+name+(descriptor)}. As seen above, in the Bit case, the optional descriptor is not usually found. Fish names listed below are borrowed from Tai languages. Approximately one quarter of the fish known by the Bit fall into this category.

³ Austroasiatic reconstructions from Shorto, H. (et al.) (2006) *A Mon-Khmer Comparative Dictionary*. Canberra: Australian National University.

Table 3: Fish names with Tai paa

Bit name	Lao name	scientific name	
paa siw	paa siw	<i>Lycothrissa crocodilus</i>	type of small carp
paa naam ʔiə		<i>Barbonymus gonionotus</i>	ʔiə KhB, meaning unclear
paa naam ʔar			ʔar KhB ‘striped’
paa paak		<i>Barbonymus gonionotus</i>	type of small carp
paa kɛɛm		<i>Cirrhinus jullieni</i>	
paa tɛɛp		<i>Danio laoensis</i>	
paa khom		<i>Hampala dispar</i>	khom T ‘bitter’
paa ʔɲyaak		<i>Macrochirichthys macrochirus</i>	ɲ-. morphology denoting male, familiar
paa sɛɛr		<i>Parachela williaminae</i>	sɛɛr KhB ‘monkey’ (type of monkey)
paa kot		<i>Hemibagrus pluriradiatus</i>	small type of catfish
paa nin		<i>Priostlepis fasciata</i>	tilapia

There are three variations within this category:

Name	Gloss
paa naam ʔiə/ʔar	Bit element modifies main descriptive element
paa ʔɲyaak	Bit morphology modifies Lao descriptive element
paa sɛɛr	Bit word used as main modifying element

In principle borrowed names are borrowed in full form, with some additional modification made through Bit morphology and lexicon. The working hypothesis is that this group of fish was not part of the aquatic ecosystems of the Bit in the past, and thus new additions to the language as a result of a change in ecological setting for livelihoods. In discussing the fish they frequently catch, informants explained that **paa khom** is very similar in appearance to **kaa ʔɔɔc**, with the slight difference that the latter has a more pointed mouth. This demonstrates the sophistication of the bilingual naming practices that have been employed during the history of migration.

Thus, native Bit fish names do not take a general FISH word, aside from the very few kaa forms, and fish that incorporate the Tai paa element. This is noteworthy in the Bit context because snakes and birds are mostly compounds that include mar ‘snake’ and ceem ‘bird’. Some birds do have etymological names, and recently there is influence from Lao, which uses the life form word together with BIRD, SNAKE and FISH (Chamberlain 1977). As will be discussed further below, fish and snakes are considered to be masculine, while birds are by default feminine, together with insects and the rest of the animate world.

3.4 Other aquatic life

Bit fishing trips inevitably involve collecting other aquatic life. In addition to the fish above, the following are commonly known. The practice of a single etymon name holds reasonably well.

Name	Gloss
kjaar	‘crab’
kjaar duur	‘soft crab’
kooc	‘shrimp’
kcəŋ	‘turtle’
puluu	‘big-head turtle’
kpaɑ	‘softshell turtle’
klool	‘snail, shellfish’
duk	‘tadpole’
loʔlaʔ	‘small shellfish’
jiən	‘eel’

Other aquatic invertebrates have compounds with insect names, putting them in a different category of life.

Name	Gloss	
cee kooc	‘aquatic insect, round, white/pink found under rocks on riverbank’	kooc ‘shrimp’
cee cɣas	‘aquatic insect, looks like scorpion’	cɣas ‘dragon’
cee ckar	‘water insect sp., long red body, tentacles and forked tail’	
sanʔeʔ rəp	‘water cockroach’	edible

The common cee element means ‘flea’ but has a taken on this broader sense, somewhat puzzling given that flea does not normally have a water association.

Bit fish names can be summarized as below.

scheme	form	semantics
native Bit	monomorphemic	etymological
	dimorphemic	descriptive/metaphorical
kaa life form	dimorphemic	Bit descriptors
paa life form	dimorphemic	Bit descriptors possible

The variety of naming strategies employs etymological and descriptive sources, and borrowing from Tai for names of fish that are not well-known to the upland fishers.

4. The fishing landscape: Linguistic marking of eco-cultural zones

Hydrological landscapes provide a critical context for understanding human-nature relations. The associated linguistic material provides an important insight on the communities that inhabit them (Burenhult 2008). The preferred fishing landscapes of the Bit are in the upstream areas, where streams are the primary fishing grounds. In Bit, **ṛṛṛ** ‘river’ and **ṛṛ?** ‘stream’ form the core of river terminology. In referring to upland streams they fish, also refer to **ṛṛṛṛ ṛṛṛ**, which have more complex physical morphology than **ṛṛ?**, which are smaller and more shallow, with less places for fish and other aquatic life to reside in and move through. The following terminology describes the upland riverine areas where the Bit fish⁴.

