

SAMBAL REFLEXES OF PROTO-AUSTRONESIAN PHONEMES

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The Sambal languages of the Philippines are a group of three closely related speech varieties, here referred to as Bolinao Sambal (Bl), Tina Sambal (Tl), and Botolan Sambal (Bt). Zorc 1977 groups Sambal with Ivatan, Kapampangan, and North Mangyan as the North Extension of the Southern Philippine branch of languages. However, he notes that Reid and McFarland have independently concluded that Sambal and Kapampangan are genetically Northern Philippine languages. Using a lexicostatistical method based on shared cognate percentages, Walton 1977 has placed the Sambal languages in the Central Philippine branch of languages, which includes Kapampangan, Tagalog, Bikol, and Visayan. The uncertain genetic affiliation of the Sambal languages will not affect the analysis presented in this paper.

I have adopted a deductive approach; I start with Proto-Austronesian (PAN) phonemes and ask what their reflexes are in the Sambal languages. Thus Proto-Sambal (PS) phonemes are reconstructed only when they can be traced back to Proto-Austronesian. I will make special note of splits and mergers, problems presented by the Sambal data, and any bearing the Sambal evidence has on current views of Proto-Austronesian and Proto-Philippine (PPH) phonology.

1 VOWELS

1.1 PAN *i, *a, and *u

The PAN vowels *i, *a, and *u are retained as i, a, and u, respectively, in all three Sambal languages:

	PAN	Bolinao	Tina	Botolan	
19	*dilaq	di:laq	di:laq	di:laq	'tongue'
430	*babuy	ba:buy	ba:buy	ba:buy	'pig'

1.2 PAN *e

PAN *e, the pepet vowel, has several reflexes. When PAN *e occurs in ultimate position in a word, it becomes e in Bl, u in Ti, and e in Bt. This holds regardless of what vowel occurs in the penult:

20	*ngipen	ngi:pen	ngi:pun	ngi:pen	'tooth'
46	*pusej	pu:ser	pu:sul	pu:hel	'navel'
471	*tazem	matadem	matarum	matarem	'sharp'

When PAN *e occurs in both the ultima and penult of a word, it shows the regular reflexes e in Bl and Bt and u in Ti:

274	*teken	teken	tukun	teken	'boat pole'
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When PAN *e occurs in penultimate position with i in the ultima, it becomes i in all three languages; in penultimate position with u in the ultima, *e becomes u in all three languages; and in penultimate position with a in the ultima, *e becomes u in all three languages:

101	*benhiq	bibiq	biniq	biniq	'seed'
104	*tebuS	tubu	tubus	tubu	'sugarcane'
481	*Depa	adupa	adupa	adupa	'fathom'

In the correspondence where *e precedes i and u the resulting reflexes are apparently due to assimilation. However, assimilation does not explain the u reflex of *e before a. It may be that since u is the regular reflex of *e in Tina, it spread to the other two languages just in words of this form. (Tina is geographically located between Bolinao and Botolan.)

The Proto-Sambal reflex of PAN *e is reconstructed as PS *e; the reflexes i and u are either independent innovations or due to assimilation or borrowing.

2 CONSONANTS

2.1. PAN *m, *n, *ñ, and *ng

PAN *m, *n, and *ng become m, n, and ng, respectively, in all three Sambal languages:

	<u>PAN</u>	<u>Bl</u>	<u>Tl</u>	<u>Bt</u>	
433	*manuk	manuk	manuk	manuk	'chicken'
249	*ngajan	nga:ran	nga:lân	ngalan	'name'

PAN *ñ merges with *n, as it does in other Philippine languages:

394	*qañuz	qa:nur	qa:nul	qa:nul	'carried by current'
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2.2 PAN *s and *c

PAN *s becomes s in Bl and Tl and h in Bt; since the h reflex is a Bt development, *s is posited as the Proto-Sambal reflex:

38	*susu	su:su	su:su	hu:hu	'breast'
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The putative PAN phoneme *c merges with *s in Sambal, as it does in other Philippine languages:

82a	*cincin	singsing	singsing	hinghing	'ring'
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2.3 PAN *l and *r

PAN *l becomes l in all three Sambal languages:

364	*langit	la:ngit	la:ngit	la:ngit	'sky'
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The putative PAN phoneme *r is attested only in loanwords in Sambal where it merges with *l; thus Sambal provides no evidence for PAN *r.

