

The classification of Cosao: a Lolo-Burmese language of China and Laos

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Introduction

- Cosao is a Tibeto-Burman language (Southern Loloish branch) spoken in both Laos and China.
- Recently discovered and documented by Prof. Bai Bibo of the Yuxi Ethnic Research Institute in Yuxi, China
- Population: 550
- Autonym (self-designation): tsho55 so55

A study of Cosao (2015)

- Only published data and information on Cosao
- Bai Bibo [白碧波]. 2015. *A study of Cosao* [搓梭语研究]. Beijing: Ethnic Publishing House [民族出版社]. ISBN 9787105138913



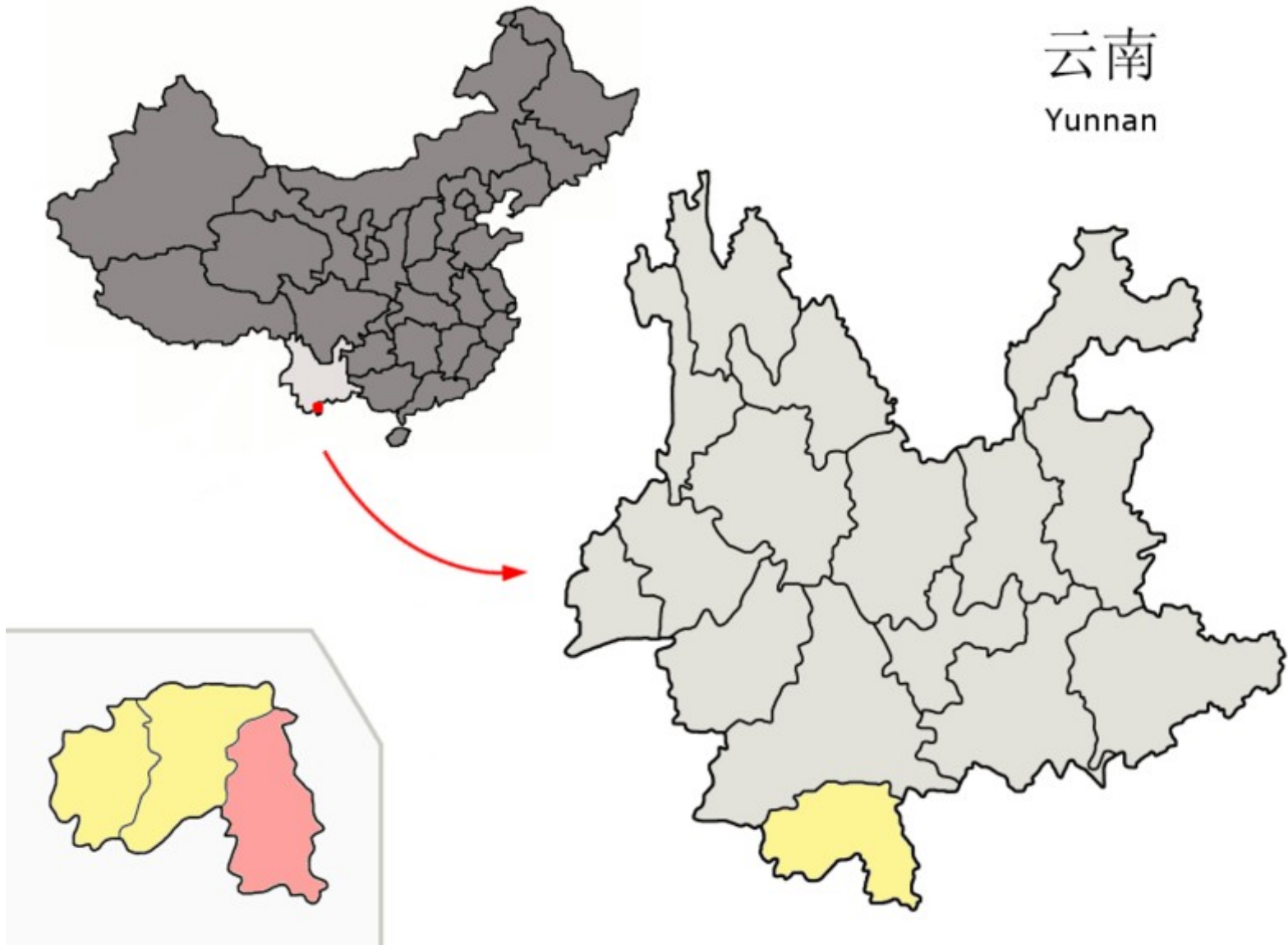
Classifying Cosao

- Bai is unsure of Cosao's exact classification, and notes that it is not particularly close to Hani or Yi varieties in China.
- I entered Bai's Cosao data into my extensive Southern Loloish database, which revealed that Cosao belongs to the Sila cluster, and is especially close to Khir.
- Please note that while I have done fieldwork on several Southern Loloish languages myself, I have not done fieldwork on Cosao.

