

# Fuzzy Reconstructions

## Confused Sounds

sound A	sound B	occurrences	cognate sets
n	ṇ	18	203 394 420 445 801 848 894 1129 1237 1742 2046 2468 2973 3103 3125 4002 4039 4051
n	N	14	579 1755 2072 2294 2362 2388 2401 2520 2673 2858 3067 3179 3467 3726
N	ṇ	10	616 1186 1247 2036 2120 2294 2725 3458 3704 4064
55	o	9	954 1879 2167 2429 2505 2506 2682 14 3862
l	ḷ	8	1104 1554 1921 1971 2506 2570 2769 3227
m̐	m	6	1981 1268 3167 3704 3713 4025
-	ṛ	6	1768 2505 2506 2591 3018 14
11	o	5	2254 2363 3018 3804 3862
k	g	5	800 1186 1720 1879 2591
ṛ	ṛ	4	514 1237 1268 1768
r	ṛ	4	2294 2813 3528 3927
-	w	4	1091 2072 3125 3511
55	51	3	1464 2456 2505
55	11	3	149 17 3862
N	m	3	1247 1755 3818
ə	a	3	954 2506 14
i	ei	3	1921 3727 3726
51	o	2	444 2505
w	l	2	1720 1907
p	b	2	2531 3236
n	m	2	1755 3752
i	e	2	6 2813
ṛd	ṛd.w	1	3511
ṛ	t	1	1195

sound A	sound B	occurrences	cognate sets
ʔ	k	1	1195
ʔ	k	1	1664
ʃ	c	1	3259
ə	ə.ʔ	1	14
ə	ə.N	1	1
ə	ə.ŋ	1	2120
ə	ɔ	1	3640
ə	u	1	3518
ə	o	1	1643
ə	au	1	3804
ɔ	ɔ.N	1	686
ɔ	ɔ.ŋ	1	3530
ŋ	m	1	1247
t	t	1	725
t	k	1	1195
t	d	1	2505
r	l	1	1755
r	-	1	383
p	p <sup>h</sup>	1	431
o	u	1	17
n	ŋ.j	1	1372
n	ŋ	1	2294
n	j	1	1372
k <sup>h</sup>	k <sup>h</sup> .r	1	371
k	l̥	1	2506
k	l	1	2506
k	d	1	954
j	ŋ.j	1	1372
a	ə.ʔ	1	14
-	ʔ	1	1768
-	N	1	2871
-	t	1	2311
-	s	1	1907
-	l	1	1290
-	g	1	1803

## Individual Alignments with Fuzzy Reconstructions

COGID 1 / «Dipterocarpus tuberculatus Roxb»

language	concept	pos	S1	S2	S3	S4
Kayah	Dipterocarpus tuberculatus Roxb	0	t <sup>h</sup>	ɔ	-	33
Kayan	Dipterocarpus tuberculatus Roxb	0	t <sup>h</sup>	ə	-	53
Kayaw	Dipterocarpus tuberculatus Roxb	0	t <sup>h</sup>	ə	-	55
NorthernPao	Dipterocarpus tuberculatus Roxb	0	t <sup>h</sup>	ə̌	ŋ	31
NorthernPwo	Dipterocarpus tuberculatus Roxb	0	t <sup>h</sup>	ã	-	55
NorthernSgaw	Dipterocarpus tuberculatus Roxb	0	t <sup>h</sup>	ə	-	33
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw	Dipterocarpus tuberculatus Roxb	0	t <sup>h</sup>	ɔ	-	55
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			t <sup>h</sup> :100	ə:90 ə.N:10	ŋ:100	55:100
ProtoKaren			t <sup>h</sup>	ə	N	55

## COGID 149 / «bat»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	bat	0	p	l	e	-	11
Kayan	bat	0	b	l	a	-	11
Kayaw	bat	0	p	l	a	-	11
NorthernPao	bat	0	p	l	a	f	31
NorthernPwo	bat	0	p <sup>h</sup>	l	a	-	33
NorthernSgaw	bat	0	b	l	a	-	33
SouthernPao	bat	0	p	l	a	f	31
SouthernPwo	bat	0	p <sup>h</sup>	l	a	-	55
SouthernSgaw	bat	0	b	l	a	-	55
WesternBwe	bat	0	p	l	ɛ	-	11
Fuzzy			p:100	l:100	a:100	-:100	55:90 11:10
ProtoKaren			p	l	a	55	

## COGID 161 / «bathe»

language	concept	pos	S1	S2	S3	S4
Kayah	bathe	0	l	o	-	11
Kayan			Ø	Ø	Ø	Ø
Kayaw	bathe	0	l	u	-	11
NorthernPao	bathe	0	l	u	-	55
NorthernPwo	bathe	0	l	ou	-	33
NorthernSgaw	bathe	0	l	i	ɸ	11
SouthernPao	bathe	0	l	u	-	33
SouthernPwo	bathe	0	l	ou	-	55
SouthernSgaw	bathe	0	l	i	-	45
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			l:100	ou:100	-:100	11:100
ProtoKaren			l̥	ou	11	

### COGID 203 / «bee (Apis dorsata)»

language	concept	pos	S1	S2	S3	S4
Kayah	bee (Apis dorsata)	0	n	i	-	33
Kayan	bee (Apis dorsata)	0	n	ai	-	53
Kayaw	bee (Apis dorsata)	0	n	i	-	55
NorthernPao	bee (Apis dorsata)	0	n	e	ɸ	31
NorthernPwo	bee (Apis dorsata)	0	n	i	-	35
NorthernSgaw	bee (Apis dorsata)	1	n	ɛ	-	33
SouthernPao	bee (Apis dorsata)	0	n	e	ɸ	31
SouthernPwo	bee (Apis dorsata)	0	n	i	-	53
SouthernSgaw	bee (Apis dorsata)	0	n	ɛ	-	55
WesternBwe	bee (Apis dorsata)	0	n	i	-	33
Fuzzy			n:80 n̥:20	e:100	-:100	55:100
ProtoKaren			n̥	e	55	

### COGID 371 / «bone»

language	concept	pos	S1	S2	S3	S4	S5	S6
Kayah	bone	0	k <sup>h</sup>	r	w	i	-	55
Kayan	bone	0	c <sup>h</sup>	-	w	i	ʔ	45
Kayaw	bone	0	c <sup>h</sup>	-	-	u	-	33
NorthernPao	bone	0	c <sup>h</sup>	-	-	u	t	21
NorthernPwo			Ø	Ø	Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø	Ø	Ø

language	concept	pos	S1	S2	S3	S4	S5	S6
SouthernPao	bone	0	c <sup>h</sup>	-	-	əu	t	21
SouthernPwo	bone	0	x	-	w	i	-	55
SouthernSgaw			Ø	Ø	Ø	Ø	Ø	Ø
WesternBwe	bone	0	k <sup>h</sup>	-	w	i	-	33
Fuzzy			k <sup>h</sup> :90 k <sup>h</sup> .r:10	r:100	w:100	i:100	t:100	51:100
ProtoKaren			k <sup>h</sup>	r	w	i	t	51

## COGID 383 / «braid»

language	concept	pos	S1	S2	S3	S4
Kayah	braid	0	s	ə	11	
Kayan			Ø	Ø	Ø	
Kayaw	braid	0	s	i	11	
NorthernPao	braid	0	s	i	55	
NorthernPwo	braid	0	s	ei	33	
NorthernSgaw	braid	0	s	i	31	
SouthernPao	braid	0	s	i	33	
SouthernPwo	braid	0	θ	ei	55	
SouthernSgaw			Ø	Ø	Ø	
WesternBwe	braid	0	θ.r	e	33	
Fuzzy			s:100	r:90 :-:10	ei:100	11:100
ProtoKaren			s	r	ei	11

## COGID 17 / «brain»

language	concept	pos	S1	S2	S3	S4
Kayah	brain	0	k <sup>h</sup>	u	11	
Kayan			Ø	Ø	Ø	
Kayaw	brain	0	k <sup>h</sup>	u	33	
NorthernPao			Ø	Ø	Ø	
NorthernPwo	brain	0	k <sup>h</sup>	u	55	
NorthernSgaw	brain	0	k <sup>h</sup>	o	31	
SouthernPao			Ø	Ø	Ø	
SouthernPwo	brain	0	k <sup>h</sup>	u	55	
SouthernSgaw	brain	0	k <sup>h</sup>	u.?	45	
WesternBwe			Ø	Ø	Ø	
Fuzzy			k <sup>h</sup> :100	o:90 u:10	:-:100	55:90 11:10

language	concept	pos	S1	S2	S3	S4
ProtoKaren			k <sup>h</sup>	o	55	

### COGID 394 / «brain»

language	concept	pos	S1	S2	S3	S4
Kayah	brain	1	n	ɔ	-	33
Kayan	brain	0	n	ɔ	ʔ	21
Kayaw	brain	1	n	ə	-	33
NorthernPao	brain	1	n	o	k	45
NorthernPwo	brain	1	n	au	ʔ	21
NorthernSgaw	brain	1	n	u	ʔ	21
SouthernPao	brain	1	n	u	ʔ	45
SouthernPwo	brain	1	n	ɔu	ʔ	45
SouthernSgaw	brain	1	n	ɔu	ɸ	11
WesternBwe	brain	0	n	o	-	11
Fuzzy			n:80 n̥:20	o:100	kʰ:100	51:100
ProtoKaren			n	o	kʰ	51

### COGID 420 / «breasts»

language	concept	pos	S1	S2	S3	S4
Kayah	breasts	0	n	u	-	11
Kayan	breasts	0	n	u	-	11
Kayaw	breasts	0	n	u	-	11
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo	breasts	0	n	u	ɸ	11
NorthernSgaw	breasts	0	n	u	ɸ	11
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	breasts	0	n	u	-	33
SouthernSgaw	breasts	0	n	u	-	31
WesternBwe	breasts	0	n	u	-	33
Fuzzy			n:80 n̥:20	u:100	-:100	11:100
ProtoKaren			n	u	11	

### COGID 431 / «broken, split, separate»

language	concept	pos	S1	S2	S3	S4
Kayah	broken, split, separate	0	p <sup>h</sup>	e	-	55
Kayan	broken, split, separate	0	p <sup>h</sup>	a	ʔ	45
Kayaw	broken, split, separate	0	p <sup>h</sup>	ɔ	-	33
NorthernPao	broken, split, separate	0	p	a	ʔ	21
NorthernPwo	broken, split, separate	0	p <sup>h</sup>	a	ʔ	45
NorthernSgaw	broken, split, separate	0	p <sup>h</sup>	a	ʔ	45
SouthernPao	broken, split, separate	0	p	a	ʔ	21
SouthernPwo	broken, split, separate	0	p <sup>h</sup>	a	ʔ	21
SouthernSgaw	broken, split, separate	0	p <sup>h</sup>	a	ʔ	21
WesternBwe	broken, split, separate	0	p <sup>h</sup>	a	-	33
Fuzzy ProtoKaren			p:90 <sub>1</sub> p <sup>h</sup> :10 p	a:100 a	ʔ <sup>ː</sup> :100 ʔ <sup>ː</sup>	51:100 51

## COGID 444 / «buffalo»

language	concept	pos	S1	S2	S3	S4
Kayah	buffalo	0	p	e	-	55
Kayan	buffalo	0	b	u	ʔ	45
Kayaw	buffalo	0	p	a	-	33
NorthernPao	buffalo	0	p	a	ʔ	21
NorthernPwo	buffalo	0	p	a	ʔ	21
NorthernSgaw	buffalo	0	p	ə	-	33
SouthernPao	buffalo	0	p	a	ʔ	21
SouthernPwo	buffalo	0	p	ə	ʔ	21
SouthernSgaw	buffalo	0	p	ə	-	11
WesternBwe	buffalo	0	b	ə	-	33
Fuzzy ProtoKaren			p:100 p	ə:100 ə	ʔ <sup>ː</sup> :100 ʔ <sup>ː</sup>	51:80 <sub>1</sub> <sup>0</sup> :20 0

## COGID 445 / «buffalo»

language	concept	pos	S1	S2	S3	S4
Kayah	buffalo	1	n	e	-	11
Kayan	buffalo	1	n	a	-	11
Kayaw	buffalo	1	n	a	-	11
NorthernPao	buffalo	1	n	a	-	53
NorthernPwo	buffalo	1	n	a	h	11
NorthernSgaw	buffalo	1	n	a	h	11
SouthernPao	buffalo	1	n	a	-	55
SouthernPwo	buffalo	1	n	a	-	33
SouthernSgaw	buffalo	1	n	a	-	31
WesternBwe	buffalo	1	n	ɛ	-	33
Fuzzy			n:80 n̥:20	a:100	-:100	11:100
ProtoKaren			n	a	11	

## COGID 495 / «caress»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	caress	0	p <sup>h</sup>	-	i	33	
Kayan			Ø	Ø	Ø	Ø	
Kayaw	caress	0	p <sup>h</sup>	-	u	55	
NorthernPao	caress	0	p <sup>h</sup>	r	i	55	
NorthernPwo	caress	0	p <sup>h</sup>	-	ã	35	
NorthernSgaw	caress	0	p <sup>h</sup>	ɣ	u	33	
SouthernPao			Ø	Ø	Ø	Ø	
SouthernPwo	caress	0	p <sup>h</sup>	-	õ	55	
SouthernSgaw	caress	0	p <sup>h</sup>	-	u	55	
WesternBwe			Ø	Ø	Ø	Ø	
Fuzzy			p <sup>h</sup> :100	r:100	u.N:100	55:100	
ProtoKaren			p <sup>h</sup>	r	u	N	55

