

A Micronesian Merger Mystery: The Fate of Proto-Oceanic *R

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Proto-Oceanic *R was irregularly lost or merged with another liquid in several branches of Oceanic. In Southern Oceanic, the likelihood of *R loss increases from north to south. This squib examines the merger and loss of *R in Micronesian, where the pattern is most similar to the southernmost languages of North Central Vanuatu. I discuss scenarios of lexical diffusion that could have led to the observed state of affairs, proposing an interpretation where structured variation along the hypo/hyperarticulation continuum is inherited from a proto-language, resulting in parallel developments in distant branches.

Keywords: Micronesian; Proto-Oceanic; Lexical Diffusion; Drift

1. INTRODUCTION.¹ In Micronesian languages, Proto-Oceanic (POc) *R was irregularly lost or merged with POc *r. In most other branches of Remote Oceanic, *R is likewise lost or merges with another liquid. In Central Pacific, *R is almost always lost (Geraghty 1990; Ross and Næss 2007:472; Ross, Pawley, and Osmond 2023).

The main result of Geraghty (1990) and François (2011b) is that the likelihood of *R-loss in Southern Oceanic increases with distance from the Solomons; we might call this pattern the *Geraghty–François Generalization*. Most clearly this generalization is apparent in North Central Vanuatu (NCV), where François identified as many as fifteen isoglosses displaying a multilayered implicational generalization about the loss of *R. The geography of *R-loss appears to have resulted from lexical diffusion arrested midcourse.

This squib is concerned with the fate of *R in Micronesian languages in the context of its developments in NCV. Micronesian, a family of about twenty languages, forms a proper subgroup within Oceanic (Bender and Wang 1985; Jackson 1983, 1986; Pawley 2018), spoken in the Northwestern Pacific. The internal structure of the family is laid out in Bender et al. (2003a,b), and its external connections to Oceanic are the subject of Jackson’s (1986) study. The branches of the family in approximate East-to-West order are Kiribati (KIR)

1. I am grateful to two anonymous reviewers for thoughtful comments on this paper and to the audience of MOT 2024.

(Gilbertese), Marshallese (MRS), Nauruan (NAU), Kosraean (KSR), Pohnpeian and two closely related Pohnpeic languages, Mokilese and Pingelapese, and Chuukese, along with a continuum of about a dozen dialects spoken over a large territory from Chuuk to the far Western Carolines.

Unlike Southern Oceanic branches, with respect to *R outcomes, Micronesian languages show uniform reflexes as either $\emptyset$ or Proto-Micronesian (PMC) *r (and in two cases, *ŋ) across all languages (Bender et al. 2003a).² Thus, I will refer to “Micronesian outcomes” of *R at the level of the family, not individual languages. Some example Micronesian cognate sets showing retention and loss are given below.

(1) POC *ŋoRo	PMC *ŋoro: KSR <i>ŋɔr</i> , MRS <i>ŋor(tak)</i> ,
‘snore’	Pingelapese <i>ŋɔr</i> , Satawalese (<i>ti</i>) <i>ŋor</i>
POC *taRaqaŋ	PMC *taraa: MRS <i>jera</i> , Pohnpeian <i>sara</i> ,
‘squirrel fish’	Woleaian <i>seraa</i> , Chuukese <i>sara</i>
POC *taRutuŋ	PMC *tautu: KSR <i>taut</i> , Pohnpeian <i>sey</i> ,
‘porcupine fish’	Chuukese <i>səəw</i>
POC *draRa(q)	PMC *caa: KSR <i>ɣæ</i> , MRS <i>da</i> , Pohnpeian <i>nta</i> ,
‘blood’	Chuukese <i>tʃtʃa-</i>

The central puzzle is the following. A comparison of *R reflexes between Micronesian and NCV presents a perplexing situation: Micronesian shows developments along similar lines as NCV, but, despite its location far to the north of Southern Oceanic, displays the pattern of a southernmost NCV language, as if it were located somewhere just south of Efate. I now turn to a more detailed comparison of the Micronesian and Southern Oceanic facts in section 2, followed by a discussion of phonological and lexical factors affecting *R outcomes in section 3. A proposal for interpreting these facts is offered in section 4.