China

- There are 149 ethnic Cosao people living in the village of Man'gang 曼冈 , Mengban Village 勐伴村 , Mengban Town 勐伴镇 , Mengla County, Yunnan Province, China (Bai 2015).
- Only Cosao village in China
- Referred to by other ethnic groups as the Paijiao people (排角人)

Location of Mengla County, China













Laos

- In northern Laos, there are 400 ethnic Cosao people in 2 villages in Phongsaly Province, namely (unfortunately, with no Lao names given):
- Ban Nanli 板南里 ($21^{\circ}45'15''\text{N}$ $102^{\circ}11'21''\text{E}$)
- Ban Shalue 板沙略 in Boun Tay District 乌德县 (Bai 2015:2-3)
- Ban Nanli is the older village of the two, since Cosao residents of Ban Shalue report that their ancestors had migrated from Ban Nanli. The two villages are located about 20 kilometers apart from each other.

Location of Ban Nanli



Data preparation

- This study was done as part of my large-scale Southern Loloish classification and basic vocabulary comparison project.
- Over 60 languages / sources, most of which are not on STEDT (<http://stedt.berkeley.edu/~stedt-cgi/rootcanal.pl>).
- Over 300 lexical entries for each language

Southern Loloish lexical database

- Please feel free to contact me for the database.