2.4 PAN *R, *y, and *w

PAN *R has two reflexes in Sambal. Its first reflex merges with y:

530	*Rabi	yabi	yabi	yabi	'night'
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Its second reflex is g:

	<u>PAN</u>	<u>Bl</u>	<u>Tl</u>	<u>Bt</u>	
271	*layaR	la:yag	la:yag	la:yag	'sail'

It has been generally assumed that y is the reflex of *R in Sambal (Zorc 1977, Charles 1974). If so, then words reflecting *R as g must be borrowed.

PAN *y and *w become y and w, respectively, in Sambal:

301	*bayaD	mama:yad	ba:yar	ba:yad	'pay'
33	*wanan	wanan	wanan	wanan	'right'

2.5 PAN *q and *h

PAN *q becomes q in all three Sambal languages:

105	*qubi	qu:bi	qu:bi	qu:bi	'yam'
531	*taqun	taqun	taqun	taqun	'year'
228	*panaq	pa:naq	pa:naq	pa:naq	'bow and arrow'

PAN *h loses its contrast with *q; it is reflected as q in initial position and as zero in medial and final positions:

466	*hasang	qa:sang	qa:sang	qa:hang	'gills'
101	*benhiq	biniq	biniq	biniq	'seed'
162	*baRah	ba:ya	ba:ya	ba:ya	'ember'

2.6 PAN *p, *t, *C, and *k

PAN *p, *t, and *k become p, t, and k in all three Sambal languages:

41	*pusuq	pu:suq	pusuq	pusuq	'heart'
402	*batu	batu	batu	batu	'stone'
235	*qanak	qanak	qanak	qanak	'child'

PAN *C merges with *t, as it does in other Philippine languages:

7	*maCa	mata	mata	mata	'eye'
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2.7 PAN *b and *g

PAN *b becomes b in all three Sambal languages:

374	*bulan	bu:lan	bu:lan	bu:wan	'moon, month'
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The putative PAN phoneme *g is attested only in loanwords in Sambal, thus offering no evidence for the existence of PAN *g.

2.8 PAN *D, *Z, and *j

The reflexes of PAN *D, *Z, and *j present the major problems in reconstructing Proto-Sambal phonology.

2.8.1 PAN *D- > PS *d-, *l-

PAN *D has two reflexes in initial position: PS *d- and *l-. Proto-Sambal *d- becomes d in all three languages:

	<u>PAN</u>	<u>Bl</u>	<u>Ti</u>	<u>Bt</u>	
64	*DaRaŋ	da:yaŋ	da:yaŋ	da:yaŋ	'blood'
316	*Dakep	manakep	dakup	dakep	'catch thief'

PS *l- becomes r in Bl and l in Ti and Bt:

108	*Danum	ranum	lanum	lanum	'water'
155	*DingDing	ringring	lingling	lingling	'wall'

2.8.2 PAN *-D- > PS *-d-, *-l-

PAN *D has two reflexes in medial position also: PS *-d- and *-l-.

PS *-d- becomes d in Bl and r in Ti and Bt:

120	*kuDen	ku:den	ku:run	ke:rən	'cooking pot'
369	*kuDug	kudur	kurul	kurul	'thunder'

PS *-l- becomes r in Bl and l in Ti and Bt:

437	*quDang	qurang	qulang	qulang	'shrimp, lobster'
396	*tuDuq	tumu:ruq	tu:luq	tu:luq	'drip'

2.8.3 PAN *-D > PS *-l

In final position PAN *D becomes r in Bl and l in Ti and Bt:

262	*haNteD	mangiyater	qatul	qatel	'escort'
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Other irregular correspondences, however, suggest a PS *-d reflex of PAN *D:

56	*tuhud	tu:qud	tu:qur	tu:qul	'knee'
301	*bayaD	mama:yad	ba:yar	ba:yad	'pay'

2.8.4 PAN *-Z- > PS * d-

In initial position PAN *Z becomes d in all three languages:

	<u>PAN</u>	<u>Bl</u>	<u>Ti</u>	<u>Bt</u>	
267	*Zalan	da:lan	da:lan	daan	'path'

2.8.5 PAN *-Z- > PS *-d-

In medial position PAN *Z becomes d in Bl and r in Tl and Bt:

471	*taZem	matadem	matarum	matarem	'sharp'
367	*quZan			quran	'rain'