Bit	Gloss	
ṛṛṛṛ ṛṛṛ	‘small stream’	< T huṛṛṛ preserving historical *ṛ initial
ṛṛṛ yaa ṛṛ?	‘seasonal stream’ ‘small upland stream’	
ṛṛṛṛṛ	‘larger stream’	< T ḥṛṛṛṛ but preserving historical *ṛ initial; pAA *ṛṛṛṛ ‘channel, river’
ḥṛṛṛ ḥṛṛṛṛṛṛṛ	‘deep pool’ ‘deep pool with strong swirling current’	c.f. pMK733 *ḥṛṛṛṛ ‘perennial water’ ṛṛṛṛṛṛ ‘deepest area of ḥṛṛṛṛ’ < from expressive ‘dark’ because cannot see the bottom
ṛṛṛṛṛṛṛ	‘long channel in a river’	water flows slowly, water is not deep, but popular for fishing
ḥṛṛṛ ṛṛṛ	‘riverbank’	upper area, away from water, ḥṛṛṛṛṛṛṛṛ ṛṛṛ ‘banks of a large river’
ḥṛṛṛ ṛṛṛṛṛ	‘riverbank’	lower area along the water ṛṛṛṛṛṛ ḥṛṛṛ ṛṛṛ ‘sandy bank’
ḥṛṛṛṛṛ	‘gully; small stream’	cannot fish
ṛṛṛṛṛṛ ḥṛṛṛ ṛṛṛṛṛṛ	‘waterfall’	
ḥṛṛṛṛṛ ṛṛṛṛṛṛṛ	‘flat, broad rock’	important area for fishing trips
ḥṛṛṛṛṛṛṛ ṛṛṛṛ	‘riverbank’	close to water
ḥṛṛṛṛṛṛṛ	‘waves’	
ḥṛṛṛṛṛṛṛ ḥṛṛṛṛṛṛṛṛ	‘round boulder in mid-stream’	
ḥṛṛṛṛṛṛṛ ṛṛṛṛṛṛ ṛṛṛṛṛṛṛ	‘tall rock protruding from water’	
ḥṛṛṛṛṛṛṛ ṛṛṛṛ	‘edge of the river/stream’	important social area for sorting catch, meals, bathing and rituals

⁴ Reconstructions are from Shorto (et al.) (2006).

Lowland landscapes incorporate a greater number of borrowed Tai words, reflecting a different ecocultural area of life and activity within the larger social landscape.

kntaa	‘landing’	landing, bathing area < T thaa ‘landing’
p̄i:n r̄o:n	‘river bed’	< T p̄i:n ‘bottom, floor’
b̄o:n t̄cu?	‘convergence of stream and larger river’	t̄cu? ‘to flow together’ < T cu? ‘to meet’
cl̄oŋ haam	‘restricted breeding area’	part of modern resource management institutions; < T haam ‘to prohibit’
ta:p̄aŋ	‘riverbank’	upper area, higher than water
k̄e:ŋ	‘rapids’	< T
d̄o:n s̄o:p̄y	‘sandy island’	< T
haat	‘sandy area on riverbank’	< T

In his examination of hydrological vocabulary of the Jahai in Malaysia (also Austroasiatic speakers), Burenhult (2008) illustrates how loanwords play an important role in filling gaps in the hydrological landscape. In the Jahai case, several basic terms that would be familiar and salient to the Jahai, are borrowings from Malay; but these areas are not important to the drainage system, nor are they predictable in terms of location, and thus there are no native terms for them. In the Bit case, borrowed terminology helps delineate the eco-cultural boundaries of the Bit and Tai worlds, where the Bit are associated with a landscape of upstream streams and the Tai inhabit the lowland river areas.

This distinction is best understood within the terminology of the upstream-downstream axis; **s̄o:n duul** ‘upstream’ and **s̄o:n d̄ə:m** ‘downstream’. As shown above, river-related words in upland landscapes are for the most part native Bit words, or old borrowings, as evidence by archaic sounds, while the downstream areas feature more Tai borrowings. The downstream areas, with larger rivers that have different social functions associated with boat culture, are the world of Tai groups. The terms **duul** and **d̄ə:m** are used more broadly as well to denote elevation. This distinction can have both physical and social connotations. For example **s̄o:n duul** can refer to the upper area of the house, where the elders live and the altar to the ancestors is placed. Similarly, **boh duul** and **boh d̄ə:m** refer to the upper and lower settlements of a village, where the lower village is usually formed by a group that splinters from the main settlement.

Movement along this axis is differentiated by verbs **l̄ə:ŋ** ‘to go upstream, to ascend’, and **l̄ə:ŋ** ‘to go downstream on boat or raft’. Bit has two boat terms: **riə** ‘boat’ and **p̄e:** ‘raft’, both borrowed from Tai. It is likely that boats were not relevant for Bit river culture, as traditional fishing practices involve going on foot in the upstream direction. Another culturally aspect of movement on a river is **rl̄ə:y** ‘to float downstream’. Floating down a river often connotes taking a long trip outside of

the familiar area of forest and settlement, or becoming lost or being sent out from the community for a transgression. In its causative form **rmləəy** ‘to float something down a river’, the word is used in ritual contexts where bad luck is expelled from the settlement by way of floating a raft down the river. In Bit oral literature, orphans or children born under a bad omen are often floated down the river, to be rescued by an elderly couple, Indra or another river spirit known as **cjas** (Lao *phaṇaa naak* < Skt *nāga*). There is often specific distinction made between traveling **dih siij** ‘along the banks’ or **dih roo** ‘along the water’. The common implication is that a fisher will encounter people along the banks and various wildlife or people in distress along the water. The upstream areas are the familiar realm of Bit culture, while downstream is the unfamiliar world of the Tai, represented by their refusal to present themselves falsely as Lao and Lue in the song above.