2. POC *R IN MICRONESIAN AND ELSEWHERE.

2.1. GERAGHTY–FRANÇOIS GENERALIZATION. Recall that the likelihood of *R loss in Remote Oceanic correlates with the distance from the Solomons. Geraghty’s original (1990) conjecture was verified for NCV with a larger dataset by François (2011b), resulting in a fine-grained pattern of at least fifteen isoglosses in a north–south cline. Other Southern Oceanic branches also display *R loss in approximate, but not perfect, agreement with the generalization. In François’ view, the observed distribution of *R reflexes came about as follows: a rapid settlement of the archipelago by a community speaking a relatively uniform variety close to POC, followed by *R loss originating in the southern end of the continuum and diffusing north, in turn followed by rapid spread of the merger *R > *r solidifying the state of incomplete loss across the linkage.

2. The uniform outcome of *R as either *r or $\emptyset$ can be observed in all languages except Gilbertese, where PMC *r is always lost; that is, the Gilbertese reflexes of *R as *r or $\emptyset$ are not distinct.

2.2. *R IN MICRONESIAN.

2.2.1. If *R is retained in Micronesian, it is retained in NCV. Jackson (1986) examined about a dozen Micronesian etyma, comparing the outcomes with NCV; much more data are now available in both families. Micronesian reconstructions below are mostly from Bender et al. (2003a,b), supplemented by additional ones in some cases. The data reveal a nearly exceptionless implication: retention of *R in Micronesian entails its retention at least somewhere in NCV. This section lists all etyma supporting this claim. Etyma which retain *R but have no NCV cognates are listed in the appendix.

The data are sorted into three groups. There are many forms with retention in both Micronesian and NCV (table 1), and many items with loss in Micronesian and at least somewhere in NCV, that is, to the south of one of François’ isoglosses (table 2). A smaller number of cases show loss in Micronesian but retention in NCV (table 3). The reverse situation, loss in NCV and retention in Micronesian, is unambiguously seen only in one item, *takuRu ‘back’. A few other items appearing to flout the generalization, all problematic, are discussed in the following subsection.

An “R” in the NCV column indicates retention, and a “Ø” indicates loss. In table 2, a number in the NCV column refers to the isogloss as described in François (2011b:166–67). So, for example, the number 7 in the row for *draRaq ‘blood’ means that NCV languages south of isogloss 7 lose *R, while languages north of that isogloss retain it. (Isogloss 7 separates Torres-Banks languages from the rest of NCV.) Higher-numbered isoglosses are located further south, so a higher number in that column means more NCV languages retain *R. A question mark in the NCV table indicates doubt expressed in François (2011b). Here and below, PMc forms followed by “+” are those not found in Bender et al. (2003a). NCV facts are almost exclusively from François (2011b), in a few cases cross-checked in Clark (2009).³

TABLE 1. *R RETAINED IN MICRONESIAN AND NCV.

POc	PMc	NCV	Gloss
*biRibiRi	*piŋipiŋi	R	‘ <i>Hernandia nymphaeifolia</i> ’
*ma-Raqan	*maraa	R	‘light in weight’
*magaRut	*m ^w axaru+	R	‘flying fish’
*mawiRi	*ma(i,u)ŋi	R	‘left’
*ŋoRo	*ŋoro	R	‘snore’
*paRa(q)	*far(a,e)	R	‘lung’
*pura	*wura	R	‘bubble; be full’
*taRaqan	*taraa	R?	‘ <i>Sargocentron</i> spp.’
*taRi, *taRin	*tari	R?	‘noose’
*tuRi	*turi	R	‘sew, pierce’
*wakaR, -a	*wakara	R	‘root’

3. An anonymous reviewer suggests “tak[ing] into account the overall incidence of *R > Ø in etyma where it is possible.” This means including in the counts Micronesian items without NCV cognates, and vice versa. I believe a stronger statistical argument can be made, as here,

TABLE 2. *R LOST IN MICRONESIAN AND AT LEAST ONE NCV LANGUAGE.