## COGID 514 / «caterpillar»

language	concept	pos	S1	S2	S3	S4
Kayah	caterpillar	0	s	i	-	55
Kayan	caterpillar	0	θ	i	ʔ	45
Kayaw	caterpillar	0	s	i	-	33



language	concept	pos	S1	S2	S3	S4
NorthernPao	caterpillar	0	s	e	ʔ	21
NorthernPwo	caterpillar	0	s	i	-	35
NorthernSgaw	caterpillar	0	s	i	ʔ	45
SouthernPao	caterpillar	0	s	i	ʔ	21
SouthernPwo	caterpillar	0	θ	ai	ʔ	21
SouthernSgaw	caterpillar	0	s	ai	ʔ	21
WesternBwe	caterpillar	0	θ	a	-	33
Fuzzy			s:100	i:100	ʔː80 ʔ:20	51:100
ProtoKaren			s	i	ʔ	51

## COGID 567 / «charcoal»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	charcoal	0	s	-	u	11	
Kayan	charcoal	0	θ	-	au	11	
Kayaw	charcoal	0	s	-	u	11	
NorthernPao	charcoal	0	s	w	a	55	
NorthernPwo	charcoal	0	s	w	a	33	
NorthernSgaw	charcoal	0	s	w	a	31	
SouthernPao	charcoal	0	s	w	a	33	
SouthernPwo	charcoal	0	θ	w	a	55	
SouthernSgaw	charcoal	0	s	w	a	45	
WesternBwe			∅	∅	∅	∅	
Fuzzy			s:100	w.w:100	a:100	11:100	
ProtoKaren			s	w	w	a	11

## COGID 579 / «chicken»

language	concept	pos	S1	S2	S3	S4	S5	S6
Kayah	chicken	0	c <sup>h</sup>	-	ɛ	-	-	33
Kayan	chicken	0	ɕ	-	a	ŋ	-	53
Kayaw	chicken	0	ɕ	-	ɔ	-	-	55
NorthernPao	chicken	0	ɕ	j	a	n	fi	31
NorthernPwo	chicken	0	c <sup>h</sup>	-	ẽ	-	-	35
NorthernSgaw	chicken	0	c <sup>h</sup>	-	ɔ	-	-	33
SouthernPao	chicken	0	ɕ	j	a	n	fi	31
SouthernPwo	chicken	0	c <sup>h</sup>	-	õ	-	-	53
SouthernSgaw	chicken	0	c <sup>h</sup>	-	ɔ	-	-	55

language	concept	pos	S1	S2	S3	S4	S5	S6
WesternBwe	chicken	0	ɲ	-	a	-	-	<sup>55</sup>
Fuzzy			c <sup>h</sup> :100	j:100	a:100	n:60 N:40	-:100	<sup>55</sup> :100
ProtoKaren			c <sup>h</sup>	j	a	N	<sup>55</sup>	

## COGID 616 / «cicada»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	cicada	0	-	j	a	<sup>11</sup>	
Kayan	cicada	0	-	j	ai	<sup>33</sup>	
Kayaw			Ø	Ø	Ø	Ø	
NorthernPao	cicada	0	ŋ	j	ai	<sup>33</sup>	
NorthernPwo	cicada	0	-	j	ai	<sup>55</sup>	
NorthernSgaw	cicada	0	-	j	e	<sup>33</sup>	
SouthernPao			Ø	Ø	Ø	Ø	
SouthernPwo	cicada	0	-	j	ai.fi	<sup>31</sup>	
SouthernSgaw			Ø	Ø	Ø	Ø	
WesternBwe			Ø	Ø	Ø	Ø	
Fuzzy			ŋ:90 N:10	j:100	ai:100	-:100	<sup>55</sup> :100
ProtoKaren			ŋ	j	ai	<sup>55</sup>	

## COGID 686 / «classifier for long objects»

language	concept	pos	S1	S2	S3	S4
Kayah	classifier for long objects	0	b	o	-	<sup>33</sup>
Kayan	classifier for long objects	0	b	ɔ	-	<sup>53</sup>
Kayaw	classifier for long objects	0	b	o	-	<sup>55</sup>
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo	classifier for long objects	0	b	õ	-	<sup>55</sup>
NorthernSgaw	classifier for long objects	0	b	o	-	<sup>33</sup>
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	classifier for long objects	0	b	õ	fi	<sup>31</sup>

language	concept	pos	S1	S2	S3	S4
SouthernSgaw	classifier for long objects	0	b	u	-	55
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			<sup>ʔ</sup> b:100	ɔ:90 ɔ.N:10	-:100	55:100
ProtoKaren			<sup>ʔ</sup> b	ɔ	N	55

## COGID 725 / «comb (v.)»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	comb (v.)	0	k <sup>h</sup>	w	i	-	55
Kayan	comb (v.)	0	k <sup>h</sup>	w	i	ʔ	45
Kayaw	comb (v.)	0	-	w	i	-	33
NorthernPao	comb (v.)	0	-	w	u	t	21
NorthernPwo	comb (v.)	0	k <sup>h</sup>	w	i	-	35
NorthernSgaw	comb (v.)	0	k <sup>h</sup>	w	i	-	33
SouthernPao			Ø	Ø	Ø	Ø	Ø
SouthernPwo	comb (v.)	0	k <sup>h</sup>	w	i	-	53
SouthernSgaw	comb (v.)	0	k <sup>h</sup>	w	i	-	55
WesternBwe	comb (v.)	0	k <sup>h</sup>	w	i	-	33
Fuzzy			k <sup>h</sup> :100	w:100	i:100	t:80 t <sup>ʔ</sup> :20	51:100
ProtoKaren			k <sup>h</sup>	w	i	t	51

## COGID 737 / «cotton thread»

language	concept	pos	S1	S2	S3
Kayah	cotton thread	0	l	o	11
Kayan	cotton thread	0	l	u	11
Kayaw	cotton thread	0	l	u	11
NorthernPao	cotton thread	0	l	u	55
NorthernPwo	cotton thread	0	l	ou	33
NorthernSgaw	cotton thread	0	l	ɨ	31
SouthernPao	cotton thread	0	l	u	33
SouthernPwo	cotton thread	0	l	ou	55
SouthernSgaw	cotton thread	0	l	ɨ	45
WesternBwe	cotton thread	0	l	u	33
Fuzzy			l:100	ou:100	11:100
ProtoKaren			l <sub>o</sub>	ou	11

## COGID 800 / «crop (of fowl), gizzard»

language	concept	pos	S1	S2	S3
Kayah	crop (of fowl), gizzard	0	k	ε	33
Kayan			Ø	Ø	Ø
Kayaw			k	i	11
NorthernPao	crop (of fowl), gizzard	0	Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø
NorthernSgaw			k	ə	11
SouthernPao			Ø	Ø	Ø
SouthernPwo			Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø
WesternBwe	crop (of fowl), gizzard	0	k	ə	55
Fuzzy			k:80 g:20	ə:100	0:100
ProtoKaren			k	ə	0

## COGID 801 / «crop (of fowl), gizzard»

language	concept	pos	S1	S2	S3
Kayah	crop (of fowl), gizzard	1	n	i	33
Kayan			Ø	Ø	Ø
Kayaw			n	i	55
NorthernPao	crop (of fowl), gizzard	0	Ø	Ø	Ø
NorthernPwo			n	ei	35
NorthernSgaw			n	i	33
SouthernPao			Ø	Ø	Ø
SouthernPwo			n	ei	53
SouthernSgaw			n	i	55
WesternBwe	crop (of fowl), gizzard	1	n	i	55
Fuzzy			n:60 ŋ:40	i:100	55:100
ProtoKaren			ŋ	i	55

## COGID 815 / «cross (v.)»

language	concept	pos	S1	S2	S3	S4
Kayah	cross (v.)	0	k <sup>h</sup>	ε	33	
Kayan			Ø	Ø	Ø	
Kayaw			k <sup>h</sup>	ɔ	55	

language	concept	pos	S1	S2	S3	S4
NorthernPao			Ø	Ø	Ø	
NorthernPwo	cross (v.)	0	k <sup>h</sup>	ẽ	35	
NorthernSgaw	cross (v.)	0	k <sup>h</sup>	ɔ	33	
SouthernPao			Ø	Ø	Ø	
SouthernPwo	cross (v.)	0	k <sup>h</sup>	ĩ	53	
SouthernSgaw	cross (v.)	0	k <sup>h</sup>	ɔ	55	
WesternBwe			Ø	Ø	Ø	
Fuzzy			k <sup>h</sup> :100	a.N:100	55:100	
ProtoKaren			k <sup>h</sup>	a	N	55

### COGID 848 / «crush (v.)»

language	concept	pos	S1	S2	S3	S4
Kayah	crush (v.)	0	n	o	11	
Kayan			Ø	Ø	Ø	
Kayaw	crush (v.)	0	n	o	11	
NorthernPao			Ø	Ø	Ø	
NorthernPwo	crush (v.)	0	n	ĩ	33	
NorthernSgaw	crush (v.)	0	n	õ	31	
SouthernPao			Ø	Ø	Ø	
SouthernPwo	crush (v.)	0	n	õ	55	
SouthernSgaw	crush (v.)	0	n	u	45	
WesternBwe	crush (v.)	1	n	u	33	
Fuzzy			n:60 n̥:40	ɔ.N:100	11:100	
ProtoKaren			n̥	ɔ	N	11

### COGID 894 / «day»

language	concept	pos	S1	S2	S3	S4
Kayah	day	0	n	ə	-	11
Kayan			Ø	Ø	Ø	Ø
Kayaw	day	0	n	i	-	33
NorthernPao	day	0	n	i	-	33
NorthernPwo	day	0	n	ei	-	55
NorthernSgaw	day	0	n	i	-	33
SouthernPao	day	0	n	i	-	53
SouthernPwo	day	0	n	ei	h	31
SouthernSgaw	day	0	n	i	-	33

language	concept	pos	S1	S2	S3	S4
WesternBwe	day	0	n	i	-	33
Fuzzy			n:90 ŋ:10	ei:100	-.:100	55:100
ProtoKaren			n	ei	55	

## COGID 954 / «deer (sambha ~)»

language	concept	pos	S1	S2	S3
Kayah			Ø	Ø	Ø
Kayan			Ø	Ø	Ø
Kayaw			Ø	Ø	Ø
NorthernPao			Ø	Ø	Ø
NorthernPwo	deer (sambha ~)	0	t	a	33
NorthernSgaw	deer (sambha ~)	0	t	a	33
SouthernPao			Ø	Ø	Ø
SouthernPwo	deer (sambha ~)	0	c <sup>h</sup>	ə	33
SouthernSgaw	deer (sambha ~)	0	t <sup>h</sup>	ɔ	33
WesternBwe			Ø	Ø	Ø
Fuzzy			d:90 k:10	a:70 ə:30	55:70  <sup>0</sup> :30
ProtoKaren			t	ə	0

## COGID 953 / «deer (sambha ~)»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	deer (sambha ~)	0	k <sup>h</sup>	r	ɔ	-	55
Kayan	deer (sambha ~)	0	k <sup>h</sup>	j	ɔ	ʔ	45
Kayaw	deer (sambha ~)	0	k <sup>h</sup>	-	ə	-	33
NorthernPao	deer (sambha ~)	0	k <sup>h</sup>	j	o	ʔ	21
NorthernPwo			Ø	Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø	Ø
SouthernPao	deer (sambha ~)	0	k <sup>h</sup>	j	u	ʔ	21
SouthernPwo			Ø	Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø	Ø

language	concept	pos	S1	S2	S3	S4	S5
Fuzzy			k <sup>h</sup> :100	j:100	o:100	ʔ:100	<sup>51</sup> :100
ProtoKaren			k <sup>h</sup>	r	o	ʔ	<sup>51</sup>

### COGID 1003 / «dip up»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	
Kayan	dip up	0	d	u	<sup>11</sup>	
Kayaw	dip up	0	d	u	<sup>11</sup>	
NorthernPao			Ø	Ø	Ø	
NorthernPwo	dip up	0	d	ãə	<sup>33</sup>	
NorthernSgaw	dip up	0	d	ẽ	<sup>31</sup>	
SouthernPao			Ø	Ø	Ø	
SouthernPwo	dip up	0	d	ãə	<sup>55</sup>	
SouthernSgaw	dip up	0	d	i	<sup>45</sup>	
WesternBwe	dip up	0	d	ɔ	<sup>55</sup>	
Fuzzy			ʔd:100	ə.ŋ:100	<sup>11</sup> :100	
ProtoKaren			ʔd	ə	ŋ	<sup>11</sup>

### COGID 1981 / «lie down, sleep»

language	concept	pos	S1	S2	S3
Kayah	lie down, sleep	0	m	ə	<sup>33</sup>
Kayan	lie down, sleep	0	m	ai	<sup>53</sup>
Kayaw	lie down, sleep	0	m	i	<sup>55</sup>
NorthernPao			Ø	Ø	Ø
NorthernPwo	lie down, sleep	0	m	ei	<sup>35</sup>
NorthernSgaw	dream (v.)	0	m	i	<sup>33</sup>
SouthernPao			Ø	Ø	Ø
SouthernPwo	lie down, sleep	0	m	ei	<sup>53</sup>
SouthernSgaw	lie down, sleep	0	m	i	<sup>55</sup>
WesternBwe	dream (v.)	0	m	i	<sup>55</sup>
Fuzzy			m̥:90 m:10	ei:100	<sup>55</sup> :100
ProtoKaren			m̥	ei	<sup>55</sup>