The downstream world infringes upon Bit fishing riverscapes as well. It is now necessary to manage the **clɔŋ** that are located near their village, in a way that agrees with state resource management regimes. These deep pools exist both in smaller upland streams, as well as larger downstream rivers; but the larger fish are available in the pools on the larger rivers. Understanding well the role of the **clɔŋ** in fish ecology as a spawning ground, in addition to productive fishing area, this term has been integrated into modern natural resource management concepts as **clɔŋ haam** ‘protected breeding area.’ This term, a bilingual calque from Lao, signals not only the intrusion of the state on local resource management regimes, but also the reality of competition for fish in the rapidly transforming market economy. Management of the **clɔŋ haam** is done through community institutions with relatively high effectiveness, but conflict between villages of different ethnicity can create problems that must be referred to local government authorities.

Fishing, as part of the Bit socio-economic landscape, is an upstream-oriented activity. Downstream movement tends to bring people into more contact and competition with other fishers. Nonetheless, the Bit do make use of full watershed areas. Fishing, like hunting, is not only an economic activity. People men make fishing trips to upstream areas in small, intimate groups, where they observe wildlife and forest conditions and enjoy good times away from the village. Downstream trips may signify a different sort of adventure, including trading, government services and more urban interactions.

5. Fishing gear: Technology, ecology and community

With mounting pressures on local ecosystems that are increasingly regulated by environmental protection and stretched by intensifying competition, hunting and fishing in many areas of northern Laos are kept low-key (Evrard 2012). Fishing expeditions, to destinations near and far, are still an important part of life. Bit fishing gear has much in common with that used by other groups, including those that conduct larger-scale fishing operations in lowland areas, but some adjustments have been made to accommodate the characteristics of upland river and stream environments.

The Bit use a number of fishing gear and technologies, each of which has

implications for the scale of the fishing operation and people involved in it. The social meaning of each technology is evident in the members that participate and their activities. Bit fishing equipment consists of the following:

Type	Description		Verb
tnrəəy	hook and line		tɛ?
tnrəəy ɲɔk ɲɔk	pull line	ɲɔk ‘to jerk up’	tɛ?
		ɲɔk ‘to lift up’	
tnrəəy swat	cast line	swat ‘to use something long to hit’	tɛ?
tnrəəy mɔɔ ʔɔɔ yuu	hook and line for deep water		tɛ?
tnrəəy dak	hook and line, pole inserted into the sandy bank, with trigger mechanism		tɛ?
tnrəəy crmii / tnrəəy kaw mɔɔŋ	long line with multiple hooks	crmii ‘thread, rope’	tɛ?
rip	throw net		twɛɛr
cmʔɔɔn	scoop net		crɔh
cmʔɔɔn saam liəm	triangular scoop net	saam liəm ‘triangle’	crɔh
cmʔɔɔn sii liəm	square scoop net	sii liəm ‘square’	crɔh
cmʔɔɔn klom	round scoop net	klom ‘round’	crɔh
mɔɔŋ	gill net		kwɛɛt
dɔɔ	long, cylindrical fish trap		sai
dɔɔ caar	long trap with spikes	caar ‘spike’	sai
dɔɔ ɲiən	eel trap	ɲiən ‘eel’	sai
dɔɔ yaaw	trap with bait	yaaw ‘long’	sai
dɔɔ tum	cage trap with spring mechanism	tum ‘cage’	sai
dɔɔ pɔɔŋ	woven trap, placed in rapids	pɔɔŋ ‘to set a fish trap’	
kutkuu	small scoop basket		crɔh
jaaw	fishing spear, three pronged		kntih
mɛɛt	bamboo dip net		tɛ?
dɪm	‘fish trap with spring mechanism’		
dɪm khiin			sai
dɪm lɔɔŋ			sai
dɪm mʔuə	trap for large fish		sai
dɪm kdiin	large trap		sai

Fishing with this gear is usually done as individual or small, intimate groups of close kin. Children, often cousins, go in groups to do both day and night fishing, contributing important protein to the household diet, increasing their knowledge of the local ecosystems and strengthening livelihood skills. Adult friends may go fishing together as well, but there is a sense that fishing is a household activity, perhaps because it is difficult to divide a catch of small fish and other river life. The ‘private’ aspects of fishing are reflected in the Bit proverb⁵ that teaches people not to be nosy and be too interested in other people’s business:

nii	dim	bah	cmɔɔ,	nii	dɔɔ	bah	cleer
to.see	fish	NEG	to.look.closely	to.see	fish	NEG	peer.in
	trap				trap		

‘If you see someone’s long trap, don’t look closely at it; if you see someone’s cage trap, don’t open it up to look inside.’

This includes a warning against stealing fish, but it also shows the importance of fish for family diet and recognizes the competition for fish within a community. Unlike hunting in older times, fishing is limited to a specific area – rivers or streams – and with seasonal changes within aquatic ecosystems, resources can get strained.