POc	PMc	NCV	Gloss
*(p,b)anaRo	*fanao+	Ø	‘ <i>Thespesia populnea</i> ’
*p ^w aRara	*paara	Ø	‘handle’
*pusiRa	*wu(s,S)ia ??	Ø	‘ <i>Aplonis</i> sp.’
*Rum ^w aq	*[u,i]m ^w a	Ø	‘house’
*Runut	*unu	Ø	‘strainer’
*Ruqa	*ua	Ø	‘neck’
*tabiRa	*tapia	Ø	‘bowl’
*tapuRiq	*tawui	Ø	‘conch shell’
*taRutu	*tautu	Ø	‘porcupine fish’
*kuRiap	*kua	2	‘dolphin’
*biRa(q,s,Ø)	*pia	3	‘roe’
*mwaRi	*m ^w ai	3	‘roast’
*nañoRap	*ñañoa	5	‘yesterday’
*draRaq	*caa	7	‘blood’
*kuRita	*kuyita	7	‘octopus, squid’
*taRaq	*taa	7	‘cut’
*cakaRu	*sakau	7?	‘reef’
*suRi	*cuyi	8	‘bone’
*paRu	*-fau	8?	‘ <i>Hibiscus</i> ’
*jiRi	*(s,S)ii ?	11	‘ <i>Cordyline</i> ’
*paRi	*fai	11	‘stingray’
*kiRe	*kie	13	‘pandanus’
*paRas	*faa, *faa-(s,S)i	14	‘step, tread on’

TABLE 3. *R LOST IN MICRONESIAN, RETAINED IN NCV.

POc	PMc	NCV	Gloss
*kiRam	*kia	R?	‘adze’
*ŋiRac	*ŋ(e,i)a	R	‘ <i>Pemphis acidula</i> ’
*qaRus	*ayu, *ayu-Sa	R?	‘current’
*Raŋa	*yaŋa	R?	‘spider conch’
*RapiRapi	*(faka)afi	R	‘evening’
*Rav[e,i]	*afi	R	‘pull on line’
*saRe	*sae	R	‘tear’
*toRas	*ma-toa	R	‘hardwood’

The three tables show that when it comes to *R loss and merger, Micronesian languages behave as if they were located at the southern end of the NCV continuum.⁴

2.2.2. Apparent exceptions to the generalization. There are several items that appear to flout the implicational generalization. First, Proto-Remote

by considering only etyma attested in both branches. In any case, the reviewer, after applying the more inclusive method, arrives at the same conclusion as myself about the non-random relationship between *R loss in Micronesian and NCV.

4. Micronesian reflexes with no cognates in NCV are shown in table 7 in the appendix.

Oceanic (PRO) *vaRo ‘*Neisosperma oppositifolium*’. This word, however, is exceptional more generally for the Geraghty–François Generalization, with an unexpected pocket of *R-loss in a region dominated by *R-retention (François 2011b:165). If retention is treated as regular, *vaRo behaves like items in table 1, where it is not included.

