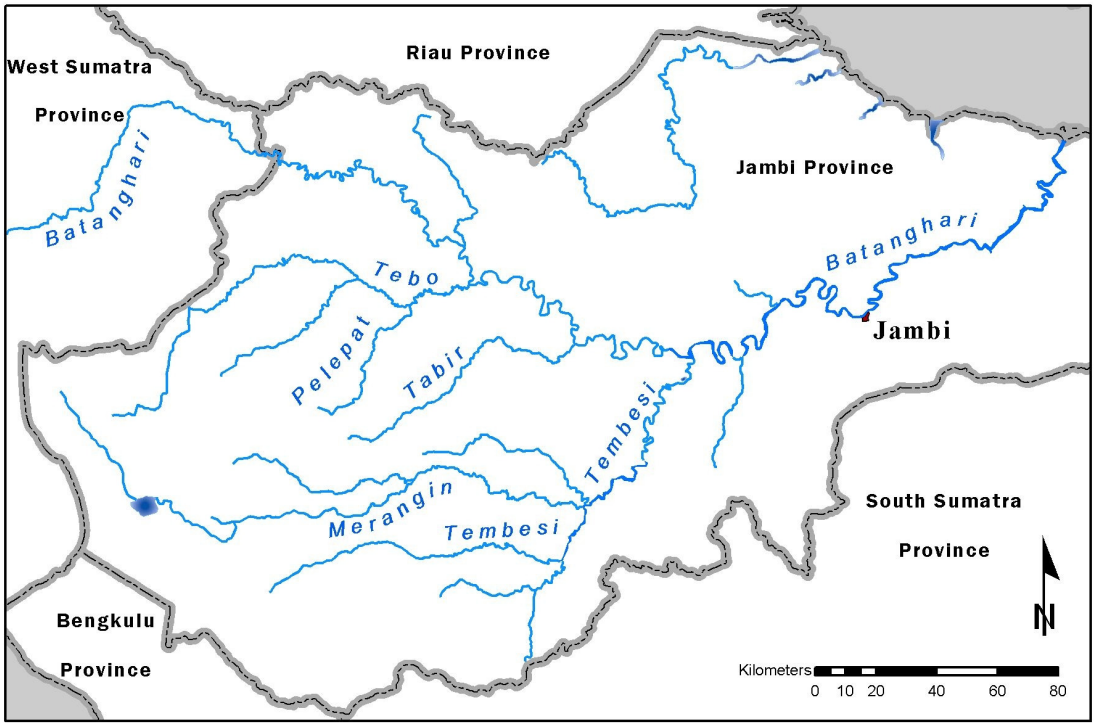
Malay Dialects of the Batanghari River Basin (Jambi, Sumatra)



Malay title: DIALEK MELAYU DI LEMBAH SUNGAI BATANGHARI (JAMBI, SUMATRA)

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Abstract

While the Malays of southeast Sumatra, beginning with the kingdoms of Melayu and Srivijaya in the 7th century, long dominated the vital trade links between India and China, the speech of their modern-day descendants remains poorly documented and subject to needless controversy. This study is a documentation of the speech of *orang Jambi*, the approximately one million Malays who live in the Batanghari river basin of Jambi Province, Sumatra, Indonesia. Motivated by Bronson's (1977) hypothesis that, in much of Southeast Asia, river systems are a key interpretive grid for understanding the region's history, the techniques of dialect geography and the historical-comparative method are used to map the present-day Malay dialects in this river basin and to demonstrate historical relationships among various Malay-speaking areas. Sixteen areas, two downstream and fourteen upstream, were sampled and their core vocabulary recorded using wordlists and texts. These data are analyzed using the comparative method, relying heavily on past reconstruction efforts, most notably that of *Proto-Malayic* by Adelaar (1992). Phonological innovations for these sixteen varieties are presented, and an effort is made to weigh the relative significance of the various innovations for the purposes of delineating dialects. The innovations in Jambi Malay varieties are also compared with those of neighboring speech varieties, such as Minangkabau, Kerinci, Kubu, Rawas and Serawai. It is concluded that there are at least six distinct Malay dialects in this area: *Pesisir (Coastal) Malay* (probably closely related to Riau Malay), a dialect labeled *Jambi Ilir (Downstream)* spoken in the capital area, a dialect labeled *Jambi Ulu (Upstream)* spoken in upstream areas, two Kubu dialects (*Western* and *Eastern Jambi Kubu* respectively) and a *Penghulu* dialect which classifies most closely with Minangkabau.

This monograph is a slightly revised version of a thesis submitted in fulfillment of the degree of Master of Letters at the Institute of the Malay World and Civilization, Universiti Kebangsaan Malaysia, in May 2003.

Abstrak (Bahasa Malaysia)

Sejak zaman kerajaan Melayu dan Sriwijaya pada abad ke-7 dan beberapa abad kemudian orang Melayu di Sumatera Tenggara menguasai hubungan perdagangan antara India dan China. Tetapi bahasa yang dituturkan oleh cucu cicit mereka pada hari ini masih belum diteliti dengan baik, dan menjadi fokus perdebatan yang tiada gunanya. Tesis ini mendokumentasikan penuturan orang Jambi, yaitu sejuta orang Melayu yang tinggal di lembah Sungai Batanghari di Propinsi Jambi, Pulau Sumatera, Indonesia. Tesis ini dijanakan oleh hipotesis Bronson (1977) bahawa, di pelbagai tempat di Asia Tenggara, lembah sungai menjadi kerangka penting untuk memahami sejarah daerah itu. Oleh itu, metode pemetaan dialek dan juga metode linguistik sejarawi digunakan untuk memetakan dialek-dialek Melayu yang wujud sekarang di lembah Sungai Batanghari dan untuk membuktikan hubungan sejarah antara daerah-daerah yang berbahasa Melayu. Enam belas buah tempat diperiksa, iaitu dua buah kampung di hilir dan empat belas di hulu, dan kosa katanya dicatat melalui daftar kosa kata dan perekaman cerita. Bahan-bahan ini dianalisa dengan memakai metode linguistik sejarawi yang bersandarkan rekonstruksi yang sudah ada, seperti Bahasa Melayik-Purba yang direkonstruksi oleh Adelaar (1992). Inovasi-inovasi fonologi dalam enam belas isolek ini disajikan, dan penulis ini berusaha mempertimbangkan kepentingan setiap inovasi tersebut untuk klasifikasi dialek. Inovasi-inovasi isolek Jambi juga dibandingkan dengan inovasi isolek Melayu yang di luar lembah Batanghari, contohnya Minangkabau, Kerinci, Kubu, Rawas dan Serawai. Disimpulkan bahawa terdapat setidaknya enam buah dialek Melayu di lembah Batanghari: *Pesisir* (mungkin hubungannya erat dengan dialek Melayu Riau), dialek *Jambi Ilir* yang dituturkan di daerah ibukota Jambi, dialek *Jambi Ulu*, dua dialek Kubu (*Kubu Barat* dan *Kubu Timur*) dan varian *Penghulu*, yang paling erat dengan Minangkabau.

Acknowledgments

Whatever perspective this monograph contributes to the understanding of the Malay language will be similar to the perspective gained by a midget who is lucky enough to stand on the shoulders of giants. There are many giants who have developed the fields of dialectology and historical linguistics, and in terms of Austronesian comparative linguistics people like Otto Dempwolff, Robert Blust, James Collins, Sander Adelaar and Bernd Nothofer have all made outstanding contributions and provided a solid foundation for this study to rest upon. I am particularly thankful for Dr. James Collins and his patient advising of this project since its inception, his breadth of familiarity with relevant literature not only of a linguistic nature but also anthropology and history, and his depth of experience in the Malay World that provided a much broader outlook than I had. I express gratitude to Dato' Dr. Shamsul Amri Baruddin, professors and office staff of the Institute of Malay World and Civilization (ATMA) for the encouragement and help I continually received from them. Additionally, I would like to extend that gratitude to LIPI (Indonesian Institute of Sciences) and *Pusat Pembinaan dan Pengembangan Bahasa* (Indonesian Center for Language Building and Development) for sponsoring my fieldwork in Sumatra. I benefited greatly from the people of Jambi who helped me during my fieldwork phase, particularly all the patient language consultants, also Diana Rozelin, for her eager assistance in obtaining library information and eliciting texts, Emi Mifrasah for helping understand the cryptic Jambi Malay recordings, and Edi Harahap of Universitas Jambi for his travel advice and for accompanying me on my travels. To all of you, I thank you deeply. I thank my loving wife who bore "single motherhood" with grace while I was on my research trips or holed up in the office writing. Finally, I am thankful for the people who prayed for me to produce a book, and I am especially thankful to my Lord who heard and answered those prayers.

List of Abbreviations

Language varieties most frequently referred to in this monograph. Primary sources are listed; when other sources are used this is noted in the text.

AN	-	Austronesian
AR	-	Arabic (Jones 1978)
BH5	-	Kumpeh district (Batanghari 5) (Saidat Dahlan *et al.* 1985)
BNK	-	Bangka Malay (Nothofer 1997)
BT	-	Bunga Tanjung village (Penghulu; personal fieldnotes)
DD	-	Dusun Dalam village (Jambi Ulu; personal fieldnotes)
DN	-	Dusun Danau village (Jambi Ulu; personal fieldnotes)
DT	-	Dusun Teluk village (Jambi Ilir; personal fieldnotes)
JI	-	*Jambi Ilir* / Downstream Jambi Malay
JM	-	Jambi Malay
JU	-	*Jambi Ulu* / Upstream Jambi Malay
JUC	-	Jambi Ulu Cluster
JV	-	Javanese (Horne 1974)
KBJ	-	Jambi Kubu (Maryono *et al.* 1997)
KER	-	Kerinci (Prentice & Hakim Usman 1978; Steinhauer & Hakim Usman 1978)
KJ1	-	Bukit Tembesu (Jambi Kubu 1) (Maryono *et al.* 1997)
KJ2	-	Tanjung Lebar (Jambi Kubu 2) (Maryono *et al.* 1997)
KJ3	-	Pematang Kolim (Jambi Kubu 3) (Maryono *et al.* 1997)
KJ4	-	Bukit Duabelas South (Jambi Kubu 4) (Maryono *et al.* 1997)
KJ5	-	Dusun Tuo (Jambi Kubu 5) (Maryono *et al.* 1997)
KK	-	Kungkai village (Jambi Ulu; personal fieldnotes)
KSS	-	South Sumatran Kubu (Dunggio *et al.* 1985)
LK	-	Lubuk Kepayang village (Jambi Ulu; personal fieldnotes)
LT	-	Lubuk Telau village (Penghulu; personal fieldnotes)
MIN	-	Minangkabau
MIN1	-	Minangkabau, Padang Variant (Adelaar 1995b)
MIN2	-	Inland Minangkabau (Tjia 1998.)
ML	-	Mudung Laut village (Jambi Ilir; personal fieldnotes)
MP	-	Muara Panco village (Jambi Ulu; personal fieldnotes)
MR	-	Mersam village (Jambi Ulu; personal fieldnotes)
MS	-	Muara Siau village (Jambi Ulu; personal fieldnotes)
MUK	-	Muko-Muko (Umar Manan *et al*. 1986; Zainul Arifin Aliana *et al.* 1993)
MUS	-	Musi (Zainal Abidin Gani *et al.* 1981)
PA	-	Pulau Aro village (Penghulu; personal fieldnotes)
PAN	-	Proto Austronesian
PGH	-	Penghulu
PJ	-	Desa Panjang (Jambi Ulu; personal fieldnotes)
PM	-	Proto-Malayic (Adelaar 1992)
PMP	-	Proto-Malayo-Polynesian (primarily Blust 1999; also 1984, Adelaar 1992)
RAW	-	Rawas Malay (Yuslizal Saleh *et al.* 1984)
-		Rejang (Blust 1984)
-		Sakai (Kalipke 2001)
SI	-	Standard Indonesian (Echols & Shadily 1989)
SKT	-	Sanskrit (de Casparis 1997)
SL	-	Seling village (Jambi Ulu; personal fieldnotes)
SM	-	Standard Malay (Wilkinson 1959)
SS	-	Suo Suo village (Jambi Ulu; personal fieldnotes)
ST	-	Sungai Tenang (Znoj n.d.)
SWY	-	Serawai Malay (Adelaar 1992)

TAL - Talang Mamak (Putra 2001)
TJ1 - Tungkal Ulu district (Tanjung Jabung 1) (Saidat Dahlan *et al.* 1985)
TJ2 - Tungkal Ilir district (Tanjung Jabung 2) (Saidat Dahlan *et al.* 1985)
TJ3 - Muara Sabak district (Tanjung Jabung 3) (Saidat Dahlan *et al.* 1985)
TJ4 - Nipah Panjang district (Tanjung Jabung 4) (Saidat Dahlan *et al.* 1985)
TK - Teluk Kuali village (Jambi Ulu; personal fieldnotes)
TT - Tanah Tumbuh village (Jambi Ulu; personal fieldnotes)

Other abbreviations and symbols:

adj - adjective
C - consonant
excl - exclusive
incl - inclusive
IPA - International Phonetic Alphabet
k.o. kind of
n - noun
N - nasal
NORM - non-mobile, older, rural male
p.c. - personal communication
PL - plural
POSS - possessive
PSC - percentage of shared cognates
§ - section
SG - singular
v - verb
V - vowel
1p - First person/plural
3s - Third person/singular
* - does not or cannot occur

1 “The Cradle of the Malays”

“Get it right
There's no blood thicker than ink
Hear what I say
Nothing's simple as you think.”
-U2, *Dirty Day*

1.1 Introduction

One thousand four hundred years ago, the prophet Mohammed had received his revelations, and his followers were beginning their historic expansion. Christian missionaries had recently reached the British Isles, and Beowulf was being composed. In India, both Buddhism and Hinduism were undergoing great changes, and Queen Vidya was writing Sanskrit poetry. Vast parts of Asia stretching from India to China via Southeast Asia were drawn together in a trading network borne by the sea. And in a strategic location guarding the trade lanes passing through the Straits of Malacca, rival kingdoms were rising to prominence, the Malay-speaking kingdoms of Melayu in Jambi and Srivijaya in Palembang.

By the late seventh century Melayu had fallen to Srivijaya, but achieved its own immortality by lending its name to a people and, later, a language: Malay.

Meanwhile, fed by trading profits and its own very productive gold mines, the southeast Sumatran kingdom of Srivijaya grew until its sovereignty extended to both sides of the Malacca Straits, and its sovereign was called “the king of the islands”. This is what we know of the origin of the legendary but historic kingdom considered in Malay oral tradition as the birthplace of the Malays (Adelaar 2000). And a succession of Malay kingdoms from that time controlled the lucrative trade routes for a good part of the next eight hundred years, from ports like Palembang, Jambi, and later, Malacca, and were probably responsible for turning Malay into a *lingua franca* stretching widely across Southeast Asia.

It is in this historical cradle of the Malays and the Malay language that this study is situated.

One would think that, with such a glorious history and reputation, the Malay language of Southeast Sumatra would be showered with attention by scholars seeking clues to the history and development of Malay, but quite the opposite is true. With a few exceptions, the twenty-odd dialects of Malay in Southeast Sumatra have not received more than a passing glance from historical linguists. Why is this? One reason perhaps is that, despite its history, the former glory of this part of the world is now just a faint memory. The ports of Jambi and Palembang no longer command the attention of traders, just weathered houseboats and a few barges carting away the last remaining forests.

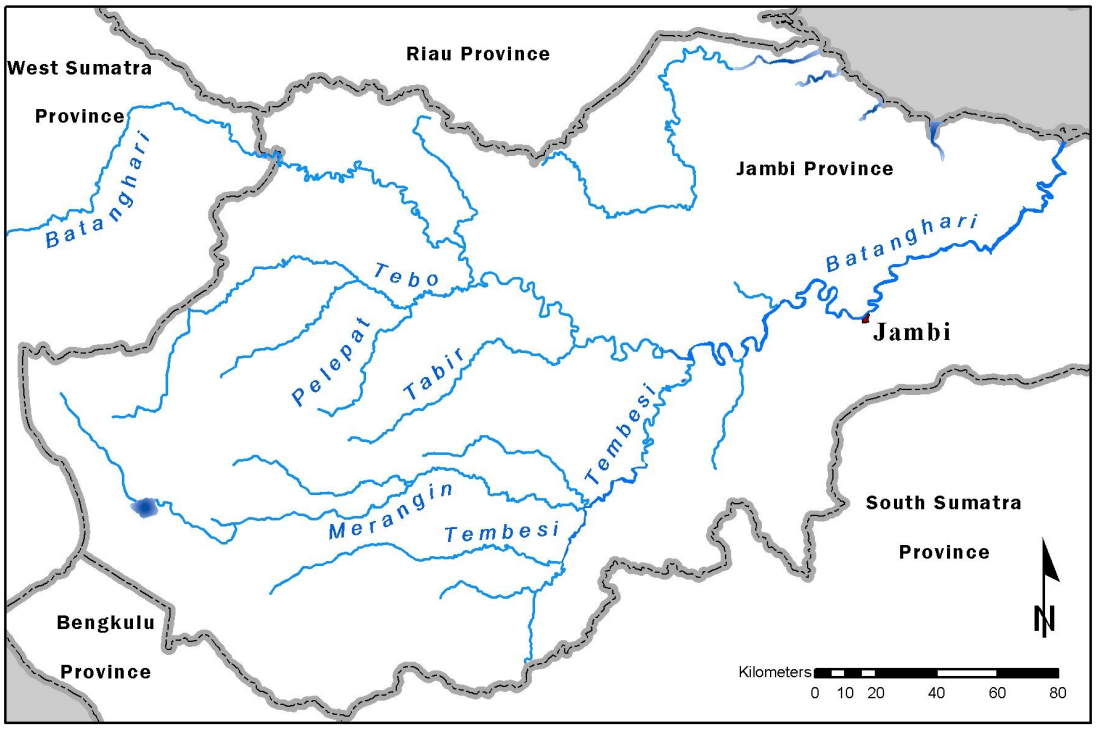
There *have* been scholars who have focused on this area. For example, the Australian scholar B. Andaya (1993) has written in some detail about the history of the Malays in South Sumatra and Jambi, the importance of the Batanghari and Musi rivers in trade and social intercourse, and provided broad outlines related to language differences. But if one wants to know about Jambi Malays and their language, for example, he or she will be greeted by more questions than answers. Is their language uniform, as depicted by Wurm and Hattori (1981) in their language atlas? Are there significant regional variants, and if so, is there a discernable pattern of variation, and is it based on geographical features such as the ever-prominent Batanghari and its tributaries? Are there autochthonous non-Malay languages in Jambi, particularly in the upstream regions? Does their language yield any clues about the history and spread of Malay? Using the techniques of dialect geography and historical linguistics, this limited phonological and lexical study seeks to provide tentative answers to the above questions about the nature of Malay in Jambi as well as contribute to the understanding of the history of Malay in Sumatra.