### COGID 1091 / «drunk»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	drunk	0	m	-	i	-	11
Kayan	drunk	0	m	-	i	-	33
Kayaw	drunk	0	m	-	u	-	33
NorthernPao	drunk	0	m	-	u	n	33
NorthernPwo	drunk	0	m	-	ã	-	55
NorthernSgaw	drunk	0	m	-	u	-	33
SouthernPao	drunk	0	m	w	ə	m	53
SouthernPwo	drunk	0	m	-	õi	fi	31
SouthernSgaw	drunk	0	m	-	u	-	33
WesternBwe	drunk	0	m	-	u	-	33
Fuzzy			m:100	:-60 w:40	i:100	N:100	55:100
ProtoKaren			m	w	i	N	55

### COGID 1104 / «dry(v.)»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan	dry(v.)	0	l	au	-	53
Kayaw	dry(v.)	0	l	u	-	55
NorthernPao	dry(v.)	0	l	o	fi	31
NorthernPwo	dry(v.)	0	l	u	-	35
NorthernSgaw	dry(v.)	0	l	o	-	33
SouthernPao	dry(v.)	0	l	o	fi	31
SouthernPwo	dry(v.)	0	l	u	-	53
SouthernSgaw	dry(v.)	0	l	u	-	55
WesternBwe	dry(v.)	0	l	o	-	55
Fuzzy			l:90 l:10	o:100	-:100	55:100
ProtoKaren			l <sub>o</sub>	o	55	

### COGID 1129 / «ear»

language	concept	pos	S1	S2	S3	S4
Kayah	ear	0	n	e	-	11
Kayan	ear	0	n	a	-	11
Kayaw	ear	0	n	a	-	11
NorthernPao	ear	0	n	a	-	53
NorthernPwo	ear	0	n	a	fi	11
NorthernSgaw	ear	0	n	a	fi	11



language	concept	pos	S1	S2	S3	S4
SouthernPao	ear	0	n	a	-	55
SouthernPwo	ear	0	n	a	-	33
SouthernSgaw	ear	0	n	a	-	31
WesternBwe	ear	0	n	ɛ	-	33
Fuzzy			n:80 n:20	a:100	-:100	11:100
ProtoKaren			n	a	11	

## COGID 1142 / «earthworm»

language	concept	pos	S1	S2	S3	S4
Kayah	earthworm	0	j	a	-	33
Kayan	earthworm	0	ɟ	ɛ	ʔ	21
Kayaw	earthworm	0	j	e	-	33
NorthernPao	earthworm	0	j	ɛ	ʔ	45
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø
SouthernPao	earthworm	0	j	ɛ	ʔ	45
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			j:100	ɛ:100	ʔ:100	51:100
ProtoKaren			j	ɛ	ʔ	51

## COGID 1186 / «eggplant»

language	concept	pos	S1	S2	S3	S4
Kayah	eggplant	0	k	ɛ	-	11
Kayan	eggplant	0	k	a	ŋ	33
Kayaw	eggplant	0	k	ɔ	-	33
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw	eggplant	1	k	ɔ	-	33
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw	eggplant	0	k	ɔ	-	33
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			k:80 g:20	a:100	ŋ:70 N:30	55:100

language	concept	pos	S1	S2	S3	S4
ProtoKaren			g	a	ŋ	55

## COGID 1195 / «eight»

language	concept	pos	S1	S2	S3	S4	S5
Kayah			Ø	Ø	Ø	Ø	
Kayan	eight	0	c <sup>h</sup>	au	ʔ	45	
Kayaw	eight	0	x	ɔ	-	11	
NorthernPao	eight	0	s	ə	t	21	
NorthernPwo	eight	0	x	o	ʔ	21	
NorthernSgaw	eight	0	x	ɔ	ʔ	45	
SouthernPao	eight	0	s	ɔ	t	21	
SouthernPwo	eight	0	x	u	ʔ	45	
SouthernSgaw	eight	0	x	o	ʔ	21	
WesternBwe			Ø	Ø	Ø	Ø	
Fuzzy			k <sup>h</sup> .r:100	ɔ:100	t:80 k <sup>h</sup> :10 ʔ <sup>h</sup> :10	51:100	
ProtoKaren			k <sup>h</sup>	r	ɔ	t	51

## COGID 1237 / «enter»

language	concept	pos	S1	S2	S3	S4
Kayah	enter	0	n	o	-	33
Kayan			Ø	Ø	Ø	Ø
Kayaw	enter	0	n	u	-	33
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo	enter	0	n	aə	ʔ	21
NorthernSgaw	enter	0	n	i	ʔ	21
SouthernPao	enter	0	n	ə	ʔ	45
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw	enter	0	n	əu	fi	11
WesternBwe	enter	0	n	u	-	11
Fuzzy			n:80 ŋ:20	ə:100	ʔ <sup>h</sup> :60 ʔ <sup>h</sup> :40	51:100
ProtoKaren			n	ə	ʔ	51

## COGID 1247 / «exert forcing to expel»

language	concept	pos	S1	S2	S3	S4	S5	S6
Kayah	exert forcing to expel	0	c <sup>h</sup>	-	i	-	-	33
Kayan	exert forcing to expel	0	c <sup>h</sup>	w	a	ŋ	-	53
Kayaw	exert forcing to expel	0	c <sup>h</sup>	-	u	-	-	55
NorthernPao	exert forcing to expel	0	c <sup>h</sup>	-	ə	ŋ	ɸ	31
NorthernPwo			Ø	Ø	Ø	Ø	Ø	Ø
NorthernSgaw	exert forcing to expel	0	c <sup>h</sup>	-	u	-	-	33
SouthernPao	exert forcing to expel	0	c <sup>h</sup>	w	ə	m	-	31
SouthernPwo			Ø	Ø	Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø	Ø	Ø
Fuzzy			c <sup>h</sup> :100	- :100	u:100	N:60 m:30 ŋ:10		55:100
ProtoKaren			c <sup>h</sup>	u	N	55		

## COGID 1268 / «eye, face»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan			Ø	Ø	Ø	Ø
Kayaw			Ø	Ø	Ø	Ø
NorthernPao	eye, face	0	m	ɛ	ʔ	45
NorthernPwo	eye, face	0	m	e	ʔ	21
NorthernSgaw	eye, face	0	m	ɛ	ʔ	21
SouthernPao	eye, face	0	m	ɛ	ʔ	45
SouthernPwo	eye, face	0	m	e	ʔ	45
SouthernSgaw	eye, face	0	m	ɛ	ɸ	11
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			m:80 m̥:20	ɛ:100	ʔ:90 ʔ:10	51:100
ProtoKaren			m	ɛ	ʔ	51

## COGID 1290 / «fat (adj)»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	fat (adj)	0	b	-	i	-	11
Kayan	fat (adj)	0	b	w	a	ŋ	11
Kayaw	fat (adj)	0	b	-	u	-	11
NorthernPao	fat (adj)	0	p	l	ə	ŋ	55
NorthernPwo	fat (adj)	0	b	-	ã	-	33
NorthernSgaw	fat (adj)	0	b	-	õ	-	31
SouthernPao	fat (adj)	0	p	w	ə	ŋ	33
SouthernPwo	fat (adj)	0	b	-	õ	-	55
SouthernSgaw	fat (adj)	0	b	-	ɔ	-	45
WesternBwe	fat (adj)	0	ḃ	-	u	-	33
Fuzzy			ʔb:100	l:80 :-:20	u:100	ŋ:100	11:100
ProtoKaren			ʔb	l	u	ŋ	11

### COGID 1337 / «female, woman»

language	concept	pos	S1	S2	S3
Kayah	female, woman	0	m	ɔ	11
Kayan	female, woman	0	m	i	11
Kayaw	female, woman	0	m	i	11
NorthernPao	female, woman	0	m	i	55
NorthernPwo	female, woman	0	m	əi	33
NorthernSgaw	female, woman	0	m	i	31
SouthernPao	female, woman	0	m	i	33
SouthernPwo	female, woman	0	m	i	55
SouthernSgaw	female, woman	0	m	i	45
WesternBwe	female, woman	0	m	o	33
Fuzzy			m:100	i:100	11:100
ProtoKaren			m̥	i	11

### COGID 1350 / «fire»

language	concept	pos	S1	S2	S3
Kayah	fire	0	m	i	11
Kayan	fire	0	m	ai	11
Kayaw	fire	0	m	i	11
NorthernPao	fire	0	m	e	55
NorthernPwo	fire	0	m	i	33
NorthernSgaw	fire	0	m	e	31

language	concept	pos	S1	S2	S3
SouthernPao	fire	0	m	e	33
SouthernPwo	fire	0	m	i	55
SouthernSgaw	fire	0	m	e	45
WesternBwe	fire	0	m	i	33
Fuzzy			m:100	e:100	11:100
ProtoKaren			m̥	e	11

## COGID 1372 / «five»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	five	0	ŋ	ɛ	-	33	
Kayan	five	0	ŋ	ɛ	ʔ	21	
Kayaw	five	0	j	ɛ	-	33	
NorthernPao	five	0	ŋ	a	t	45	
NorthernPwo	five	0	j	ɛ	fi	11	
NorthernSgaw	five	0	j	ɛ	fi	11	
SouthernPao	five	0	n	a	p	45	
SouthernPwo	five	0	j	ɛ	-	33	
SouthernSgaw	five	0	j	ɛ	-	31	
WesternBwe	five	0	j	ɛ	-	11	
Fuzzy			j:70 ŋ.j:20 n:10	a:100	tʰ:100	51:100	
ProtoKaren			ŋ	j	a	tʰ	51

## COGID 6 / «flea»

language	concept	pos	S1	S2	S3	S4
Kayah	flea	0	k <sup>h</sup>	l	a	55
Kayan			Ø	Ø	Ø	Ø
Kayaw	flea	0	k <sup>h</sup>	l	e	33
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw	flea	0	k <sup>h</sup>	l	i	55
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw	flea	0	k <sup>h</sup>	l	i	55
WesternBwe	flea	0	k <sup>h</sup>	l	e	33
Fuzzy			k <sup>h</sup> :100	l:100	i:80 e:20	55:100

language	concept	pos	S1	S2	S3	S4
ProtoKaren			k <sup>h</sup>	l	i	55

## COGID 1464 / «four»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	four	0	l	w	i	-	33
Kayan	four	0	l	w	i	-	53
Kayaw	four	0	l	-	i	-	55
NorthernPao	four	0	l	-	i	p	45
NorthernPwo	four	0	l	w	i	ɸ	11
NorthernSgaw	four	0	l	w	i	ɸ	11
SouthernPao	four	0	l	-	i	p	45
SouthernPwo	four	0	l	-	ei	-	33
SouthernSgaw	four	0	l	w	i	-	31
WesternBwe	four	0	l	-	u	-	55
Fuzzy			l:100	w:100	i:100	t <sup>ɿ</sup> :100	55:90 <sup> </sup> 51:10
ProtoKaren			l <sub>o</sub>	w	i	t <sup>ɿ</sup>	55

## COGID 1554 / «go»

language	concept	pos	S1	S2	S3	S4	S5
Kayah			Ø	Ø	Ø	Ø	Ø
Kayan	go	0	l	-	ɛ	-	33
Kayaw	go	0	l	-	ɛ	-	33
NorthernPao	go	0	l	w	ɛ	-	33
NorthernPwo	go	0	l	-	e	-	55
NorthernSgaw	go	0	l	-	ɛ	-	33
SouthernPao	go	0	l	w	ɛ	-	53
SouthernPwo	go	0	l	-	e	ɸ	31
SouthernSgaw	go	0	l	-	ɛ	-	33
WesternBwe	go	0	l	-	e	-	33
Fuzzy			l:90 <sup> </sup> l:10	w:100	ɛ:100	-:100	55:100
ProtoKaren			l	w	ɛ	55	

## COGID 1643 / «hat»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	hat	0	k	l	o	-	<sup>11</sup>
Kayan	hat	0	k	l	ɔ	-	<sup>11</sup>
Kayaw	hat	0	k	l	ə	-	<sup>11</sup>
NorthernPao	hat	0	k	l	o	ŋ	<sup>55</sup>
NorthernPwo			Ø	Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø	Ø
SouthernPao	hat	0	k	l	o	ŋ	<sup>33</sup>
SouthernPwo			Ø	Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø	Ø
WesternBwe	hat	0	k	l	o	-	<sup>33</sup>
Fuzzy			k:100	l:100	ə:60 o:40	ŋ:100	<sup>11</sup> :100
ProtoKaren			k	l	ə	ŋ	<sup>11</sup>

### COGID 1664 / «hawk, eagle»

language	concept	pos	S1	S2	S3	S4
Kayah	hawk, eagle	0	l	a	-	<sup>33</sup>
Kayan	hawk, eagle	0	l	i	ʔ	<sup>21</sup>
Kayaw	hawk, eagle	0	l	e	-	<sup>33</sup>
NorthernPao	hawk, eagle	0	l	e	ʔ	<sup>45</sup>
NorthernPwo	hawk, eagle	0	l	ai	ʔ	<sup>21</sup>
NorthernSgaw	hawk, eagle	0	l	i	ʔ	<sup>21</sup>
SouthernPao	hawk, eagle	0	l	e	k	<sup>45</sup>
SouthernPwo	hawk, eagle	0	l	ai	ʔ	<sup>45</sup>
SouthernSgaw	hawk, eagle	0	l	ai	fi	<sup>11</sup>
WesternBwe	hawk, eagle	0	l	e	-	<sup>11</sup>
Fuzzy			l:100	e:100	kʰ:90 ʔ:10	<sup>51</sup> :100
ProtoKaren			l	e	kʰ	<sup>51</sup>