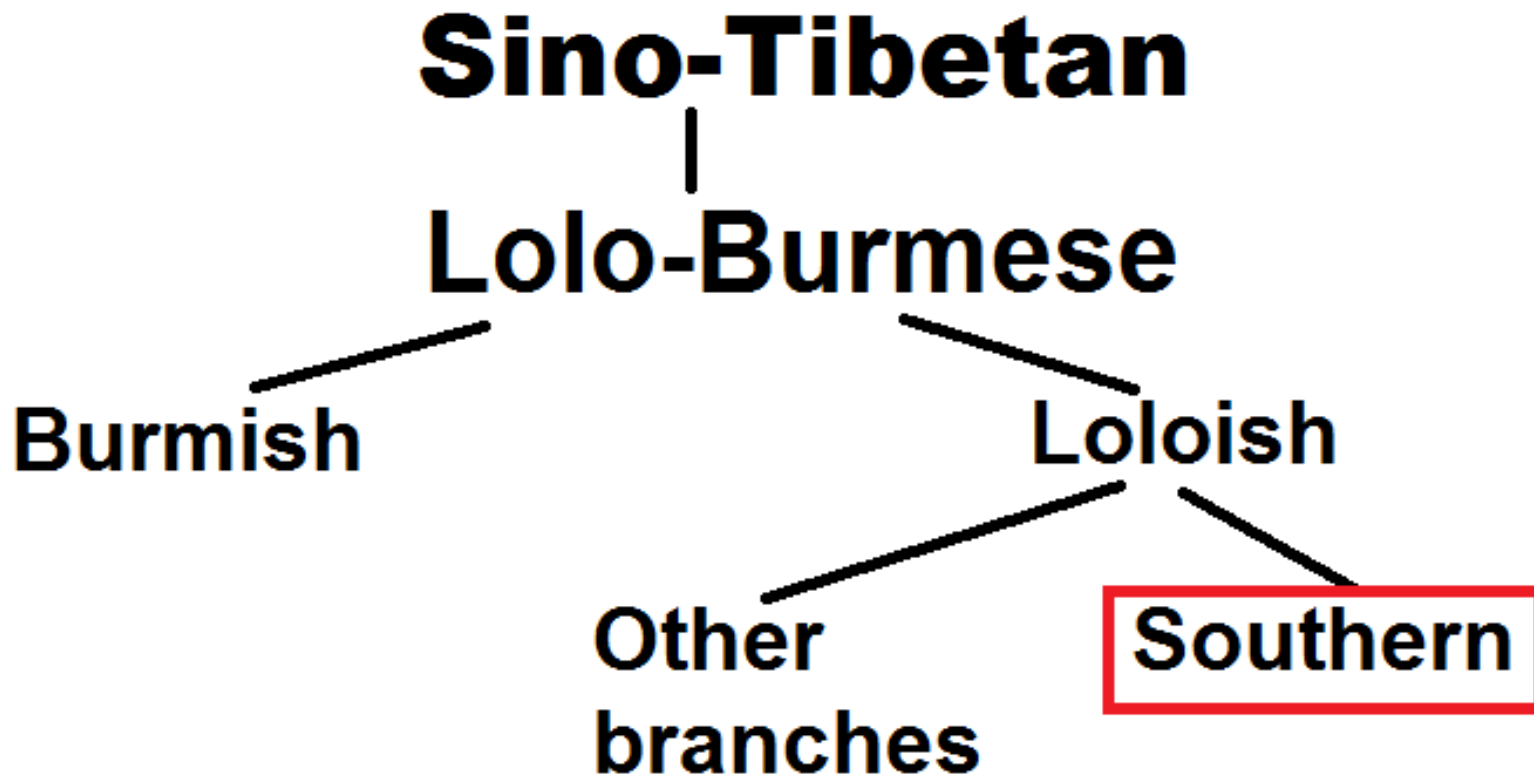
SouthernLoloish - Microsoft Excel

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No.	A	B	C	D	E	F	G	H	I	J	K	L	M	N		
1	No.	0	1	2	3	4	5	6	7	8	9	10	11	12		
2	English	autonym	body hair	skin	bone	blood	tears	sweat	head	hair	face	eyebrow	eye	ear	nos	
3	Chinese	自称	毛	皮肤	骨头	血	眼泪	汗	头	头发	脸	眉毛	眼睛	耳朵	鼻子	
4	Sida	si ³³ la ³³	a ²¹ mu ²¹	a ²¹ k ^h ɔ ³³	ha ³³ w ²¹	ʃi ²¹	mja ³³ pi ⁵⁵	sa ⁵⁵ q ^h i ²¹	u ³³ k ^h ja ²¹	ts ^h a ⁵⁵ k ^h w ⁵⁵	mja ³³ p ^h lu ²¹	mja ³³ mu ²¹	mja ³³ dzi ³³	nə ²¹ p ^h a ²¹	na ⁵⁵	
5	Sida (Sila)	go ⁵⁵ w ⁵⁵ a ¹¹ ma ¹¹	a ¹¹ mu ¹¹	a ¹¹ k ^h ɔ ⁵⁵	ha ³³ w ³¹	ʃi ³¹	mja ⁵⁵ bi ⁵³	ts ^h a ⁵⁵ k ^h ri ¹¹	u ³³ k ^h a ³¹	ts ^h a ⁵⁵ k ^h w ⁵⁵	mja ⁵⁵ p ^h ro ¹¹	mja ⁵⁵ mu ¹¹	mja ⁵⁵ dzi ⁵⁵	no ¹¹ p ^h a ⁵³	na ⁵⁵	
6	Sila	ko ⁵⁵ w ²¹	a ²¹ mu ²¹	a ²¹ k ^h ɔ ³³	he ²¹ w ²¹	ci ²¹	mja ³³ bi ⁵⁵ , mja ¹ ts ^h a ⁵⁵ hi ²¹	o ²¹ k ^h ja ²¹	ts ^h a ⁵⁵ k ^h w ⁵⁵	mja ³³ p ^h o ²¹	mja ³³ k ^h o ⁵⁵	mja ³³ tsi ³³	ne ²¹ p ^h a ²¹	na ⁵⁵		
7	Phusang	pa ³³ za ³³	a ²¹ mu ²¹	a ²¹ k ^h ɔ ³³	ha ²¹ y ^w 21	a ²¹ ci ²¹	mja ³³ bi ³³	ts ^h a ⁵⁵ ci ⁵⁵	o ²¹ k ^h e ²¹	ts ^h a ⁵⁵ k ^h w ⁵⁵	mja ³³ p ^h lu ²¹	mja ³³ mu ²¹	mja ³³ dzi ^w 33	na ²¹ p ^h a ²¹	ne ⁵⁵	
8	Khír	la ²¹ ja ²¹	a ²¹ mu ^w 21	a ²¹ k ^h ɔ ³³	ha ²¹ w ²¹	ci ²¹	mja ³³ pi ⁵⁵	ts ^h a ⁵⁵ q ^h i ²¹	u ²¹ k ^h ja ²¹	ts ^h a ⁵⁵ k ^h w ⁵⁵	mja ³³ p ^h lo ²¹	mja ³³ mu ^w 21	mja ³³ su ^w 21	na ²¹ p ^h a ²¹	no ⁵⁵	
9	Cosao	ts ^h o ⁵⁵ so ⁵⁵		a ³¹ k ^h o ³³	xə ³¹ w ⁵³	ci ³¹		ts ^h a ³³ xə ⁵³	u ³¹ k ^h ja ³¹	ts ^h a ⁵⁵ k ^h w ⁵⁵	pə ³¹ pu ^w 55, mja ³³	mja ³³ mə ^w 31	mja ³³ su ^w 53	na ³¹ p ^h a ³¹	no ⁵⁵	
10	Lolo	lo ²¹ lo ³³ pho ²¹	za ²¹ mu ^w 33	dzo ³³ ko ³³	ga ²¹ ga ²¹	ʃi ²¹	mi ³³ zi ³³	ke ⁵⁵ zi ³³	u ⁵⁵ du ^w 33	u ⁵⁵ te ^h w ³³	p ^h a ²¹ me ^w 33	mi ³³ tei ^w 33mu ^w 33	mi ³³ du ²¹	no ⁵⁵ pa ³³	nu ⁵⁵	