Map 1.1 Indonesia, Jambi Province in box
Source: World Factbook

1.2 Details of area

The general location of the research is the province of Jambi, Indonesia (Map 1.1). Jambi Province stretches east and west across the heart of the island of Sumatra, and shares borders with Riau to the north, West Sumatra and Bengkulu to the west, South Sumatra to the south, and the Berhala Strait and South China Sea to the east. Jambi Province today occupies an area of 53,400 sq. km. and has a population of over 2 million (Nasruddin Hars 1992). In it is located the Batanghari River, at 450 km. the second longest river on the island of Sumatra,[1] whose watershed delineates much of the province's borders (Map 1.2). The majority of the province is lowlands, with the western quarter rising into the Barisan Range. At present there are ten *kabupaten*, or regencies, which are themselves subdivided into *kecamatan* (district), then *kelurahan* (subdistrict).[2]

[1] The longest at 700 km is the Musi of South Sumatra Province.
[2] At the time that most of the literature discussed in the literature review below was written, there were only six regencies, four of which were later split. **Appendix B** gives a table of correspondences between the old and new regencies.



Map 1.2 Batanghari watershed

1.3 Current language situation in Jambi

The dominant language of a vast swath of the island of Sumatra, from north of Medan through Riau, Jambi and South Sumatra, is Malay (see Map 1.3). In fact, the hegemony of Malay on Sumatra is so great, that in Jambi Province as well as some other provinces there are no indigenous non-Malay languages. Nurzuir Husin *et al*. (1985) listed six indigenous languages of Jambi, namely **Jambi Malay**, **Batin**, **Penghulu**, **Kubu**, **Kerinci** and **Bajau**. This, however, needs some correction as it raises as many questions as it answers. Bajau is spoken by a far-ranging seafaring group found in Sumatra, Borneo and Sulawesi, as well as other provences, (Gordon 2005:427) and as such can hardly be considered indigenous to Jambi. And Penghulu, as we shall see, is a Malay variety but shows evidence of coming from West Sumatra (Minangkabau). According to Collins (1995 and elsewhere), Kubu and Kerinci can be classified as dialects of Malay. As Jambi Malay is obviously Malay, we only have to account for the mysterious "Batin". However, in §3.3 Batin also is demonstrated to be a Malay variety.[3] So for indigenous varieties, we are left with (downstream) Jambi Malay, Batin (or upstream JM), Kubu and Kerinci, all Malay varieties.

[3] A note about terminology: when the term 'language' is used in this study, it is used in the generally accepted sense of a speech variety separated from others by barriers of intelligibility or social/political factors. When the term 'dialect' is used, I follow Crystal's (2003:136) general definition of "a regionally or socially distinctive variety of language, identified by a particular set of words and grammatical structures", with the assumption that two dialects of the same language will be mutually intelligible. Because this study deals with a set of speech forms which are in the fuzzy areas between 'language' and 'dialect', or between 'dialect' and 'subdialect', for the most part I use the obtuse but conveniently less-specific term 'speech variety' or 'variety' for short, following Chambers and Trudgill (1998:5), who defined it as "a neutral term to apply to any particular kind of language which we wish, for some purpose, to consider as a single entity". This term corresponds to another term 'isolect' which is in currency among some who write about Indonesian speech varieties (from Hudson 1967:12) and was similarly defined as "any language unit that is accorded a separate name by its speakers, regardless of whether it is, technically, a dialect or a language".

Map 1.3 Malay on Sumatra
Source: adapted from Nothofer 1995:86

In addition to the indigenous Malay varieties in Jambi, there are also various immigrant ethnolinguistic groups – Bajau, as mentioned above, as well as Minangkabau, Javanese, Chinese, Batak and others. However, the focus of this research is specifically on the Jambi Malay-speaking people of the area.

This term "Jambi Malay" requires some definition. For the purposes of this study, Jambi Malay (JM) is defined as the native (Malay) language of the people who identify themselves as *orang Jambi* "Jambinese", who live on or around the Batanghari and its tributaries. It is not assumed here that the Malay varieties spoken in this area constitute a single linguistic unit to the exclusion of other speech varieties outside the Batanghari basin. Rather, this abstraction is simply a starting point for the research; the issue of classification of JM (and neighboring) varieties is taken up in Chapter 5. This definition of JM therefore excludes immigrant groups, and excludes Kerinci also, as speakers of Kerinci have their home in the mountains west of the Batanghari basin. Excluded also is Kubu, which, although a Malay variety, is spoken by members of a distinct ethnic group who identify themselves as *Suku Anak Dalam* ("Children of the Interior") rather than as Jambi Malays.[4] Excluded is Penghulu as an immigrant Minangkabau dialect (see §1.4.6) , but included is the speech often referred to as *Batin*.

The term *Batin* is another which requires explanation. For centuries, perhaps millennia, there has been considerable cultural separation between downstream and upstream Jambi (cf. Andaya 1993:14). One of the ways this has been manifested from at least the seventeenth century and probably earlier has been in political organization. Much of Jambi upstream of Muara Tembesi and below the highlands was organized in impermanent alliances of villages called *Batin*s, a name that comes from the title of the alliance's chief. These units were eventually institutionalized by the Dutch colonialists in the nineteenth century. For example, some villages around the southern Jambi city of Sarolangun were part of the political grouping called *Batin Delapan (Eighth Chiefdom)*, while others were part of the federation called *Batin Lima (Fifth Chiefdom)*. These groupings were officially abolished in 1978 and replaced with the current administrative units.

[4] There is also a linguistic difference which corresponds to this cultural divide, as will be shown in §**3.9**.

It seems the Dutch (cf. Tideman 1938) were particularly enthusiastic about extending the term *Batin* from the political domain to ethnic and linguistic domains; however, my informal questioning led me to the conclusion that, although the now-defunct *Batin* political system is still remembered by older people, they (at least nowadays) consider themselves *orang (person) Melayu, orang Jambi* or simply *orang* [village name] rather than *orang Batin*. Young people rarely have even the awareness of the old *Batin* system in my experience. Other territories in upstream Jambi were not divided using the term *batin* but rather the related terms *mendapo* or *marga* (Tideman 1938; Znoj 2001:235), but there seems to be no major linguistic divide separating these areas.[5] For these reasons I do not favor the term *Batin* as a linguistic label and for now will refer to these varieties by a more neutral term: upstream Jambi Malay or by the abbreviation JU for *Jambi Ulu*.

The phrase "no man is an island" applies equally well to languages, and so this study will not only examine Jambi Malay and its internal differences, but also place JM varieties within a Malay dialect network that includes Kerinci, Kubu, Minangkabau (including its dialect Penghulu) and South Sumatran varieties such as Rawas and Serawai.

1.4 Historical and social background

As Collins (1998a) pointed out, the purpose of dialect studies is not to collect odd forms and curiosities for a linguistic museum, but rather to identify patterns and link our linguistic knowledge with understanding given by other disciplines. The social sciences and history are particularly fruitful areas of study that can both contribute to as well as gain from a study such as this. This section, therefore, will seek to provide a brief historical and social context for this research.

1.4.1 Homeland of Malay – Borneo or Sumatra?

Various locations have been put forth for the homeland of Malay. Early scholarship favored peninsular Malaysia (Kern 1917:119–120), but Adelaar (1985) noted that recent scholarship downplays the likelihood of peninsular Malaysia on the basis of demographic evidence. Despite the growth in understanding the history of the Srivijaya and Melayu kingdoms in Sumatra, recent research (beginning with Adelaar 1985) has tended toward identifying Borneo as the homeland of at least an ancestor of Malay, which Adelaar reconstructed as Proto-Malayic. The evidence for Borneo as the homeland of Malayic is based on Sapir's hypothesis that the homeland of a language will demonstrate the greatest linguistic diversity, all other factors being equal. However, it does not seem that we have heard the last word on the homeland issue, as much of Borneo's language situation is only now coming into view.

If an ancestor language of what we now know as Malay *was* brought to Sumatra by a group of speakers from Borneo, we would hope that this migration would have left some linguistic, archaeological or other evidence. One issue that is therefore very much alive is whether and how Malayic languages can be subgrouped. Nothofer in different articles (1988, 1995, 1996) has highlighted various innovations in central Sumatra, Bangka Malay, Jakarta Malay and languages of southwest Borneo as possible grounds for subgrouping, as has Collins with Brunei Malay and Bacan, and Bornean Malayic varieties as a whole (1987, 1991, 1994 and elsewhere). Some of these arguments attempt to give evidence for such a migration. Many of these directions seem promising but have not yet met with full consensus with other scholars, partly because evidence at several linguistic levels (lexical, phonological, morphological, syntactic, semantic) may be required to put forth a very compelling case.

The earliest indisputable evidence of the Malay language is actually in Southeast Sumatra in the form of stone inscriptions from the end of the seventh century, connected with the kingdom of Srivijaya as it was rising to prominence. Collins (1998b) expressed the opinion that migration of speakers from west Borneo to Sumatra could have happened before 100 AD. From one perspective it does not matter *when* the Malays or pre-Malays came to Sumatra, because we know they *did* come and have a good idea where they came

[5] For example, at least the following JM research sites are in non-Batin upstream areas: TK, MS, and MP. MS and MP are shown to be closely related to two Batin areas, KK and SL, in §**5.3.2**.

from also. It is also a fact that languages continually evolve and change, so whether or not the language that left Borneo was "Malay" is partly a matter of definitions: at what point in the continuum does one decide this variety has become "Malay"?

Yet from the perspective of subgrouping and shared innovations, it is very important to continue to research these questions. Was there one migration from Borneo to Sumatra and/or other locations? Was there more than one migration from Borneo, and can some non-Bornean varieties be traced back to one Bornean ancestor while other non-Bornean varieties can be traced to a different Bornean ancestor, or the same ancestor at a different time? Or can we say, using historical linguistic terminology, that there is a set of innovations that definitively set off all or some Sumatran (and Peninsular) Malay varieties from any known Bornean Malayic language?

Malay has been a dominant regional language at least since the time of Srivijaya, but it is improbable that it was "born" that way. Today, Latinate languages are dominant in much of Europe and the Americas, but 2500 years ago, Latin was an obscure language confined to the area around Rome. What made the difference between then and now? It was the economic and political power of the Romans. There must have been a time when the ancestor of Malay was a smaller language on par with the languages around it and before it acquired the dominant economic and political role that allowed it to spread throughout the coastal areas of Southeast Asia. So most pertinently to this study, we need to ask where Malay was located when it grew so dominant and from where it spread. We have good historical evidence that Srivijaya as a powerful kingdom had the ability and geographical position to transform Malay into the dominant language we know from later history. Whether earlier Malay-speaking Bornean groups had that position and power is unclear at this point.[6] Are there grounds for subgrouping coastal varieties of Malay elsewhere with the Malay found in southeast Sumatra such as Jambi Malay, over and against non-coastal Malayic languages in Borneo? This study is neither broad nor deep enough to be able to answer these questions in a convincing fashion (or even to address the Borneo dimension), even if possible evidence does show itself. However the hope is that, by illuminating lexical, phonological and dialectal facts about heretofore little-described Malay varieties in Jambi, later scholarly studies will have a better empirical basis upon which to rest their theories.

The homeland of Malayic varieties will likely be the source of debate for some time to come, and many questions persist from Malay and Sumatran prehistory no matter which theory one favors. Bellwood (1985:231, 293) gave evidence for highland lake areas like Kerinci having agricultural clearance 2000 BC onwards, so we know that at least some parts of Sumatra were not empty and void before Malay-speakers settled there. Referring back to Map 1.3, it seems likely that the Malay language found a foothold in southeastern Sumatra and then expanded out from there, eventually pushing to the west coast and Barisan range (present day Bengkulu, Kerinci and West Sumatra) and north along the coast into historically Batak areas. What happened to the languages spoken in these areas previously? The outer fringe areas tend to be the most problematic. Is Kerinci from the same Malay stock as the rest? What about Minangkabau, Komering, Rejang and Ranau?[7] Are they the languages that got pushed aside, or are they the ones who pushed?[8] It is the questionable status of these varieties that has led to a proliferation of theories about their origins. The next section will describe one theory that has flourished in the dark basement of half-truths and fuzzy facts.

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[6] Blust (2000b) presents evidence for a substantial migration from southwest Borneo that populated the east coast of Sumatra, and the east coast of peninsular Malaysia up through present-day Thailand with a dialectally complex "Malayo-Chamic" population. If his scenario is correct, it would mostly rule out my speculations about a Srivijayan-driven expansion of Malay.

[7] Ranau is a Lampungic variety spoken in the far western part of South Sumatra Province (cf. Arifin *et al.* 1998)

[8] In reality the questions and answers are even more complex. Even if one of these languages predates Malay, it certainly bears evidence of significant contact and borrowing from Malay. And if a language is from the more recent Malay migration(s), do we have evidence of a pre-Malay substratum corresponding to archaeological evidence?

1.4.2 Proto- and Deutero-Malays

In the Indonesian government-sponsored literature discussing the various peoples and languages of Jambi Province, a taxonomy is frequently given, as in Figure 1.1.

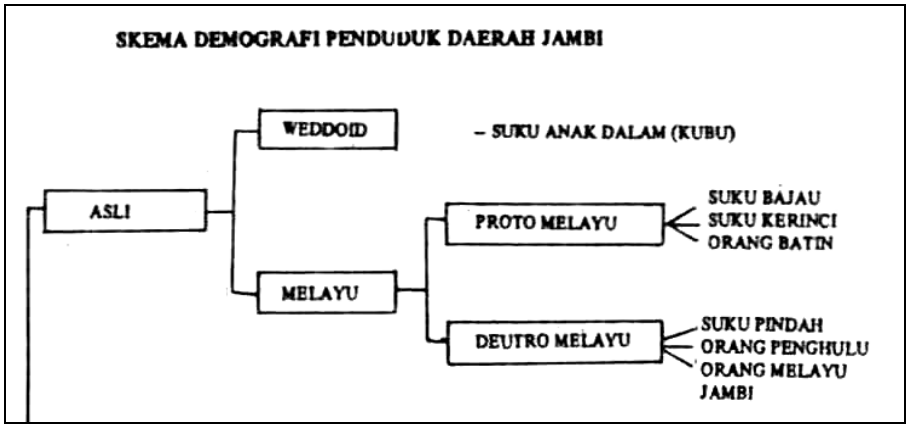

Figure 1.1 Local epistemology of ethnic groups in Jambi
Source: Sagimun 1985

Does this taxonomy reflect reality in Jambi? Are there three different races indigenous to Jambi, with different languages and cultures?[9] These assertions need to be subject to critical evaluation. Bellwood (1997:128) notes with disappointment at "how often these 'waves' of Veddoids, Proto-Malays, and Deutero-Malays…are repeated without question in modern books on the history and peoples of the region".

The taxonomy given above is a direct descendant of late nineteenth century/early twentieth century anthropology (cf. Hose 1926; Loeb 1935; from Bellwood 1997), which assumed nearly indivisible connections between race, culture and language. The particular theory that informs this taxonomy could be inelegantly called the *Melayu Tua/Melayu Muda* theory, or the *Proto-/Deutero-Malay* theory. In this theory, populations of Nusantara are composed of two waves of immigrants (plus original inhabitants): *Melayu Tua* (which in today's terms scholars would probably call "early Austronesians") and *Melayu Muda*, which are the Malays as we know them. This two-wave theory was first propounded by the brothers P. and F. Sarasin based on their ethnographic research in Sulawesi at the end of the nineteenth century, and quickly gained wide acceptance.

This theory has been significantly challenged over the years by linguists, archaeologists and anthropologists.[10] As early as the 1940s the Dutch historian Vlekke argued that explaining the history of Nusantara in terms of two waves was far too simplistic (Vlekke 1965; 1st ed. 1943), and more recently we read statements like "Sweeping generalizations [such as the two-wave theory]…are not only out of place, at this stage of research, but dangerous insofar as they can stifle discovery…" (Glover 1981:372). Collins, in an article examining the use of the term *Melayu Proto* in the realms of ethnography, linguistics and archaeology (1993:81), concludes that the only proper use of this term is the restricted historical linguistic sense of a no-longer-existing ancestral language of Malay.

As a result of more data from the various fields, the link between language, culture and race has been significantly weakened (cf. Bellwood 1997:131 about the Kubus of Jambi). We no longer have the luxury of making assumptions about a language based on its speakers' racial features or way of life.

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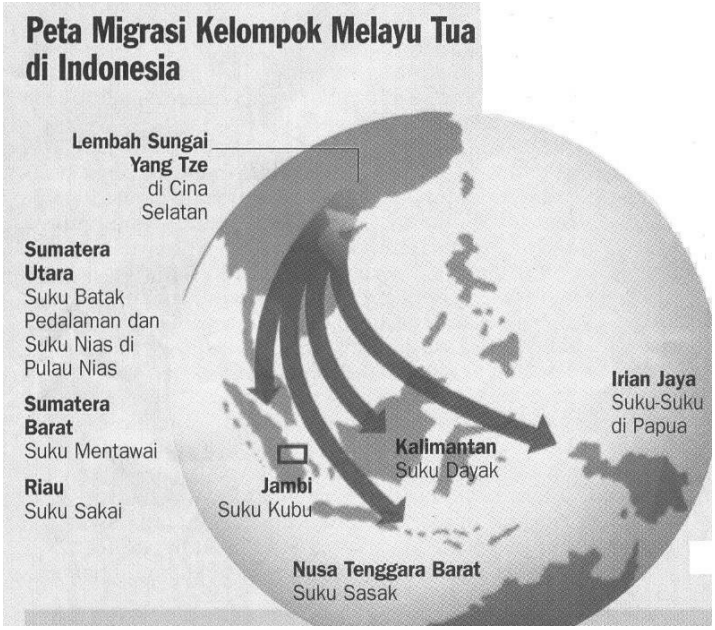
[9] In this taxonomy (Figure 1.1), orang Batin, orang Kerinci and orang Bajau are lumped together as "Proto-Melayu". See §1.3 for a discussion on Bajau.

[10] Actually, Sumatra in current understanding, with at least two different migrations of Austronesians, may be one of the few places where the Proto- and Deutero- terminology may be beneficial in helping us conceptualize linguistic reality, but even this is in a context divorced from the Sarasins' original intentions.

However, the often unreconstructed theory lives on today in popular epistemologies in Indonesia and Malaysia, where it provides a popular explanation for the fact that many *suku terasing* (isolated and "backward" tribes) look and behave differently yet often have a form of Malay as their native language. In fact, this two-wave theory has been loosed from its academic moorings and become a nine-headed Hydra, being applied to whichever group strikes the author's fancy.

For an example of the application of the two-wave theory, the book by Sagimun used as its primary source Ali Basja Loebis' now-outdated 1957 high school textbook *Azas-Azas Ilmu Bangsa-Bangsa* (*Foundations of Social Science*), and then applied the *Proto-Melayu* label, using the vaguest of classificatory criteria, to the groups shown in Figure 1.1 above.[11] More recently, *Tempo* magazine (Agr. 2002) published a spread on the Kubu, reporting confidently that the Kubu, along with the Dayak, Sasak, Toraja, Batak, and others, were part of the *Melayu Tua* wave from Yunan, China, who later ran into the forest when the *Melayu Muda* wave rolled in (see Map 1.4). In peninsular Malaysia the term *Proto-Melayu* has even been applied to Austro-Asiatic Aslian groups (cf. discussion in Collins 1993:72).