### COGID 1720 / «hip»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	hip	0	k	l	e	-	<sup>11</sup>
Kayan	hip	0	k	-	a	ŋ	<sup>11</sup>
Kayaw	hip	0	k	-	ɔ	-	<sup>11</sup>
NorthernPao			Ø	Ø	Ø	Ø	Ø
NorthernPwo	hip	0	k	w	ã	fi	<sup>11</sup>
NorthernSgaw	hip	1	k	-	ĩ	fi	<sup>11</sup>

language	concept	pos	S1	S2	S3	S4	S5
SouthernPao	hip	0	k	w	a	m	55
SouthernPwo	hip	0	k <sup>h</sup>	w	ṽ	-	33
SouthernSgaw	hip	0	k	-	ɔ	-	31
WesternBwe			Ø	Ø	Ø	Ø	Ø
Fuzzy			g:90 k:10	l:80 w:20	a:100	m:100	11:100
ProtoKaren			g	l	a	m	11

## COGID 1742 / «horn»

language	concept	pos	S1	S2	S3	S4
Kayah	horn	0	n	ɔ	-	11
Kayan	horn	0	n	əu	-	33
Kayaw	horn	0	n	ə	-	11
NorthernPao	horn	0	n	o	ŋ	33
NorthernPwo	horn	0	n	ãu	-	55
NorthernSgaw	horn	0	n	ḁ	-	33
SouthernPao	horn	0	n	o	ŋ	53
SouthernPwo	horn	0	n	õu	fi	31
SouthernSgaw	horn	0	n	i	-	33
WesternBwe	horn	0	n	o	-	11
Fuzzy			n:80 ŋ:20	o:100	ŋ:100	55:100
ProtoKaren			n	o	ŋ	55

## COGID 1755 / «hornet»

language	concept	pos	S1	S2	S3	S4	S5	S6
Kayah	hornet	0	p <sup>h</sup>	l	i	-	-	33
Kayan	hornet	0	p <sup>h</sup>	r	i	-	-	53
Kayaw	hornet	0	p <sup>h</sup>	r	i	-	-	55
NorthernPaohornet	hornet	0	p <sup>h</sup>	r	i	m	fi	31
NorthernPwornet	hornet	0	p <sup>h</sup>	l	ã	-	-	35
NorthernSgawornet	hornet	0	p <sup>h</sup>	l	ə	-	-	33
SouthernPaohornet	hornet	0	p <sup>h</sup>	r	i	n	fi	31
SouthernPwornet	hornet	0	p <sup>h</sup>	l	ḁi	-	-	53
SouthernSgawornet	hornet	0	p <sup>h</sup>	l	i	-	-	55
WesternBwehornet	hornet	0	p <sup>h</sup>	l	u	-	-	55
Fuzzy			p <sup>h</sup> :100	r:90 l:10	i:100	n:70 n:20 m:10	100	55:100



language	concept	pos	S1	S2	S3	S4	S5	S6
ProtoKaren			p <sup>h</sup>	r	i	N	55	

## COGID 1768 / «horse»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan			Ø	Ø	Ø	Ø
Kayaw			Ø	Ø	Ø	Ø
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo	horse	0	k	a	ʔ	<sup>21</sup>
NorthernSgaw	horse	0	k	ə	-	<sup>33</sup>
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	horse	0	k	ə	-	<sup>11</sup>
SouthernSgaw	horse	0	k	ə	-	<sup>11</sup>
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			k:100	ə:100	-:50 ʔ:30 ʔ':20	<sup>0</sup> :100
ProtoKaren			k	ə	ʔ	<sup>0</sup>

## COGID 1803 / «husband»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	husband	0	-	w	e	-	<sup>11</sup>
Kayan	husband	0	g	w	a	-	<sup>33</sup>
Kayaw	husband	0	-	w	a	-	<sup>33</sup>
NorthernPao	husband	0	-	w	a	-	<sup>33</sup>
NorthernPwo	husband	0	-	w	a	-	<sup>55</sup>
NorthernSgaw	husband	0	-	w	a	-	<sup>33</sup>
SouthernPao	husband	0	-	w	a	-	<sup>53</sup>
SouthernPwo	husband	0	-	w	a	f	<sup>31</sup>
SouthernSgaw	husband	0	-	w	a	-	<sup>33</sup>
WesternBwe	husband	0	-	w	ɛ	-	<sup>33</sup>
Fuzzy			g:70  -:30	w:100	a:100	-:100	<sup>55</sup> :100
ProtoKaren			g	w	a	<sup>55</sup>	

## COGID 1879 / «kidney»

language	concept	pos	S1	S2	S3
Kayah			Ø	Ø	Ø
Kayan			Ø	Ø	Ø
Kayaw			Ø	Ø	Ø
NorthernPao			Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø
NorthernSgaw	kidney	0	k	ə	<sup>33</sup>
SouthernPao			Ø	Ø	Ø
SouthernPwo			Ø	Ø	Ø
SouthernSgaw	kidney	0	k	ə	<sup>11</sup>
WesternBwe			Ø	Ø	Ø
Fuzzy			k:90 g:10	ə:100	<sup>0</sup> :90  <sup>55</sup> :10
ProtoKaren			k	ə	<sup>0</sup>

### COGID 1894 / «leaf»

language	concept	pos	S1	S2	S3
Kayah	leaf	0	l	e	<sup>11</sup>
Kayan	leaf	0	l	a	<sup>11</sup>
Kayaw	leaf	0	l	a	<sup>11</sup>
NorthernPao	leaf	0	l	a	<sup>55</sup>
NorthernPwo	leaf	0	l	a	<sup>33</sup>
NorthernSgaw	leaf	0	l	a	<sup>31</sup>
SouthernPao	leaf	0	l	a	<sup>33</sup>
SouthernPwo	leaf	0	l	a	<sup>55</sup>
SouthernSgaw	leaf	0	l	a	<sup>45</sup>
WesternBwe	leaf	0	l	ɛ	<sup>33</sup>
Fuzzy			l:100	a:100	<sup>11</sup> :100
ProtoKaren			<sub>0</sub> l	a	<sup>11</sup>

### COGID 1907 / «leech (land~)»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	leech (land~)	0	s	w	e	-	<sup>55</sup>
Kayan	leech (land~)	0	-	θ	a	?	<sup>45</sup>
Kayaw	leech (land~)	0	s	-	ɔ	-	<sup>33</sup>

language	concept	pos	S1	S2	S3	S4	S5
NorthernPao	leech (land~)	0	-	w	a	ʔ	21
NorthernPwo	leech (land~)	0	-	w	a	ʔ	21
NorthernSgaw	leech (land~)	0	s	-	a	ʔ	45
SouthernPao	leech (land~)	0	-	w	a	ʔ	21
SouthernPwo	leech (land~)	0	-	w	a	ʔ	45
SouthernSgaw	leech (land~)	0	s	-	a	ʔ	21
WesternBwe			Ø	Ø	Ø	Ø	Ø
Fuzzy			:-70 s:30	w:90 l:10	a:100	ʔʔ:100	51:100
ProtoKaren			s	w	a	ʔʔ	51

## COGID 1921 / «leech (water~)»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan			Ø	Ø	Ø	Ø
Kayaw	leech (water~)	1	l	i	-	33
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo	leech (water~)	0	l	ei	-	55
NorthernSgaw	leech (water~)	1	l	i	-	33
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	leech (water~)	0	l	ei	h	31
SouthernSgaw	leech (water~)	1	l	i	-	33
WesternBwe	leech (water~)	1	l	ɪ	-	33
Fuzzy			l:90 l:10	ei:60 i:40	:-100	55:100
ProtoKaren			l	ei	55	

## COGID 1959 / «lemur (flying~), flying squirrel»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	lemur (flying~), flying squirrel	0	p	l	a	-	33
Kayan			Ø	Ø	Ø	Ø	Ø
Kayaw	lemur (flying~), flying squirrel	0	p	l	e	-	33
NorthernPao	lemur (flying~), flying squirrel	0	p <sup>h</sup>	l	i	ʔ	21
NorthernPwo	lemur (flying~), flying squirrel	0	p <sup>h</sup>	l	ai	ʔ	21
NorthernSgaw	lemur (flying~), flying squirrel	0	p	l	i	ʔ	45
SouthernPao			Ø	Ø	Ø	Ø	Ø
SouthernPwo	lemur (flying~), flying squirrel	0	p <sup>h</sup>	l	ai	ʔ	45
SouthernSgaw	lemur (flying~), flying squirrel	0	p	l	ai	fi	11
WesternBwe	lemur (flying~), flying squirrel	0	b	l	i	-	33
Fuzzy			b:100	l:100	e:100	ʔ':100	51:100
ProtoKaren			b	l	e	ʔ	51

## COGID 1971 / «lick (v.)»

language	concept	pos	S1	S2	S3
Kayah			Ø	Ø	Ø
Kayan	lick (v.)	0	l	ai	11
Kayaw	lick (v.)	0	l	i	11
NorthernPao			Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø
NorthernSgaw	lick (v.)	0	l	e	31
SouthernPao	lick (v.)	0	l	ai	33
SouthernPwo	lick (v.)	0	l	ai	55
SouthernSgaw	lick (v.)	0	l	i	45
WesternBwe	lick (v.)	0	l	i	33
Fuzzy			l:90 l:10	ai:100	11:100
ProtoKaren			l o	ai	11

## COGID 2036 / «linear measure of about two yards»

language	concept	pos	S1	S2	S3	S4	S5	S6
Kayah	linear measure of about two yards	0	k <sup>h</sup>	l	i	-	-	33
Kayan	linear measure of about two yards	0	k <sup>h</sup>	l	a	ŋ	-	53
Kayaw			Ø	Ø	Ø	Ø	Ø	Ø
NorthernPao	linear measure of about two yards	0	k <sup>h</sup>	l	ɛ	m	fi	31
NorthernPwo	linear measure of about two yards	0	k <sup>h</sup>	l	ãi	-	-	35
NorthernSgaw	linear measure of about two yards	0	k <sup>h</sup>	l	i	-	-	33
SouthernPao	linear measure of about two yards	0	k <sup>h</sup>	l	ɛ	ŋ	fi	31
SouthernPwo	linear measure of about two yards	0	k <sup>h</sup>	l	ãi	-	-	53
SouthernSgaw	linear measure of about two yards	0	k <sup>h</sup>	l	i	-	-	55
WesternBwe			Ø	Ø	Ø	Ø	Ø	Ø
Fuzzy			k <sup>h</sup> :100	l:100	ɛ:100	N:90 ŋ:10	:100	55:100
ProtoKaren			k <sup>h</sup>	l	ɛ	N	55	

## COGID 2046 / «listen to»

language	concept	pos	S1	S2	S3
Kayah			Ø	Ø	Ø
Kayan	listen to	0	n	a	11
Kayaw	listen to	0	n	a	11
NorthernPao	listen to	0	n	a	55
NorthernPwo	listen to	0	n	a	33
NorthernSgaw	listen to	1	n	a	31
SouthernPao	listen to	0	n	a	33
SouthernPwo	listen to	0	n	a	55
SouthernSgaw	listen to	0	n	a	45
WesternBwe	listen to	1	n	ɛ	33
Fuzzy			n:50 ŋ:50	a:100	11:100
ProtoKaren			ŋ	a	11

## COGID 2059 / «live, stay»

language	concept	pos	S1	S2	S3	S4
Kayah	live, stay	0	ʔ	o	-	11
Kayan	live, stay	0	ʔ	au	-	11
Kayaw	live, stay	0	ʔ	o	-	11
NorthernPao	live, stay	0	ʔ	o	ŋ	55
NorthernPwo	live, stay	0	ʔ	õ	-	33
NorthernSgaw	live, stay	0	ʔ	õ	-	31
SouthernPao	live, stay	0	ʔ	o	ŋ	33
SouthernPwo	live, stay	0	ʔ	õ	-	55
SouthernSgaw	live, stay	0	ʔ	u	-	45
WesternBwe	live, stay	0	-	ɔ	-	33
Fuzzy			ʔ:100	ɔ:100	ŋ:100	11:100
ProtoKaren			ʔ	ɔ	N	11

## COGID 2072 / «liver»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	liver	0	s	-	o	-	11
Kayan	liver	0	θ	-	i	-	11
Kayaw			Ø	Ø	Ø	Ø	Ø
NorthernPao	liver	0	s	-	i	n	55
NorthernPwo	liver	0	s	-	ã	-	33
NorthernSgaw	liver	0	s	-	ũ	-	31
SouthernPao	liver	0	s	w	ə	n	33
SouthernPwo	liver	0	θ	-	õi	-	55
SouthernSgaw	liver	0	s	-	u	-	45
WesternBwe	liver	0	θ	-	u	-	55
Fuzzy			s:100	w:60 :-:40	i:100	n:70 n:30	11:100
ProtoKaren			s	w	i	n	11

## COGID 2120 / «loris»

language	concept	pos	S1	S2	S3	S4
Kayah	loris	0	c <sup>h</sup>	ɔ	-	33
Kayan	loris	0	c <sup>h</sup>	ə	ŋ	53
Kayaw	loris	0	c <sup>h</sup>	ə	-	55

language	concept	pos	S1	S2	S3	S4
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo	loris	0	c <sup>h</sup>	ãi	-	35
NorthernSgaw	loris	1	c <sup>h</sup>	e	-	33
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	loris	1	c <sup>h</sup>	ěi	-	53
SouthernSgaw	loris	1	c <sup>h</sup>	i	-	55
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			c <sup>h</sup> :100	ə:90 ə.ŋ:10	ŋ:60 N:40	55:100
ProtoKaren			c <sup>h</sup>	ə	ŋ	55