People are known to travel some distance to a preferred fishing site, but the stream pools near the village are most intensively fished. The multiple methods of hook-and-line fishing are commonly seen on larger streams and rivers. Women often use scoop nets in areas near the village, while men may prefer to travel to more distant fishing sites to use throw nets. The throw nets are smaller than those used in lowland areas, because the streams in which they are used are much smaller, as shown in the picture. Cognates of the word **rip** ‘throw net’ are found in both Khmuic (Khmu rəp) and Palaungic (proto-Palaungic *ruup) languages, suggesting that this type of gear has some historical depth.

Bit also use several methods of water diversion or obstruction to collect fish. These activities are usually done in larger groups, with some degree of consensus in the community.

cdəl	‘small rock dam made in shallow water’
trɔh	‘river diversion’
claa	‘dam with trap built into a gap in the dam’
cɔɔk	‘small stream dam, cut off stream and collect as water evaporates’
tntrɛ?	‘woven structure to partially dam a river, fish collected on other side’

⁵ This poetic structure is employed frequently in Bit proverbs, two constructions of verb-noun-NEG-verb. In this parallel construction, the rhyme of the last word in the first phrase is shared with the rhyme of the second word in the second construction. See Badenoch (2019a) on the poetics of Bit elaborate phrases.

River diversions for fishing have their own specific evasive term **poon**.

Bit also have knowledge of trees that can be used for poisoning fish, although this manner of fishing is not used frequently these days. The Bit **kroo** ‘to stupefy fish’ goes back to proto-Austroasiatic *kraw/kraaw ‘to poison’. The following plants are used for fish poison:

- ksum ‘leaves and roots are pounded by the river, water with runoff is sprinkled into the into the area along the bank’
- pəl ‘bark pounded on rocks by the river into a bubbly liquid that runs into a pool of trapped water, which is then released into the stream’

When pounding leaves, bark or roots of these species, the person must not talk or spit, or the fishing will be unsuccessful.

Bit fishers also fish with a crossbow **snaa ksek**, shooting fish in still, shallow water **pep mʔuə** and using flashlights at night **baal mʔuə**. Groping for fish is also important in many ecological and technological situations. Two movements are distinguished **ʔaal-ʔiip** ‘to grope for fish with a slow motion’ and **ʔaal-ʔiil** ‘to grope for fish with a quick motion’.

One additional type of group fishing is known as **lat kleel** ‘to obstruct-butt’. I first observed this type of fishing on International Women’s Day in 2018, organized by Village Women’s Committee, to use more traditional ways of fishing and enjoy a day together cooking and eating together in the forest. This is a type of obstruct-and-scoop method that requires a line of people to move in unison with a log behind (upstream) their calves, as they shuffle forward kicking up the stones on the river floor. The log is a banana tree (**tap kjuək**) to which they fasten leafy branches from a tree that grows by the river (**entəh rayree**). They use **cmʔəən** nets to scoop the water in front (downstream) of them collect fish, as well as stones that may have small fish sticking to them.

In smaller upland streams, Bit fishers also ‘herd’ fish out of a pool into the run-of-river traps set downstream. For this method, known as **kwaat** ‘to flush out’, has one person stations upstream of the pool disturbing the water encouraging the fish downstream; another person located further down disturbs the water to send the fish back across the stream and downstream.

Bit fishing equipment is varied, although not to the degree of larger-scale lowland fishing operations. Fishing methods and gear are significant socially, because certain types of cooperation are associated with each.

6. Fish and crab: Gender and parallelism in Bit cosmology

Fish and crab go hand-in-hand in the aquatic culture of the Tai region. A common Lao elaborate pair denoting ‘fish and other things that people get from the river to eat’ is paa puu ‘fish-crab’. In the Austroasiatic world as well, crab and fish go together as an important pairing of food. In the Phong Laan language spoken in Huaphan, for example, the main dishes featured at the annual pre-harvest festival are

parməʔ kaa parməʔ raap ‘fish and crab cooked in banana leaves’. As noted in the Introduction section, the fish and crab occupy an important place in the Bit imagination of how upland waterscapes contextualize human life: **saək mʔuə cok kjaar** ‘search for fish and grab crabs’ is an important part of daily livelihood activities, as well as a metaphor for the river as a place of social interaction for men and women.

Fish have a somewhat marked position in the Bit cosmos. The Bit pronoun system has masculine (**ŋɔɔ**), feminine (**koo**) and inanimate (**ʔɔɔ**) forms in the third person singular. The third person dual (**rkoo**) and plural (**kee**) do not specify gender, although morphologically the dual is formed by adding a pluralizing prefix *r-* to the feminine singular form. The second person dual is formed in the same way with *r-*, suggesting that there is a structural bias towards feminine in the Bit world (Badenoch 2017). These pronouns are commonly used as a prefix to mark gender and indicate definiteness. Animals for which the sex is not known are referred to with the feminine **koo**. If the sex is known to be male, the masculine **ŋɔɔ** is used. The feminine default is illustrated nicely by this description of an insect:

koo	lɛʔ	tkəy	həə	mɛɛn	koo	mrɔɔ
3SG.FEM	to.have	horn	that	COP	3SG.FEM	male

That one with horns is the male.

The feminine pronoun appears twice: **koo həə** ‘that one (she)’ reflects the default feminine for an animal is feminine, **koo mrɔɔ** ‘the male one (she)’ brings the default into the specific reference, in which the male is specified for that specific insect. Having established that it is the male, the speaker could switch to **mrɔɔ** for further reference. In practice, the preference for feminine with insects is very strong. Other animals are referred to as **koo** until the sex is known, or becomes relevant to the discourse. However, animals can only be referred to in the singular, and since it is often impossible to establish the sex of all members of a group, the default feminine **koo** is frequently used.