Map 1.4 Tempo's take on Austronesian history ("Map of the migration of the Proto-Malays in Indonesia")

In §1.7, I attempt to fashion a testable hypothesis based on relative chronology, to better query the evidence of "proto-ness" for the language of groups such as Batin and Kerinci.

1.4.3 Mitani and "old" Highland Malay

One scholar's writings about Sumatran Malay has been taken as support for the theory of Proto-Deutero-Malay. Yasuyuki Mitani, a Japanese linguist who was himself not an Austronesianist but who once did fieldwork in South Sumatra in 1978, divided South Sumatran Malay into *Highland Malay*, centered in Pasemah and including Serawai, and *Lowland Malay*, which he postulated to include Musi Malay and Palembang Malay. He postulated that Highland Malay is an "old" form of Malay, "old" compared to Lowland Malay. Mitani made his case briefly as follows (1980:15,16): "It is quite impressive, however,

[11] Sagimun's criterion was, if an ethnic group shows little evidence of being exposed to the great Indian and Islamic cultural influences pervasive in Nusantara, it is *Proto-Malay*. If the group is more mainstream in its cultural influences, it is *Deutero-Malay*. That would be *post hoc* evidence. Slametmuljana's *Asal Bangsa dan Bahasa Nusantara* (1964 1st edition, 1975 2nd edition) was another common reference of Sagimun's, but it also made use of primarily late nineteenth century/early twentieth century research in its conclusions about the homeland and spread of Austronesian languages.

that Palembang Malay does not have any typical Highland Malay words, and to me it seems more probably that Palembang Malay developed from a Malay dialect at a stage when Highland Malay was already separate."

He presented thirteen examples of Highland innovations (p. 13; evidently taken from a Swadesh wordlist corpus of 170 words), but because he did not distinguish between innovations and retentions, some of his examples must be disallowed. We have six seemingly *bona fide* examples of significant lexical, phonological or semantic innovations for Highland Malay. Out of those six, four are shared by Ogan which is downstream and out of the Highlands area according to Mitani's classification. Going further downstream to the villages south of Palembang, in three dialect areas they have respectively three, three and one shared innovations with the Highlands. On the basis of these connections, it seems to me like a classic dialect chain, and Mitani did acknowledge that possibility but favored the explanation of a time-depth difference.

Even if Mitani's theory of different time depths were correct, he himself stated that it would be erroneous to conclude that Highland Malay is anywhere near as different from Standard Malay as, say, Lampung.[12] From the evidence given, Highlands Malay is still clearly Malay, and not a separate West Malayo-Polynesian phylum (e.g. not *Melayu Tua*). This was implied by Adelaar (1992) who used Serawai as one of the languages to reconstruct Proto-Malayic.

It seems that a simpler explanation than *Melayu Tua/Melayu Muda* can be given. The whole area of South Sumatra has been Malay-speaking for centuries. The highlands are less accessible, so many forms peculiar to that area developed and some archaisms were retained, while the busy royal port city of Palembang had constant exposure to and gained many innovations from Javanese, Jakarta Malay and other external sources. This is not surprising at all. The same phenomenon can be seen in downstream Jambi Malay (see §3.2.4).

1.4.4 Andaya and Highlands/Lowlands separation

B. Andaya (1993:14) seems to have taken Mitani (1980) as linguistic evidence for the Proto-/Deutero-Malay theory, although his paper did not mention the theory by name. Bellwood (1985, cited in Andaya) gave evidence for settlements in highland lake areas such as Ranau and Kerinci which evince continuous cultivation for the past 4000 years. Andaya then cited Mitani's conclusions discussed above, and concluded, "Archaeological and linguistic evidence suggests that the interior of both Palembang and Jambi was peopled by groups who evolved independently from those along the coast." But was she really supporting this theory? Independent evolution and independent origins are not the same, and to suggest independent origins she would have had to show evidence that the language spoken by Kerinci people today is related to the speech of the people who were clearing the slopes of Mount Kerinci four millennia ago, or at least that their current language is not Malayic. The evidence provided by Bellwood and Mitani was not sufficient support for the theory; nor is it clear that she or they intended to support the theory. Nobody questions whether upstream peoples could be significantly cut off from those downstream, and Andaya gave plenty of examples of what this isolation was like. But she gave no evidence for two migratory waves of Malay-like peoples.[13]

Historical linguistics can help us speak to issues such as raised by the Proto-/Deutero-Malay theory, and the benefits are not only for linguistics but also for history, archaeology and a variety of disciplines. This limited monograph will certainly not offer conclusive answers to all of these questions, but attempts will be made to at least reflect on the available evidence in terms of these issues.

[12] Lampung is a totally separate language from Malay (cf. Nothofer 1988).
[13] Nor do we really expect her to, because her main focus was on Jambi and Palembang in the seventeenth and eighteenth centuries, not their prehistory.

1.4.5 Non-Malay influences on Sumatran Malay

Moving from prehistory to history, then, we have an indisputable presence of a language we now call *Melayu* or Malay spoken in southeast Sumatra (corresponding to present-day South Sumatra and Jambi Provinces) from the first millennium AD in what became the kingdoms of Melayu and Srivijaya. We have well-documented Indian influence all throughout the Indonesian archipelago, particularly in Sumatra and Java, which manifests itself in things like Sanskrit loanwords in Malay and physical artifacts like Hindu temples in Jambi. Collins (1998b:5-12) documented well the comprehensive linkages between Malay and Indian culture from the early part of the first millennium up through to the fourteenth century. §3.4.7.1 gives a brief consideration of whether Sanskrit loanwords differ in amount between upstream and downstream Jambi.

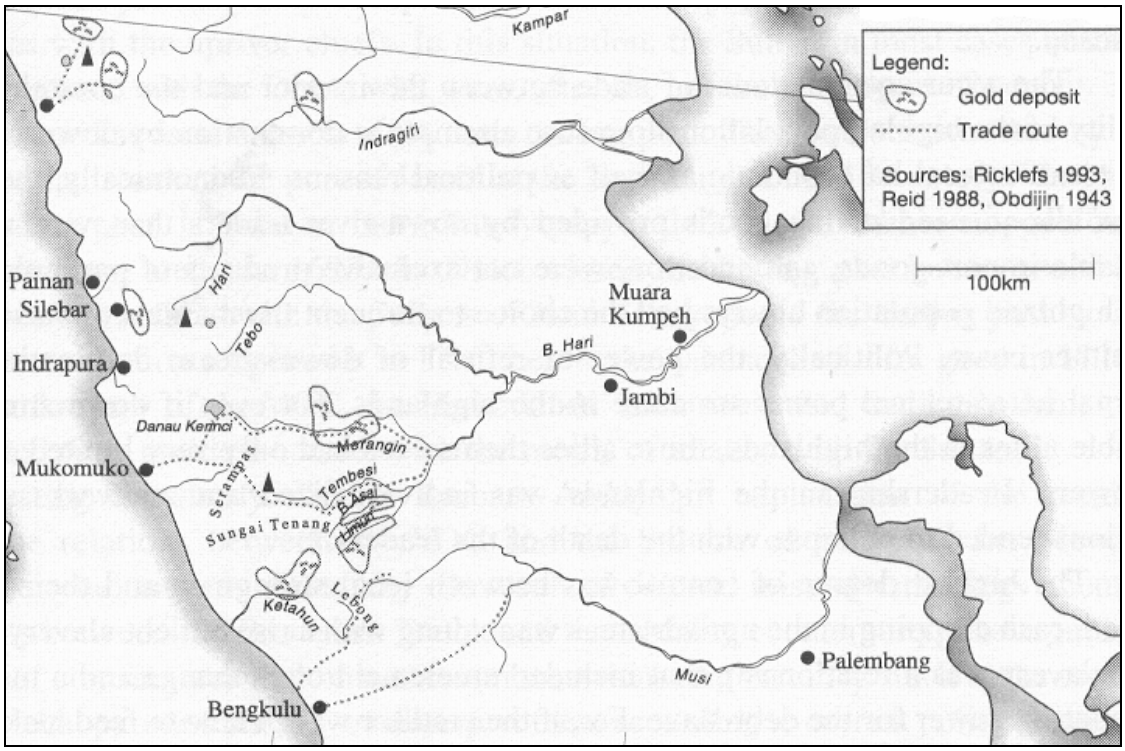
Andaya (1993) recounted the close connections between the royal courts of Palembang and Jambi, and between both of them and the Javanese kingdoms, focusing particularly on the seventeenth and eighteenth centuries. Linguistically, Javanese influence is strongly felt in the court area of downstream Jambi, and declines considerably as one moves away from that area. Refer to §3.5.6 for specific examples of this influence.

Beginning in perhaps the fourteenth century, Islamic language and culture began to make its presence felt in Malay-speaking areas. Malay has since absorbed a tremendous amount of Arabic words in its lexicon. A few of these appear in the basic JM vocabulary collected, like *pikir* 'think' and, sporadically, *napas* 'breathe'.

And of course, colonial languages such as Dutch and English have had an impact on the Malay lexicon, and particularly the influence of English continues full force to this day. §3.4.7.2 lists a few Dutch loans in the JM basic vocabulary.

1.4.6 Minangkabau migrations in Jambi

History in Jambi comes into clearer focus during the era of Dutch and English colonialism (Andaya 1993:xii). For example, we know that the upstream regions of Jambi have been subject to significant Minangkabau in-migrations from at least the sixteenth century (Andaya 1993:14), and by the eighteenth century large numbers of gold-seekers were moving to gold-producing regions in highland Jambi (Znoj 2001:69). One specific implication of Minangkabau migration in Jambi was the establishment of *Penghulu* villages. *Penghulu* is the term used for a village headman in these villages, so the term was extended to cover the village with that political organization. Map 1.5, which shows gold-producing areas in central Sumatra, demonstrates a very strong fit between gold-producing areas and areas in Jambi with Penghulu villages as these villages were identified by my language consultants.



Map 1.5 Gold-producing areas in central Sumatra
Source: Znoj 2001: 148

Today we have Penghulu villages side-by-side with Jambi Malay villages, and the distribution is rather interesting. One local folk story explains it this way: a Minangkabau king hundreds of years ago was expanding his territory in upstream Jambi. He had a water buffalo and was letting it graze freely. Wherever the water buffalo stopped to graze, the king claimed the nearby village for his possession. Whichever areas were bypassed by the water buffalo, he bypassed also. Historical or not, the story provides a vivid illustration of the haphazard pattern of Penghulu and Jambi Malay settlements. For example, on the Batang Asai River upstream from its confluence with the Tembesi (shown above), there is a Batin (Jambi Malay) village, then a Penghulu village, then another Batin village, then three Penghulu villages, then a Batin village again, and so forth.

Did these Minangkabau migrants create, through establishment of new villages or through driving out the original inhabitants, Penghulu villages with 100 percent Minangkabau inhabitants, or were the resulting settlements mixed between original inhabitants and Minangkabau immigrants? History may not give us a definitive answer, but perhaps there will be clues in the speech of these villages. §5.4.1 will discuss some of these clues.

This Minangkabau presence seems to have general implications on the language of upstream Jambi Malay as well. §5.4.1 discusses the influence of Minangkabau in *all* upstream areas surveyed.

1.4.7 Jambi Malay and other Malay varieties

All JM varieties have had exposure to various other Malay varieties, but in different proportions and from different directions. Just as Palembang Malay seems to be more "modern" because of its cosmopolitan position, downstream Jambi Malay is both more similar to Standard Malay and exhibits relatively recent innovations not always found in upstream areas. Details will be presented in §3.2.4 and §3.5. Similarly, upstream JM shows features in common with Rawas, a Malay variety part of the Musi river system immediately to its south; see §3.6.

1.4.8 Jambi Malay and Standard Indonesian

At least since the independence of Indonesia in 1945 and the declaration of *Bahasa Indonesia* as its official language, this version of Standard Malay has been growing rapidly in strength. Indonesian, as *Bahasa Indonesia* is called in English, is generally the only medium of instruction in schools. It is the language of the vast majority of newspapers and books printed in Indonesia, most of its radio and television broadcasts, and political discourse. It is considered the language of national unity, and learning it is considered a patriotic duty. Indonesian's position has so successfully been established as a unifying language that P. Mühlhäusler (1996:20) has labeled Indonesian a "killer language": in many cases it is replacing former indigenous languages. The question of whether Indonesian will "kill" Jambi Malay is outside the scope of this research, but the reader is referred to Kristen Anderbeck (2003) for a Master's thesis devoted to the issue.

Suffice it to say that there is tremendous pressure on Jambi Malay by Indonesian, and many indicators of traditional JM features being replaced by Indonesian have been observed by the author. In Appendix D, the reader can often notice, for example, two words elicited from a single lexical item; one word will bear a more divergent phonetic shape, and the other will be more similar to Standard Indonesian. For example we have the following pair in one village:

'thirsty' (PM **haus*) Dusun Dalam [auɲŋ̥], [aus]

In cases like this, one or the other variant will often be selected according to the social situation. This social selection was shown by Labov (1966) to be a primary mechanism for language change, and undoubtedly Indonesian will increasingly leave its mark on Jambi Malay.

1.4.9 Jambi Malay and Jambi Indonesian

Kristen Anderbeck (2003) documents the existence of an intermediate variety bearing resemblances to both Jambi Malay and Standard Indonesian. This she labels "Jambi Indonesian", following the example of Gil and Tadmor (1994, 1997 and elsewhere) and others who have documented similar vehicular dialects, christening them with names like *Riau Indonesian, Palembang Indonesian* and *Jakarta Indonesian*. Jambi Indonesian is the dominant language of wider communication in Jambi city and rivals Minangkabau in the same role in upstream cities. It bears many resemblances to its "big sisters" Palembang Indonesian and Jakarta Indonesian, functioning as a conduit for slang and other linguistic features from these higher-prestige urban centers.

1.5 Trees and waves – models of explaining linguistic reality

The comparative method in historical linguistics has had extraordinary successes reconstructing long-dead proto-languages and delineating the lineages of language families around the world. Even many non-linguists are familiar with the concept of language families and can identify, say, sub-branches of Indo-European like Germanic, Romance and Slavic. These language families have been classified on the basis of shared innovations that include some languages and exclude others, producing the well-known tree diagrams similar to a human family tree. The *tree model*, however, like any model is a simplified representation of reality, not reality itself. The tree model, based on shared innovations, works best when languages have undergone sharp splits. These sharp splits often occur when a community of speakers divides and the two (or more) divisions lose contact with each other, such as when one segment migrates to a completely different area. Later historical linguists will analyze the language of these two speech communities, perhaps now separated by geographical barriers or another language group, and conclude that at one point these two communities spoke the same language. We can label this cause of shared innovations *separation* or *migration*.

Some authors, however, claim that the tree model loses much of its explanatory power when the linguistic diversity of speech varieties under investigation cannot be traced back to migrations but rather is the result of centuries of accrued linguistic change and contact in one continuously occupied location.

According to that perspective, it becomes an artificial exercise to draw tree diagrams based on shared innovations. In situations of long-settled areas, a model which perhaps more accurately describes linguistic reality has been called the *wave model* (Trask 1996:185; not to be confused with the *two-wave migration theory* treated in §1.4.2). In this model, linguistic innovations appear in a community of speakers like pebbles dropped into a pond, with ripples that spread outward from the center. Even after a linguistic innovation is adopted by a particular community, the neighboring community has the option of adopting it, or not. Some of these innovations have ripples that extend very far, others not far at all. The result? "The pattern of criss-crossing isoglosses separating even contiguous villages from one another and apparently describing a bewildering variety of dialect feature combinations is now recognized as a typical pattern for any region that has a long settlement history" (Chambers & Trudgill 1998:93). We can call this cause of shared innovations *diffusion*. An innovation spread in this way is sometimes labeled an *areal feature*.

The same authors (p. 166) suggested that a more accurate metaphor for the effect of innovations than a pebble dropped in a pond would be a pebble skipped *across* a pond: "innovations leap from one place, usually a city, to another place, another city or large town, and then move into the places between, such as towns and villages." Following Bloomfield (1933), they discussed the distribution of the European uvular /r/, which today is found in geographically discontinuous regions centered in large cities. They predicted that the diffusion of innovations will be fairly predictable based on two factors: demographics and geography. The closer the groups and the higher the populations, the more readily an innovation will spread from one to the other.

Ross (1988) contains an insightful discussion on the topic of migration (his term: *separation*) versus diffusion (his term: *dialect differentiation*), and he fruitfully employs the distinction in reconstructing and describing the processes whereby Proto-Oceanic differentiated into its daughter languages today. A "group of communalects which have arisen by dialect differentiation" he calls a *linkage*, while a "group of communalects which have diversified from a single language by separation" he labels a *family* (1988:8).

As the features of the Malay varieties spoken in the Batanghari basin are documented in subsequent chapters, these issues will be returned to, and the question asked whether a particular co-incidence of innovations between areas might be due to migration or diffusion. In view of the still-murky history of Malay in Sumatra, does the evidence of Jambi Malay suggest where it came from, if it was brought by speakers from Borneo, and what the language looked like when it was brought over in terms of its features and its dialectal homogeneity? If we suspect a single major migration from Borneo, then the Sumatran Malay internal evidence (i.e. patterns of innovations among various Sumatran Malay varieties) should be best explained by the wave model, and the varieties grouped together as a *linkage*. Are there areas where the simpler and clearer tree model can be successfully applied? §1.7.4 presents a testable hypothesis, which is revisited in particular in Chapter 5.

1.6 Literature review

1.6.1 Jambi Malay language

The following is a summary of linguistically related research that has been carried out among Jambi Malays in recent history. Two things will be noted: first, the main thrust of the work, and second, implications if any for the present work, particularly in the matter of regional variation and varieties.[14]

The first modern publication of information on Jambi Malay that I am aware of was put out by the Dutch colonial authority and included a report on upland Jambi (*Djambi* 1912). Some noteworthy linguistic features recorded in this report are briefly discussed in §3.7.2 and §3.8.2. Also notable is Tideman (1938), who provided some pages of detailed, if impressionistic and non-specialist, description of the varieties of Malay spoken in Jambi Province 60 years ago. He also went into quite a bit of detail on the social and political organization of the Jambi territory.

[14] Collins (1995) gave a thoroughly researched bibliography of what had been published relating to Jambi Malay up to that point in time. Many of the following works were also discussed in his bibliography.

The majority of the linguistic and cultural publications touching on Jambi Malay have been sponsored and published by the Indonesian governmental body *Pusat Pembinaan dan Pengembangan Bahasa* (Center for Language Building and Development); these works constitute the rest of this section. All books detail JM as spoken around the capital Jambi, unless noted otherwise.

Wiryatmojo (1983) identified the prefixes found in the Malay of Jambi Seberang Kota,[15] and analyzed the morphophonemic processes related to them, along with their function and meaning. One noteworthy item in his report regards the agent-oriented prefix *N-*, which roughly corresponds with *meN-* in Standard Malay in terms of its use, but differs in terms of morphophonemics. My research has found this true both in the location Wiryatmojo studied as well as other areas in Jambi. Refer to §3.4.8 for a discussion of this phenomenon.