## COGID 2153 / «louse (head~)»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	louse (head~)	0	s	o	11		
Kayan	louse (head~)	0	θ	i	11		
Kayaw	louse (head~)	0	s	i	11		
NorthernPao	louse (head~)	0	s	i	55		
NorthernPwo	louse (head~)	0	s	ã	33		
NorthernSgaw	louse (head~)	0	s	ũ	31		
SouthernPao	louse (head~)	0	s	i	33		
SouthernPwo	louse (head~)	0	θ	ẽĩ	55		
SouthernSgaw	louse (head~)	0	s	u	45		
WesternBwe	louse (head~)	0	θ	o	11		
Fuzzy			s:100	i.N:100	11:100		
ProtoKaren			s	w	i	N	11

## COGID 2167 / «lung»

language	concept	pos	S1	S2	S3
Kayah			Ø	Ø	Ø
Kayan			Ø	Ø	Ø
Kayaw			Ø	Ø	Ø
NorthernPao			Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø
NorthernSgaw	lung	0	p	ə	33
SouthernPao			Ø	Ø	Ø
SouthernPwo	lung	0	b	u	33
SouthernSgaw			Ø	Ø	Ø

language	concept	pos	S1	S2	S3
WesternBwe			Ø	Ø	Ø
Fuzzy			p:100	ə:100	<sup>0</sup> :90  <sup>55</sup> :10
ProtoKaren			p	ə	<sup>0</sup>

### COGID 2180 / «maggot»

language	concept	pos	S1	S2	S3	S4
Kayah	maggot	0	l	ɔ	-	<sup>11</sup>
Kayan	maggot	0	l	əu	-	<sup>11</sup>
Kayaw	maggot	0	l	ə	-	<sup>11</sup>
NorthernPao	maggot	0	l	o	ŋ	<sup>55</sup>
NorthernPwo	maggot	0	l	ãu	-	<sup>33</sup>
NorthernSgaw	maggot	0	l	ẽ	-	<sup>31</sup>
SouthernPao	maggot	0	l	o	ŋ	<sup>33</sup>
SouthernPwo	maggot	0	l	õu	-	<sup>55</sup>
SouthernSgaw	maggot	0	l	i	-	<sup>45</sup>
WesternBwe	maggot	0	l	o	-	<sup>33</sup>
Fuzzy			l:100	o:100	ŋ:100	<sup>11</sup> :100
ProtoKaren			l̥	o	ŋ	<sup>11</sup>

### COGID 2254 / «milipede»

language	concept	pos	S1	S2	S3
Kayah	milipede	1	k	ɔ	<sup>55</sup>
Kayan	milipede	1	k	ə	<sup>11</sup>
Kayaw			Ø	Ø	Ø
NorthernPao	milipede	0	k	ɔ	<sup>55</sup>
NorthernPwo			Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø
SouthernPao	milipede	0	k	ɔ	<sup>11</sup>
SouthernPwo			Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø
Fuzzy			k:100	ə:100	<sup>0</sup> :90  <sup>11</sup> :10
ProtoKaren			k	ə	<sup>0</sup>

### COGID 2294 / «money»



language	concept	pos	S1	S2	S3	S4	S5	S6
Kayah	money	0	r	-	i	-	-	33
Kayan	money	0	r	w	a	ŋ	-	53
Kayaw	money	0	r	-	u	-	-	55
NorthernPaomoney		0	r	-	ə	ŋ	fi	31
NorthernPwo			Ø	Ø	Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø	Ø	Ø
SouthernPaomoney		0	r	w	ə	n	-	31
SouthernPwo			Ø	Ø	Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø	Ø	Ø
Fuzzy			r:70 r:30	-:100	u:100	n:50 N:30 ŋ:20:100		55:100
ProtoKaren			r <sub>o</sub>	u	n	55		

### COGID 2311 / «monitor lizard (water~)»

language	concept	pos	S1	S2	S3	S4
Kayah	monitor lizard (water~)	0	-	r	e	33
Kayan			Ø	Ø	Ø	Ø
Kayaw	monitor lizard (water~)	0	t	r	e	55
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	monitor lizard (water~)	0	-	ɣ	ei	31
SouthernSgaw	monitor lizard (water~)	0	-	r	e	55
WesternBwe	monitor lizard (water~)	0	t	r	e	55
Fuzzy			t:80  -:20	r:100	e:100	55:100
ProtoKaren			t	r	e	55

### COGID 2328 / «moon, month»

language	concept	pos	S1	S2	S3	S4
Kayah	moon, month	0	l	e	-	33
Kayan	moon, month	0	l	a	-	53
Kayaw	moon, month	0	l	a	-	55
NorthernPao	moon, month	0	l	a	fi	31
NorthernPwo	moon, month	0	l	a	-	55
NorthernSgaw	moon, month	0	l	a	-	33
SouthernPao	moon, month	0	l	a	fi	31
SouthernPwo	moon, month	0	l	a	fi	31
SouthernSgaw	moon, month	0	l	a	-	55
WesternBwe	moon, month	0	l	ε	-	55
Fuzzy			l:100	a:100	-:100	55:100
ProtoKaren			ʔl	a	55	

### COGID 2363 / «mynah»

language	concept	pos	S1	S2	S3
Kayah	mynah	0	Ø	Ø	Ø
Kayan			Ø	Ø	Ø
Kayaw			s	a	11
NorthernPao			Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø
SouthernPao			Ø	Ø	Ø
SouthernPwo	mynah	0	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø
WesternBwe			θ	ə	33
Fuzzy			s:100	ə:100	0:90 11:10
ProtoKaren			s	ə	0

### COGID 2362 / «mynah»

language	concept	pos	S1	S2	S3	S4
Kayah	mynah	0	Ø	Ø	Ø	Ø
Kayan			r	a	ŋ	11
Kayaw			r	ɔ	-	11
NorthernPao			r	a	n	55
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø

language	concept	pos	S1	S2	S3	S4
SouthernPao	mynah	0	r	a	n	33
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø
WesternBwe	mynah	1	r	a	-	33
Fuzzy			r:100	a:100	N:80 n:20	11:100
ProtoKaren			r	a	N	11

## COGID 2372 / «nail»

language	concept	pos	S1	S2	S3
Kayah	nail	0	m	ə	11
Kayan	nail	0	m	i	11
Kayaw	nail	0	m	i	11
NorthernPao	nail	0	m	i	55
NorthernPwo	nail	0	m	ei	33
NorthernSgaw	nail	0	m	e	31
SouthernPao	nail	0	m	i	33
SouthernPwo	nail	0	m	ei	55
SouthernSgaw	nail	0	m	i	45
WesternBwe	nail	1	m	i	33
Fuzzy			m:100	ei:100	11:100
ProtoKaren			m̥	ei	11

## COGID 2388 / «name»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	name	0	m	-	i	-	11
Kayan	name	0	m	j	ə	ŋ	33
Kayaw	name	0	m	-	i	-	33
NorthernPao	name	0	m	-	i	n	33
NorthernPwo	name	0	m	-	ãi	-	55
NorthernSgaw	name	0	m	-	i	-	33
SouthernPao	name	0	m	-	i	n	53
SouthernPwo	name	0	m	-	ɛĩ	-	31
SouthernSgaw	name	0	m	-	i	-	33
WesternBwe	name	0	m	-	i	-	33
Fuzzy			m:100	-:100	i:100	n:60 N:40	55:100

language	concept	pos	S1	S2	S3	S4	S5
ProtoKaren			m	i	n	55	

## COGID 2401 / «narrow»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	narrow	0	ʔ	-	i	-	11
Kayan	narrow	0	ʔ	j	a	ŋ	11
Kayaw	narrow	0	ʔ	-	i	-	11
NorthernPao	narrow	0	ʔ	-	ɛ	n	55
NorthernPwo	narrow	0	ʔ	-	ãi	-	33
NorthernSgaw	narrow	0	ʔ	-	ĩ	-	31
SouthernPao	narrow	0	ʔ	-	ɛ	n	33
SouthernPwo	narrow	0	ʔ	-	ãi	-	55
SouthernSgaw	narrow	0	ʔ	-	i	-	45
WesternBwe			Ø	Ø	Ø	Ø	Ø
Fuzzy			ʔ:100	-:100	ɛ:100	n:70 N:30	11:100
ProtoKaren			ʔ	j	ɛ	n	11

## COGID 2429 / «neck, cheek»

language	concept	pos	S1	S2	S3	S4
Kayah	neck, cheek	1	b	o	-	33
Kayan	neck, cheek	1	b	ɔ	-	53
Kayaw	neck, cheek	1	b	o	-	55
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw	neck, cheek	1	b	o	-	33
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	neck, cheek	1	b	o	f	31
SouthernSgaw			Ø	Ø	Ø	Ø
WesternBwe	neck, cheek	0	ɓ	ɔ	-	33
Fuzzy			ʔb:100	ɔ:100	-:100	55:70 0:30
ProtoKaren			ʔb	ɔ	55	

## COGID 2456 / «nine»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan			Ø	Ø	Ø	Ø
Kayaw			Ø	Ø	Ø	Ø
NorthernPao	nine	0	k	o	t	<sup>45</sup>
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø
SouthernPao	nine	0	k	o	t	<sup>45</sup>
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			k:100	o:100	t:100	<sup>55</sup> :80  <sup>51</sup> :20
ProtoKaren			k	o	t	<sup>55</sup>

### COGID 2468 / «obtain, receive, take, get»

language	concept	pos	S1	S2	S3	S4
Kayah	obtain, receive, take, get	0	n	i	-	<sup>11</sup>
Kayan	obtain, receive, take, get	0	n	ai	-	<sup>11</sup>
Kayaw	obtain, receive, take, get	0	n	i	-	<sup>11</sup>
NorthernPao	obtain, receive, take, get	0	n	e	-	<sup>53</sup>
NorthernPwo	obtain, receive, take, get	0	n	i	fi	<sup>11</sup>
NorthernSgaw	obtain, receive, take, get	0	n	e	fi	<sup>11</sup>
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	obtain, receive, take, get	0	n	i	-	<sup>33</sup>
SouthernSgaw	obtain, receive, take, get	0	n	e	-	<sup>31</sup>
WesternBwe	obtain, receive, take, get	0	n	i	-	<sup>33</sup>
Fuzzy			n:70  <sub>n</sub> :30	e:100	-:100	<sup>11</sup> :100
ProtoKaren			n	e	<sup>11</sup>	

## COGID 2505 / «one»

language	concept	pos	S1	S2	S3	S4
Kayah	one	0	t	ə	-	0
Kayan			Ø	Ø	Ø	Ø
Kayaw	one	0	t	ə	-	0
NorthernPao	one	0	t	a	ʔ	21
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw	one	0	t	ə	-	33
SouthernPao	one	0	t	a	ʔ	21
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw	one	0	t	ə	ʔ	21
WesternBwe	one	0	t	o	-	55
Fuzzy			t:90 d:10	ə:100	ʔ:70 :-:30	55:50  <sup>0</sup> :30  <sup>51</sup> :20
ProtoKaren			t	ə	ʔ	0

## COGID 2506 / «one»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan	one	0	l	a	-	11
Kayaw			Ø	Ø	Ø	Ø
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo	one	0	l	a	ʔ	21
NorthernSgaw			Ø	Ø	Ø	Ø
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	one	0	l	a	h	31
SouthernSgaw			Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			l:50 k:40 l:10	ə:60 a:40	-:60 ʔ:40	<sup>0</sup> :90  <sup>55</sup> :10
ProtoKaren			l	a	ʔ	33

## COGID 2520 / «open (the mouth)»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	open (the mouth)	0	ʔ	ɛ	-	-	33

language	concept	pos	S1	S2	S3	S4	S5
Kayan	open (the mouth)	0	ʔ	a	ŋ	-	53
Kayaw	open (the mouth)	0	ʔ	ɔ	-	-	55
NorthernPao	open (the mouth)	0	ʔ	a	n	fi	31
NorthernPwo			Ø	Ø	Ø	Ø	Ø
NorthernSgaw	open (the mouth)	0	ʔ	ɔ	-	-	33
SouthernPao	open (the mouth)	0	ʔ	a	n	fi	31
SouthernPwo	open (the mouth)	0	ʔ	ɔ̃	-	fi	31
SouthernSgaw			Ø	Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø	Ø
Fuzzy			ʔ:100	a:100	N:90 n:10	-:100	55:100
ProtoKaren			ʔ	a	N	55	

### COGID 2531 / «ox, bull, cow»

language	concept	pos	S1	S2	S3
Kayah	ox, bull, cow	0	p	u	11
Kayan	ox, bull, cow	0	p	au	11
Kayaw	ox, bull, cow	0	p	u	11
NorthernPao	ox, bull, cow	0	p <sup>h</sup>	o	53
NorthernPwo			Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø
SouthernPao	ox, bull, cow	0	p	o	55
SouthernPwo			Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø
WesternBwe	ox, bull, cow	0	b	o	33
Fuzzy			b:90 p:10	o:100	11:100
ProtoKaren			b	o	11