Some other items appear to go against the implication. PRO *bʷakaRe ‘*Diodon* sp., porcupine fish’, with *R-loss in NCV below isogloss 13, has just one apparent Micronesian retention in STW *pøkærej* ‘*Pleuranacanthus sceleratus*, puffer’ (Ross, Pawley, and Osmond 2011:128), a problematic form due to the final consonant; it could be a loan, but a source is not clear. POC *kaRuki is clearly retained in PMC *karuki ‘white sand crab or ghost crab’, with many reflexes (Puluwatese *yárik*; Saipan Carolinian *arigh*; MRS *karikʷ*; KIR *kauki*; KSR *kuluk*). The etymon does not have a match in NCV except in Proto-Eastern Oceanic *kaRuve ‘k.o. beach crab’, a related form with a different final syllable. It probably has its own independent history that is not expected to correlate with the fate of *kaRuki. Ross, Pawley, and Osmond (2011:117) list WOL *xazipe* (orthographic *garipi*, Sohn and Tawerilmang 1976) as a reflex of *kaRuve, but *-p-* in this form is irregular (†*-f-* would be expected).

POC *meRaʒ ‘red’ shows two sets of reflexes in NCV (François 2011b: 152–53). Reflexes meaning ‘red sunset’ retain *R, while those meaning ‘red pigment’ do not. Micronesian shows retention of *R (PMC *mera). I have not included this item in any of the counts since it is not entirely clear what to make of the correspondence.

Finally, the only clear exception to the implicational generalization is *takuRu ‘back’, showing *R loss in NCV south Torres-Banks (isogloss 7), but retention in Micronesian.

2.2.3. Comments on other items. Two forms show PMC *-ŋ- from *R, both flanked by *i: *mawiRi > *ma(i,u)ŋi ‘left’ and *biRibiRi > *piŋipiŋi ‘*Hernandia*’, but this is not a regular outcome in that environment; cf. POC *taŋiRi ‘*Scombridae* spp.’ > PMC *taŋiri and *jiRi ‘*Cordyline*’ > PMC *(s,S)ii+, possibly reflected in Chuukese *tī(n)* and Pohnpeian *dī(ŋ)* (these may not be cognates as final consonants are problematic). See the next section on conditioning.

PMC *mʷaxaru ‘flying fish’ from POC *mʷagaRut is attested in NAU *emʷor* ‘flying fish’; the PCK form *maŋaru (Bender et al. 2003b) appears related but irregular (Ross, Pawley, and Osmond 2011:48; Blumenfeld 2022).

POC *ku(r,R)iap ‘dolphin’ would have yielded PMC †kuya instead of *kua ‘porpoise’; *y-* loss here may follow a “natural path” (Ross, Pawley, and Osmond 2011:246, fn. 8), but it is unclear if it is regular.

POC *toRas ‘a taxon of hardwood trees’ appears in Micronesian as stative *ma-toa ‘firm, hard’; these two etyma need not have identical histories.

POC *pusiRa ‘starling’ only appears in Pon *sie* (Ross, Pawley, and Osmond 2011:348), a highly doubtful reflex.

In some cases data are insufficient to test the generalization. POC *kuRapu ‘*Epinephelus* sp.’ appears in MRS *kūro* and NAU *i-wuro* ‘brownmarbled grouper, *Epinephelus fuscoguttatus*’ (Fisheries 2004). Ross, Pawley, and Osmond (2011:65) list one NCV form, Namakir *kuav* ‘grouper (generic)’; I am not able to find any other NCV reflexes.

3. UNDERSTANDING THE SOUND CHANGE.

3.1. CONDITIONING. No robust conditioning environment for *R outcome can be identified in NCV, as noted by both Geraghty (1990) and François (2011b). The same is true of Micronesian: for example, POC *taRaq ‘cut’ loses its *R (PMC *taa), while nearly identical *taRaqan ‘*Sargocentron* spp., squirrelfish’ retains it (PMC *taraa). A systematic check of Micronesian outcomes based on the influence of adjacent vowel height and backness of *R’s position in the word shows no statistically significant effects.