11	Sadu	sa ⁵⁵ du ⁴² p ^h o ³¹	mə ²¹	dzi ²¹ ku ⁵⁵	y ^w 33ku ⁵⁵	sɿ ⁵⁵	mja ⁵⁵ bi ³³	kə ³¹ 33	i ³³ du ^w 33	i ³³ ts ^h w ³³	k ^h u ³³ mja ⁵⁵	mja ⁵⁵ tsɿ ³³	mja ⁵⁵	no ³³ bo ³³ bo ³³	nu ³³	
12	Lahu	la ⁵³ xo ¹¹		ɔ ³¹ gu ^w 31	ɔ ³¹ mv ²¹ ku ³³	ɔ ³¹ si ¹¹		ku ^w 31	o ⁵⁵ qo ¹¹	o ⁵⁵ qo ¹¹ mv ³³			me ⁵⁴ ci ¹¹	na ¹¹ po ³³	na ¹¹	
13	Kucong			a ³¹ gv ³¹ kv ⁵⁵	a ³¹ v ³¹ kv ⁵⁵	a ³¹ sv ³⁵	mie ³³ y ^w 31	ku ^w 35	tv ³³ kv ³³	dzɿ ³³ k ^h w ³³	mie ³³ p ^h v ³¹	mie ³³ mu ^w 33	mie ³³ k ^h 33	na ⁵⁵ pv ³³	na ⁵⁵	
14	Jinuo	tcy ⁴⁴ no ⁴⁴ , ki ⁴⁴ no ⁴⁴		a ⁴⁴ k ^h o ⁴²	ʃə ⁴⁴ y ^w 44	a ⁴⁴ ci ⁴⁴		k ^h i ⁴⁴	vu ⁴⁴ k ^h e ⁴⁴	ts ^h e ⁴⁴ k ^h y ⁴⁴			mja ⁴² tsi ⁴⁴	na ³³ k ^h o ⁴⁴	nə ⁴⁴	
15	Bisu	bisu, mbisu		ə ^w 33k ^h o ³³	sa ³¹ gau ³¹ , ə ^w 33	ci ³¹		mu ^w 33ni ³¹	ə ^w 33tu ³¹	sam ⁵⁵ k ^h u ^w 33			me ³³ nur ³³	na ³¹ su ^w 31	na ⁵⁵	
16	Pisu (Lao-Phai)	pi ³³ su ⁴⁴	ʔa ³³ mu ²¹	ʔa ³³ lu ²¹	ʔa ³³ ŋa ^o 21	si ²¹	me ⁴ la ⁴⁴	mə ³³ hut ²¹ la ⁴⁴	ʔa ³³ tu ²¹	ʔa ³³ tu ²¹ bu ^w 21	me ³ ka ²¹	na ³ k ^h o ⁴⁴ mu ^w 21	ʔa ³³ mja ³³	ʔa ³³ na ²¹	na ³¹	
17	Pyen		cam ⁴⁵ k ^h w ⁴⁵	ʔə ^w 33k ^h ɔ ⁴⁵	ʔə ^w 33gao ³¹	ʃi ³¹	pu ⁴⁵ lan ⁴⁵	mi ³³ nu ²¹ lan ⁴⁵	ʔə ^w 33tu ³¹	cam ⁴⁵ k ^h w ⁴⁵	mə ³³ ka ³¹	ch ^o ŋ ⁴⁵ mu ^w 31	mi ³³ nu ⁴⁵	la ³¹ ʃu ^w 45	na ³³	
18	Sangkong	san ⁵⁵ qho ^w 55		ə ^w 33hu ³¹	ə ^w 33zo ³¹	sɿ ³¹		ku ³¹ te ^h q ³¹	ə ^w 33tu ³¹	ə ^w 33ts ^h am ⁵⁵			mi ³³ si ³¹ , mja ³³	ə ^w 33na ³¹	na ⁵⁵	
19	Phunoi of Phongxaly	phu ²¹ noi ⁴⁴	ʔa ³³ mmot ²¹	ʔa ³³ lu ²¹	ʔa ³³ ja ^o 21	su ^w 21		bə ⁴ la ⁴⁴	mu ²¹ hu ²¹ la ⁴⁴	ʔa ³³ tu ²¹	sam ⁴⁴ k ^h u ^w 44	bə ³ ka ²¹	bə ³ tei ⁴ ku ⁴ lu ⁴ n	ʔa ³³ bja ³³	ʔa ³³ ŋna ²¹	lə ⁴ k