### COGID 2570 / «path, trail, way»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan	path, trail, way	0	k	l	ε	<sup>33</sup>
Kayaw	path, trail, way	0	k	l	ε	<sup>33</sup>
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw	path, trail, way	0	k	l	ε	<sup>33</sup>
SouthernPao	path, trail, way	0	k	l	ai	<sup>53</sup>
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw	path, trail, way	0	k	l	ε	<sup>33</sup>
WesternBwe	path, trail, way	0	k	l	ε	<sup>33</sup>
Fuzzy			k:100	l:90 l:10	ε:100	<sup>55</sup> :100
ProtoKaren			k	l	ε	<sup>55</sup>

### COGID 2591 / «pen, coop»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	
Kayan			Ø	Ø	Ø	
Kayaw			Ø	Ø	Ø	
NorthernPao			Ø	Ø	Ø	
NorthernPwo			Ø	Ø	Ø	
NorthernSgaw	pen, coop	0	k	ə	<sup>11</sup>	
SouthernPao			Ø	Ø	Ø	
SouthernPwo			Ø	Ø	Ø	
SouthernSgaw	pen, coop	0	k	ə.ʔ	<sup>21</sup>	
WesternBwe			Ø	Ø	Ø	
Fuzzy			k:90 g:10	ə:100	-:80 ʔ:20	<sup>0</sup> :100
ProtoKaren			k	ə	<sup>0</sup>	

### COGID 2673 / «porcupine»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	porcupine	0	s	-	i	-	<sup>11</sup>
Kayan	porcupine	0	θ	w	a	ŋ	<sup>11</sup>
Kayaw	porcupine	0	s	-	u	-	<sup>11</sup>
NorthernPao	porcupine	0	s	-	u	n	<sup>55</sup>
NorthernPwo			Ø	Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø	Ø



language	concept	pos	S1	S2	S3	S4	S5
SouthernPao	porcupine	0	s	w	ə	m	33
SouthernPwo			Ø	Ø	Ø	Ø	Ø
SouthernSgaw	porcupine	0	s	-	u	-	45
WesternBwe	porcupine	0	θ	-	u	-	33
Fuzzy			s:100	-:100	u:100	n:50 N:50	11:100
ProtoKaren			s	u	n	11	

## COGID 2682 / «porcupine (brush-tailed~)»

language	concept	pos	S1	S2	S3
Kayah	porcupine (brush-tailed~)	0	s	e	33
Kayan			Ø	Ø	Ø
Kayaw	porcupine (brush-tailed~)	0	s	a	55
NorthernPao			Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø
SouthernPao			Ø	Ø	Ø
SouthernPwo	porcupine (brush-tailed~)	0	θ	ə	55
SouthernSgaw			Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø
Fuzzy			s:100	ə:100	0:90 55:10
ProtoKaren			s	ə	0

## COGID 2725 / «pumpkin (ash~)»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	pumpkin (ash~)	0	l	-	i	-	11
Kayan	pumpkin (ash~)	0	l	w	a	ŋ	11
Kayaw	pumpkin (ash~)	0	l	-	u	-	11
NorthernPao			Ø	Ø	Ø	Ø	Ø
NorthernPwo	pumpkin (ash~)	0	l	-	ã	fi	11
NorthernSgaw	pumpkin (ash~)	0	l	-	u	fi	11
SouthernPao			Ø	Ø	Ø	Ø	Ø

language	concept	pos	S1	S2	S3	S4	S5
SouthernPwo	pumpkin (ash~)	0	l	-	õ	-	33
SouthernSgaw	pumpkin (ash~)	0	l	-	u	-	31
WesternBwe	pumpkin (ash~)	0	l	-	u	-	11
Fuzzy ProtoKaren			l:100 l	-:100 u	u:100 N	ŋ:50 N:50 11	11:100

## COGID 2735 / «push»

language	concept	pos	S1	S2	S3	S4
Kayah	push	0	c <sup>h</sup>	ε	11	
Kayan			Ø	Ø	Ø	
Kayaw	push	0	c <sup>h</sup>	ɔ	11	
NorthernPao			Ø	Ø	Ø	
NorthernPwo	push	0	c <sup>h</sup>	ẽ	33	
NorthernSgaw	push	0	c <sup>h</sup>	ɔ	31	
SouthernPao			Ø	Ø	Ø	
SouthernPwo	push	0	c <sup>h</sup>	ĩ	55	
SouthernSgaw	push	0	c <sup>h</sup>	ɔ	45	
WesternBwe	push	0	ɲ	a	33	
Fuzzy			c <sup>h</sup> :100	a.N:100	11:100	
ProtoKaren			c <sup>h</sup>	a	N	11

## COGID 2769 / «put out (the tongue)»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan			Ø	Ø	Ø	Ø
Kayaw	put out (the tongue)	0	l	i	-	11
NorthernPao	put out (the tongue)	0	l	ε	m	55
NorthernPwo	put out (the tongue)	0	l	ãi	-	33
NorthernSgaw	put out (the tongue)	0	l	ẽ	-	31
SouthernPao	put out (the tongue)	0	l	ε	m	33
SouthernPwo	put out (the tongue)	0	l	ãi	-	55
SouthernSgaw	put out (the tongue)	0	l	i	-	45
WesternBwe			Ø	Ø	Ø	Ø

language	concept	pos	S1	S2	S3	S4
Fuzzy			l:80 l̥:20	ɛ:100	m:100	<sup>11</sup> :100
ProtoKaren			l̥	ɛ	m	<sup>11</sup>

### COGID 2813 / «rattan»

language	concept	pos	S1	S2	S3
Kayah	rattan	0	r	i	<sup>11</sup>
Kayan	rattan	0	r	ai	<sup>11</sup>
Kayaw	rattan	0	r	i	<sup>11</sup>
NorthernPao	rattan	0	r	e	<sup>53</sup>
NorthernPwo			Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø
SouthernPao	rattan	0	r	e	<sup>55</sup>
SouthernPwo			Ø	Ø	Ø
SouthernSgaw	rattan	0	r	e	<sup>31</sup>
WesternBwe			Ø	Ø	Ø
Fuzzy			r:90 ̥r:10	e:90 i:10	<sup>11</sup> :100
ProtoKaren			r	e	<sup>11</sup>

### COGID 2858 / «ripe, cooked»

language	concept	pos	S1	S2	S3	S4	S5	S6
Kayah	ripe, cooked	0	m	-	i	-	-	<sup>33</sup>
Kayan	ripe, cooked	0	m	j	ə	ŋ	-	<sup>53</sup>
Kayaw	ripe, cooked	0	m	-	i	-	-	<sup>55</sup>
NorthernPao	ripe, cooked	0	m	-	i	n	ɸ	<sup>31</sup>
NorthernPwo	ripe, cooked	0	m	-	ãi	-	-	<sup>55</sup>
NorthernSgaw	ripe, cooked	0	m	-	i	-	-	<sup>33</sup>
SouthernPao	ripe, cooked	0	m	-	i	n	ɸ	<sup>31</sup>
SouthernPwo	ripe, cooked	0	m	-	ẽi	-	-	<sup>31</sup>

language	concept	pos	S1	S2	S3	S4	S5	S6
SouthernSgaw	ripe, cooked	0	m	-	i	-	-	55
WesternBwe	ripe, cooked	0	m	-	i	-	-	55
Fuzzy ProtoKaren			m:100 ʔm	-:100 i	i:100 n	n:60 N:40 55	-:100	55:100

### COGID 2871 / «roast (by stuffing into fresh bamboo sections)»

language	concept	pos	S1	S2	S3	S4
Kayah	roast (by stuffing into fresh bamboo sections)	0	t	ai	-	11
Kayan	roast (by stuffing into fresh bamboo sections)	0	t	e	-	33
Kayaw	roast (by stuffing into fresh bamboo sections)	0	t	e	-	33
NorthernPao	roast (by stuffing into fresh bamboo sections)	0	t <sup>h</sup>	e	n	33
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw	roast (by stuffing into fresh bamboo sections)	0	t	e	-	33
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	roast (by stuffing into fresh bamboo sections)	0	t <sup>h</sup>	ɛĩ	-	31
SouthernSgaw	roast (by stuffing into fresh bamboo sections)	0	t	e	-	33
WesternBwe	roast (by stuffing into fresh bamboo sections)	0	d	e	-	33
Fuzzy			d:100	e:100	N:90 - :10	55:100
ProtoKaren			d	e	N	55

### COGID 2973 / «seven»

language	concept	pos	S1	S2	S3	S4	S5
Kayah			Ø	Ø	Ø	Ø	Ø
Kayan	seven	0	n	w	ɛ	-	53
Kayaw	seven	1	n	-	e	-	55

language	concept	pos	S1	S2	S3	S4	S5
NorthernPao	seven	0	n	-	i	t	21
NorthernPwo	seven	0	n	w	ɛ	-	55
NorthernSgaw	seven	0	n	w	i	ʔ	45
SouthernPao	seven	0	n	-	ə	t	45
SouthernPwo	seven	0	n	w	ɛ	h	31
SouthernSgaw	seven	0	n	w	i	-	55
WesternBwe	seven	0	n	w	e	-	55
Fuzzy			n:50 ŋ:50	w:100	e:100	tʰ:100	51:100
ProtoKaren			ʔn	w	e	tʰ	51

## COGID 3018 / «shivering»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan	shivering	0	k	a	ʔ	21
Kayaw	shivering	0	k	ɔ	-	11
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw	shivering	0	k	ə	-	11
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			k:100	ə:100	ʔʰ:80 -:20	0:90 11:10
ProtoKaren			k	ə	ʔʰ	0

## COGID 3017 / «shivering»

language	concept	pos	S1	S2	S3	S4
Kayah	shivering	1	n	ɛ	-	55
Kayan	shivering	1	n	au	ʔ	45
Kayaw	shivering	1	n	o	-	33
NorthernPao	shivering	1	n	ə	ʔ	21
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw	shivering	1	n	ɔ	ʔ	45
SouthernPao	shivering	1	n	ə	ʔ	21
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw	shivering	1	n	o	ʔ	21

language	concept	pos	S1	S2	S3	S4
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			n:100	ɔ:100	ʔ:100	<sup>51</sup> :100
ProtoKaren			ṇ	ɔ	ʔ	<sup>51</sup>

## COGID 14 / «shivering»

language	concept	pos	S1	S2	S3	S4
Kayah	shivering	0	t	ɛ	-	<sup>11</sup>
Kayan			Ø	Ø	Ø	Ø
Kayaw			Ø	Ø	Ø	Ø
NorthernPao	shivering	0	t	a	ʔ	<sup>21</sup>
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw	shivering	0	t	ə	-	<sup>11</sup>
SouthernPao	shivering	0	t	a	-	<sup>11</sup>
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			t:100	a:80 ə:10 ə.ʔ:10	ʔ:80 -:20	<sup>0</sup> :70  <sup>55</sup> :30
ProtoKaren			t	ə	ʔ	<sup>0</sup>

## COGID 3067 / «shove (with the foot)»

language	concept	pos	S1	S2	S3	S4	S5	S6
Kayah			Ø	Ø	Ø	Ø	Ø	Ø
Kayan			Ø	Ø	Ø	Ø	Ø	Ø
Kayaw	shove (with the foot)	0	t <sup>h</sup>	-	ʈ	-	-	<sup>55</sup>
NorthernPao	shove (with the foot)	0	t <sup>h</sup>	w	i	n	f	<sup>31</sup>
NorthernPwo	shove (with the foot)	0	t <sup>h</sup>	w	ã	-	-	<sup>35</sup>
NorthernSgaw	shove (with the foot)	1	t <sup>h</sup>	w	y	-	-	<sup>33</sup>
SouthernPao	shove (with the foot)	0	t <sup>h</sup>	w	ə	m	f	<sup>31</sup>
SouthernPwo	shove (with the foot)	0	t <sup>h</sup>	w	əi	-	-	<sup>53</sup>

language	concept	pos	S1	S2	S3	S4	S5	S6
SouthernSgaw	move (with the foot)	0	t <sup>h</sup>	w	u	-	-	<sup>55</sup>
WesternBwe			Ø	Ø	Ø	Ø	Ø	Ø
Fuzzy			t <sup>h</sup> :100	w:100	i:100	N:90 n:10-	-	<sup>55</sup> :100
ProtoKaren			t <sup>h</sup>	w	i	N	<sup>55</sup>	

## COGID 3077 / «six»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan	six	0	c <sup>h</sup>	u	-	<sup>53</sup>
Kayaw			Ø	Ø	Ø	Ø
NorthernPao	six	0	s	u	f	<sup>31</sup>
NorthernPwo	six	0	x	ou	-	<sup>35</sup>
NorthernSgaw	six	0	x	i	-	<sup>33</sup>
SouthernPao	six	0	s	u	f	<sup>31</sup>
SouthernPwo	six	0	x	ou	-	<sup>53</sup>
SouthernSgaw	six	0	x	i	-	<sup>55</sup>
WesternBwe	six	0	x	u	-	<sup>55</sup>
Fuzzy			k <sup>h</sup> .r:100	ou:100	-:100	<sup>55</sup> :100
ProtoKaren			k <sup>h</sup>	r	ou	<sup>55</sup>