Fish, however, take the masculine **ŋɔɔ** as their default. This holds across both normal conversational usage and narrative usage. Fish are common characters in folklore, and they are invariably **ŋɔɔ**. There is some variation, however, when a fisher may shift the reference to **koo**, when talking about how delicious a fish that was just caught will be, or when expressing excitement at the number of small fish that were caught in a morning of fishing.

In contrast to the masculine fish, in Bit ‘crab’ takes the feminine default **koo**. I have never heard the default feminine switched to the masculine for any reason. This creates a neat parallelism between the **ŋɔɔ mʔuə** and **koo kjaar**, which is not only a metaphor for the male-female interactions performed in Phaeng’s courting song, but suggests a loose division of labor in fishing activities. These gendered themes come out in evasive terms. One indirect term for ‘penis’ is **ʔŋbləŋ** ‘Mr Loach’, while the feminine term **kjaar** ‘crab’ means ‘vagina’. It is striking that in the Sora community of Eastern India – who also speak an Austroasiatic language – both fish

and crab are mentioned in ritual texts as cool forces of healing. In such parallel constructions, the two are semantically opposed with gendered connotations “contrasting the crab’s grip with the length and slipperiness of a fish” (Vitebsky, m.s. 2018).

7. Looking for ‘fish’: Taboo and evasive language

When turning off the main path to head to the destination river or stream, Bit fishers will do a short ritual to chase away the **biət sneeŋ** ‘spirit of fishing taboo’. A branch is used to sweep the area behind where the fisher stands, the branch is thrown down on the ground and the fisher steps over it. During the sweeping, the following **mntok puh sneeŋ keeŋ keət** ‘blessing-brush.away-bad.luck-???-???’ ritual words are uttered:

thooo	‘Ohhh
biət sneeŋ keeŋ keət	Spirit of Failed Fishing
bah nam bah duəy	Don’t follow, don’t come along!
səh duh tuh waay	Be gone from here!
ʔeə yəw waʔ ʔeə yəw maan ʔeə yəw	Let me go, and be successful in my hunt!
phaan	
tuə luəŋ yaa pəw tuə nəw yaa siə	Don’t miss the big ones, don’t lose the small ones!
tuə lak ləen maa haa tuə caa ləen maa	Let the smart ones run to me, let the dumb ones come offer themselves to me.
suu	
ʔeə naa	Let it be.
ʔeə yəw waʔ ʔeə yəw ʔək yəw ʔii yəw	Let me go, let me find them, let me see them, let me get them.
kreh	
sneeŋ keeŋ keət ʔeə səh waʔ cəə kee	Spirit of Failed Fishing, be gone! Go to someone else, someone different!
mooc kee buər	
bah ʔim bah duəy	Don’t come along, don’t follow!
ʔeə yəw maan yəw phaən	Let me be successful and lucky.
ʔeə yəw kreh kdiij	Let me get a big catch.
ʔeə yəw səwək ʔndai kreh ʔnnan	Let me get whatever I am looking for.’

The **biət sneeŋ** is a spirit that will follow the fisherman (or hunter), rather than a spirit that resides in the fishing area, and for that reason must be chased away before getting to the river. A successful trip will be seen as the result of a **biət maan** ‘spirit of successful fishing/hunting’. An unsuccessful fishing or hunting trip is described as **kpəəc**, an expressive depicting the feeling that something anticipated was in reality not there; coming back empty handed. A fishing trip that is unsuccessful because of a spirit is known to be the result of **klis** ‘to do something against a hunting/fishing taboo’. Two lines in the blessing are in a Tai language; “Don’t miss the big ones, don’t lose the small ones! Let the smart ones run to me, let the dumb ones come offer themselves to me!” The mixing of codes in this blessing signals the fishing trip as potential transboundary experience, where Bit fishers may move

downstream (**ၣ်ၣ် သံၣ်**) into Tai areas in search of larger fish and a different adventure.

The Bit have a social system of taboo groups **ၣ်ၣ်ၣ်ၣ်**, in which the consumption of a certain animal's meat, or combination animals and/or plants, is interdicted. There is one group that taboos the eating of a fish known as **clar**. The fish has assumed a mythic identity, but founding story of this taboo group is that a man ate too many sour fruit when walking in the forest and had to relieve himself in the river. This fish attacked him, and although he died from the stomach illness, the fish was blamed for the death. The fish is known to be a large species, living in larger rivers, again signaling that the downstream areas are dangerous.