Position of Southern Loloish

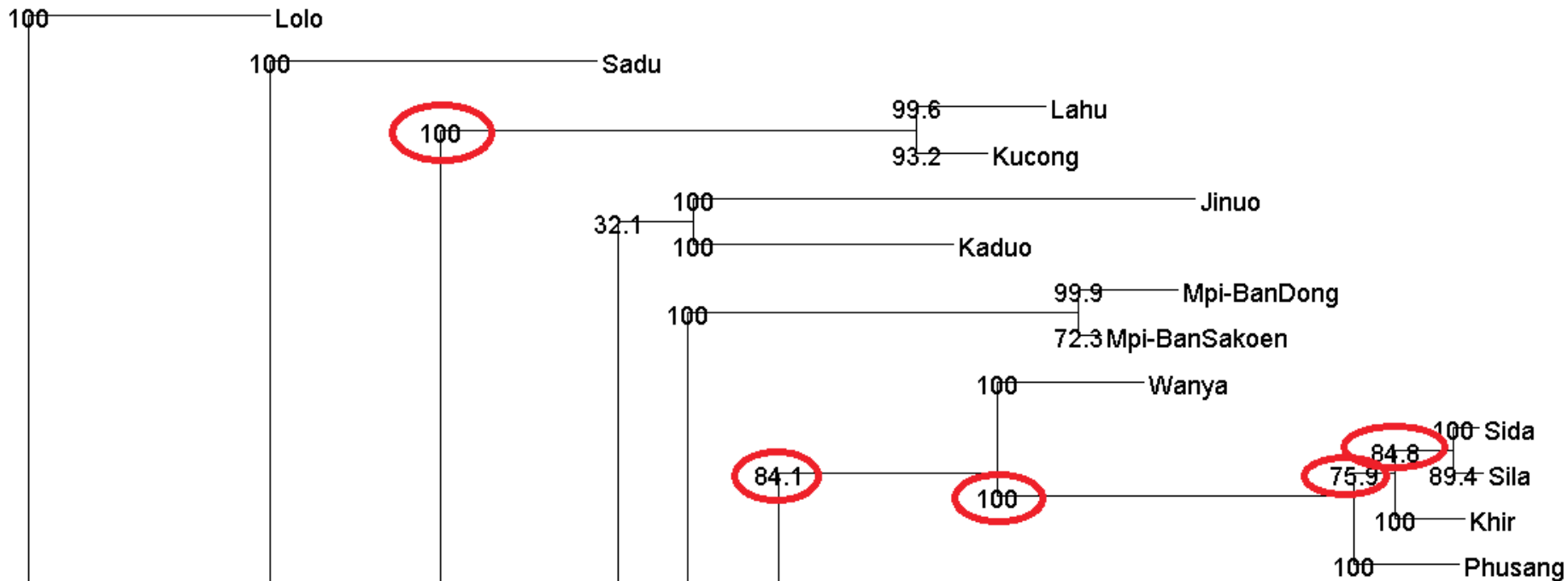


Computational phylogenetics

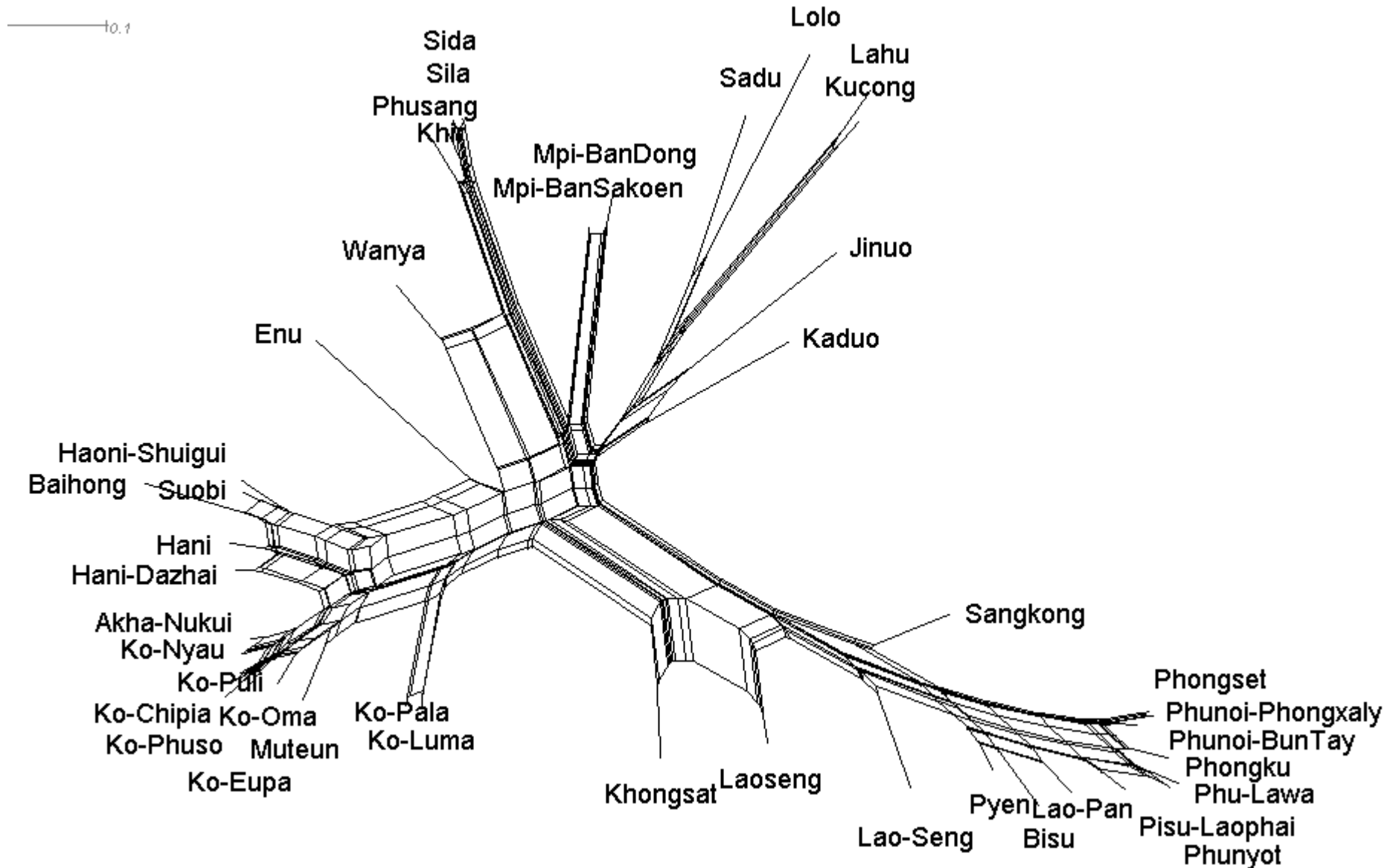
- SplitsTree 4.0 used to computationally generate phylogenetic networks and trees.
- NJ (Neighbor-joining) algorithm used for trees.
- NeighborNet used for networks (star diagrams).
- Mostly based on lexical isoglosses.
- 43 taxa (Cosao is not included; its position would be nearly identical as that of Khir)
- About 100 words selected