## COGID 3103 / «sleeping»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan	sleeping	1	n	ai	-	<sup>11</sup>
Kayaw	sleeping	1	n	i	-	<sup>11</sup>
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw	sleeping	1	n	e	f	<sup>11</sup>
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw	sleeping	1	n	i	-	<sup>31</sup>
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			n:60 ŋ:40	ei:100	-:100	<sup>11</sup> :100

language	concept	pos	S1	S2	S3	S4
ProtoKaren			n	ei	11	

### COGID 3125 / «smell (v.)»

language	concept	pos	S1	S2	S3	S4	S5
Kayah			Ø	Ø	Ø	Ø	Ø
Kayan	smell (v.)	0	n	-	i	-	33
Kayaw	smell (v.)	0	n	-	i	-	33
NorthernPao	smell (v.)	0	n	-	u	m	33
NorthernPwo	smell (v.)	0	n	-	ã	-	35
NorthernSgaw	smell (v.)	0	n	-	ə	-	33
SouthernPao	smell (v.)	0	n	w	ə	m	53
SouthernPwo	smell (v.)	0	n	-	əi	-	53
SouthernSgaw	smell (v.)	0	n	-	i	-	55
WesternBwe	smell (v.)	0	n	-	u	-	55
Fuzzy			n:50 n̥:50	-:70 w:30	i:100	m:100	55:100
ProtoKaren			n	i	m	55	

### COGID 3167 / «son-in-law»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	son-in-law	0	m	e	-	-	33
Kayan	son-in-law	0	m	a	-	ʔ	21
Kayaw	son-in-law	0	m	ɔ	-	-	33
NorthernPao	son-in-law	0	m	a	-	ʔ	45
NorthernPwo			Ø	Ø	Ø	Ø	Ø
NorthernSgaw	son-in-law	0	m	a	-	ʔ	21
SouthernPao	son-in-law	0	m	a	-	ʔ	45
SouthernPwo	son-in-law	0	m	a	-	ʔ	45
SouthernSgaw	son-in-law	0	m	a	ʔ	fi	11
WesternBwe	son-in-law	0	m	a	-	-	11
Fuzzy			m:90 m̥:10	a:100	-:100	ʔ':100	51:100
ProtoKaren			m	a	ʔ'	51	

### COGID 3179 / «sour»



language	concept	pos	S1	S2	S3	S4	S5
Kayah	sour	0	c <sup>h</sup>	-	ɛ	-	11
Kayan	sour	0	ɕ	-	a	ŋ	11
Kayaw	sour	0	ɕ	-	ɔ	-	11
NorthernPao	sour	0	ɕ	j	a	n	55
NorthernPwo	sour	0	c <sup>h</sup>	-	ẽ	-	33
NorthernSgaw	sour	0	c <sup>h</sup>	-	ɔ	-	31
SouthernPao	sour	0	ɕ	j	a	n	33
SouthernPwo	sour	0	c <sup>h</sup>	-	ĩ	-	55
SouthernSgaw	sour	0	c <sup>h</sup>	-	ɔ	-	45
WesternBwe	sour	0	ɟ	-	a	-	33
Fuzzy			c <sup>h</sup> :100	j:100	a:100	n:60 N:40	11:100
ProtoKaren			c <sup>h</sup>	j	a	N	11

### COGID 3215 / «spleen»

language	concept	pos	S1	S2	S3	S4
Kayah	spleen	0	m	ɛ	33	
Kayan			Ø	Ø	Ø	
Kayaw	spleen	0	m	ɔ	55	
NorthernPao			Ø	Ø	Ø	
NorthernPwo	spleen	0	m	ẽ	35	
NorthernSgaw	spleen	1	m	ɔ	33	
SouthernPao			Ø	Ø	Ø	
SouthernPwo	spleen	0	m	ĩ	53	
SouthernSgaw	spleen	0	m	ɔ	55	
WesternBwe	spleen	1	m	a	33	
Fuzzy			m̥:100	a.N:100	55:100	
ProtoKaren			m̥	a	N	55

### COGID 3227 / «split (bamboo strip)»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan			Ø	Ø	Ø	Ø
Kayaw	split (bamboo strip)	0	p	l	a	11
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo	split (bamboo strip)	0	b	l	a	33
NorthernSgaw	split (bamboo strip)	0	b	l	a	31

language	concept	pos	S1	S2	S3	S4
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	split (bamboo strip)	0	b	l	a	<sup>55</sup>
SouthernSgaw	split (bamboo strip)	0	b	l	a	<sup>45</sup>
WesternBwe	split (bamboo strip)	0	p	l	ɛ	<sup>33</sup>
Fuzzy			p:100	l:90  <sub>5</sub> l:10	a:100	<sup>11</sup> :100
ProtoKaren			p	l	a	<sup>11</sup>

## COGID 3236 / «spray (v.)»

language	concept	pos	S1	S2	S3	S4	S5
Kayah			Ø	Ø	Ø	Ø	Ø
Kayan	spray (v.)	0	p <sup>h</sup>	r	u	-	<sup>53</sup>
Kayaw	spray (v.)	0	p <sup>h</sup>	r	u	-	<sup>55</sup>
NorthernPao	spray (v.)	0	p <sup>h</sup>	r	u	fi	<sup>31</sup>
NorthernPwo	spray (v.)	0	p <sup>h</sup>	j	u	-	<sup>55</sup>
NorthernSgaw			Ø	Ø	Ø	Ø	Ø
SouthernPao	spray (v.)	0	p	r	u	fi	<sup>31</sup>
SouthernPwo	spray (v.)	0	p	r	u	fi	<sup>31</sup>
SouthernSgaw	spray (v.)	0	p	r	u	-	<sup>55</sup>
WesternBwe	spray (v.)	0	p <sup>h</sup>	r	u	-	<sup>33</sup>
Fuzzy			p:90 b:10	r:100	u:100	-:100	<sup>55</sup> :100
ProtoKaren			p	r	u	<sup>55</sup>	

## COGID 3259 / «squeeze, massage»

language	concept	pos	S1	S2	S3	S4
Kayah	squeeze, massage	0	c	i	-	<sup>11</sup>
Kayan	squeeze, massage	0	c	i	-	<sup>11</sup>
Kayaw	squeeze, massage	0	c	i	-	<sup>11</sup>
NorthernPao	squeeze, massage	0	c	i	m	<sup>53</sup>
NorthernPwo	squeeze, massage	0	c <sup>h</sup>	ãi	fi	<sup>11</sup>
NorthernSgaw	squeeze, massage	0	c	i	fi	<sup>11</sup>
SouthernPao	squeeze, massage	0	c	i	m	<sup>55</sup>
SouthernPwo	squeeze, massage	0	c <sup>h</sup>	ẽi	-	<sup>33</sup>
SouthernSgaw	squeeze, massage	0	c	i	-	<sup>31</sup>
WesternBwe	squeeze, massage	0	c	i	-	<sup>33</sup>
Fuzzy			j:90 c:10	i:100	m:100	<sup>11</sup> :100

language	concept	pos	S1	S2	S3	S4
ProtoKaren			j	i	m	<sup>11</sup>

### COGID 3271 / «squirrel»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	Ø
Kayan			Ø	Ø	Ø	Ø
Kayaw			Ø	Ø	Ø	Ø
NorthernPao	squirrel	0	l	i	-	<sup>55</sup>
NorthernPwo	squirrel	0	l	ei	-	<sup>33</sup>
NorthernSgaw	squirrel	0	l	i	ʔ	<sup>45</sup>
SouthernPao	squirrel	0	l	i	-	<sup>33</sup>
SouthernPwo	squirrel	0	l	ei	-	<sup>55</sup>
SouthernSgaw	squirrel	0	l	i	-	<sup>45</sup>
WesternBwe	squirrel	0	l	i	-	<sup>11</sup>
Fuzzy			l:100	i:100	-:100	<sup>11</sup> :100
ProtoKaren			<sub>o</sub> l	i	<sup>11</sup>	

### COGID 3458 / «tendon»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	tendon	0	t <sup>h</sup>	w	ɛ	-	<sup>11</sup>
Kayan	tendon	0	t <sup>h</sup>	w	a	ŋ	<sup>11</sup>
Kayaw			Ø	Ø	Ø	Ø	Ø
NorthernPao			Ø	Ø	Ø	Ø	Ø
NorthernPwo	tendon	0	t <sup>h</sup>	w	ẽ	-	<sup>33</sup>
NorthernSgaw	tendon	0	t <sup>h</sup>	w	ɔ	-	<sup>31</sup>
SouthernPao			Ø	Ø	Ø	Ø	Ø
SouthernPwo	tendon	0	t <sup>h</sup>	w	õ	-	<sup>55</sup>
SouthernSgaw	tendon	0	t <sup>h</sup>	w	ɔ	-	<sup>45</sup>
WesternBwe			Ø	Ø	Ø	Ø	Ø
Fuzzy			t <sup>h</sup> :100	w:100	a:100	N:80 ŋ:20	<sup>11</sup> :100
ProtoKaren			t <sup>h</sup>	w	a	N	<sup>11</sup>

### COGID 3467 / «termite»

language	concept	pos	S1	S2	S3	S4	S5	S6
Kayah	termite	1	-	w	ɛ	-	-	33
Kayan			Ø	Ø	Ø	Ø	Ø	Ø
Kayaw			Ø	Ø	Ø	Ø	Ø	Ø
NorthernPao	termite	1	ʔ	w	a	n	ɸ	31
NorthernPwo			Ø	Ø	Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø	Ø	Ø
SouthernPao	termite	1	ʔ	w	a	n	ɸ	31
SouthernPwo			Ø	Ø	Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø	Ø	Ø
Fuzzy			ʔ:100	w:100	a:100	n:60 n:40	-:100	55:100
ProtoKaren			ʔ	w	a	N	55	

### COGID 3511 / «thick»

language	concept	pos	S1	S2	S3	S4	S5	S6
Kayah	thick	0	d	o	-	-	33	
Kayan	thick	0	d	i	-	-	53	
Kayaw	thick	0	d	u	-	-	55	
NorthernPao	thick	0	d	i	n	ɸ	31	
NorthernPwo			Ø	Ø	Ø	Ø	Ø	
NorthernSgaw			Ø	Ø	Ø	Ø	Ø	
SouthernPao	thick	0	d.w	ə	m	ɸ	31	
SouthernPwo			Ø	Ø	Ø	Ø	Ø	
SouthernSgaw			Ø	Ø	Ø	Ø	Ø	
WesternBwe			Ø	Ø	Ø	Ø	Ø	
Fuzzy			ʔd:90 ʔd.w:10-		i:100	N:100	-:100	55:100
ProtoKaren			ʔd	:60 w:40 w	i	N	55	

### COGID 3518 / «thin (as of cloth)»

language	concept	pos	S1	S2	S3	S4
Kayah	thin (as of cloth)	0	b	i	-	33
Kayan	thin (as of cloth)	0	b	i	-	53
Kayaw			Ø	Ø	Ø	Ø
NorthernPao	thin (as of cloth)	0	b	ə	ɸ	31
NorthernPwo			Ø	Ø	Ø	Ø

language	concept	pos	S1	S2	S3	S4
NorthernSgaw	thin (as of cloth)	0	b	u	-	33
SouthernPao	thin (as of cloth)	0	b	ə	fi	31
SouthernPwo	thin (as of cloth)	0	b	aə	fi	31
SouthernSgaw	thin (as of cloth)	0	b	u	-	55
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			ʔb:100	ə:90 u:10	-:100	55:100
ProtoKaren			ʔb	ə	55	

## COGID 3528 / «thousand»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	thousand	0	r	i	-	-	33
Kayan	thousand	0	r	e	-	-	53
Kayaw	thousand	0	r	e	-	-	55
NorthernPao	thousand	0	r	e	ŋ	fi	31
NorthernPwo			Ø	Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø	Ø
SouthernPao	thousand	0	r	e	ŋ	fi	31
SouthernPwo			Ø	Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø	Ø
Fuzzy			r̥:70 r:30	e:100	ŋ:100	-:100	55:100
ProtoKaren			r̥	e	ŋ	55	

## COGID 3530 / «thousand»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	
Kayan			Ø	Ø	Ø	
Kayaw	thousand	0	t <sup>h</sup>	o	33	
NorthernPao			Ø	Ø	Ø	
NorthernPwo			Ø	Ø	Ø	
NorthernSgaw	thousand	1	t <sup>h</sup>	o	33	
SouthernPao			Ø	Ø	Ø	
SouthernPwo	thousand	0	t <sup>h</sup>	ɔ̃	53	
SouthernSgaw	thousand	0	t <sup>h</sup>	u	55	
WesternBwe	thousand	1	t <sup>h</sup>	ɔ	55	
Fuzzy			t <sup>h</sup> :100	ɔ.ŋ:90 ɔ:10	55:100	

language	concept	pos	S1	S2	S3	S4
ProtoKaren			t <sup>h</sup>	ɔ	ŋ	55

## COGID 3640 / «tomorrow»

language	concept	pos	S1	S2	S3
Kayah	tomorrow	1	r	o	11
Kayan			Ø	Ø	Ø
Kayaw	tomorrow	1	r	o	33
NorthernPao	tomorrow	1	r	au	33
NorthernPwo			Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø
SouthernPao	tomorrow	1	r	au	53
SouthernPwo			Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø
Fuzzy			r:100	ɔ:80 ə:20	55:100
ProtoKaren			r	ɔ	55

## COGID 3704 / «trunk (of a tree), firewood»

language	concept	pos	S1	S2	S3	S4
Kayah	trunk (of a tree), firewood	0	m	ɔ	-	11
Kayan	trunk (of a tree), firewood	0	m	ə	-	11
Kayaw	trunk (of a tree), firewood	0	m	ə	-	11
NorthernPao	trunk (of a tree), firewood	0	m	i	ŋ	53
NorthernPwo	trunk (of a tree), firewood	0	m	ã	fi	11
NorthernSgaw	trunk (of a tree), firewood	0	m	i	fi	11
SouthernPao	trunk (of a tree), firewood	0	m	ə	ŋ	55
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø

language	concept	pos	S1	S2	S3	S4
Fuzzy			m:90 m̥:10	ə:100	ŋ:90 N:10	<sup>11</sup> :100
ProtoKaren			m	ə	ŋ	<sup>11</sup>