While attempts at formulating a general condition seem futile, one hypothesis that has a fighting chance is Geraghty’s observation that *R tends to be retained between identical vowels. François (2011b:172) does not find support for the claim based on NCV data, but it is statistically significant for Micronesian, as illustrated in table 4 ($p = 0.019$, Fisher’s exact test). A statistical check of the NCV data could not be performed based on the presentation in François’ paper. In and of itself, the lack of regularity in a change causing replacement of phonemes is neither surprising nor problematic (e.g., Kiparsky 2016).

3.2. FUNCTIONAL LOAD. Because phonetic conditioning is difficult to ascertain here, it is worth exploring other functional pressures, in particular functional load, which is known to inhibit merger (Wedel, Kaplan, and Jackson 2013).

Functional load can be calculated by token, which is impossible here in the absence of a corpus, or by type, simply counting the number of minimal pairs. I have made the counts using the POC forms in the ACD (Blust, Trussel, and Smith 2023). Functional load thus calculated appears not to have played a role in *R merger: it is neither the case that *R~*r contrast has lower functional load than other *R contrasts, nor is it the case that *R overall has lower functional load than other phonemes.

Table 5 shows the number of minimal pairs with *R for the phonemes with more than 10 pairs. The number of total minimal pairs for each phoneme is shown in table 6.

TABLE 4. *R BETWEEN IDENTICAL VOWELS IN MICRONESIAN.

	Retained	Lost
Between same Vs	14	8
Between different Vs	16	34

TABLE 5. MINIMAL PAIRS FOR *R IN THE ACD.

*l	*k	*t	*s	*p	*n	*r	*ŋ	*q	*b	*m
37	36	32	29	27	26	26	16	13	12	9

TABLE 6. TOTAL MINIMAL PAIRS IN THE ACD.

*t	*k	*p	*s	*l	*b	*r	*q	*n	*ŋ	*R	*m	*w
576	554	517	484	436	342	331	326	322	312	290	261	123
*d	*ñ	*g	*pʷ	*c	*j	*dr	*y	*mʷ	*bʷ	*kʷ		
69	54	49	48	46	46	36	35	25	25	5		

While the overall functional load appears to have played no role in the merger, the tendency to retain *R between identical vowels invites a speculative explanation along similar lines: loss of *R in such an environment would create sequences of the same vowels that were perhaps confusable with singleton vowels.

3.3. A PROXY FOR FREQUENCY. Diffusion of the type observed here can correlate with a lexical measure such as frequency or some other factor that contributes to the informativity of a form (Kiparsky 2016). Corpus-dependent measures are, of course, inaccessible in a reconstructed proto-language, but we can call a surprise witness to testify in their place. Properties like frequency might correlate with membership in the class of so-called basic vocabulary, which is widely assumed to be relatively resistant to borrowing and replacement and more likely to be retained (see discussion and further references in Tadmor, Haspelmath, and Taylor [2010]). Retention likelihood can indeed be estimated for protoforms, even if crudely. For each etymon containing *R that is retained in Micronesian, I counted the number of primary branches of Oceanic that also retain that etymon (regardless of *R outcome), using data from the six volumes (Ross, Pawley, and Osmond 2016–2023). Etyma that lose *R in Micronesian are retained in 7 Oceanic branches on average, while etyma that merge *R with *r in Micronesian are retained in 5.4 Oceanic branches on average. The difference between these means is significant on a *t*-test (*t* = 2.7, *df* = 60.8, *p* < 0.01). To put it another way, words which are more retainable *in general* are ones where *R is more likely to be lost in Micronesian. A plausible interpretation of this observation is that *R is more likely to be lost in vocabulary that is more ‘basic’.

4. INTERPRETATION AND SYNTHESIS.

4.1. THE SOUND CHANGE AS A CASE OF DRIFT. In the above sections I have argued that change involving *R proceeded along similar pathways in two geographically distant Oceanic branches, a situation commonly called *drift* (Blust 1990; Rehg 1991; Blevins 2021). Drift depends on an inherited

precursor or precondition that makes it likely for change to develop along predictable pathways. Here, I propose such a precursor, based on the pattern of *R developments discussed in section 3.3.