The larger context of taboo in fishing is important for the word **မၣ်ၣ်**, which does not have a clear etymology. While the common term for 'to go fishing' is **ၣ်ၣ် သံၣ် မၣ်ၣ်** 'go-search.for-fish', the current evasive term is **ၣ်ၣ် ငံၣ် ၣ်ၣ်** 'go to the river'. As mentioned above, most traditional fishing activities normally take place upstream in smaller streams. An elaborate phrase for fishing, **ၣ်ၣ် ၣ်ၣ် ၣ်ၣ် မၣ်ၣ်** 'descend-river-descend-fish', was recorded with an elderly male speaker of the language. In Bit, the C position of this type of ABAC elaborate expression often preserves old or borrowed words. I have heard the phrase **ၣ်ၣ် မၣ်ၣ်** 'descend-fish' in isolation once, by a speaker of the Puak subdialect of Bit that preserves alternative sounds and meanings. The meaning was given as 'to go fishing', and the explanation was that the fish are down in the river, so one must go down to get to them. In synchronic terms, this explanation is compelling, and this is even feasible in the case of the 4-word elaborate expression as well. However, the B and C words in these elaborate expressions are usually close and semantically clever – that is, if B was 'river' one would expect C to be something directly related to a water from. This slight incongruence is interesting, because it is another hint in the search for an explanation for the innovated term **မၣ်ၣ်** which at some point replaced **kaa**. It is possible that **မၣ်ၣ်** is a taboo term that originally meant 'river', undergoing phonological and semantic change⁶ from the proto-Austroasiatic etymon **gma?* 'rain'. At some point in time when the Bit moved into areas closer to Tai settlements in lower parts of the watershed, they may have replaced the word **kaa** in order to avoid bad luck Khmu and Tai spirits (and people), as the Khmu word **kaa** 'fish' is well-known by Tai people in areas of cultural contact.

Looking internally, there is more evidence for a lexical replacement motivated by taboo. The elaborate phrase for fish is **မၣ်ၣ် မၣ်ၣ်ၣ်**. Most villagers attach no meaning to **မၣ်ၣ်ၣ်**. It is found in no other usage in the language, and is highly

⁶ The changes required are shown by regular sound changes and correspondences: **g > ʔ*, **a – uə*, easily established by comparison with Khmu. The proposed route of semantic change here is **rain > water > river > fish*. While the semantic change proposed may seem fanciful, a look at the broader internal and comparative data can help unpack a compelling storyline involving water in the uplands. This will be elaborated at a later date, drawing on data from the languages spoken in the linguistic micro-region between the Black and Ou Rivers, spanning the Lao-Vietnam border area.

unlikely to be a Khmu borrowing because of the *mn-* minor syllable which does not occur in that language. Moreover, this term is found in the Quang Lam variety of Khang (in fact, better understood as a dialect of Bit), which has *daac* ‘fish’ (Nguyen 1995). Quang Lam Khang is spoken in Muong Nhe, Dien Bien province of Vietnam, a short distance north of the six Bit villages in Muang Mai, Phongsaly province of Laos. This is the watershed area between the Black River basin and the Ou River basin where the Khang live. Khang is the closest relative of Bit (Sidwell 2014), but all dialects of Khang for which data is available, have *ka*⁵⁵ for fish (see Badenoch 2019a for more on the Bit-Khang group). Bit villagers in Phongsaly province on the Lao side have interactions with these villagers, who they include in the **psiij ?ii** ‘us people’ Self group. Incidentally, the common word for ‘fish’ in the Puak dialect of Bit spoken in Luang Namtha is **mndaac**. It is possible that this is a reflex of proto-Austroasiatic **dæc* ‘to be deficient, small in quantity’ or **dūuc/dūæc* ‘small’, with the common Bit nominalizing prefix *mn-*. As an elaborate pair, the semantics of **m?uə** ‘large fish’ and **mndaac** ‘small fish’ suggest complex layers of tabooing in which *kaa* was replaced by **m?uə**, **mndaac** was added as an evasive term, and then retained as the common term in the Puak dialect. Because Bit fish names do not take a general FISH term, it would be easy lexically for a social prohibition to be encoded in the language through a taboo or evasive term such as **m?uə** to replace **kaa** as the general term.

Diffloth (1980) explains tabooing in Aslian languages that use “disgracing names” to obscure reference to a specific animal. If one is to replace a common lexical name with a taboo name for fish, ‘the small ones’ or ‘the ones that are scarce’ would be a plausible semantic direction. This type of language use is common in Bit in the semantic realm of foods. Most parts of a meal can be referred to with evasive terms, most of which have some sort of negative connotation; for example **rmri?** ‘rubbish, trash’ refers to vegetables, when there is meat available in a meal; **kdəŋ kaa dəŋ** ‘stinging-ant eggs’ is rice and **cmlah** ‘rough chunk’ means meat. The list goes on and on, include many nouns and verbs used in daily life. Moreover, all ethnic groups that the Bit interact with have at least one, and usually multiple, evasive names. Most of these are openly pejorative, or pick up on some subtle negative characteristic, in a playful way. In the case of **mndaac**, after it was conventionalized in the elaborate pair, its original meaning was lost.

In the taboo names for animals in the Semai language of Malaysia, Diffloth (1980) explains,

[w]hat is being avoided in the real name is not actually its phonological representation, but rather its lexicalization; the principle is that species X should not be called by the real name for that species: the lexicalization process must be derailed and some other way of naming must be found; but the real names themselves, as phonological words, are nothing to be upset about” (162).