### COGID 3713 / «trunk (of an elephant)»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	trunk (of an elephant)	0	m	-	o	-	<sup>11</sup>
Kayan	trunk (of an elephant)	0	m	-	ɔ	-	<sup>33</sup>
Kayaw			Ø	Ø	Ø	Ø	Ø
NorthernPao			Ø	Ø	Ø	Ø	Ø
NorthernPwo	trunk (of an elephant)	0	m	l	ṣ̃	-	<sup>55</sup>
NorthernSgaw	trunk (of an elephant)	1	m	l	ɔ	-	<sup>33</sup>
SouthernPao	trunk (of an elephant)	0	m	-	ɔ	-	<sup>53</sup>
SouthernPwo	trunk (of an elephant)	0	m	l	õ	f	<sup>31</sup>
SouthernSgaw	trunk (of an elephant)	0	m	l	u	-	<sup>33</sup>
WesternBwe	trunk (of an elephant)	0	b	l	ɔ	-	<sup>11</sup>
Fuzzy			m:90 m̥:10	l:100	ɔ:100	-:100	<sup>55</sup> :100
ProtoKaren			m	l	ɔ	N	<sup>55</sup>

### COGID 3727 / «two»

language	concept	pos	S1	S2	S3
Kayah			Ø	Ø	Ø
Kayan			Ø	Ø	Ø
Kayaw	two	0	k <sup>h</sup>	i	<sup>55</sup>
NorthernPao			Ø	Ø	Ø
NorthernPwo	two	0	k <sup>h</sup>	ei	<sup>35</sup>
NorthernSgaw	two	0	k <sup>h</sup>	i	<sup>33</sup>
SouthernPao			Ø	Ø	Ø
SouthernPwo			Ø	Ø	Ø

language	concept	pos	S1	S2	S3
SouthernSgaw	two	0	k <sup>h</sup>	i	<sup>55</sup>
WesternBwe	two	0	k <sup>h</sup>	i	<sup>55</sup>
Fuzzy			k <sup>h</sup> :100	i:80 ei:20	<sup>55</sup> :100
ProtoKaren			k <sup>h</sup>	ə	0

## COGID 3726 / «two»

language	concept	pos	S1	S2	S3	S4
Kayah	two	0	n	ə	-	<sup>33</sup>
Kayan	two	0	ŋ	i	-	<sup>53</sup>
Kayaw			Ø	Ø	Ø	Ø
NorthernPao	two	0	n	i	fi	<sup>31</sup>
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø
SouthernPao	two	0	n	i	fi	<sup>31</sup>
SouthernPwo	two	0	n	ei	-	<sup>53</sup>
SouthernSgaw			Ø	Ø	Ø	Ø
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			n:50 N:50	ei:90 i:10	-:100	<sup>55</sup> :100
ProtoKaren			ŋ	ei	<sup>55</sup>	

## COGID 3752 / «vagina»

language	concept	pos	S1	S2	S3	S4
Kayah	vagina	0	l	i	-	<sup>11</sup>
Kayan			Ø	Ø	Ø	Ø
Kayaw	vagina	0	l	i	-	<sup>11</sup>
NorthernPao	vagina	0	l	i	n	<sup>53</sup>
NorthernPwo	vagina	0	l	ãi	fi	<sup>11</sup>
NorthernSgaw	vagina	0	l	i	fi	<sup>11</sup>
SouthernPao	vagina	0	l	i	m	<sup>55</sup>
SouthernPwo	vagina	0	l	ẽi	-	<sup>33</sup>
SouthernSgaw	vagina	0	l	i	-	<sup>31</sup>
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			l:100	i:100	n:90 m:10	<sup>11</sup> :100
ProtoKaren			l	i	n	<sup>11</sup>



## COGID 3775 / «vulture»

language	concept	pos	S1	S2	S3	S4
Kayah	vulture	0	l	ɛ	-	11
Kayan			∅	∅	∅	∅
Kayaw	vulture	0	l	ɔ	-	11
NorthernPao	vulture	0	l	a	ŋ	55
NorthernPwo	vulture	0	l	ẽ	-	35
NorthernSgaw	vulture	0	l	ĩ	-	33
SouthernPao	vulture	0	l	a	ŋ	33
SouthernPwo	vulture	0	l	ĩ	-	53
SouthernSgaw	vulture	0	l	ɔ	-	33
WesternBwe	vulture	0	l	a	-	33
Fuzzy			l:100	a:100	ŋ:100	11:100
ProtoKaren			l̥	a	ŋ	11

## COGID 3804 / «waist»

language	concept	pos	S1	S2	S3
Kayah			∅	∅	∅
Kayan			∅	∅	∅
Kayaw			∅	∅	∅
NorthernPao			∅	∅	∅
NorthernPwo	waist	0	j	a	11
NorthernSgaw	waist	0	j	ɔ	11
SouthernPao			∅	∅	∅
SouthernPwo	waist	0	j	ã	33
SouthernSgaw	waist	0	j	ɔ	31
WesternBwe	waist	0	j	a	33
Fuzzy			j:100	ə:80 au:20	0:90 11:10
ProtoKaren			j	ə	0

## COGID 3818 / «warm»

language	concept	pos	S1	S2	S3	S4
Kayah	warm	0	l	e	-	11
Kayan	warm	0	l	a	ŋ	33
Kayaw	warm	0	l	ɔ	-	33

language	concept	pos	S1	S2	S3	S4
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo	warm	0	l	ã	-	55
NorthernSgaw	warm	1	l	õ	-	33
SouthernPao	warm	0	l	a	m	53
SouthernPwo	warm	0	l	õ	h	31
SouthernSgaw	warm	0	l	ɔ	-	33
WesternBwe	warm	0	l	ɛ	-	33
Fuzzy			l:100	a:100	m:90 N:10	55:100
ProtoKaren			l	a	m	55

### COGID 3862 / «wasp»

language	concept	pos	S1	S2	S3	S4
Kayah			Ø	Ø	Ø	
Kayan			Ø	Ø	Ø	
Kayaw			Ø	Ø	Ø	
NorthernPao			Ø	Ø	Ø	
NorthernPwo			Ø	Ø	Ø	
NorthernSgaw	wasp	0	t	ə	11	
SouthernPao			Ø	Ø	Ø	
SouthernPwo	wasp	0	t <sup>h</sup>	ẽ	33	
SouthernSgaw	wasp	0	t	i	31	
WesternBwe			Ø	Ø	Ø	
Fuzzy			d:100	ə.ŋ:100	0:80 11:10 55:10	
ProtoKaren			d	ə	ŋ	55

### COGID 3927 / «weevil»

language	concept	pos	S1	S2	S3	S4
Kayah	weevil	0	r	ɔ	-	11
Kayan	weevil	0	r	əu	-	11
Kayaw	weevil	0	r	ə	-	11
NorthernPao	weevil	0	r	o	ŋ	53
NorthernPwo			Ø	Ø	Ø	Ø
NorthernSgaw			Ø	Ø	Ø	Ø
SouthernPao	weevil	0	r	o	ŋ	55
SouthernPwo			Ø	Ø	Ø	Ø
SouthernSgaw			Ø	Ø	Ø	Ø

language	concept	pos	S1	S2	S3	S4
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			r̥:70 r:30	o:100	ŋ:100	<sup>11</sup> :100
ProtoKaren			r	o	ŋ	<sup>11</sup>

### COGID 3951 / «white»

language	concept	pos	S1	S2	S3	S4	S5
Kayah	white	0	b	-	u	-	<sup>33</sup>
Kayan	white	0	b	-	au	-	<sup>53</sup>
Kayaw	white	0	b	-	u	-	<sup>55</sup>
NorthernPao	white	0	b	w	a	ɸ	<sup>31</sup>
NorthernPwo			Ø	Ø	Ø	Ø	Ø
NorthernSgaw	white	0	k	w	a	-	<sup>33</sup>
SouthernPao	white	0	b	w	a	ɸ	<sup>31</sup>
SouthernPwo	white	0	k	w	a	ɸ	<sup>31</sup>
SouthernSgaw	white	0	-	w	a	-	<sup>55</sup>
WesternBwe	white	0	ɸ	-	u	-	<sup>55</sup>
Fuzzy			<sup>ʔ</sup> b:100	w.w:100	a:100	-:100	<sup>55</sup> :100
ProtoKaren			<sup>ʔ</sup> b	w	w	a	<sup>55</sup>

### COGID 3977 / «wife»

language	concept	pos	S1	S2	S3	S4
Kayah	wife	0	m	e	-	<sup>33</sup>
Kayan	wife	0	m	a	-	<sup>53</sup>
Kayaw	wife	0	m	a	-	<sup>55</sup>
NorthernPao	wife	0	m	a	ɸ	<sup>31</sup>
NorthernPwo	wife	0	m	a	-	<sup>35</sup>
NorthernSgaw	wife	0	m	a	-	<sup>33</sup>
SouthernPao	wife	0	m	a	ɸ	<sup>31</sup>
SouthernPwo	wife	0	m	a	-	<sup>53</sup>
SouthernSgaw	wife	0	m	a	-	<sup>55</sup>
WesternBwe	wife	0	m	ɛ	-	<sup>55</sup>
Fuzzy			m:100	a:100	-:100	<sup>55</sup> :100
ProtoKaren			m̥	a	<sup>55</sup>	

### COGID 4002 / «win»

language	concept	pos	S1	S2	S3	S4
Kayah	win	0	n	i	-	11
Kayan	win	0	n	i	-	33
Kayaw			Ø	Ø	Ø	Ø
NorthernPao	win	0	n	ə	ŋ	33
NorthernPwo	win	0	n	ã	-	55
NorthernSgaw	win	0	n	ə	-	33
SouthernPao	win	0	n	ə	ŋ	53
SouthernPwo	win	0	n	ẽi	h	31
SouthernSgaw	win	0	n	i	-	33
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			n:70 ŋ:30	i:100	ŋ:100	55:100
ProtoKaren			n	i	ŋ	55

### COGID 4025 / «wrong, mistake, error»

language	concept	pos	S1	S2	S3
Kayah			Ø	Ø	Ø
Kayan			Ø	Ø	Ø
Kayaw	wrong, mistake, error	0	m	a	11
NorthernPao	wrong, mistake, error	0	m	a	55
NorthernPwo			Ø	Ø	Ø
NorthernSgaw	wrong, mistake, error	1	m	a	31
SouthernPao	wrong, mistake, error	0	m	a	33
SouthernPwo	wrong, mistake, error	0	m	a	55
SouthernSgaw	wrong, mistake, error	0	m	a	45
WesternBwe	wrong, mistake, error	1	m	ɛ	33
Fuzzy			m̥:60 m:40	a:100	11:100
ProtoKaren			m̥	a	11

### COGID 4039 / «yam, potato»

language	concept	pos	S1	S2	S3	S4	S5
Kayah			Ø	Ø	Ø	Ø	Ø
Kayan	yam, potato	0	n	w	ɛ	-	11
Kayaw	yam, potato	0	n	-	ɛ	-	11

language	concept	pos	S1	S2	S3	S4	S5
NorthernPao	yam, potato	0	n	w	ɛ	-	55
NorthernPwo	yam, potato	0	n	-	ɛ	-	33
NorthernSgaw	yam, potato	0	n	w	ɛ	h	11
SouthernPao	yam, potato	0	n	w	ɛ	-	33
SouthernPwo	yam, potato	0	n	-	ɛ	-	55
SouthernSgaw	yam, potato	0	n	w	ɛ	-	45
WesternBwe	yam, potato	0	n	w	ɛ	-	33
Fuzzy ProtoKaren			n:50 ṇ:50 ṇ	w:100 w	ɛ:100 ɛ	-:100 11	11:100

## COGID 4051 / «year»

language	concept	pos	S1	S2	S3	S4
Kayah	year	0	n	a	-	11
Kayan	year	0	n	e	-	11
Kayaw			Ø	Ø	Ø	Ø
NorthernPao	year	0	n	e	ŋ	55
NorthernPwo	year	0	n	ãi	-	33
NorthernSgaw	year	0	n	ĩ	-	31
SouthernPao	year	0	n	e	ŋ	33
SouthernPwo	year	0	n	ɛĩ	-	55
SouthernSgaw	year	0	n	i	-	45
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy ProtoKaren			n:70 ṇ:30 ṇ	e:100 e	ŋ:100 ŋ	11:100 11

## COGID 4064 / «yellow»

language	concept	pos	S1	S2	S3	S4
Kayah	yellow	0	b	ɛ	-	33
Kayan	yellow	0	b	a	ŋ	53

language	concept	pos	S1	S2	S3	S4
Kayaw	yellow	0	b	ɔ	-	<sup>55</sup>
NorthernPao			Ø	Ø	Ø	Ø
NorthernPwo	yellow	0	b	ẽ	-	<sup>55</sup>
NorthernSgaw	yellow	0	b	ĩ	-	<sup>33</sup>
SouthernPao			Ø	Ø	Ø	Ø
SouthernPwo	yellow	0	b	ĩ	ɦ	<sup>31</sup>
SouthernSgaw	yellow	0	b	ɔ	-	<sup>55</sup>
WesternBwe			Ø	Ø	Ø	Ø
Fuzzy			<sup>ʔ</sup> b:100	a:100	ŋ:70 N:30	<sup>55</sup> :100
ProtoKaren			<sup>ʔ</sup> b	a	ŋ	<sup>55</sup>