The pattern of reflexes, particularly the suggestive tendency to lose *R in the more frequent or basic words, makes sense under the scenario where words that are less frequent/predictable are hyperarticulated, while more predictable words are reduced. Such a continuum between hyper- and hypoarticulated variants, or the HH-continuum, is a well-established source of variation (Lindblom 1990). This structured variation can indeed act as a precursor to the observed drift: the variation along the HH-continuum is what is inherited from the proto-language. Then distant branches would naturally undergo similar patterns of change of reduction at the hypo-end of the HH-continuum.

The Micronesian reflexes of *R can be made sense of in this context: they could result from selection along the *r—*R—Ø continuum, with *r representing maximum fortition and Ø maximum lenition, and the outcome of *R tending one way or another depending on a speaker's hypo- or hyperarticulatory target. One problem is that the phonetics of *R are uncertain. Lynch, Ross, and Crowley (2002) interpret it as a uvular trill, while François (2011b:141) and Blust (2013:588) suggest both *r and *R were an alveolar flap and trill, respectively. My proposal would imply the *reverse* phonetics for *r and *R: the former a trill, the latter a flap, a possibility François (2011b:141) explicitly recognizes. What was retained from the proto-language, then, is that *r—*R—Ø continuum, that is, variation structured along the hypo/hyperarticulatory cline. Together with natural tendencies of fortition and lenition, it would produce similar outcomes in distant locales.

More in general, the idea that variation can be inherited is not new in historical linguistics; it is discussed, for example, in Jacques and List (2019), called “incomplete lineage sorting” (a term borrowed from biology), and by Kalyan and François (2019) as a mechanism leading to the formation of linkages with complex patterns of overlapping isoglosses.

4.2. CONSEQUENCES. Given the implication “if *R is retained in Micronesian, it is retained somewhere in NCV,” the entire Micronesian family looks like an Efate language. Discounting the fanciful possibility that Micronesian speakers migrated north from Efate, bypassing the rest of the Vanuatu archipelago, what realistic scenario could result in the observed picture, one compatible with the Geraghty–François Generalization as well? What do the facts of *R imply for the prehistory of Micronesia?

The consensus is that Remote Oceania was settled rapidly by speakers of a variety very close to POC itself around 3000–3200 BP (Pawley 2007). Initially maintaining close contact, as widely dispersed settlements became denser and more established, they lost ties to distant communities. The linguistic effect of this network-breaking is modern-day language diversity across the linkages of Island Melanesia. Micronesian languages are thought to originate somewhere

in the Oceanic-speaking territory to their south (Pawley and Ross 2006; Pawley 2018). Archeology points to near-simultaneous settlement of Micronesia around 2000 BP (Rainbird 2004; Kirch 2017; Athens 2018). Such rapid settlement of new territory that was typical of the Lapita expansion entails a weak linguistic signal for the origins of Micronesian within the rest of Oceanic. That settlement must have been followed by a prolonged period of contact in which Micronesian subgroup-defining innovations would have had time to accumulate, including the uniform distribution of *R reflexes.

As Pawley (2007) and François (2011a) maintain, linguistic diversification and accompanying network-breaking in Vanuatu are relatively recent, likely more recent than similar diversification in Micronesia. At the same time, the uniformity of *R outcomes suggests that intra-Micronesian contacts must have been maintained for a longer period, relative to the inception of the *R changes, than similar contacts in Vanuatu, where the languages did not have time to arrive at a uniform outcome. In other words, it appears that Micronesian diffusion of *R changes took longer and ended earlier than diffusion in Vanuatu. One might cautiously deduce that the loss and merger of *R in Micronesian started earlier than in NCV. If true, this idea lends further support to the concept of *R changes as drift resulting from an inherited phonetic precursor rather than more specific inheritance of loss or merger.