One word, however, indicates an l reflex of *Z:

126	*hiZaw		naqilo	'unripe'
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2.8.6 PAN *-Z > PS *-l

In final position PAN *Z becomes r in Bl and l in Tl and Bt:

394	*qañuZ	qa:nur	qainul	qa:nul	'carried by current'
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2.8.7 PAN *j > PS *l

PAN *j is not reconstructed in initial position. In both medial and final positions *j becomes r in Bl and l in Tl and Bt:

163	*ujing	qu:ring	qu:ling	qu:ling	'charcoal'
249	*ngajan	nga:ran	nga:lan	ngalan	'name'
46	*pusej	pu:ser	pu:sul	pu:hel	'navel'
426	*qulej	qu:rer	qu:lul	qu:wel	'worm'

2.8.8 Discussion of Sambal reflexes of PAN *D, *Z, and *j

The following chart summarizes the reflexes of PAN *D, *Z, and *j in Sambal:

	<u>initial</u>	<u>medial</u>	<u>final</u>
PAN *D > PS	*d, *l	*d, *l	[*d], *l
PAN *Z > PS	*d	*d, *l	*l
PAN *j > PS	-	*l	*l

CHART 1: PS REFLEXES OF PAN *D, *Z, and *j

The major problem is the double reflexes of PAN *D. In initial position, if the correct reflex of *D is d, then *D and *Z merge in Sambal as expected; but if the correct reflex of *D is l, then *D and *Z do not merge, contrary to

Charles's (1974) reconstruction of Proto-Philippine phonology. The l reflex of initial *D could be explained as an analogical creation, parallel to the explanation of initial l in Tagalog given by Dyen (1947). An example of this analogical l in Sambal may be the following:

	<u>PAN</u>	<u>Bl</u>	<u>Tl</u>	<u>Bt</u>	
521	*Dalem	qara:rem	mala:luq	mala:leq	'deep'

The adjectival prefix ga- or ma- places the initial *D in intervocalic position where it becomes l by analogy with words such as PAN *quDang, Sambal qulang 'shrimp, lobster'. The problem with this explanation for Sambal is that many of the words that show initial l for *D are seldom prefixed; for example lanum 'water' and lingling 'wall' cited in section 2.8.1.

The hypothesis that initial l is an analogical development requires that the intervocalic reflex of *D be l. If so, then the instances of intervocalic d from *D must be accounted for. It is true that the evidence for intervocalic d from *D is rather slender, the forms for 'cooking pot' and 'thunder' cited in section 2.8.2 being the only reliable words found so far. However, both words are from basic vocabulary and cannot be rejected out of hand.

In comparing the intervocalic reflexes of *D and *Z, we see that if the correct reflex of intervocalic *D does turn out to be l, and if the intervocalic reflex of *Z is d, then a system results in which *D and *Z do not merge; but, rather *D and *j merge. While this is possible, it would make Sambal very exceptional, since in other Philippine languages *D and *Z merge and in non-Cordilleran languages *j merges with them. It is more plausible that if *D and *j can be shown to merge then in reality all three, including *Z, merge. What stands in the way of this conclusion are the examples of d for intervocalic *Z. The two best examples are 'sharp'

and 'rain' cited in section 2.8.5. Both words are from basic vocabulary and seem unassailable. The intervocalic l from *Z that we expect had been found in only one word: 'unripe', cited in section 2.8.5.

The problems concerning *D, *Z, and *j can be summarized as follows. In the case of initial *D, analogy is a possible source of the double reflex; thus d is chosen as the PS initial reflex of *D. For medial, *D, analogy offers no ready explanation of the double reflexes of d and l, and no phonetic conditioning has been discovered. The only explanation left is borrowing, presumably dialect borrowing. Of the two reflexes, l is more common, and indeed is necessary to explain the analogical l which occurs initially. Thus l is chosen as the dominant PS medial reflex of *D.

The double reflex of intervocalic *Z is more difficult to account for. As was noted above, if d is the correct reflex of medial *Z, then *Z does not merge with *D and *j, which would contradict the current reconstruction of Proto-Philippine phonology. On the other hand, if l is taken as the dominant PS reflex of medial *Z then *D, *Z, and *j can all merge. This is the more conservative solution, since this is what regularly happens in non-Cordilleran languages. Since the evidence to the contrary is far from convincing, this should be our working hypothesis.