Saidat Dahlan *et al.* (1985), in spite of many typographical errors, provided vocabulary lists and lexical feature maps covering 24 points in Jambi Province (upstream, downstream, mountains and coastal areas), and thus gave a starting point for this research. As the data provided in the book are not very extensive, this book will be used only as a reference to fill in the gaps in areas (such as coastal Jambi) where my fieldwork did not take me. Points of intersection between Saidat Dahlan's conclusions and this present research will be discussed in §**5.3.3**. Saidat Dahlan's is the only book or article until Arifudin *et al.* (2000) to document anything of substance in upstream Jambi.

Nurzuir Husin *et al.* (1985) undertook an analysis of the structure of Jambi Malay, including its phonology, morphology and syntax. One thing worthy of note is that this study was evidently the first linguistic publication to claim the existence of "bahasa Batin" ("Batin language") and "bahasa Penghulu", but without explanation of what these languages may be like or any evidence for positing separate languages. The source for these contentions is likewise unclear, but seems to be *Monografi Daerah Jambi* (1976), which I have been unable to locate. Nurzuir Husin's book claimed to represent the speech of Jambi Malay spoken by the inhabitants of capital city Jambi, Batanghari district (just upstream of the capital), Tanjung Jabung district (on the coast) and some inhabitants of the Bungo Tebo district (further upstream on the Batanghari). Yet the writers exclusively used language consultants close to the capital city (Jambi), and defended this by stating that JM in this area had not been overly influenced by other languages, whilst JM in Bungo-Tebo regency was too strongly influenced by Minangkabau (see §5.4.1 for a different opinion), and JM in Saro-Bangko regency was too strongly influenced by Kerinci, Batin and Penghulu. One of the operating assumptions, then, was that JM and Batin exist side-by-side in Saro-Bangko. How did they come up with these presuppositions?

Sagimun (1985), in a book on the customs of Jambi, gave four pages of examples of dialect differences in JM with a brief discussion of how those varieties might be classified linguistically. Germane to the subject of this monograph, the author averred that the Batin dialect is strongly influenced by Minangkabau, and that the Penghulu dialect should be considered a dialect of Minangkabau that has been mixed with JM. Also, as discussed in §1.4.2, this book introduced readers to the dubious Proto-/Deutero-Malay theory and classified the reputed ethnic groups in Jambi according to this schema. It also evidently relied heavily on the *Monografi Daerah Jambi.*

Nurzuir Husin (1986) took a closer look at the morphology and syntax of JM. The book provides few new insights and gives the impression that Jambi Malay is nearly identical to Indonesian.

Wiryatmojo (1992) wrote about active and passive verbs in JM. I cannot comment on this publication because I have not been able to consult it.

Wiboyo *et al.* (1996) analyzed the structure of adjectives and adverbs of Jambi Malay, looking at their characteristics, form and grammatical meaning. Sources were from one village each in the districts of Sarolangun Bangko, Bugo Tebo and Batanghari, without detailing any dialectal differences between the areas.

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[15] Research Site #1 Mudung Laut is located in Jambi Seberang Kota. Refer to Map 2.1.

Yulisma *et al.* (1997) put out a two-volume dictionary of Indonesian to "Bahasa Jambi", using speakers from Jambi Seberang Kota. As was true for most of the resources mentioned in this section, the dictionary came from a strongly Indonesian-centric viewpoint. The Jambi speaker was asked to translate stock sentences from a shell Indonesian dictionary; for example, the SI sentence *Untuk menghindari penyakit gondok, harus makan garam yang beryodium* ("To avoid goiter, one must eat iodized salt") was translated as JM *Untuk ngidaghi panyakit gondok, haghus makan gagham yang bayodium*. I have never heard a Jambi Malay use a sentence structure like that. Still, the dictionary has an abundance of lexical items and thus is a useful reference to downstream JM.

Erizal Gani *et al.* (2000) covered pretty much the same ground as previous books such as Nurzuir Husin *et al.* (1985 and 1986), but with substantially better data. They still ended up making JM look significantly like Indonesian. They freely quoted from Nurzuir Husin *et al.* (1985) concerning the "languages" spoken in Jambi, again mentioning "bahasa Batin" and "bahasa Penghulu" and again without offering the reader any insight into these varieties. Again, one is given the impression from this book that Jambi Malay and "bahasa Batin" exist side-by-side in places such as the Bungo and Tebo regencies.

Arifudin and Akhyaruddin (2000) detailed all the things one can do with a JM noun. The interesting thing for the purposes of this study is that they did their analysis using three dialects they say make up Jambi Malay. The first dialect was that spoken in the downstream regencies (Kota Jambi, Batanghari), the second was that spoken in Bungo-Tebo regency (now split into two regencies), and the third was spoken in Tanjung Jabung regency (now also split into two regencies). They left out any mention of Sarolangun-Bangko (now split into Sarolangun and Merangin regencies) in the introduction, but added that area to dialect II in the conclusion. They did not mention Batin or Penghulu, nor did they explain how they came to believe there are three dialects in Jambi Malay. Ironically, the speaker they used for dialect II was not a Jambi Malay speaker at all, at least according to how that term is used in this study. Judging by the sound changes and lexical items in the data, he was from a Penghulu village. So, although this book contains by far the most data of an upstream speech variety, it misidentified it.

My conclusion, then, is that few of these writers could substantiate anything about the linguistic situation upstream of the capital. Another disappointing thing to me is that; in most cases, previous studies are not cited. A more positive observation is that quite a bit has become known about JM around the capital city, which provides a basis now for exploring other areas and comparing and contrasting one's findings with what already has been established.

1.6.2 Other relevant works

Adelaar (1992) undertook a theoretical reconstruction of proto-Malayic, and included a 200-item wordlist as well as conclusions about proto-Malayic phonology and morphology. Adelaar's reconstruction of proto-Malayic will serve as a baseline in this research for comparing the various dialects and making tentative hypotheses regarding linguistic shift and relatedness.

Andaya (1993) has written an excellent history of southeast Sumatra in the seventeenth and eighteenth centuries, in which she proposed that the upstream-downstream distinction is most critical as a framework to understand that region. She also detailed descriptions of the role of the Batanghari and its tributaries in trade and communication, and the relationships between upstream groups and the political powers of the downstream around Jambi city.

Znoj (2001), in a major work focused on a community in highland southern Jambi, discussed historical patterns of economic relations and travel that he believed reach back into the first millennium AD. He discussed for example how highland Jambi was most likely the source of the fabled Srivijaya gold. He also documented, quite relevantly for this monograph, the location of trade routes, both via river and land route, that stretch from the west to east coasts of Sumatra (see Map 1.5 for a depiction of some of the main routes). And also relevant to trade, he sketched out broad historical outlines of the periods when trade flowed eastward towards the Straits of Malacca and when it flowed westward towards the Indian Ocean. This provides an important bi-directional perspective to the possible flow of linguistic innovations, one

which I had not considered before. His work also highlights the difficulty of attempting linguistic subgrouping and the use of the comparative method, which works best when populations separate and then do not have significant contact with each other after that. Instead of this neat separation, "[h]istorically, market activity swung wildly from one coast of Sumatra to the other and from one harbor to the other, and each swing caused long-distance migrations of populations across the island" (p. 204). This is hardly ideal for the application of the comparative method, but is still amenable to looking at dialect networks.

Bronson (1977) was an influential article in historical economics that laid out an admittedly speculative model of how so-called "Sumatran states", "the thinly-populated coastlines of the large insular and peninsular land masses of Malaysia, the Philippines and western Indonesia", differed from agrarian, peasant-based kingdoms such as seen on Java and the Southeast Asian mainland. Jambi fits very well his description of a "Sumatran state". Bronson noted that these states were much more transitory than their peasant-based counterparts and postulated that this was due to the nature of their economies. The economies of "Sumatran states" were built on export of commodities mainly derived from non-coercive trade with upstream areas. They were non-coercive because, in contrast with peasant-based states, it was not militarily or economically viable for downstream powers to dominate locations too far upstream, because these upstream locations were generally only collection points for products "originating in more remote parts of the watershed". The producers of these products, which in the case of the Batanghari basin were things like gold, rubber, pepper and others, could simply bring their products to other collection points if a downstream power attempted to dominate them. This has been demonstrated historically for upland Jambi in Znoj (2001: 151–156) where trade shifted back and forth from the west coast (Muko-Muko) to the east coast (Jambi) depending on where the producers and their agents could find more favorable terms. Importantly for this monograph, Bronson also makes some predictions about the distribution of influence. He predicts that foreign influences would be concentrated in the primary port (in this case Jambi). He also predicts that intermediate trading sites (places like Sarolangun, Bangko, Muara Tebo and Muara Bungo) should show a wide range of cultural connections with the downstream site, but that those connections then would wane considerably as one moved to the tertiary (more distant) collecting points and to the actual points of production. Although Bronson was concerned with archaeological and economic influence, it would seem plausible that his hypothesis could also be used to examine linguistic influence. Such was the conclusion of Collins, who has fruitfully exploited this interpretive grid in his research of Malayic varieties (1983 and elsewhere). §1.7.1 contains a hypothesis for Jambi Malay based on Bronson's model.

Maryono *et al.* (1997) provided a data-rich research report (seemingly not published in conventional terms) of a dialect study of speakers from five Kubu (*Suku Anak Dalam*) villages in Jambi Province. Data from the work of Maryono *et al.* are compared with Jambi Malay in §3.9 and part of their wordlists reproduced in Appendix F.

1.7 Hypotheses

This study seeks to provide preliminary answers to some questions about language in Jambi. I explicitly state these questions in the form of hypotheses as well as what would be considered counter-evidence for the hypotheses.

1.7.1 Riverine hypothesis

Riverine Hypothesis: The Batanghari river and its tributaries have significantly shaped travel, commerce and cultural patterns in Jambi. Following Bronson's (1977) model of a "Sumatran state", it is postulated that 1) foreign linguistic influences are mainly limited to the downstream (Jambi) site; 2) JM dialect networks show a determinative connection with river patterns; linguistic innovations follow tributaries within JM and determine JM's boundaries vis-à-vis other Sumatran Malay speech varieties; and 3) upstream sites show less sharp linguistic divisions with speech varieties in neighboring river systems than is seen in the downstream site.

This hypothesis is disproved if: River patterns as implied in Bronson (1977) do not predict linguistic innovations within JM, or between JM and other Sumatran Malay varieties.

1.7.2 Batin hypothesis

Non-Malayic Batin Hypothesis: The speech variety sometimes called *Batin* exhibits a lack of shared innovations with other Malayic varieties, and/or separate innovations that lead us to subgroup it with a non-Malayic language (i.e. "*Melayu Tua*" in terms of the theory detailed in §1.4.2).

This hypothesis is disproved if: Batin is a variety that firmly fits within the family of varieties identified as Malay (or Malayic) by virtue of shared innovations.

1.7.3 Penghulu hypothesis

Penghulu Hypothesis: Speech varieties in villages self-identified as Penghulu show greater genetic affinity to Minangkabau than to JM.

This hypothesis is disproved if: Speech varieties in Penghulu villages do not show significantly greater affinity to Minangkabau than other JM varieties.

1.7.4 Proto-uniformity hypothesis

Proto-uniformity Hypothesis: The pattern of innovations among central-south Sumatran Malay varieties is indicative of diffusion and not migration. Evidence suggests that there was a single, relatively uniform proto-language that is the parent of the varieties treated here.

This hypothesis is disproved if: Evidence suggestive of separate migration of speakers (such as a reconstructible split in daughter languages) can be demonstrated for the Malay varieties of south-central Sumatra.

1.7.5 Southeast Sumatran dispersion hypothesis

The following hypothesis is somewhat outside the scope of this work as testing it would necessitate substantial amounts of comparison with Malayic varieties outside Jambi. Nevertheless, it is put forth here in order to give focus to the evidence presented later, in hope that this research may prove useful as supporting data in future attempts to address this hypothesis.

Southeast Sumatran Dispersion Hypothesis: There is evidence in terms of shared innovations that Malay varieties such as Jambi Malay, perhaps propelled by the strength of coastal kingdoms, were dispersed to other parts of Southeast Asia such as Peninsular Malaysia or coastal Borneo.

This hypothesis is disfavored if: No evidence can be found supporting a southeast Sumatran Malay genesis in non-Sumatran Malay varieties.

1.8 Conclusion

The history of Malay still contains many mysteries and riddles, yet to be unraveled. This limited study has as its goal to partially illuminate a heretofore little-described yet crucial corner of the Malay world and stimulate further study of the Malay language of Southeast Sumatra. In this chapter the current state of understanding of Malay dialects in this area was reviewed, followed by a brief look at the historical and social background of Malay in Sumatra including a few issues of controversy. Some other studies pertinent to this monograph were mentioned, and hypotheses were put forth that this study intends to address, or at least provide data for. In Chapter 2, attention is paid to the methodology used in this study, specifically to the instruments used in data collection, the selection of research sites and informants, and methods of analyzing the data gathered. Chapter 3 contains a presentation of the Jambi Malay data. It begins with an

overview of the JM phonological system(s), and continues with a listing and discussion of the phonological innovations JM shares with Proto-Malayic. The data presentation then narrows down to innovations common to all JM varieties (but not necessarily outside JM), then narrows down again to those shared by only downstream or upstream varieties. Penghulu and Jambi Kubu innovations are treated at the end of the chapter. Chapter 4 is a detailed exposition of a set of upstream innovations all involving nasals and variable occlusion. In Chapter 5, the data previously presented are displayed in the form of maps, and selected innovations are highlighted for their utility in dividing the speech varieties investigated into dialect groups. The conclusions reached by the historical-comparative method are also compared with the weaker and sometime misleading results reached by the use of lexicostatistics. Finally, in Chapter 6 a summary of the entire monograph is given and the hypotheses posited in Chapter 1 are reviewed and evaluated in light of the evidence presented. Suggestions for further research are offered.

2 Just NORM-al Dialectology

Lain lubuk lain ikan
Lain padang lain belalang
Malay proverb, "Different pool, different fish; different field, different grasshopper"
(every village has a different set of customs and language).

2.1 Introduction

Once the research question has been decided, one needs to determine how to go about gathering the information needed to address it. In the case of this research, I needed to deal with these issues:

- how to elicit the data and ensure I would get what I needed;
- how to record the data and preserve valuable details for myself and future scholars;
- where to gather the data, in terms of geographical location and type of language consultants; and
- how to analyze the data so that patterns and variation would be clearest.

Fortunately, although this study is the first to address historical questions of dialect development and distribution in the Batanghari basin, there is no shortage of exemplars for this type of study. In this chapter I discuss the choices and sometimes the reasons behind the choices made in methodology, specifically in the matters of data collection, data recording, choice of geographical sites and informants, and analysis of the data.

2.2 Data collection

This research can be classified as dialectology with a historical-comparative perspective. For this study, I follow the definition of dialectology given in Collins (1989:237): "The task of the dialectologist is to identify the splits which have yielded the contemporary network of dialects. In other words, delineating the history of a language, its diffusion, and its diversification, is the goal of dialectology." To these ends, the primary instrument of data collection was a wordlist questionnaire, supplemented by observations of language use. Attempts were always made also to record some live language, whether it was someone telling a folk story, or just a conversation between two villagers. A section containing all wordlists gathered is found in **Appendix** , and two texts gathered and translated can be found in **Appendix** and J.

2.2.1 Wordlist

The wordlist used in this research (see Appendix D) is a combination of two previous wordlists. The first is a 200-item list which was originally formulated as *Basic Vocabulary of Proto-Malayo-Polynesian* from Blust's (1981) "Variation in Retention Rate among Austronesian languages". The second is an unpublished wordlist developed by SIL International for use in both Sabah (Malaysia) and Kalimantan (Indonesia), consisting of 287 items. When combined, due to overlap, the total number in the Jambi wordlist came to 355 items, plus a few additional items that were in neither standard wordlist but were germane to the situation in Jambi.

2.2.2 Issues with wordlists and texts

As stated above, the main goal of this research was not to get a realistic picture of how language is used synchronically in JM, but rather to find the oldest forms and patterns to better understand the history of JM. One might think one would get more "authentic" speech from extemporaneous speech than from wordlist elicitation, where people are more self-conscious about their speech. That was my assumption throughout my data collection time, but I was often disappointed. The recordings I obtained of extemporaneous speech often smelled strongly of Indonesian or other external, prestigious Malay varieties. My problem was that I equated "authentic" with "parochial" or *basilectal*. But I eventually came to believe that, in many areas

anyway, the local speech is under heavy pressure from standard Indonesian, and people rarely use the "pure" local form. Instead, they freely borrow words and even pronunciations from the standard language.

When I was eliciting a wordlist, I would ask for the old forms, or at least the distinctive way that village had of saying something. It was not uncommon for the speaker[16] to have to think about it, or even get help from others around, to come up with the word considered most *asli*, most authentic. It did not just fall off the tips of their tongues.

People rarely have the luxury to think about every word they want to use, and even consult others, before uttering a sentence. Therefore for the purposes of historical linguistics a wordlist may have distinct (but not complete) advantages over a spontaneous text in areas of heavy outside linguistic pressure.

The method of eliciting a wordlist, however, can spell the difference between success and failure in reaching the goal of getting a reasonably accurate picture of the historic sound patterns in a speech variety. Particularly in an area like this where the language of elicitation (Indonesian) is very closely related to the local speech forms, it is very difficult to avoid interference from the dominant, prestigious language, even when the speakers have an opportunity to reflect on what is the local way of saying a word. Because of this potential for strong interference, Collins (p.c.) prefers an indirect method of elicitation; when seeking the word for mouth, for example, instead of saying "mulut" he would point to his 'mouth'. He thus attempts to keep his language consultant in a "local speech" rather than a "national language" frame of mind. He also relies on pictures and circuitous explanations or questions, e.g. "What do you do when you are hungry?" when trying to elicit the word for 'eat'. The hope apparently is that the consultant will then think (in his/her native tongue) and then produce the local form without reference to the national-language form. An additional advantage of the indirect method of elicitation is that the investigator's ability to track shift in semantics is enhanced. For example, if using the direct method, the investigator asks, "How do you say *asap* ('smoke')?", the speaker will most likely answer with *asap* but (hopefully) modified according to the local pronunciation. However, it may just be that, in that village, *asap* does not mean 'smoke' but rather 'mist'. The direct method of elicitation would have missed that detail entirely, whereas the indirect method would have a much greater chance of eliciting the form with the desired meaning.

A problem with the indirect method, however, is that it requires substantial fluency and ability to explain and anticipate misunderstandings on the part of the investigator, as well as a decent understanding of the local language to ensure that an incorrect form has not been given. For example, it is often easier to elicit *anyam* 'weave' and have the language consultant understand than to use a tortuous circumlocution like "What do you do when you want to make a mat?" where more than one answer could be forthcoming: "I buy one", "I ask my aunt to make me one", "I go to the forest and gather pandanus" or even just a blank stare. So although I attempted to use the indirect method as much as possible, I found that for at least one half of the items in my wordlist, I simply did not have the language fluency to do so successfully; I more often created furious discussions among the people gathered or got those blank stares. So the method I used was most often the direct method, but I tried to compensate for it by supplementing it with questions to ensure that I was both getting the form with the semantic content I was seeking, and the distinctive local sound patterns. "*Bahaso dusun, yo?*" ("That's the way you say it here, right?") was my mantra.