There is an issue of timing, however. According to the consensus dates cited above, there appears to be a thousand-year gap between the spread of Lapita culture in Remote Oceania and the arrival of Oceanic speakers in Micronesia. During that thousand years, speakers at the southern end of the continuum shared with speakers in the north the preconditions for *R loss and merger, but the change itself originated much later. A thousand years is an awfully long time to maintain a delicate phonetic precursor such as the one assumed here. François (2011b) suggests that the diffusion in NCV was triggered by *R loss in the south, spreading north, followed by rapid merger of *R and *r, solidifying the diffusion in progress. Perhaps another alternative is available: the change that triggered the diffusion was not the loss of *R in the south but the merger of *R and *r in the north—a mirror image of the picture entertained by François (2011b). Such a change could have originated much later than the arrival of POC speakers in Vanuatu, perhaps around the same time that Micronesian languages diverged.

5. CONCLUSION. In descending order of certainty, this squib has asserted the following: Micronesian languages underwent a pattern of *R attrition similar to what is found in Southern Oceanic; Micronesian languages carry the same change further than any NCV language; the merger with *r can be thought of as fortition, and *R loss as lenition; the hyper/hypoarticulation continuum *r—*R—∅ is the phonetic precursor that led to similar pathways in widely separated areas; it could have originated in Northern Vanuatu as fortition of *R to *r.

I leave with two final questions. One remaining puzzle is why *R was nowhere retained as a distinct phoneme. Perhaps this has to do with the nature of the change itself. Once the merger with *r encroached on the distribution of *R, it became a rare phoneme with a low functional load prone to loss. In addition, a generalization named *Garde’s Principle* by Labov (1994:311) states that mergers are irreversible by linguistic means, which entails that the diffusing area of a merger can only grow, not shrink. After a sufficiently long time, mergers should leave no pockets of conservatism.

A second, harder question is why *r appears to have never lenited to *R or Ø in Micronesian (such outcomes are attested in NCV, as an anonymous reviewer notes). Such an outcome would be expected at least sometimes given the scenario sketched above, perhaps as hypercorrection or as lenition in highly frequent words. This appears to have never happened, and I leave an explanation for this fact open.

Finally, I should emphasize that, based on the data as presented, I am not claiming a specific Southern Oceanic locus as the origin of Pre-Micronesian speakers. The precursors to *R loss were too widespread and too susceptible to spread to make such a claim, and it remains to be adjudicated by other evidence.

APPENDIX: PMC REFLEXES WITH NO COGNATES IN NCV

TABLE 7. NO COGNATES IN NCV.

POc	PMc	Gloss
*[baR]baR	*parV	‘coral tree’
*baRa-baRa	*paa	‘stem’
*buRat	*p ^w ura	‘ <i>Fagraea</i> ’
*kamaRi	*kamai	‘ <i>Elagatis</i> ’
*kaRapa	*PCK karafa	‘k fish’
*kaRi(q)ana	*kaiana ?	‘ <i>P. lamekotensis</i> ’
*keRaŋ	*(tap ^w a)kea	‘turtle’
*kiRa	*kiakia	‘tern’
*koRo	*koro	‘pubic hair’
*luRa	*PPo luurV	‘small shrimp’
*maRi	*mai	‘breadfruit’
*ŋaRa	*ŋaŋjaa	‘duck’
*paqaRo(k), -i-	*faro, -ki-	‘seize’
*paqoRu	*faú PCK	‘new’
*paRak	*(f,p)ara ?	‘hoarse’
*piRu-piRu	*iru-iru	‘ <i>Istiophoridae</i> ’
*qaRuas	*aua	‘fish; mullet’
*Raŋa	*raŋa	‘duck’
*Reqi	*PPo reeV, reV	‘grass’
*taŋiRi	*taŋiri	‘ <i>Scombridae</i> ’
*tuRu(p)	*PWMc Tuuru	‘wade’
*uRat	*ua	‘vessel’

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