Sila cluster tree

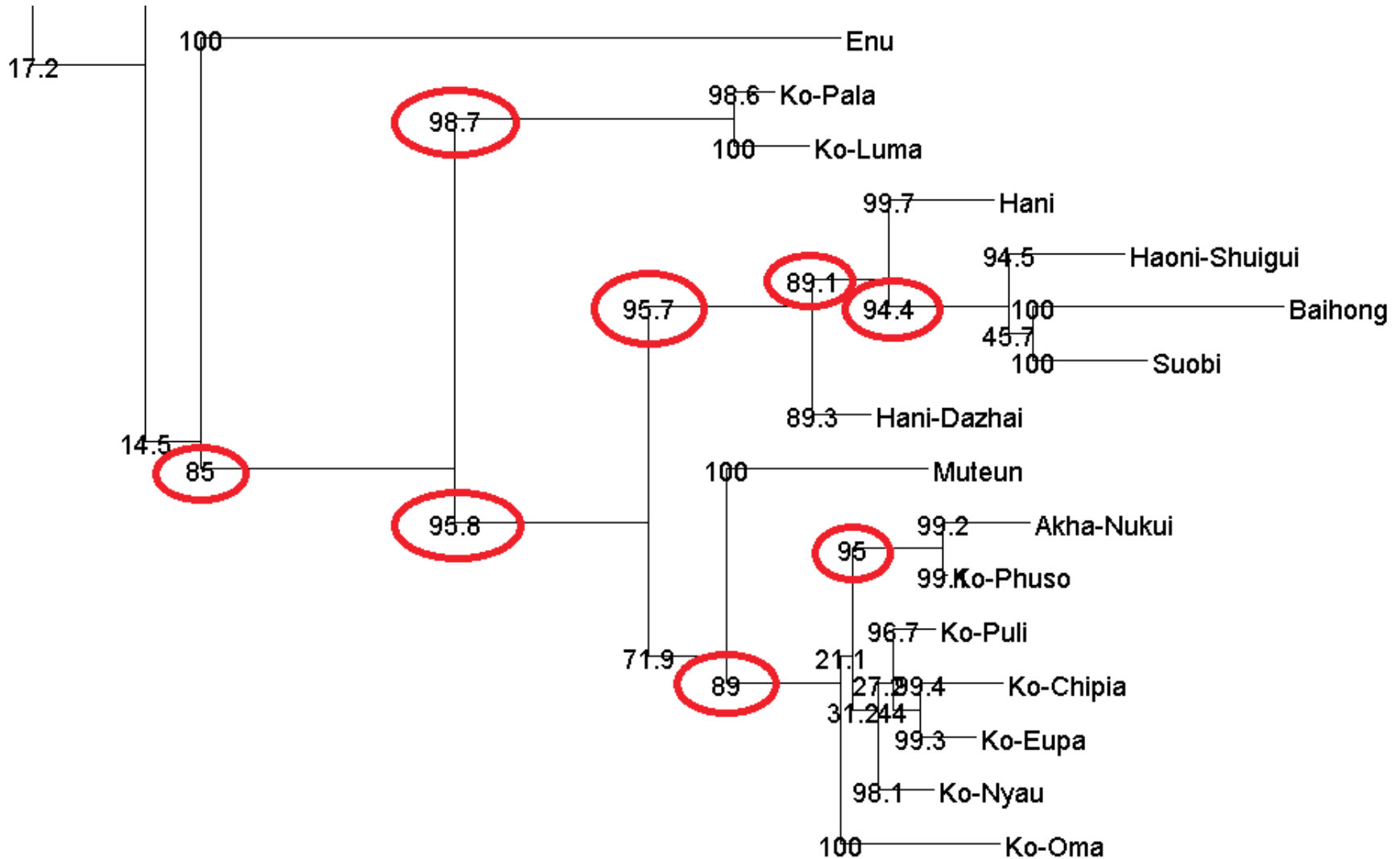
- Sila/Sida, Khir, Cosao, and Phusang form a subgroup.
- Wanya is an outlier