2.2.3 Orthographic notes

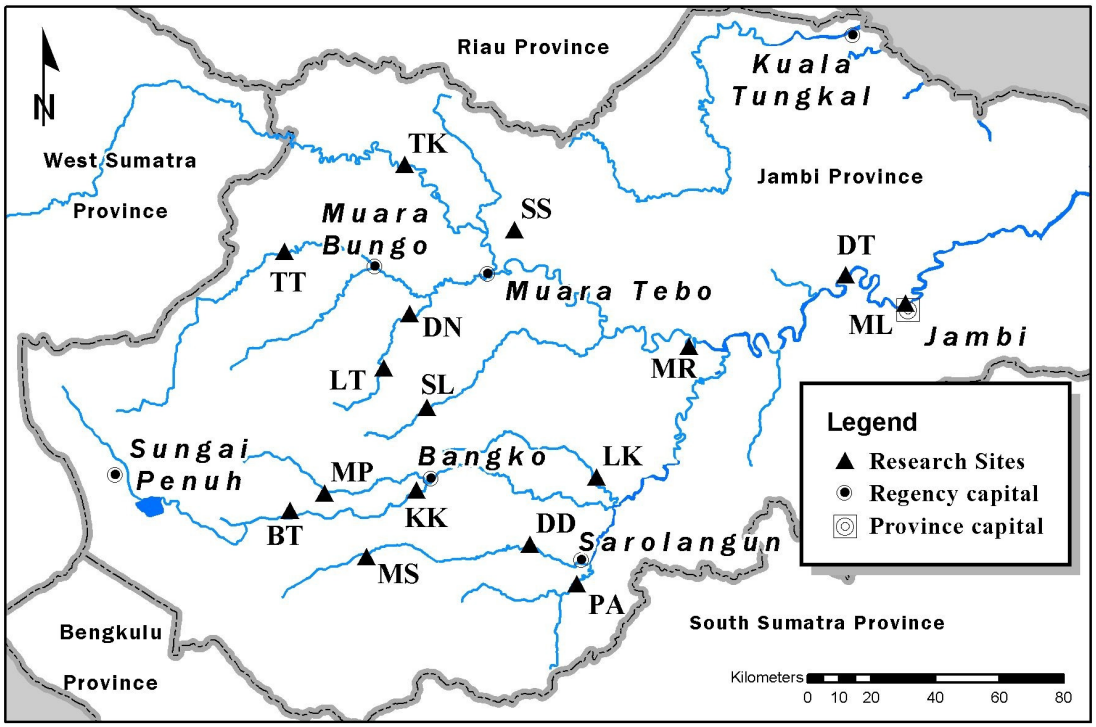
Phonetic notation in this present study hews fairly closely to the standards of the International Phonetic Alphabet (IPA). Exceptions are that [c] and [j] are used in the Indonesian/Malay orthographic style, as affricates, and [y] as a palatal approximant, following general convention in Malay linguistics (cf. Collins 1983 and others). In the rare case that a voiceless palatal stop (IPA [c]) appears in the JM data, this study borrows the non-IPA symbol [Ċ], while a voiced palatal stop remains IPA barred j [ɟ]. Also, the 'a' in my transcriptions is usually more central than the front vowel that 'a' represents in IPA. When it actually is front the vowel is marked with the advanced symbol [$_{+}$]. My use of superscripted characters (e.g. [ᵻ]) is perhaps more liberal than IPA's guidelines; when I superscript vowels it accords with IPA in meaning non-

[16] Throughout this work, "language consultant" and "speaker" are used interchangeably.

syllabic, but I break with IPA in superscripting consonants – which I use to mean simply lower in perceptual prominence than a "normal" consonant; e.g. [lumpuᵏ] 'mud' would have a barely audible final consonant compared to [lumpuʁ]. This is admittedly a somewhat subjective judgment but hopefully still valuable.[17]

2.3 Research sites

In terms of the field of dialectology, the methodology of this research project is admittedly old-fashioned. Traditionally, dialectology has been concerned with tracing historical forms and their reflexes across geographical space. For example, early dialect researchers in Germany in the nineteenth century mailed out questionnaires to schoolmasters across Germany, seeking regional pronunciations, lexical items and grammar. More recently, dialectologists have been focusing greater attention on language variation in social space, for example differences between men and women, variation in socioeconomic status and in age (cf. Chambers & Trudgill 1998). Given that I am seeking clues about the history of Malay in Sumatra, these newer methods of dialectology, though fascinating and important in their own right, fall outside the scope of this research. There is a need for basic information on JM, something with which to provide a baseline for future measurement.



Map 2.1 2001 research sites

I collected wordlists in sixteen locations in Jambi. See Map 2.1 for a visual representation of the sites. Appendix C gives a detailed listing of geographical locations, districts, and subdistricts.[18] Table 2.1 gives their preliminary assigned dialect affiliation.

[17] I am by no means the only person to use such notation to denote lower prominence in general; cf. Collins (1998a:151 and elsewhere).

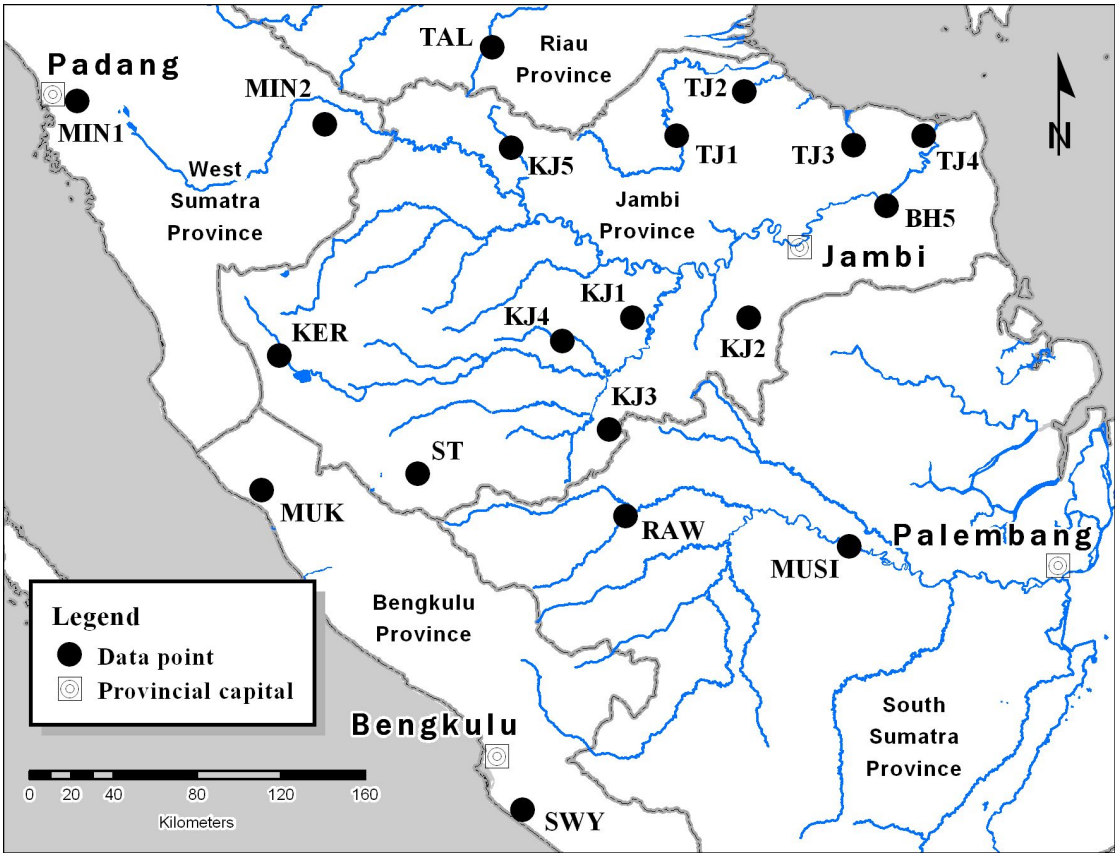
[18] The geographical coordinates given in the appendix were mostly produced by locating the point on a physical map and calculating the coordinates based on the latitude and longitude given on the map. In a later visit to Jambi, however, I had access to a GPS (Global Positioning System) unit and so the downstream coordinates were produced with the GPS.

Table 2.1 Jambi data points and dialect affiliation

Village	**Code**	**Dialectal Affiliation**
Mudung Laut	ML	JI (Jambi Malay Ilir)
Dusun Teluk	DT	JI
Mersam	MR	JU (Jambi Malay Ulu)
Lubuk Kepayang	LK	JU
Dusun Dalam	DD	JU
Muara Siau	MS	JU
Muara Panco	MP	JU
Kungkai	KK	JU
Seling	SL	JU
Suo Suo	SS	JU
Dusun Danau	DN	JU
Tanah Tumbuh	TT	JU
Teluk Kuali	TK	JU
Pulau Aro	PA	PGH (Penghulu)
Bunga Tanjung	BT	PGH
Lubuk Telau	LT	PGH

The latest Indonesian government census recognized 1173 (major) villages in Jambi Province, and 789 of these were in the seven regencies with which this research is concerned (see Appendix C). Obviously, there are physical limitations as to how many areas can be researched, so sampling must be used. First the areas with reportedly large numbers of newcomers were disqualified, and smaller, more isolated villages were preferred over larger, more cosmopolitan settlements. After that, I operated by a leapfrog system, selecting a village some distance from the current village being sampled, according to local understanding of whether the new village's language was substantially different from their way of speaking, until roughly all of the JM areas were represented. Special attention was paid to river systems, to ensure that each major tributary of the Batanghari was sampled and to increase my ability to test the riverine hypothesis discussed in chapter 1. There are however a few gaping holes in Jambi Malay areas, areas which I did not sample at all. One of those areas is anything downstream of the capital, and another is many of the hard-to-reach upstream areas approaching Kerinci. Fortunately, there are some materials by other authors (Saidat Dahlan *et al.* 1985; Znoj n.d.) which help to fill in those gaps.

I had come to believe that “Batin” villages in upstream Jambi (see §1.3.1) were indigenous Malay, while Penghulu villages reportedly had strong influence from Minangkabau (cf. the Penghulu hypothesis given in §1.7.3). So to test and expand this understanding three villages were chosen because of their Penghulu history. Two of these Penghulu villages, PA and BT, I paired with “Batin” villages nearby, DD and MP respectively and sampled both members of the pair. The assumption was, if the speech of these Penghulu villages evinced a closer relationship with Minangkabau than their neighboring “Batin” partner, that would be strong evidence for an external source for their language. Findings are discussed in §3.2.2.3, §3.8 and §5.4.1.



Map 2.2 Additional Sumatran Malay data points

To properly investigate the hypothesis that river systems in Sumatra help predict language patterns, not only was there a need to sample *within* the Batanghari basin but also *outside* it, to see whether changing river macrosystems would herald corresponding linguistic changes. This study therefore includes a discussion of Sumatran Malay varieties in proximity to my sampling sites and for which data were available to me in published or unpublished form. Map 2.2 shows the location of these additional language varieties, and Table 2.2 provides a key to the abbreviations.

Table 2.2 Additional Sumatran Malay data points

Code	Data point	Primary Source
BH5	Kumpeh district (Batanghari 5)	Saidat Dahlan *et al.* 1985
KER	Kerinci, Sungai Penuh Variant	Prentice & Hakim Usman 1978
KJ1	Bukit Tembesu (Jambi Kubu 1)	Maryono *et al.* 1997
KJ2	Tanjung Lebar (Jambi Kubu 2)	Maryono *et al.* 1997
KJ3	Pematang Kolim (Jambi Kubu 3)	Maryono *et al.* 1997
KJ4	Bukit Duabelas South (Jambi Kubu 4)	Maryono *et al.* 1997
KJ5	Dusun Tuo (Jambi Kubu 5)	Maryono *et al.* 1997
MIN1	Minangkabau, Padang Variant	Adelaar 1995b
MIN2	Inland Minangkabau	Tjia 1998
MUK	Muko-Muko	Umar Manan *et al*. 1986; Zainul Arifin Aliana *et al.* 1993
MUSI	Musi Malay	Zainal Abidin Gani *et al.* 1981
RAW	Rawas Malay	Yuslizal Saleh *et al.* 1984
ST	Sungai Tenang	Znoj n.d.
SWY	Serawai	Adelaar 1992
TAL	Talang Mamak	Putra 2001
TJ1	Tungkal Ulu district (Tanjung Jabung 1)	Saidat Dahlan *et al.* 1985
TJ2	Tungkal Ilir district (Tanjung Jabung 2)	Saidat Dahlan *et al.* 1985
TJ3	Muara Sabak district (Tanjung Jabung 3)	Saidat Dahlan *et al.* 1985
TJ4	Nipah Panjang dist. (Tanjung Jabung 4)	Saidat Dahlan *et al.* 1985

2.4 Language consultants

My selection of language consultants also owes more to traditional (that is, pre-1960s) dialectology methods than to recent developments. Due to my research goals, I actually sought after *NORMs* – Nonmobile Older Rural Males, people most likely to preserve older forms (cf. Francis 1983:70–72). I did depart from the standard in one way: Collins (1987:25) wrote that he has generally had better research results with women as language consultants, because women in the Malay world tend to be substantially less mobile than men, thus less likely to have their speech unduly influenced by outside varieties. So, out of sixteen primary research sites, my main consultants for five of the areas were women, and that number would have been greater but in many cases village leadership did the selection of consultants for me. It was often the case that there was more than one consultant; the older person described above was accompanied by a child or grandchild, someone with better bilingual abilities and sometimes better able to grasp the purposes of the research and explain the question to the older person. See Appendix A for a listing of consultants' approximate ages and sex listed by location.

This discussion brings up another point which should be discussed, and that is the somewhat controversial issue of how many consultants (and onlookers) should be present during the elicitation session. Dialectology texts (e.g. Francis 1983, Chambers & Trudgill 1998) devote considerable space to the importance and difficulty of finding a good speaker, and it can be distressing to go through all that work just to have the speaker's opinion drowned out by a precocious neighbor. As a result, some fieldworkers go to great lengths to arrange a quiet and private elicitation setting. During my fieldwork, I made the choice not to pursue private sessions, for a few different reasons. One reason is that, in Jambi, it is almost unheard of culturally for people to have private meetings, and meetings like that make others suspicious. Another reason is that, being an oral-based culture, matters of truth are not decided by introspection (as in Immanuel Kant locked in his study introspecting) but rather by vigorous community discussion. That meant, inevitably, that sometimes I would end up with at least two competing elicited forms, the one first out of the mouth of the consultant, and the one decided on by the group or by the most vocal person. Then I would have to make a judgment call as to which one really was representative of the historic speech of the area, or failing that, note both forms. In extreme cases I actually ended up relying completely on another person as my primary consultant, if it became obvious that the previous one, selected by the village leadership, was struggling to produce the local form. With a larger group of people I would also then have the added difficulty of a noisier environment for elicitation, but I compensated for that by sitting close to my primary

consultant and also by recording the session, which allowed me to hear the consultant's voice with amplification through my headphones.

2.5 Data processing

Fieldwork was conducted in Jambi Province under the aegis of *Lembaga Ilmu Pengetahuan Indonesia* (Indonesian Institute of Sciences) and sponsored by *Pusat Pembinaan dan Pengembangan Bahasa* (Center for Language Building and Development) during the period of April through August 2001. The fieldwork period was unfortunately abbreviated by tensions following the September 2001 terrorist attacks in the U.S. In conjunction with my wife and her fieldwork, a research assistant was hired for help in finding language consultants, language materials and processing language data. I also always had a companion on my research trips, and for my longer trips to upstream Jambi areas I was accompanied by a Jambi University linguistic faculty instructor.

In the field elicitation of the wordlists, the lexical items elicited were transcribed phonetically on the wordlist questionnaire. Due to time limitations, only a cursory inspection of the data was done on the spot, and questions arising from that inspection were pursued after the wordlist elicitation. About one half of the total wordlists were also recorded using a MiniDisc recorder and microphone.[19] I also attempted to record a monologue or dialogue in the local variety. Upon returning to the office, the wordlist data were entered into the computer using the program *Shoebox*. The lexical items for which an audio recording was available were rechecked for accuracy in transcription. At a later time, some of the audio natural speech recordings were also transcribed phonetically and interlinearized, and the phonetic data of these recordings used to confirm the accuracy of the wordlist data.

After the data were checked, correspondences were established for all the consonant phonemes and some of the vowel phonemes based on the PM phoneme inventory as described by Adelaar (1992). This was done exhaustively for the 16 JM and PGH varieties as well as for MIN1, MIN2, SWY, KER, KJ4 and KJ5, although the data available to me for the latter varieties usually were more limited than the Jambi data which I had personally elicited.

As an illustration of the method used, we will take the proto-Malayic phoneme **p*. The occurrence of this phoneme was sorted according to potentially significant environments. Four main environments for **p* were word-initial, intervocalic, as part of a word-medial consonant cluster, and word-final position. In the case of **p*, none of the varieties sampled showed any innovations in the first three positions, but word-finally some varieties showed innovations. Further analysis was then done on the words with word-final **p* to see if other factors contributed to the direction an innovation would take. In this case, I looked at the preceding vowel (**a* or **u* in my sample), as well as nasality of the preceding consonant, which was discussed in Blust (1997) as a significant conditioning factor in Austronesian languages. Results of the analysis for this phoneme and others are discussed in the following chapter.

2.6 Comments on lexicostatistics

Part of the early analysis of this data involved counting shared cognates and calculating percentages. Specifically, I used the comparative method (partially described above) in an attempt to determine whether or not the words in question were genetically related, i.e. cognates. In reality, this is very difficult to do between closely related dialects that have also been in close contact with each other for centuries. There could be numerous cases of borrowings that go unacknowledged because the words fit the correct phonological pattern. Nevertheless, once the cognacy was judged (yes = cognate or no = not cognate), a percentage of shared cognates was calculated. The database used for these percentages was the 200-item *Basic Vocabulary of Proto-Malayo-Polynesian* discussed in §2.2.1. This wordlist has been used in lexicostatistical calculations in various articles (Blust 1981; Prentice & Hakim Usman 1978; Nothofer 1988; etc.) and is thus somewhat of a standard for Austronesian.

[19] A few wordlists were fully recorded in audio form, a few were not recorded at all, and some were partially recorded. This inconsistency is mainly due to limitations such as dead batteries or shortage of MiniDisc media.