APPENDIX 1: SAMBAL CORRESPONDENCE SETS

(1) PAN *i > PS *i

	<u>PAN</u>	<u>Bolinao</u>	<u>Tina</u>	<u>Botolan</u>	
19	*dilaq	di:laq	di:laq	di:laq	'tongue'
463	*ikuR	qi:kuy	qi:kuy	qi:kuy	'tail'
210	*sakit	masakit	masakit	mahakit	'painful'
144	*paqit	mapaqit	mapaqit	mapaqit	'bitter'

(2) PAN *a > PS *a

161	*qabu	qabu	qabu	qabu	'ashes'
402	*batu	batu	batu	batu	'stone'
65	*quRaC	quyat	quyat	quyat	'vein'
457	*lintaq	lintaq	lintaq	lintaq	'leech'

(3) PAN *u > PS *u

430	*babuy	ba:buy	ba:buy	ba:buy	'pig'
427	*qasu	qa:su	qa:su	qa:hu	'dog'
374	*bulan	bu:lan	bu:lan	bu:wan	'moon'
334	*huRas	mangu:yas	qu:yas	quyah	'wash'
451	*kuCu	k i:tu	ku:tu	ku:tu	'louse'

(4) PAN *e > PS *e

471	*taZem	matadem	matarum	matarem	'sharp'
145	*qalsem	maqalsem	maqalsum	maqa:hem	'sour'
521	*Dalem	qara:rem	mala:luq	mala:ləq	'deep'
251	*Dateng	rumateq	latuq	lateng	'arrive'
20	*ngipen	ngi:pen	ngi:pun	ngi:pen	'tooth'
443	*qipes	qi:pes	qi:pus	qi:peh	'cockroach'
28	*liqeR	li:qey	lu:quy	le:qey	'neck'
46	*pusej	pu:ser	pu:sul	pu:hel	'navel'
375	*bituqen	bitu:qen	bitu:qun	bitu:qen	'star'
176	*ules	qules	qulus	quweh	'blanket'
426	*qulej	qu:rer	qu:lul	qu:wel	'worm'
135	*sepsep	manepsep	supsup	hephep	'suck'
274	*teken	teken	tukun	teken	'boat pole'
376	*Delem	madeblem	marublum	mareg:lem	'dark'
101	*benhiq	biniq	biniq	biniq	'seed'
58	*Betiis		bitis	biti	'foot'
104	*tebuS	tubu	tubus	tubu	'sugarcane'
522	*penuq	napnuq	punuq	punuq	'full'
137	*besuR	nabsuy	busuy	buhuy	'sated'
	*telu	tulu	tulu	tatlu	'three'
	*Dewha	ruwa	luwa	luwa	'two'
481	*Depa	dupa	dupa	dupa	'fathom'
84	*beRas	byas	buyas	buya	'husked rice'
330	*Rebaq	maybaq	naybaq	yubaq	'collapse'
273	*beRsay	bugsay	bugsay		'paddle'