Thus, it is not uncommon for a tabooed name to appear in another name, taboo or normal. In this way, /kaa/ could have survived in several fish names, while ceasing to refer to fish in general. The point is that speakers are intentionally misleading, creative and joking. As suggested by Diffloth, in many ways the Bit seem ready “to taboo everything at all times”. This seems to be the case with fishing. Yet surprisingly, Bit do not have many evasive names for forest animals that they hunt. Instead, they have chosen to taboo one group of prey that are limited to aquatic ecosystems. In light of the special position fish and fishing have in the Bit imagination, the linguistic tabooing system seems to be as much part of the evasive language system for social relations as a way of mediating human-animal relations.

8. Watching fish: Expressiveness and fish movements

To ground his discussion of the how forests think in the Amazon, Kohn (2013) started with an example how an expressive word was taken as the voice of the forest, depicting, rather than describing, the event of a pig falling into the water. Bit expressives are used to discuss a wide range of natural phenomena, including a large number related to fishing. These cover visual and aural perceptions, changes in state and importantly, the individual’s thoughts and feelings regarding these.

In one storytelling session, I recorded a speaker referring to a fishing trip as **sɔk kii sɔk mʔuə**, ‘search.for-???-search.for-fish’. The nonlexical word /kii/ could be a joke derived from the echo word formation /kaa kii/ ‘fish and the like’. This is a highly productive means of deriving constructions of this sort, through reduplication with manipulation of the vowel. The speaker took the mutated echo form to provide poetic enhancement to **mʔuə**, in a way that is intentionally misleading, yet playing on a semantic substratum. This explanation was not accepted by another person in the audience, but the speaker just smiled when I questioned him later. The same speaker, who sometimes uses the Puak variety in his speech, also said on one occasion **mʔuə kɔ ʔiim kaa-kii kaa-kii** ‘the fish all came kaa-kii kaa-kii’, employing what seems to be the same echoing device as an expressive. This was also rejected by speakers of the main variety in the village, possibly the Puak variety is a lower prestige dialect. There is evidence for this sort of expressivization. Observing a duck waddling around quacking, a Bit speaker may say **kaap-kaap**, seemingly reduplicating the normal word for ‘duck’ **kaap**. Arguably, the ‘normal’ word is itself a mimetic deriving from the sound a duck makes. However, in the above expressive form, the connotation is both sight and sound. Moreover, if there is more than one duck, the plural r- prefix of normal expressive morphology is taken: **rkaap-rkaap** depicts a scene of multiple ducks waddling and quacking.

In Bit storytelling, the sight and sound of a throw net hitting the surface of the water is captured by **jruum**. This expressive evokes the expectation of good luck and large fish, because it is the end result of the throw. After finding the right place to throw, the net is released and spreads out in the air to its full circular size. It hits the surface and quickly sinks to the bottom. In depicting fish, expressives are often used to evoke feelings of grace, beauty and smoothness. A favorite expressive use of an enthusiastic storyteller and avid fisher (also the source of **kaa-kii** above) is

mʔuə sjaam nək lwɛt-lwɛt ‘the fish was so beautiful there, swimming back and forth slowly and gracefully’. Commonly heard expressives (these include some morphological derivations from common expressive bases, but are included to indicate the semantic specificity) depicting fishing scenarios include swimming movement

triip-triip-triip	movement of a fish swimming across a stretch of water
ckir-ckir	movement of one fish back and forth near the top of the water
cirkir-cirkir	a fish swimming with fin visible
crkɛr-crkɛr	a small fish swimming in shallow water
cɲluəŋ-cɲluəŋ	a large fish swimming straight along the riverbank
cɲlɔəŋ-cɲlɔəŋ	a medium fish swimming straight along the riverbank
leykuəy	fish swimming smoothly in water
lənʔuən-lənʔuən	fish darting forth with quick punctuated movements
lwɛt	fish swimming slowly and elegantly, body moving back and forth in smooth motion

There are expressives depicting fish coming to the water surface, mouths of different shapes searching for food

buəʔ	a fish emerging from water surface suddenly to devour food
boʔ-baʔ	fish swimming, perceived from the ripples on the water surface
rbɔɔc-rbɔɔc	pointed mouths of many fish popping up out of the water to eat in one place
rbaac-rbɔɔc	fish popping up and down in and out of sight, over wide area
rsuuc	many fish suddenly darting up out of the water

The sight of a motionless fish in the water evokes a range of mental imagery. The beauty of the fish is often juxtaposed with the concern that the fish is about to dart out of sight.

smiɪr	fish faintly visible below the water, cannot be identified
riŋŋiŋ-riŋŋiŋ	many fish lined up, sticking out of a hole in a river
rəŋŋəəŋ	fish tails lined up sticking out of a hole, same length
ləkʔiək	large fish floating dead, upside down on water surface
liəʔ-liəʔ	reflection of water on fish body in shallow water, causes momentary shine
lʔɔɔn	small compact, longish body unmoving
lənʔuən	long, smooth body of a fish, motionless but about to dart out quickly
lyiip-lyiip	fish gills fluttering lightly as it breathes

The motion of fish struggling when caught, foregrounding the life force of the fish, even as it is drained out of the water.

bjuul-bjuul	‘large fish flopping on the ground’
dedɔɔl	‘large fish flopping, loosing strength as it dies’
duəl-duəl	‘flopping around out of water vigorously’
wiil-wiil	‘wiggling back and forth, like pile of fish just caught’
mpul-mpul	‘small fish caught in throw net struggling to get out’

The expressive depiction of encounters with fish is slightly different than that of mammals encountered on a hunting trip. In one story, a hunter is troubled by the ethical dilemmas of shooting a deer when their eyes meet in a forest clearing. The round, shining eyes (**pɲaay roklok**) of the deer reflect its life, which strikes the hunter as fundamentally the same as his own. Fish live in a different world under the water, which fishers are happy to venture into during their fishing activities. But this world, as represented in oral literature, holds a different set of dangers. These are related to the presence of **ɕɲas** ‘dragon’, and may result in being taken down to the bottom of the river. The danger can also include being enticed by a woman into the dark depths of the river, again underscoring the masculine fish and the Bit association with that element of river cosmology. While the expressives used with fish do not evoke the emotional connections they do with mammals, they do provide insight on the respect and affection for their movements and strength.