The shortcomings and limitations of lexicostatistics have been discussed in numerous articles, among them R.A. Blust's "Why lexicostatistics doesn't work: the 'universal constant' hypothesis and the Austronesian languages" (2000). Some of the most devastating criticisms of lexicostatistics, including the above article, are really directed against glottochronology, the understanding that languages change at a roughly constant and predictable rate; however lexicostatistics does not have to be used as a tool for glottochronology. Another criticism is directed against using lexicostatistics to subgroup languages in lieu of more proven comparative techniques. This is an entirely valid criticism. Lexicostatistics (at least in its crudest and most normal sense) cannot distinguish between shared innovations and shared retentions, which is crucial for properly subgrouping. There have been attempts to refine a quantitative approach to linguistic similarity and relatedness (cf. Gray & Jordan 2000) but no method has yet gained a support as broad as the tried-and-(somewhat)-true percentage of shared cognates.[20]

My working assumption is that it is very difficult to subgroup Malay dialects, particularly, for my purposes, Sumatran Malay. See Adelaar (1993) for a similar opinion). I do not believe that, at this stage of the research anyway, I can make a convincing case using any method, comparative or lexicostatistic, for a hypothesis stating that Jambi Malay originated separately from another Sumatran Malay dialect. However, I am more optimistic about my ability to demonstrate patterns of contact between language varieties on Sumatra, and it is primarily in this service that I will discuss lexicostatistics. Lexicostatistical percentages are one form of evidence of relatedness, albeit very limited at this point, and I would feel remiss if I neglected any evidence at hand to understand the mysteries of Sumatran Malay. Results of the lexicostatistical analysis are discussed in §5.2.

2.7 Conclusion

If any previous studies could be taken as a model for the methodology of this work, Collins' *Dialek Ulu Terengganu* (1983) would be that study. The research project in Ulu Terengganu, Malaysia involved collecting wordlist and text data from multiple village sites, then comparing the sound systems of the various locations with each other as well as with areas outside Ulu Terengganu to discern whether this area was a cohesive dialect area vis-à-vis other areas. Similarly, this study in Jambi involves research in a number of areas and asks the same types of questions about dialect boundaries and patterns of distinctive phonological innovations. The problems faced in that study are similar to those faced by this study too, such as large gaps in our understanding of neighboring speech varieties with which one would like to compare and contrast findings. The following chapters discuss the results of this study and what conclusions we can draw from the variegated data taken from Jambi Malay.

[20] I find the aversion to quantitative methods in historical linguistics unfortunate. For example, Collins (1989:237) writes, "The problem of determining the degree of linguistic difference which separates dialect from language is not the task of the dialectologist. That issue is of greater interest to language planners, textbook authors, and translators of sacred books." I feel that producing a relatively accurate and objective measure of the *linguistic difference* between two varieties is a valid ideal, and who is more qualified to produce it than dialectologists and historical linguists (even if they cannot address the social and political dimensions of linguistic labeling)? It is certainly true that producing a measure (or, more likely, measures) like that is fraught with difficulties, but to say that it therefore should not be attempted is to confuse a "shouldn't" with a "couldn't".
I would find very useful measures that allowed me to accurately say, for example, "X variety is this much more phonologically distant from z than y is from z" or "This innovation should be weighted x times more than that innovation in making a subgrouping decision."

3 The Ins and Outs of Jambi Malay

"In the stillness of the evening
When the sun has had its day
I heard your voice a-whispering…"
-U2, *New York*

3.1 Introduction

In Chapter 1, hypotheses were presented regarding the existence of a *Penghulu* dialect of Minangkabau and of upstream and downstream Jambi Malay dialects. I will provide evidence for these hypotheses as this chapter develops. But for now the reader is referred to Table 2.1 which lists the sixteen data points that form the basis for this study as well as my judgments as to the sites' linguistic affiliation. This delineation, particularly between Jambi Malay and Penghulu, becomes important as we make generalizations about the phonological system(s) of JM varieties, because there are significant aspects of JM phonology that differ from Penghulu phonology, as we will see further in the chapter.

This chapter has three main thrusts. First in §3.2, an overview of the JM phoneme system is given. Next in §3.3, both downstream and upstream JM varieties are shown by means of shared innovations to be members of Proto-Malayic (PM) as defined by Adelaar (1992). Finally, a number of other innovations, whether general to all JM varieties or a subsection, are presented more briefly in §3.4 and following. The following chapter (4) continues the presentation of data with a few interesting and related JM innovations, all having to do with nasals and variable occlusion.

3.2 JM phoneme system

Before embarking on a description of the phonology of Jambi Malay, a disclaimer is in order. This research is primarily a work of dialectology. As such the focus of the research has been on breadth of coverage, not depth. This section is intended to give a basic overview of JM phonology and highlight a few issues 1) which may be interesting to people familiar with Malay, and 2) for which there are data available. Readers hoping for an in-depth and nuanced analysis of JM phonology will regrettably need to look elsewhere.

3.2.1 JM consonant phonemes

The JM inherited consonant phonemes are shown in Table 3.1.

Table 3.1 JM consonant phonemes

		labial	alveolar	palatal	velar	glottal
stops	voiceless	*p*	*t*		*k*	
	voiced	*b*	*d*		*g*	
affricates				*c, j*		
nasals		*m*	*n*	*ɲ*	*ŋ*	
fricatives			*s*		*r*	*h*
liquids			*l*			
semivowels		*w*		*y*		

For the most part I will not attempt to justify the existence of these phonemes, as 1) that has already been done in Nurzuir Husin *et al.* (1985) and Erizal Gani *et al.* (2000), 2) the JM phoneme system is nearly identical to SM as it is described in Asmah (1977), Farid M. Onn (1980), and Adelaar (1992:8-10), and 3) gathering minimal pairs was not a deliberate aspect of my fieldwork. Areas of (possible) differences or controversy, however, will be highlighted.

c (IPA *ʧ*) is a voiceless alveopalatal affricate. JM does not have a phonemic voiceless palatal stop (IPA *c*).

j (IPA *ʤ*) is a voiced alveopalatal affricate. JM does not have a phonemic voiced palatal stop (IPA *ɟ*).

k is realized as a glottal stop word-finally.

r is a voiced velar (or uvular) fricative.[21]

Stress regularly falls on the ultimate syllable.[22]

3.2.2 JM vowel phonemes

Table 3.2 displays JM vowel phonemes.

Table 3.2 JM vowel phonemes

	front	central	back
high	*i*		*u*
mid	*(e)*	*ə*	*(o)*
low		*a*	

(diphthongs: -*ay*, -*aw*)

3.2.2.1 JM vowel system

Perhaps the biggest question that might arise about the JM phonology is the vowel system. This is an important classificatory issue. A four-vowel system has been reconstructed for Proto-Malayic, with the vowel phonemes *a, u, i* and *ə*, plus two diphthongs *ay* and *aw*. The SM phoneme system has changed both in number of phonemes and their distribution:

- PM high vowels **i* and **u* both underwent splits into high and mid vowels, specifically into the phonemes *i* and *e* for **i*, and *u* and *o* for **u*. These sounds are phonemically contrastive in penultimate closed syllables only, but also occur frequently in final syllables. No conditioning environment has been posited that comprehensively explains their distribution.

- antepenultimate **a/i/u* vowels have been neutralized into a central lax vowel. As this is a neutralization, it may not be possible to prove to which phoneme this vowel belongs, but it is generally considered /ə/ in accordance with its phonetic value (cf. Farid M. Onn 1980:23).

- the mid central vowel phoneme **ə* has merged in ultimate syllables with **a*, and now is limited in distribution to the penult and possibly the antepenult (depending on one's interpretation of the neutralization described above).

In the classical/coastal Minangkabau (MIN) vowel system there are five vowels, according to Adelaar (1992:12). Its vowel system differs from Standard Malay (SM) in that penultimate **ə* has merged with the phoneme /a/ and the antepenultimate syllable retains the PM **a/i/u* distinction. He also speculates that mid vowels *e* and *o* are not part of the historical MIN system and are merely borrowed from SM (p. 45). This vowel system is represented in this study by the MIN1 wordlist. In some inland varieties (represented by the MIN2 wordlist) the penultimate schwa merged with /o/ and the antepenultimate vowels have not, to my

[21] In twelve out of the thirteen JM data points, the phoneme /r/ is realized as a uvular fricative (most common) or velar fricative, or somewhere in between. However, in one downstream location, DT, /r/ is consistently realized as an apical flap, as in SI.

[22] This is true in elicitation mode. Tadmor (p.c.) has suggested that JM accent might more correctly be described as utterance final.

knowledge, been described. (Map 5.14 shows the geographical distribution of penultimate *ə reflexes in West Sumatra Province.)

In Table 3.2, the JM vowel phonemes *a*, *ə*, *i*, and *u* are given without reservation, and *e* and *o* are given in parentheses, which in this case denotes regional variation. The case of mid vowels *e* and *o* are discussed in §3.2.4. The vowel inventory of JM is not uncontroversial: Nurzuir Husin *et al.* (1985) assign (downstream) JM six phonemic vowels, while Erizal Gani *et al.* (2000) present a five-vowel system identical to MIN. Both of them accept mid vowels *e* and *o* as phonemes, and Nurzuir Husin *et al.* accept *ə* as a phoneme while Erizal Gani *et al.* exclude it. Neither of the studies, unfortunately, provides evidence for their assertions. My position regarding the phoneme over which they disagree is that there *is* a lax central vowel phoneme *ə* in JM, possibly restricted to the penultimate syllable. I present some limited evidence here.

There is only one perfect minimal pair between *ə* and *a* in the JM data available to me, and it is only attested for JI, so bolstering this position is difficult:[23]

JI	*galaʔ*	'often'	vs.	*gəlaʔ*	'laugh'

There are no other minimal pairs where both members exist in the data; a list of pairs to explore in further research is given in Chapter 6. There are a few near-minimal pairs that can be found, and they are presented here:

JI & JU	*lamo*	'old'	vs.	*ləmaʔ*	'fat (n)'
JI & JU	*pagi*	'morning'	vs.	*pəᵏgi*	'go'
JI & JU	*baliʔ*	'go home'	vs.	*b(ə)li*	'buy'
JU	*baru*	'new'	vs.	*bəroʔ / bəruʔ*	'monkey'

The schwas in these examples are quite canonical; they are mid central lax vowels. In addition to the minimal pair evidence, we have scores of other examples of JM words with penultimate [ə] corresponding to PM *ə, and scores of examples of words with penultimate [a] corresponding to PM *a, and negligible crossover of the two. On the basis of this evidence, we can conclude that JM, in both downstream and upstream, retains the PM vowel phoneme *ə and does not share the MIN innovative merger of *ə and *a/*o.[24]

Why then do Erizal Gani *et al*. (2000) assert there is no /ə/ phoneme? Their reasoning is not included in their publication, but there are some impressions one gets from listening to JM that could lead one to think that. For example, the intransitive verbal prefix (SM *bər*-, PM **(mb)Ar*-) in JM is [ba-], and the unintentionality prefix (SM *tər*-, PM **tAr*-) in JM is [ta-]. In addition, the agent-oriented verb-marker (SM *məN*-, PM **mAN*-) in JM is often [maN-] (although frequently [məN-] too). Being that these prefixes, especially [ba-], frequently occur in JM speech, a casual glance by one steeped in Indonesian phonology could mislead one into thinking that in all instances PM *ə and *a have merged.

3.2.2.2 JM vowels in antepenultimate syllables

As mentioned above, MIN1 preserves the PM *a/i/u distinction in the antepenultimate syllable, while SM and SWY do not. The JM evidence at present is limited to a handful of trisyllabic words for which I have a PM reconstruction, and all of these lexemes have PM *a.[25] All I can say with definitiveness about JM is

[23] There is also a **barat*/**bərat* pair in the data, but it is not acceptable as evidence because most JM varieties do not have *barat* and when they do it acts as a loanword without the expected phonological processes acting on it.
[24] There is not sufficient evidence from antepenultimate syllables to support or disconfirm this hypothesis.
[25] Two of the examples actually have what Adelaar reconstructs as an archiphoneme; **bAlakaŋ* 'back' and **tAliŋa(ʔ)* 'ear'.

that the phonetic quality of the **a* reflexes varies from data point to data point and sometimes from word to word. As a generality, one could say that JI most often has [ə] in the antepenult while JU most often has [a]. Whether this antepenultimate null vowel is an allophone of /ə/ or /a/ may be impossible to prove, as it seems to be a simple neutralization of whatever vowel may have existed in the protoform. However, I have noted in my fieldnotes that in careful speech some speakers always said [a] for the antepenultimate vowel. Inasmuch as a phoneme is a mental concept, this could provide a clue that the antepenultimate vowel **a* is conceived of as /a/, which sometimes laxes in rapid speech the same way schwa is used in English.

For the other vowels, **i* and **u* in antepenultimate position in JM, there are no cognates. For a discussion of one trisyllabic lexeme in terms of phonotactic constraints, refer to §3.2.3 below.

3.2.2.3 A note on Penghulu

What about Penghulu's vowel phonemes? Does PGH share in the innovative merger of PM penultimate **ə* with **a*, as in MIN1, or with **o*, as in MIN2, or does it retain a phonemic distinction as in JM? As listed in Table 2.1, the three locations in my data considered Penghulu villages are Pulau Aro (PA), Bunga Tanjung (BT) and Lubuk Telau (LT). One of these locations, BT, retains the PM **ə* in penultimate position, so in this aspect it is identical to JM.[26] The other two locations, PA and LT, correspond to MIN2 in reflecting *o* in the penultimate position. For example:

PM **ənəm* 'six', BT *ənam*, PA, LT *onam*
PM * *kəriŋ* 'dry' BT *kɤiŋ*, PA, LT *koɤiˀŋ*
PM **səmpit* 'narrow', BT *səmpit*, PA *sompiʔ*

On the basis of the definite lack of /ə/ in the penult and barring contrary evidence from antepenultimate vowels, I tentatively conclude that Penghulu (PA and LT in this case) like MIN2 has merged **ə* with /*o*/.[27]

3.2.3 JM phonotactic constraints

There are no examples in my limited data set of /ŋ/ occurring word-initially, but at least two forms are given in *Kamus Bahasa Indonesia-Jambi* (Yulisma *et al.* 1997). It is probably safe to say that it does occur word-initially upstream as well[28] but that its occurrence is rare.

Universally in JM, *h* does not occur word-initially, or word-medially where there are different vowels before and after (e.g. PM **jahit* 'sew' > JM *jait). h* occurs word-medially between like vowels in JI only; JU has Ø in this position. So in JU the only position in which *h* occurs is word-finally.

Voiced stops do not occur word-finally.

Disyllabic lexemes are the strongly preferred type in JM. Lexemes having more than two syllables, entering the language through affixation, reduplication, borrowing or simple inheritance, are under strong pressure to reduce to two syllables, while reduction from two syllables to one is rare. For example, PM **(mb)a-rənaŋ* 'swim' is reflected as a disyllabic word in ten of the thirteen JM data points, while **pərut* 'stomach' reduces to a monosyllable in only two locations.

A tentative phonotactic rule related to the one described above is that first-syllable vowels in trisyllabic lexemes tend to reduce to central lax vowels that can phonetically be variously [ə] or [a] (see §3.2.2.2 for a discussion of distribution), and sometimes disappear entirely. This rule is tentative because of very limited evidence, but for an example of the pressure to reduce and how these two phonotactic constraints seem to work together, we can look at the trisyllabic word *durian* ‘durian’, historically formed from the root *duri*

[26] There are other grounds for including BT as part of the PGH grouping as will be shown in §3.8.
[27] Adelaar (1992:12) assigns MIN1 the phoneme /o/ but argues that it is limited in distribution. A similar situation seems to be the case for MIN2 and the PGH varieties studied here (discussed in §3.2.4.1).
[28] The phoneme is attested to occur word-initially in Rawas, a closely related variety just to JM’s south.

'thorn' plus the suffix *-an*. Out of the thirteen JM data points, only five have trisyllabic reflexes of this word; the other eight are disyllabic. Out of the five trisyllabic reflexes, only two still reflect a high back rounded vowel in the first syllable, while the other three have a central lax vowel. For the reflexes that are currently disyllabic, a common JU form is [dian] or [diRan]. This is the process that likely occurred:

1. disfavored trisyllabic form enters language:
   duri + *-an* → *durian*

2. initial vowel is reduced (neutralized) to schwa, then to zero[29]:
   durian → *dərian* → *drian*

3. uvular fricative /r/ takes on the color of the following vowel and eventually metathesizes with it to form the favored CVCVC construction:
   drian → *diran*

4. OR, the uvular fricative does not metathesize and is elided as a disfavored consonant cluster, leaving the also-favored CVVC construction:
   drian → *dian*

In stem-final open syllables, only *i, u* and *o* are permitted. Diachronically these phonemes correspond to PM *i, u* and *a* respectively. Some, including myself, would argue that, since words ending in [o] are exclusively those which historically have ended in *a*, this latter phoneme should be considered as /a/. This analysis has the advantage of symmetry; one high front vowel, one central and one high back are represented. Additionally, it will be argued in §3.2.4.1 that, in sites not directly on the Batanghari river, there are only four phonemic vowels, /a/, /ə/, /i/ and /u/. If there were an /o/ phoneme that would both introduce asymmetry into the vowel system (which admittedly has happened in some languages) and this phoneme would be limited in distribution to final open syllables. This analysis finally has the advantage of economy: the sounds [a] and [o] are in complementary distribution and are thus considered a single phoneme.[30]

Adelaar (1992:8–11) lists several phonotactic constraints for SM. With the exception of the above revisions, all the same constraints seem to be active in JM, although the JM data available are hardly sufficient to make conclusive judgments.

3.2.4 Regional variation in JM phoneme inventory

There are two main innovations involving the JM phoneme inventory, and interestingly, both of them highlight geographical divisions related to the Batanghari river.

3.2.4.1 PM high vowels **i* and **u*

Proto-Malayic, it is generally agreed, had four vowels including two high vowels **u* and **i*. For a time it was thought that all Malay varieties had undergone a split in the high vowels where **u* became *u* or *o*, and **i* became *i* or *e* (cf. Asmah 1977). This split evidently occurred in both ultimate and penultimate syllables,

[29] Strong evidence that this reduction to schwa is a phonotactic constraint acting on trisyllabic words is provided by the fact that the same varieties have *duri* 'thorn' with no tendency to vowel reduction.

[30] The problem with the analysis of [o] being an allophone of /a/ is that there does not seem to be any other evidence for it. If there were some overt allophonic alternation, for example, between [o] and [a], where if a suffix were added on, the word reverts to [a], that would be convincing, but this is seemingly not the case. In the recordings we find words like *padonyola* 'from *him*', where we might expect to see the lexeme *pada* before the particle *nyo*, were the phoneme actually /a/, and *ngatokan* 'say' where we might expect to see *ngatakan* (assuming *–kan* is a suffix). As there is no contrast in this position this question may be impossible to resolve empirically.

but only in penultimate syllables (at least for SM) is the split phonemic. A number of publications since then have documented Malayic varieties that did not undergo a split in the high vowels, for example Kerinci and Brunei Malay (Prentice & Hakim Usman 1978:134), Urak Lawoi', Bacan and Ulu Terengganu (Collins 1983:26), and Banjarese Hulu and Iban (Adelaar 1992:45). A pressing question for this study is whether JM has undergone this split. Unfortunately I was not aware of this issue at the time I was collecting data, so I did not deliberately set out to look for minimal pairs. What will have to be relied on in this study is rather circumstantial evidence.