(5)	PAN *p >	PS *p	TH	Bt	
	<u>PAN</u>	<u>Bl</u>			
41	*pusuq	pu:suq	pusuq	pusuq	'heart'
83	*pajey	pa:ri	pa:li	pa:li	'rice plant'
20	*ngipen	ngi:pen	ngi:pun	ngi:pen	'tooth'
443	*qipes	qi:pes	qi:pus	qi:peh	'cockroach'
135	*sepsep	manepsep	supsup	hephep	'suck'
(6)	PAN *t >	PS *t			
415	*tubuq	tumu:buq	tu:buq	tu:buq	'grow'
42	*tian	tyan	tiyan	tiyan	'belly'
402	*batu	batu	batu	batu	'stone'
221	*patey	mati	mati	mati	'die'
364	*langit	la:ngit	la:ngit	la:ngit	'sky'
421	*lumut	lu:mut	lu:mut	lu:mut	'moss'
(7)	PAN *C >	PS *t			
231	*Cau	ta:wu	ta:wu	ta:wu	'person'
7	*maCa	mata	mata	mata	'eye'
451	*kuCu	ku:tu	ku:tu	ku:tu	'louse'
313	*kaRaC	mangayat	kayat	kayat	'bite'
65	*quRaC	quyat	quyat	quyat	'vein'
(8)	PAN *k >	PS *k			
120	*kuDen	ku:den	ku:run	ke:ren	'cooking pot'
451	*kuCu	ku:tu	ku:tu	ku:tu	'louse'
210	*sakit	masakit	masakit	mahakit	'painful'
232	*laki	lala:ki	lala:ki	lala:ki	'male'
235	*qanak	qanak	qanak	qanak	'child'
5	*qutek	qu:tek	qu:tuk	qe:tek	'brain'
(9)	PAN *b >	PS *b			
374	*bulan	bu:lan	bu:lan	bu:wan	'moon'
430	*babuy	ba:buy	ba:buy	ba:buy	'pig'
161	*qabu	qabu	qabu	qabu	'ashes'
530	*Rabi	yabi	yabi	yabi	'night'
(10)	PAN *D >	PS *d			
64	*DaRaQ	da:yaq	da:yaq	da:yaq	'blood'
316	*Dakep	manakep	dakup	dakep	'catching thief'
120	*kuDen	ku:den	ku:run	ke:ren	'cooking pot'
369	*kuDug	kudur	kurul	kurul	'thunder'
56	*tuhud	tu:qud	tu:qur	tu:qul	'knee'
301	*bayaD	mama:yad	ba:yar	ba:yad	'pay'
(11)	PAN *D >	PS *l			
108	*Danum	ranum	lanum	lanum	'water'
155	*DingDing	ringring	lingling	lingling	'wall'
437	*quDeng	qurang	qulang	qulang	'shrimp, lobster'
396	*tuDuq	tumu:ruq	tu:luq	tu:luq	'drip'
262	*haNter	mangiyater	qatul	qatel	'escort'

(12)	PAN *Z	>	PS *d			
	PAN		Bl	Tl	Bt	
267	*Zalan		da:lan	da:lan	daan	'path'
471	*taZem		matadem	matarum	matarem	'sharp'
367	*.uZan				quran	'rain'
(13)	PAN *Z		PS *l			
126	*hizaw				naqilo	'unripe'
384	*qanuZ		qa:nur	qa:nul	qa:nul	'carried by current'
(14)	PAN *j	>	PS *l			
163	*ujing		qu:ring	qu:ling	qu:ling	'charcoal'
249	*ngajan		nga:ran	nga:lan	ngalan	'name'
46	*pusej		pu:ser	pu:sul	pu:hel	'navel'
426	*qulej		qu:rer	qu:lul	qu:wel	'worm'
(15)	PAN *s	>	PS *s			
38	*susu		su:su	su:su	hu:hu	'breast'
427	*asu		qa:su	qa:su	qa:hu	'dog'
176	*ules		qules	qulus	quweh	'blanket'
443	*qipes		qi:pes	qi:pus	qi:peh	'cockroach'
41	*pusuq		pu:suq	pusuq	pusuq	'heart'
230	*saksak		saksak	saksak	saksak	'stab'
79	*kapas		ka:pas	ka:pas	ka:pa	'cotton'
84	*beRas		byas	buyas	buya	'husked rice'
(16)	PAN *c	>	PS *s			
82a	*cincin		singsing	singsing	hinghing	'ring'
285	*baca		mama:sa	mama:sa	ba:ha	'read'
(17)	PAN *m	>	PS *m			
433	*manuk		manuk	manuk	manuk	'chicken'
7	*maCa		mata	mata	mata	'eye'
	*lima		lima	lima	lima	'five'
421	*lumut		lu:mut	lu:mut	lu:mut	'moss'
132	*inum		minum	minum	minum	'drink'
108	*Danum		ranum	lanum	lanum	'water'
521	*Dalem		qara:rem	mala:luq	mala:leq	'deep'
(18)	PAN *n	>	PS *n			
62	*naqnaq		na:naq	na:naq	na:naq	'pus'
228	*panaq		pa:naq	pa:naq	pa:naq	'bow and arrow'
267	*Zalan		da:lan	da:lan	daan	'path'
(19)	PAN *ñ	>	PS *n			
394	*qanuZ		qa:nur	qa:nul	qa:nul	'carried by current'

(20) PAN *ng > PS *ng

	PAN	Bl	Ti	Bt	
249	*ngalan	nga:ran	nga:lan	ngalan	'name'
20	*ngipen	ngi:pen	ngi:pun	ngi:pen	'tooth'
364	*langit	la:ngit	la:ngit	la:ngit	'sky'
87	*bunga	bu:nga	bu:nga	bu:nga	'fruit'
123	*DangDang	rangrang	qilanglang	langlang	'warm by fire'
155	*DingDing	ringring	lingling	lingling	'wall'