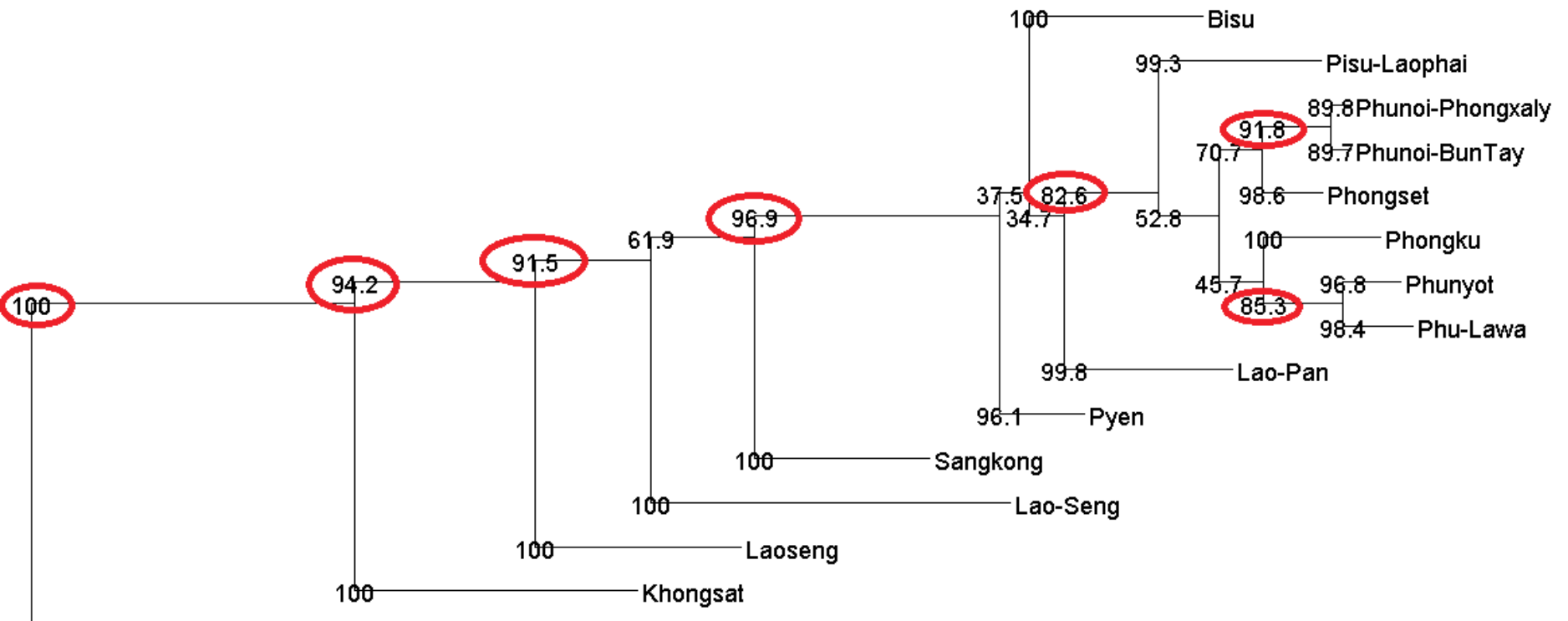
Southern Loloish network



Akha cluster tree



Bisoid cluster tree



Related languages of Laos

- **Phusang** [pa33 za33]: Phusangkao village, Samphan District, Phongsaly Province; Kato (2008)
- **Khír** [la21 ja21]: Kang village, Nyot U District, Phongsaly Province; Kato (2008)
- **Sida (Sila)** [go55 w55 a11 ma11]: Chaohoi village, Nyot U District; Phongsai village, Bun Neua District, Phongsaly Province; Kingsada (1999)
- **Sida** [si33 la33]: Longthang village, Nyot U District; Sida village, Luang Namtha District, Luang Namtha province; Shintani (2001)
- **Sila** [ko55 w21]: Namsing village, Nyot U District, Phongsaly Province; Kato (2008)
- **Wanyä (Muchi)** [wa11 ɲə11]: Ipoeching village, Bun Tay District; Phongsaly Province; Shintani (2001)

The Sila are also found in Vietnam

- Sila is also spoken in:
- Seo Hay, Can Hồ Commune, Lai Châu Province, Vietnam
- Xì Theo Chai, Can Hồ Commune, Lai Châu Province, Vietnam
- Nậm Sín, Mường Nhé Commune, Điện Biên Province, Vietnam
- 7 Sila families had emigrated from Mường U and Mường Lá of Phongsaly Province, Laos 175 years ago. They initially arrived at a location called Mường Tùng, and relocated several times before arriving at their present locations.

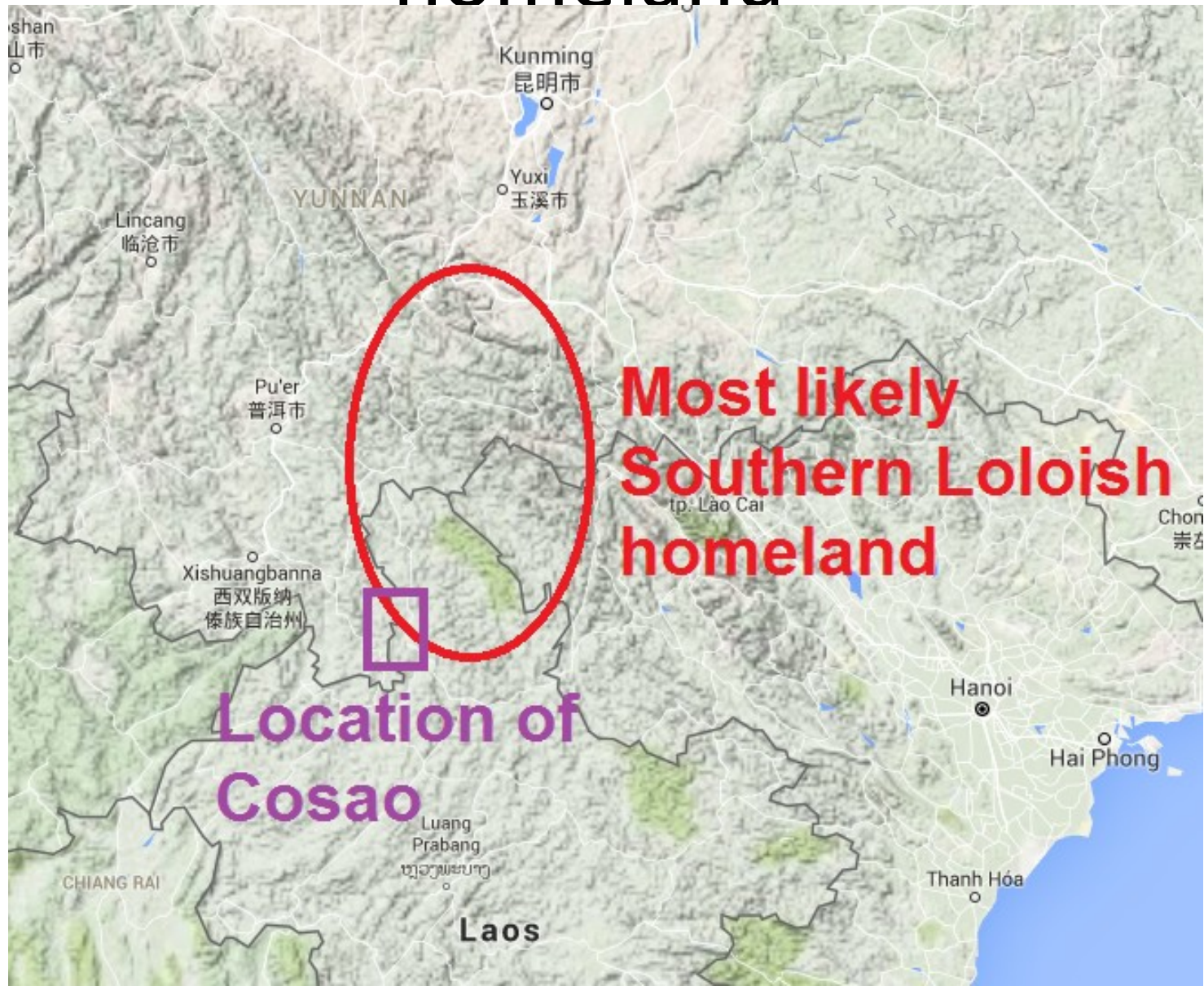
Proposed homeland (Sila cluster)