I examined all the words in my sample with penultimate **u* to look for the presence or absence of this split. For convenience sake the words were divided up into those which reflect *o* in either Standard Malay (SM) or Standard Indonesian (SI), and those which reflect *u* in the same. I came up with differing results by area. All the areas *not* located on the Batanghari river, i.e. LK, DD, MS, MP, KK, SL, DN and TT but not MR, SS and TK, consistently reflected *u*, including the SI *o* words. All the areas *on* the Batanghari, however, exhibited an evident split in the SI *o* words, but consistently reflected *u* in the SI *u* words. The following table lists three examples from both categories, as seen in the Batanghari group and the non-Batanghari group.

Table 3.3 JM reflexes of penultimate **u*

PM *		**Batanghari**		**non-Batanghari**		
ubat	>	ML	obat	SL	ubat^{n}	'medicine'
uraŋ	>	ML	orang	SL	uhak*	'person'
funduq < AR 'Koranic school'	>	ML	pondoʔ	SL	pundoʔ	'hut in field'
bulan	>	ML	bulan	SL	bulat	'moon'
urat	>	ML	uʁat	SL	uha^{d}n	'vein'
rusaʔ	>	ML	ʁuso	SL	uso	'deer'

*See Chapter 4 for an accounting of the changes that have produced the final stop in this and other examples to follow.

Even loanwords evidently often conform to this pattern, as seen in the 'hut in field' example. The distribution of this innovation in the Batanghari group is quite interesting. Not only do the examples of *o only* occur in words which also occur in SI (also SM with the exception of *obat*), but the number of *o* words seems to decrease as one goes upstream! Out of six *o* words, ML has five, DT has four (*obat* is dropped), MR and SS have three, and TK has two! Admittedly the sample is small, but these two distributional patterns are strongly suggestive of borrowing from, say, *lingua franca* Malay rather than of an independently-arising innovation. If it were an independently-arising innovation as has been postulated for SWY (Adelaar 1992:45) we would probably not see such a strong correlation to SI/SM lexical realizations as we do, as SWY has a different distribution of this split than SI or SM. The fact that this innovation follows a trade route (and decreases in frequency as the river narrows) is further evidence of this. On the strength of other innovations which divide ML and DT from upstream varieties, I will consider MR, SS and TK to have borrowed this innovation from the downstream area at a later point than this innovation occurred in JI.[32] If this is true, it would be a dramatic linguistic corroboration of Bronson's predictions that 1) outside influences will be concentrated in the primary port, and 2) those influences will also appear in intermediate sites, but mediated via the port.

The same procedure used for **u* was followed for **i* and nearly identical results were found. See the examples in Table 3.4.

[32] Another factor worth mentioning is that Minangkabau, substantially further upstream from TK, also has the same vowel split (Adelaar 1992), although Adelaar notes that the lexical items in which this split is manifested in MIN vary from SM. A study of which particular lexemes display lowered vowels may reveal the presence or absence of a connection between places like TK and MIN.

Table 3.4 JM reflexes of penultimate *_i_*

PM *		**Batanghari**		**non-Batanghari**		
ikur	>	DT	ekoʔ	SL	ikʊʔ	'tail'
lihər	>	DT	leher	SL	liyi[a]	'neck'
libar	>	ML	lebaʁ	KK	liba:	'wide'
pisaŋ	>	ML	pisaŋ	SL	pisak	'banana'
bintaŋ	>	ML	bintaŋ	SL	bintak	'star'
ikan	>	ML	ikan	KK	ikan	'fish'

What I have not done is demonstrate conclusively that this innovation in the penultimate syllable actually represents a phonemic split as it does in SM. There are no minimal pairs in my data to offer such proof. This lack is presented in the final chapter as an area for further research. But given the parallel nature of this innovation to what is seen in SM, we will assume for now that the Batanghari sites have six vowels, while the non-Batanghari sites have retained only the four PM vowels. See Map 5.3 to view the distribution of this innovation.

There is also a phonetic split of high vowels in ultimate syllables, but its realization is substantially different than the pattern seen in the penult. This split seems to be allophonic, with words ending in post-alveolar consonants (i.e. *k, ŋ, ʁ* and *h*) showing a marked tendency towards a realization of [o], and pre-alveolar consonants consistently realized as [u]. Additionally, this allophonic split has a very different geographical distribution than the split in penultimate syllables. Among SI *u* words, this allophonic split only occurs significantly in MS, MP, KK, and SL, all non-Batanghari sites! See Map 5.7 for a view of the distribution of these allophones.

Where do PGH sites stand on these vocalic splits in penultimate and ultimate syllables? In the penult, the three PGH sites have a very similar distribution of [o] and [u], [e] and [i] as the Batanghari JM sites; they occur in SI *o* and *e* words but not in SI *u* and *i* words.[33] This is additional evidence of a sharp discontinuity between Penghulu and JU. In the ultimate syllable, there is no allophonic split; **u* and **i* are consistently retained.

3.2.4.2 Vowel diphthongs **-ay* and **-aw*

JU phonology consistently reflects PM **-ay* and **-aw*. However, JI phonology (in this case ML and DT but not the transitional MR or other Batanghari sites) consistently monophthongizes the diphthongs to /e/ and /o/ respectively. For example, JU *suŋay* 'river' corresponds to JI *suŋe*, and JU *ijaw* 'green' corresponds to JI *ijo.*

Occasionally MP and/or KK display the diphthong *aw* in the final syllable rather than **u*, such as regularly happens in KER. For example, MP *ɲamawʔ* 'mosquito' < PM **ɲamuʔ*, and KK *bulaw* 'feather' < PM **bulu.*

3.3 Proto-Malayic innovations present in JM

Here I will show that JM is firmly within the Malayic sub-branch of Austronesian languages. Adelaar (1992:2) presents a list of eleven developments from Proto-Austronesian (PAN) and/or Proto-Malayo-Polynesian (PMP), which in co-occurrence define the members of the Malayic subgroup. I will give at least one or two examples from both downstream (ML or DT) and upstream JM (DD)[34] varieties for each development.

[33] Two exceptions are SI *tinju* 'punch' and *hitung* 'count', where PGH sites reflect [e] in the penult.
[34] The DD variety was chosen if for no other reason than the data for it had reflexes of all the Proto-Malayic examples used in the paper, whereas the data for some other varieties did not contain reflexes of all the examples.

1. Devoicing of final stops

gloss	**PMP ***	**PM ***	**JI**	**JU**
'yawn'	ma-huab	uap	kuap	kuap
'mountain'	bukid 'hill'	bukit	bukɪt	bukit

2. PAN *j > PM *d, *-t

gloss	**PMP ***	**PM ***	**JI**	**JU**
'nose'	ijuŋ	hiduŋ	iduŋ	iduk
'rice plant'	pajey	padi	padi	padi
'fly'	lalej	lalət[35]	lalat	lalat

3. *Z (and *z) > PM *j

gloss	**PMP ***	**PM ***	**JI**	**JU**
'sharp'	ma-tazem	tajəm	tajam	tajam
'sell'	Zual	jual	jual	jual

4. *R (and *r) > PM *r

PM gloss	**PMP ***	**PM ***	**JI**	**JU**
'new'	ma-baqeRu	baharu	baʁu	baʁu
'hear'	deŋeR	dəŋər	dəŋaʁ	dəŋaː [36]
'straight'	lurus	lurus[37]	luʁus	luʁus

5. Reduction of consonant clusters to their last component

PM gloss	**PMP ***	**PM ***	**JI**	**JU**
'difficult'	suqsaq	susah	susah	susah
'cut off'	tektek	tətək	təta?	-

6. Heterorganic nasal + stop clusters became homorganic nasal + stop clusters

PM gloss	**PMP ***	**PM ***	**JI**	**JU**
'wall'	diŋdiŋ	dindiŋ	dindiŋ	dindiŋ
'hold'	gemgem	gəŋgəm	gəŋgam	gəŋ^{g}am

7. *w- > Ø

PM gloss	**PMP ***	**PM ***	**JI**	**JU**
'root'	wakaR	akar	akaʁ	akaː
'exist, there is'	wada?	ada(?)	ado	ado

8. *i, *-ey, *-uy, *iw > PM *i

PM gloss	**PMP ***	**PM ***	**JI**	**JU**
'day'	waRi	hari	aʁi	aʁiy
'rice plant'	pajey	padi	padi	padi
'fire'	hapuy	api	api	api
'run'	laRiw	lari	laʁi	laʁi

9. *u, *-ew > PM *u

PM gloss	**PMP ***	**PM ***	**JI**	**JU**
'ten'	puluq	puluh	sapulu	puloh
'hunt'	buRew	buru	babuʁu	buʁu

[35] This is my personal reconstruction; Adelaar (1992) suggested no proto-form for that item.
[36] There is a later regular change *-*r* > lengthened vowel; see §3.6.4.
[37] This is my personal reconstruction; Adelaar (1992) suggested no proto-form for that item.

10. *q > PM *h

PM gloss	PMP *	PM *	JI	JU
'domesticated animal'	qayam	hayam	ayam 'chicken'[38]	ayam 'chicken'
'difficult'	suqsaq	susah	susah	susah
'year'	taqun	tahun	taun	taun

11. *h, *ʔ > *ʔ or Ø

PM gloss	PMP *	PM *	JI	JU
'farm(land)'	qumah	huma(ʔ)	umo	umo
'sugarcane'	tebuh	təbu	təbu	təbʊw

In another section of his 1992 work (p. 108), Adelaar highlights the vowel metathesis of PMP **qudip* 'live' into PM **hidup* as a particularly strong innovation which distinguishes Malayic varieties from most other Austronesian languages.[39] This metathesis is also reflected in JM *idup.* This innovation plus the eleven items listed above demonstrate that JM varieties share all the significant PM developments from PMP. This should be sufficient to demonstrate that JM should be classified as Malayic. The rest of this chapter will bear out that the above examples are not out of the ordinary, neither in geographical distribution nor in reference to consistent sound changes.

3.4 Innovations that occur in all Jambi Malay areas

As promised, in the remainder of this chapter a number of innovations, whether general to JM or specific to a few areas, will be discussed more briefly. The goals are to clearly identify the innovations and where they occur, so that:

1. principled decisions can be made as to dialect areas, and
2. a clear record of JM will be available to those who may wish to undertake broader-scale overviews of Sumatran Malay or Malay in general.

In this section (3.4), innovations are treated which are universally found in all JM areas sampled. Innovations with this distribution are significant enough that the question can be raised whether a proto-language (Proto-Sumatran Malay or Proto-Malay) could be distinguished from Proto-Malayic at these points.

3.4.1 Merger of PM final-syllable **ə* and **a* into *a*

The presence of this innovation is not very surprising, since nearly all Malay dialects share it. Adelaar (1992) reconstructed **ə* in final closed syllables of many words as a retention of PMP **e*, with Malayic evidence coming mainly from Jakarta Malay. Rather early on, according to Adelaar, most Malay and Malayic varieties underwent a merger of **ə* and **a* into *a* in this environment. In Table 3.5, JM examples are given showing that this merger has indeed taken place in JM. Examples are taken from both downstream and upstream areas if possible.

Table 3.5 Merger of PM **ə* and **a into a*

PM *		JI (ML or DT)	JU		
gatəl	>	gatal	SL	gatal	'itch'
ma-lə(hø)əm	>	malam	SL	malap	'night'
ulər	>	ulaʁ	SL	ula:	'snake'
tikəm	>	tikam	SL	tikap	'stab'
hi(ŋ)səp	>	isap	SL	isa^{p}m	'suck'

[38] Later development in JM: PM **h-* and **-h-* > Ø.
[39] He noted that Balinese, Sasak, Rejang and Sundanese also show this metathesis.

bulan	>	bulan	SL	bulat	'moon'
kilat	>	kilat	MS	kilat	'lightning'
ikan	>	ikan	MS	ikan	'fish'
bərat	>	bʁat	SL	baha^{t}n	'heavy'
paɲjaŋ	>	paɲjaŋ	SL	paɲak	'long'

All JM areas sampled, with one possible exception noted below, reflect /a/ for PM **ə* and **a*.

3.4.1.1 LK – relics of **ə*?

Lubuk Kepayang, which can be seen as LK on Map 2.1, exhibits some disjunctures from other areas sampled. One disjuncture is that LK often has /e/ or /o/ in closed final syllables where other varieties have /a/, e.g. *dəket* 'near', other varieties *dəkat*. Could this be a relic of the PM **ə* phoneme? I tabulated the occurrences in the sample and came up with these numbers:

- 22 instances of PM **ə* where there is an LK cognate:
  - 12 times **ə* > /a/
  - 6 times **ə* > /e/
  - 4 times **ə* > /o/

- 17 instances of PM **a* where there is an LK cognate:
  - 8 times **a* > /a/
  - 8 times **a* > /e/
  - 1 time **a* > /o/

On the basis of these numbers, I conclude that the /e/ in final closed syllables does not reflect PM **ə*.[40]

3.4.2 PM **-a > o*

The PM final **a* > /o/ innovation is perhaps the phonological innovation which comes closest to being a pan-Sumatran Malay innovation. Involving at least these varieties: Sakai (Kalipke & Kalipke 2001), Siak Malay (Gil 2002),[41] MIN, MUK, RAW, JI, JU, PGH, KSS and KBJ, partially MUS and arguably KER, this innovation covers a good chunk of central and south Sumatra and over half of the Malay-speaking population on Sumatra.[42] There is no JM or PGH area sampled that escaped the reach of this dialect area.[43] A few examples of this innovation in JM are given in Table 3.6.

Table 3.6 **-a* > /o/

PM *		**JI (ML or DT)**	**JU**		
apa	>	apo	DN	apo	'what'
huma(ʔ)	>	umo	DN	umo	'field'
dada	>	dado	DN	dado	'chest'
mata	>	mato	DN	mato	'eye'
ina	>	bɐtino	DN	bɜtino	'female'
taliŋa(ʔ)	>	-	DN	taliŋo	'ear'

See Map 5.4 for the geographical distribution of this innovation.

[40] In fact, I am unable to find a conditioning factor for this innovation (perhaps not apparent in this limited sample), but that need not concern us here.
[41] Both Sakai and Siak Malay are spoken by minority groups in Riau to the north of Pekanbaru.
[42] Counting the above groups, we come to a total of 10 million *-o* dialect speakers out of approximately 18 million Sumatran Malays (including the Minangkabau, Bangka and Belitung Malays; population figures from Grimes 2000).
[43] However it is reported, for example in Saidat Dahlan *et al.* (1985), that coastal JM areas reflect **-a* as /ə/ or possibly /ɨ/, similar to southern peninsular Malaysia. See Map 5.4.

3.4.3 PM *h-, *-h- > Ø

In all JM areas sampled, word-initial *h > Ø before all vowels, for example:

Table 3.7 *h- > Ø

PM *		JI (ML or DT)	JU		
hitəm	>	itam	DN	itam	'black'
hati	>	ati	DN	ati	'liver'
hujan	>	ujan	DN	ujan	'rain'

Also, word-medial *h > Ø between different vowels, for example:

Table 3.8 *-h- (different vowels) > Ø

PM *		JI (ML or DT)	JU		
tuha(ʔ)	>	tuo	DN	tuo	'old'
jahit	>	jait	DN	jait^{n}	'sew'
tahun	>	taun	DN	taun	'year'

Word-medial *h between like vowels and word-final *h will be discussed later in the chapter due to the existence of regional variation.

3.4.4 PM *-k > ʔ

As mentioned in §3.2.1, the glottal stop [ʔ] is the regular word-final allophone of /k/.

Table 3.9 *k* > *ʔ* / _#

PM *		JI (ML or DT)	JU		
baik	>	baeʔ	DN	baɪʔ	'good'
gəmuk	>	gəmuʔ	DN	gəpuʔ	'fat'
anak	>	anaʔ	DN	anaʔ	'child'

An exception to this is discussed in §4.3.

3.4.5 Occasional *-r > ʔ (*air*, *ikur*)

Final *-r has a variety of reflexes in JM, and will be discussed later in the chapter. However, there are two words in my sample which in PM are reconstructed as having final *-r that universally end in a glottal stop.

Table 3.10 Occasional *-r > ʔ following high vowels

PM *		JI (ML or DT)	JU		
air	>	aeʔ	DN	ayeʔ	'water'
ikur	>	ekoʔ	DN	ikuʔ	'tail'

Bangka Malay (BNK) also shows a number of cases of *-r > ʔ, however the distribution is more frequent in BNK than in JM. So, for example, many areas in BNK reflect a glottal stop not only in the above words but also in others such as **tidur*, **lebar*, **butir*, etc. Given the universal distribution of these innovations, I am tempted toward the conclusion that the etyma which arrived in Jambi were **aiʔ* and **ikuʔ* respectively. [44]

[44] Nothofer (1995, 1997) considers the innovation *r > ʔ as diagnostic in subgrouping BNK with certain Bornean Malayic varieties. However, although the two lexemes discussed in this section share this innovation, these two forms

3.4.6 Unstable *-*l*

Adelaar (1992:90) reconstructed two words as doublets: **ambil*/**ambik* 'take' and **kəcil*/**kəcik* 'small'. [45] Both of these are reflected in JM as the latter:

Table 3.11 JM preference if non-**l* etyma following high vowels

PM *		**JI (ML or DT)**	**JU**		
ambil/ambik	>	ambiʔ	DN	ambiʔ	'take'
kəcil/kəcik	>	kəciʔ	DN	kəciʔ	'small'

In addition, **kidal* 'left-handed' is consistently reflected in JM as *kidaw* 'left' with the irregular correspondence **l* > *w*. The rest of JM etyma retain **l* as *l*.

3.4.7 Foreign loans in JM

3.4.7.1 Sanskrit in JM

Is there a discernable Sanskrit influence in JM? Does it differ between downstream and upstream? My sample is small, so that answering the second question can only be done tentatively. Yes, there is a discernable Sanskrit influence in JM, although it certainly seems to be less so than in SI. There are thirteen Sanskrit or Hindi loans in the Indonesian glosses of the wordlist used in this study: *kepala* 'head', *bahu* 'shoulder', *muka* 'face, front', *nama* 'name', *tiga* 'three', *cium* 'smell; kiss',[46] *saya* '1S', *cuci* 'clean', *semua* 'all', *kelahi* 'quarrel', *suami* 'husband', *istri* 'wife' and *kata* 'word; say'. Of these thirteen loans, the first six are basically universal in JM, *saya* only occurs downstream, *kata* occurs sporadically in both JI and JU, and *suami, istri, semua, kelahi* and *cuci* (at least with their Indonesian meanings) never appear.[47] From this sample it is difficult to make any claims about general distribution of SKT loans in JM.

3.4.7.2 Dutch in JM

There are three Dutch loans that appear in the JM corpus. The first, *lap* 'wipe' appears in both JI locations and sporadically in JU. The second, *pol* 'full' (> Dutch *vol*) occurs in one JI location and one JU location. The third, *reken* 'count' occurs in MP only.

3.4.8 *maN-/N-/Ø* active prefixes

It has been seen in the examples throughout this chapter that there are two seemingly interchangeable agent-oriented verb marker forms, *maN-* (e.g. *mamilih* 'choose') and *N-* (e.g. *milih* 'choose'). In addition, it is very common to leave the verb stem unaffixed altogether (e.g. *pilih* 'choose'). Although I did not sample specifically for this prefix through sentence elicitation and/or texts in every location, it seems like the most common form of an active verb in JM is to leave it unaffixed (Ø), followed closely in frequency by the *N-* prefix, and least commonly, the *maN-* prefix. An examination of the affixation patterns in *Dusun Dalam Boating Story* given in Appendix J reveals that certain verbs, like *aŋgo* 'to net', always have the prefix *N-* in active voice, while others, like *piŋam* 'borrow'), never do, and the number of each type of verb is roughly equal. The prefix *maN-* does not appear in this text. However, some areas, SS for example, often have *maN-* appear in the wordlist verbs.