(21) PAN *l > PS *l

364	*langit	la:ngit	la:ngit	la:ngit	'sky'
232	*laki	lala:ki	lala:ki	lala:ki	'male'
224	*talul	mata:lu	ta:lu	ta:lu	'lose'
	*walu	walu	walu	walu	'eight'
136	*bitil	mabitil	mabitil	mabitil	'hungry'
246	*balu	ba:lu	ba:lu	ba:wu	'widow'
255	*laRiw	malayu	mulayu	muwayu	'run'
176	*ules	qules	qulus	quweh	'blanket'
175	*lamak			qamak	'mat'
267	*Zalan	da:lan	da:lan	daan	'path'
358	*selsel			he:he	'regret'

(22) PAN *R > PS *y

530	*Rabi	yabi	yabi	yabi	'night'
411	*Ramut	yamut	yamut	yamut	'root'
162	*baRah	ba:ya	ba:ya	ba:ya	'ember'
334	*huRas	mangu:yas	qu:yas	quyah	'wash'
463	*ikuR	qi:kuy	qi:kuy	qi:kuy	'tail'

(23) PAN *R > PS [*g]

192	*Rabuk		gabuk	gabuk	'dust'
395	*qaRus	quma:gus	qa:gus	qa:guh	'flow'
307	*suRuq		su:guq	hu:guq	'send on errand'
271	*layaR	la:yag	la:yag	la:yag	'sail'

(24) PAN *y > PS *y

271	*layaR	la:yag	la:yag	la:yag	'sail'
301	*bayaL	mama:yad	ba:yer	ba:yad	'pay'
439	*buqaya	buqa:ya	buqa:ya	buqa:ya	'crocodile'
273	*begsay	bugsay	bugsay		'paddle'
309	*away	manga:way	qa:way	qa:way	'quarrel'
151	*balay	bali	bali	bali	'house'
44	*qaCey	qagtay	qagtay	qagtay	'lever'
83	*pajey	pa:ri	pa:li	pa:li	'rice plant'
221	*patey	mati	mati	mati	'die'
159	*qapuy	qapuy	qapuy	qapuy	'fire'
430	*babuy	ba:buy	ba:buy	ba:buy	'pig'

(25) PAN *w > PS *w

	<u>PAN</u>	<u>B1</u>	<u>T1</u>	<u>Bt</u>	
	*walu	walu	walu	walu	'eight'
244	*qasawa	qasa:wa		qaha:wa	'spouse'
328	*gawaq	mangwaq	gawaq	gawaq	'make, do'
304	*takaw	mana:kaw		ta:kaw	'steal'
447	*langaw	la:ngu	la:ngu	la:ngu	'housefly'
373	*qaNjaw	qawru	qawlu	qallu	'day, sun'
255	*laRiw	malayu	mulayu	muwayu	'run'

(26) PAN *q > PS *q

395	*qaRus	qama:gus	qa:gus	qa:guh	'flow'
426	*qulej	qu:rer	qu:lul	qu:wel	'worm'
437	*quDang	qurang	qulang	qulang	'shrimp, lobster'
105	*qubi	qu:bi	qu:bi	qu:bi	'yam'
439	*buqaya	buqa:ya	buqa:ya	buqa:ya	'crocodile'
531	*taqun	taqun	taqun	taqun	'year'
505	*daqan	maqran	da:qan	da:qan	'old'
228	*panaq	pa:naq	pa:naq	pa:naq	'bow and arrow'
350	*piliq	mami:liq	pi:liq	pi:liq	'choose'
396	*tuDuq	tumu:ruq	tu:luq	tu:luq	'drip'

(27) PAN *h > PS *q, Ø

191	*hasaq	manga:saq	qa:saq	qa:haq	'sharpen'
312	*hajek	mangarek	qaluk	qalek	'kiss'
466	*hasang	qa:sang	qa:sang	qa:hang	'gills'
101	*benhiq	biniq	biniq	biniq	'seed'
148	*bahew			maba:wuq	'bad-smelling'
162	*baRah	ba:ya	ba:ya	ba:ya	'ember'

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