- Phongsaly Province, Laos has the most diversity.
- Some Sila migrated to Vietnam.
- Cosao split off from Proto-Khir-Cosao and migrated over to what is now the Chinese border.

Proposed homeland of Southern Loloish

- Most Southern Loloish diversity in: Mojiang County, China; Jiangcheng County, China; Jinping County, China; Phongsaly Province, Laos
- Dozens of varieties named but still not properly documented by linguists yet, especially in China.
- Many varieties in Laos documented by 300-word lists by Kingsada (1999), Shintani (2001), and Kato (2008)

Cosao vs. Southern Loloish homeland



Cosao and Khir

- Khir preserves some initial labial-lateral clusters (e.g., eye, horse, bee) that are rarely found in Lolo-Burmese, and crucial for Proto-Lolo-Burmese reconstruction.
- 1. Khir Cl- : Cosao Cj-
- 2. Khir -ŋ: Cosao -m
- In both cases, Khir is more conservative and closer to Proto-Lolo-Burmese.
- Many Lolo-Burmese languages do not have (1) and (2).

Cosao and Khir

- Deaffrication: ts-, dz- > s-
- Vowel correspondences

Cosao and Khir, but not Sila, etc.

Gloss	Cosao	Khir	Phusang	Hani
head	u ³¹ khja ³¹	u ²¹ khja ²¹	o ²¹ khɛ ²¹	u ²¹ tu ²¹
eye	mja ³³ sw ⁵³	m ^l a ³³ sw ²¹	mja ³³ dzɯ ₃₃	ma ³³ nɯ ³³
to run	ts ^h u ⁵³	ts ^h o ²¹	ɕe ³³	k ^h i ³³
sky	nɛ ³¹ kh ^u ⁵³	nɛ ²¹ kh ^o ²¹	o ²¹ th ^a ²¹	õ ²¹
star	əŋ ³¹ ki ⁵⁵	ɯŋ ²¹ ki ⁵⁵	u ²¹ ki ⁵⁵	a ²¹ kw ⁵⁵

Gloss	Cosao	Khir	Phusang	Hani
rain	i ³¹ th ^h a ⁵³	ɯŋ ²¹ th ^h a ²¹	mo ⁵⁵	o ²¹ je ⁵⁵
stone	lo ³³ p ^h au ³³	lo ³³ p ^h ou ³³	la ³³ p ^h u ³³	xa ²¹ lu ³³
house	tso ⁵⁵	tso ⁵⁵	ja ²¹ tɕ ^h y ⁵⁵	la ²¹ xo ⁵⁵
horse	mjɔm ⁵³	mluŋ ²¹	mju ²¹	a ²¹ mo ²¹
flower	a ³¹ ze ³³	a ²¹ zɛ ³³	a ²¹ v [̣] y ³³	a ⁵⁵ j [̣] e ³³

Gloss	Cosao	Khir	Phusang	Hani
tea	la ³¹ a ³³	la ²¹ a ³³	a ²¹ p ^h ɛ ⁵⁵	la ²¹ k ^h e ⁵⁵
song	i ⁵⁵ la ³³	i ⁵⁵ la ³³	a ²¹ k ^h y ²¹	ts ^h ã ⁵⁵
drunk	pjo ⁵³	blo ²¹	bo ³³	he ²¹
old (age)	mɔm ³¹	mun ²¹	za ²¹ mu ²¹	mo ²¹
month	le ³³	bə ³³ le ³³	bo ³³ lo ³³	ba ³³ la ³³

Further research

- More documentation of lexicons of Southern Loloish languages in Laos beyond the basic 300-word list by Shintani, et. al.
- In Vietnam: More lexical documentation beyond the few hundred words recorded and preliminarily transcribed by Jerold Edmondson.
- In China: Many dozens of undocumented Loloish language varieties without word lists.

Acknowledgements

- Special thanks for Prof. Bai Bibo for the vibrant personal discussions we have had in Honolulu and Yuxi.
- Paul Sidwell, Rikker Dockum, Doug Cooper, Peter Norquest, and many others
- My *ajarns* (teachers) and fellow classmates at Payap University
- Everyone else who have helped along the way.

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Dhonyobaad

Comments and questions?