9. Fishing for Souls: Healing Ritual in Forest

Life in the forest is fraught with danger. One of the most common sources of illness in Bit society is due to a startling experience in the forest (**srmaal tnrɔʔ**) – sudden appearance of a snake, an unexpected loud noise, unexpected falling tree – resulting in the spirit of the person leaving the body and getting lost. Treating this type of illness involves a ritual specialist calling making an offering to the spirit and calling the spirit back to the body. The reuniting of the life force and the body returns the person to health.

The name of this ritual, **ɕɔɔn knloŋ** ‘scoop for the lost person’, opens up another window on fish in the Bit cosmos. This phrase is etymologically Tai, composed of **ɕɔɔn** ‘to scoop with a net’ and **knloŋ**, a reduced compound *khon loŋ* ‘person-lost’, losing aspiration and creating a minor syllable. The contents of the ritual are not Tai, but a similar ritual does exist in the Tai world. The use of the Tai name suggests that unfortunate journeys through the forest may involve contact with the Tai world. Unlike other rituals, the offerings made at this ritual include fish, the common, small varieties that the Bit depend upon for daily protein.

lɛʔ mʔuə mndaac	‘There are all sorts of fish
lɛʔ syaa pəə piij	there is barbequed <i>syaa</i>
tliij pəə təŋ	there is grilled <i>tliij</i>
ʔim pəmah pəaa	come to be fed
krʔiə knhaar	calling
sɾmaal sɾmoʔ	spirit of
cleʔ cloo, kəəŋ pləŋ	grandchildren, children
noʔ bibat bibəəŋ tɾəəŋ bəəŋ	in the forest areas and roads
ʔuuc cəə tɾluu cəə naa	come home to your home, to your house.’

Offerings of fish, chicken, eggs, alcohol, bananas, sugarcane, betel and husked rice – the common items enjoyed in daily life – are made in the area where the spirit is thought to have gotten lost. The ritual specialist takes a **cmʔəəŋ** hand net and begins scooping around the area (**crəh waʔ crəh ʔuuc** ‘scoop-go-scoop-return’, note the use of the Bit word for the action, in contrast to the Tai word **səəŋ** used in the name of the ritual), going through the actions of hand-netting fish, overturning rocks and sifting through the other aquatic life and river-bottom materials that get caught in the net.

The image of fishing the forest floor to retrieve the lost spirit of a person raises new questions about the Bit relationship to fish. As mentioned above, deep rivers are sometimes perceived as dangerous, portals to a different world. In narrative, looking up from the underwater world, the normal world of humans can be conflated with **miəŋ tɛəŋ** ‘the world of the sky spirit’; if we flip our basic reference, it could be that the human world and the fish world that are being juxtaposed here. What seems clear is that this ritual disturbs common conceptions of what forest means to these uplanders. The spirit world of the forest is also a river. Searching for a life force in that river, the Bit spirit may be understood as a fish.

10. People of the Fishing Hook

The Bit propensity for word play, obfuscation and creative manipulation of language associated with taboos has been a major force shaping the language over the generations. A bit person who is silly or lacks common sense can be called **tnrəəy bah lɛʔ krlət** ‘a fish hook without a barb’. Someone from outside the group, without the commonsense to know what is right and wrong, might be called **trliiy luul** ‘albino small fish’, where **luul** means ‘stupid’. The various imagery of fish is vivid in Bit social life, reflecting important role that fishing plays for them. In the Bit cosmos, fish represent a male default in the otherwise female world, symbolically maintaining half of the fish-crab parallel representation of river life.

The word **mʔuə** is a highly marked etymon, replacing at some point in history the stable and widely distributed reflexes of *kaa. The upland streams where the Bit conduct most of their fishing supply a large variety of aquatic life, most of which has a native Bit name, with no life form marker used. Further downstream, where the rivers are larger and the social interactions more frequent, some fish are known by Tai names. The form kaa is preserved only in a few specific names.

Upland peoples inhabiting the mountainous areas of mainland Southeast Asia are not normally known for their fishing. Bit fishing knowledge and practices provide a rich source of information for comparison with the hunting and gathering of other groups. They readily accept that the Khmu are master hunters with their sophisticated traps and skill in producing animals calls. At the same time, they are also confident that their knowledge of the fishing landscape is a key element of their survival skills. From here we can continue to explore the nature of human-animal relations, conceptualization of forest-river-village boundaries and imaginations of local eco-history. The linguistic depth of the Bit fishing world is as deep as the ecological knowledge, and the two should swim together in our research.

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