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are actually very widespread in Sumatra and, if considered diagnostic, would make a subgroup consisting of most of Sumatran Malay, Bangka Malay, and some Malayic varieties like Iban and Selako, to the exclusion of much of the Malay of peninsular Malaysia. That would make a very odd subgroup, and therefore I think these forms in JM cannot be considered diagnostic in this way. (Note that I am not directly commenting on Nothofer's subgrouping argument, as his evidence consists of many more than just these two lexemes.)

[45] Adelaar also reconstructed **kumpul*/**kumpuk*, but I do not have data on which reflex occurs in JM.

[46] *cium* is actually a N. Hindi loanword, not Sanskrit, while *tiga* is from Middle Indic (Blust 2000b).

[47] In the place of *semua* 'all', another SKT loan *segala* is universal in JM varieties.

3.4.9 *–kan* suffix

One thing for which I listened carefully during my data collection was what kind of transitivizing suffix (if any) appeared.[48] Various areas in South Sumatra are reported to have a *-kə* suffix (Tadmor 2001) instead of the more common *-kan* derived from the PM prefix **akan* (Adelaar 1992), so I was interested to see if the former appeared in JM as well. Use of a transitivizing suffix is not very frequent in JM, but when it occurs it is *-kan* and possibly *-an* in fast speech. In one area (MR) I specifically tried to elicit words with a transitivizing suffix and my language consultant could not give me any examples, so it is possible that MR (and other JM areas?) does not have any transitivizing suffix in active use. TK, which is the data site physically closest to West Sumatra, evidently mainly uses the *-an* suffix. One significant departure from the JM norm is in Sungai Tenang (ST) in the southwest corner of Jambi Province, which reportedly has a suffix variously transcribed as *-kah, -ka* and *-ga* (Znoj n.d.). Examples: *ltakah* 'put something somewhere (cf. SM *meletakkan*), *maoka* 'bring something somewhere (cf. SM *membawakan*) and *bnoga* 'repair (cf. SM *membenarkan*)'.

In other areas nearby there is substantial variety. KJ1, KJ3, KJ4 and KJ5 show examples of *-ko*, and KJ2 has *-ke*. The regular pattern in RAW seems to be *-an,* with an occasional *-kə* and *-kan* as well.

3.5 Innovations that occur in downstream areas

If I could summarize JI vis-à-vis JU, I would say JI is more "standard" and more "cosmopolitan". By this I mean that there are fewer variant phonological and lexical changes than in JU, and the changes that occur are more likely to be in the direction of a prestigious outside variety such as a coastal Malay, Javanese, or Indonesian. Lexical examples of this generalization are laid out in §3.5.6.

In terms of phonological innovations, the bulk of the noteworthy innovations treated in this section are limited to the two downstream locations sampled, ML and DT. They are not shared by MR. One noteworthy exception is mentioned below.

3.5.1 **-ay* > *-e*, **-aw* > *-o* (ML, DT)

In §3.2.4.2 it was briefly noted how PM vowel diphthongs **-ay* and **-aw* are consistently monophthongized in downstream sites ML and DT. Further examples are given here. Upstream areas including the transitional MR, in contrast, consistently retain PM **-ay* and **-aw*.

Table 3.12 **-ay* monophthongs in JI

PM *		**JI**	**JU**		
suŋay	>	suŋe	DN	suŋay	'river'
lantay	>	lante	DN	lantay	'floor'
anay (PMP)	>	ane ane	DN	ananay	'termite'
SM pantay	>	pante	DN	pantay	'shore'
SM buay	>	bue		-	'swing'

There is one puzzling possible exception to this pattern. SI *gawai* 'work, duty, function', which may reflect PM **-ay*, is consistently mirrored in all JM areas, downstream and upstream, as *-gawe* (*bəgawe* 'work'). However, Adelaar (1995a:83) asserts that PMP **gaway* 'ceremony' has been lost in non-Bornean Malayic varieties, so it is also possible that SI *gawai* is not an inherited PM etymon but a borrowing from JV (as it is considered in Wilkinson 1959) which subsequently underwent an analogical change of *-e > ay*.

[48] Although in this section and others I label *-kan* etc. a suffix, Collins (p.c.) correctly pointed out that I do not present evidence that it is a suffix rather than a (non-clitic) postposition. Since this study does not address grammatical issues, I will merely give the disclaimer that the label *suffix* is being used as a convention following Indonesian grammar without having proven its actual grammatical status.

In that case this apparent exception in JU would be treated as a simple JV borrowing which did not undergo the same analogical leveling that it did in SI.

Table 3.13 *-*aw* monophthongs in JI

PM *		**JI**	**JU**		
hijaw	>	ijo	DN	ijaw	'green'
pisaw	>	piso	DN	pisaw	'knife'
danaw	>	dano	DN	danaw	'lake'

3.5.2 *-*h* > Ø (DT and sometimes ML)

In §3.4.3 it was discussed how JM regularly reflects initial and medial **h* (between different vowels) as Ø. DT regularly (and ML often) reflects final **h* also as Ø, whereas upstream varieties regularly retain PM **h*.

Table 3.14 PM *-*h* > JI Ø

PM *		**JI**	**JU**		
babah	>	bawa	DN	bawah	'below'
putih	>	puti	DN	putih	'white'
-puluh	>	-pulu	SL	-puluh	'ten, -teen'

3.5.3 **r* > [r] (DT)

Adelaar (1992:86) described PM **r* in phonetic terms as a "(velar or uvular) fricative". It was mentioned in §3.2.1 that this is also true for PM **r* reflexes in JM. One downstream village sampled (Dusun Teluk), however, breaks this pattern and consistently reflects PM **r* as an apical trill.

Table 3.15 PM **r* > DT [r]

PM * [ ]		**DT [ ]**	
ʁusaʔ	>	ruso	'deer'
pəʁut	>	pərut	'belly'
təluʁ	>	tələr	'egg'

Since JI shows more influence from outside language varieties it is assumed that this phonological feature has been borrowed from either SI (most likely) or JV. This innovation also shows up in the three coastal Jambi areas sampled in Saidat Dahlan *et al.* (1985), TJ2, TJ3 and TJ4, while TJ1, upstream from TJ2, does not. See Map 5.5.

3.5.4 Occasional *-*r* > *ʔ*

Similarly to §3.4.5 above, there are a few additional final **r* > *ʔ* innovations that evidently only occur in the downstream areas:

Table 3.16 Occasional JI *-*r* > *ʔ*

PM *		**JI**	**JU**		
bəsar	>	bəsaʔ	SS	bəsaᵏ	'big'
SM biar	>	biaʔ	DD	bia:	'let, allow'

3.5.5 Split of high vowels

§3.2.4.1 documents an innovation shared with SM, the split of PM penultimate high vowels **i* and **u,* that occurs in the sites on the Batanghari river. The distribution of lexemes exhibiting the split is indicative of a spreading of features directionally from downstream to upstream.

3.5.6 Lexical borrowings from other varieties

Located in or near Jambi city, a port city and the location of the old royal court, the downstream ML and DT sites often show influences from the outside that are not found upstream.

As discussed in §1.4.5, Javanese influence on JM is strongest around the capital and wanes considerably as one travels upstream.

Table 3.17 Apparent JV borrowings in JI*

form	**found**	**gloss**	**JU**	**comments**
aŋop	ML, DT	'yawn'	kuap	JV *angob*
kupiŋ	ML, DT	'ear'	təliŋo	
kəmbaŋ	ML, DT	'flower'	buŋo	
buntut	ML, DT	'tail'	ikuʔ	
kapan	ML	'when'	bilo	could be < JV or via SI
kuwuŋ	ML	'rainbow'	səruneh	JV '1. concave 2. peacock 3. aura'
bontet	ML	'fat'	gəpuʔ	? JV *buntet* 'closed at one end, plugged'

*JI [aŋop] and [kuwuŋ] suggest clear phonological evidence of JV origin, i.e. **ua > o, *b, *r > w*, but in some of these cases I do not have sound phonetic evidence to demonstrate that these words are actually borrowed from JV. Rather, the evidence is merely that they appear in Horne (1974) and either do not appear in Wilkinson (1959), Echols and Shadily (1989) or Kamus Perwira (1998), or are marked therein as JV loans. In some cases SI may have been the channel for apparent JV loans.

In addition, it is likely that [duʁen] 'durian' is a JV borrowing, as it is quite similar to JV [durɛn] and less similar to what one might expect to see in JM, like MR [dəɣian].[50]

keringat 'sweat' and *lap* 'wipe' (< Dutch) are two probable borrowings from SI which in JI have often replaced the traditional Malay words *peluh* and *hapus* respectively.

3.6 Innovations that occur in upstream areas

Adelaar summarized Minangkabau's changes as generally "changes in the vowels of final syllables and mergers of final consonants" (1995b:433–434). We do not see mergers in JM, but it can be said that the sounds of JM, especially JU, become increasingly unstable towards the end of the word. One can also say the same thing for Kerinci, as well as far-off dialects like Ulu Terengganu; cf. Collins 1983:31. However, the changes in JU are nowhere near as extreme as those that occur in MIN or KER.

3.6.1 **-h-* (like vowels > Ø / V^1_V^1

Although my sample of words with medial **h* between like vowels is quite small, it seems that one can make the generalization that in all JU areas **h* is deleted in this position, while it is often retained in JI (ML, DT and the transitional MR); for example, JI *dahan,* MS *daán* 'branch').[51]

[50] This is not to say that there are not any JV borrowings in the upstream areas. *gawe* was discussed earlier in the chapter as a possible JV borrowing. Also commonly seen is *ləbu* 'dust'. *basuh* 'wash' is considered a possible JV loan (Adelaar 1992:97). Adelaar (1992:136) also considered *abaŋ* 'red' as a JV loan, according to Nothofer (p.c.) derived from **bahaŋ* 'red, hot' via Old JV *a-bāŋ*.

[51] Note: readers with a background in Indonesian or Malay orthography might read a glottal stop in between two like vowels such as transcribed here, but this would not be a correct assumption. The way this double vowel can be distinguished from a long vowel in speech is by the presence of accent on the second vowel (as marked here: *daán*).

3.6.2 *r- > Ø

In many JU areas, word-initial *r undergoes deletion irrespective of the vowel that it follows. Table 3.18 gives examples from Kungkai, an upstream area close to the regency capital of Bangko.

Table 3.18 *r- in KK

PM *		**KK**	
rusaʔ	>	uso	'deer'
rimbaʔ	>	imbo	'forest'
rambut	>	ambᵊut	'hair'

This deletion is also evidently the case stem-initially for some varieties, and not the case for others:

Table 3.19 Stem-initial *r in KK and TK

PM *		**KK**	**TK**	
sa-ratus	>	s-oᵊtoyx	səɣatuʸç	'one hundred'
sa-ribu	>	sə-ebᵊo	səɣibu	'one thousand'

Interestingly, two areas which consistently delete *r *word*-initially, for the two *stem*-initial examples had an apical trill. These occurrences are both lexical items for large numbers (related to commerce) and are probably loans from SI to replace the more parochial-sounding local version. See Table 3.20.

Table 3.20 Stem-initial apical trill in SL and MS

PM *		**SL, MS**	
rambut	>	ambuᵈn, ambut	'hair'
rimbaʔ	>	imᵇo	'forest'
sa-ratus	>	sa-ratuyç	'one hundred'
sa-ribu	>	sa-ribu	'one thousand'

In terms of geographical distribution, it is difficult to make any generalizations that adequately predict where the *r- > Ø innovation might appear. As one can see from Figure 3.1, areas with this innovation are slightly outnumbered by the areas which do not delete *r. The downstream areas consistently retain *r, but the upstream areas are more unpredictable. MS, SL, MP and KK often cluster together in terms of shared features, but TK and LK could not be considered part of that cluster, while DD, which has nearly no *r deletion, *could* be.

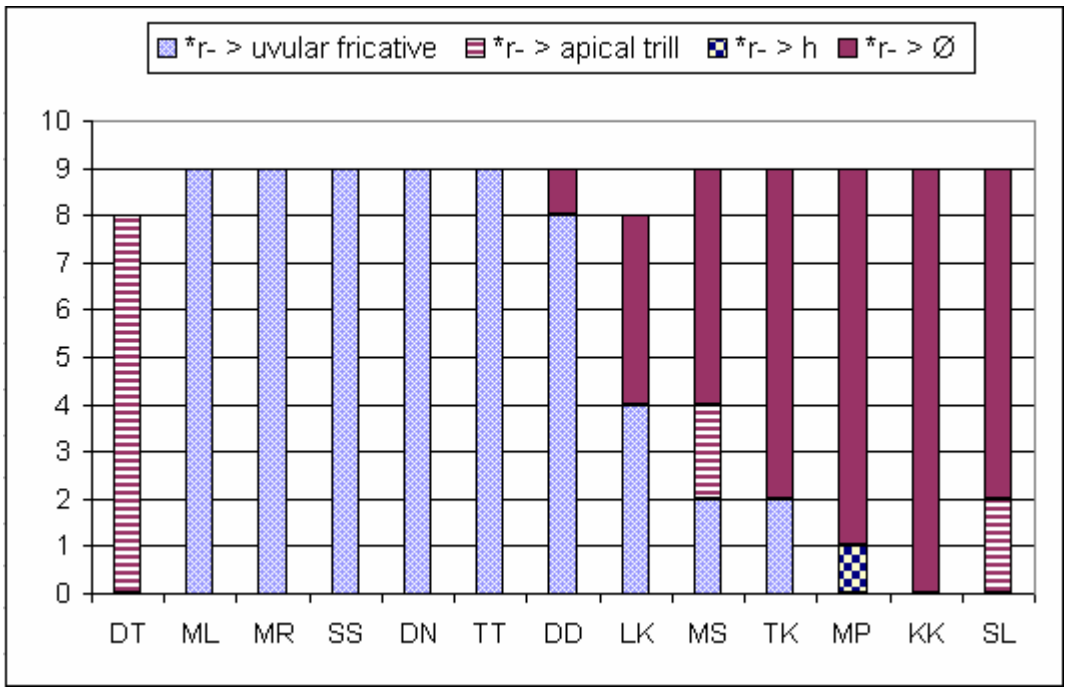


Figure 3.1 **r-* in JM (occurrences in sample)

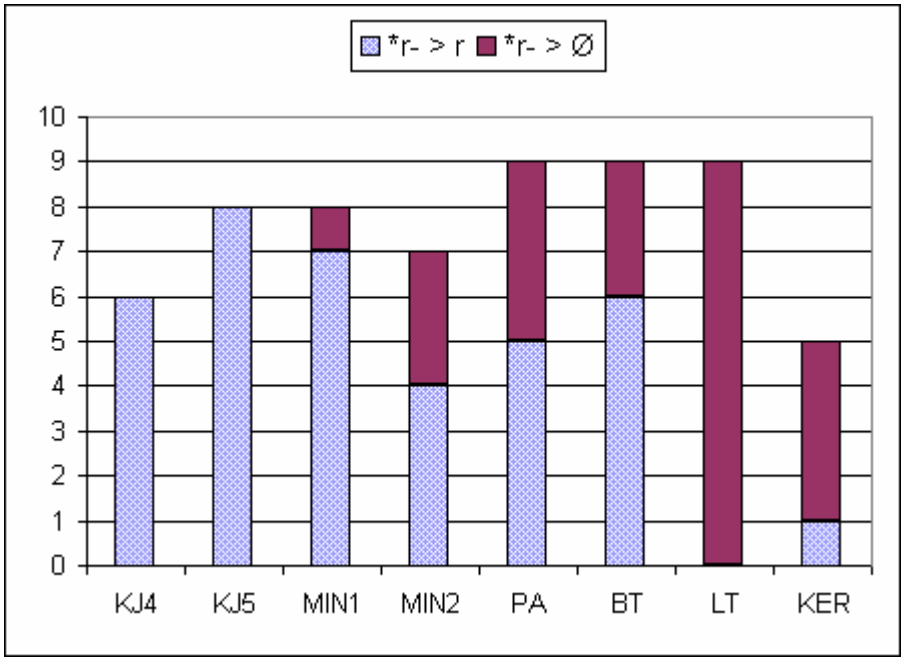


Figure 3.2 **r-* outside of JM (occurrences in sample)

In Figure 3.2 are shown the other languages in the sample. The two KBJ sites have no **r-* deletion, and it is minimal in MIN1, but somewhat more prominent in MIN2. PA and BT, two PGH sites, have about the same proportion of deletion as MIN2 (but in lexemes which differed from one other), while the third, LT, always elides **r*. KER also regularly deletes **r* in this position. See Map 5.11.

For a fricative such as this, there could be at least two mechanisms of deletion. One common path of [ʁ] loss is: voiced back fricative [ʁ] > voiceless back fricative [x] > voiceless glottal fricative [h] > Ø.

Another path could be through simple lenition of the auditory volume of [ʁ]: loud → softer → soft → indistinct → gone. Do we see any evidence for either of these mechanisms in JM? In MP, there is a single example of **r-* > *h* (PM **rusaʔ* > MP *husa*), which could be slight evidence for the first mechanism. Is there any better evidence for the second mechanism? In SL and MR, I often marked *r* as having low prominence, but these are two areas with very consistent retention of word-initial **r*, so that hardly seems like good evidence either. Let us consider the evidence from word-medial **r*.

3.6.3 **-r- > h*

The state of word-medial **r* in JM is substantially more straightforward than that of word-initial **r*. Of the thirteen JM locations, all but two (SL and MP) retain **r* as [ʁ], [ɣ] or [ɾ]. The non-JM varieties in the sample all do the same, except KER. KER, SL and MP reflect *h* for PM **r* in word-medial position. See Table 3.21. (Map 5.12 shows this in visual form.)

Table 3.21 **-r-* > *h*

PM *		**MP**	**SL**	
hari	>	ahey	ahi	'day'
uraŋ	>	uhaŋ	uhak	'person'
pərut	>	pahot	pəhu^{d}n	'belly'

Do we now have any better evidence for determining the probable mechanism for deletion of word-initial **r* in JM? For MP and SL it seems we can propose a modification of the first mechanism. We can hypothesize that **r* > **h*, and then **h* was deleted through the regular **h-* > Ø rule in JM.

3.6.4 **-r* > vowel lengthening or epenthesis of low vowel

Some quite interesting and complex things happen to final **r* and the preceding vowel in JM and surrounding areas. For the most part, these phenomena take place in upstream areas, although one exception will be noted below.

If we look merely at words ending in **-ar*, such as **akar* 'root', the picture is quite straightforward. Some varieties, specifically JI varieties ML and DT, and JU varieties MR, SS and LK, show their typical **r* reflexes ([ʁ], [ɣ] or [ɾ]) as discussed above. Other JU varieties, specifically DD, MS, MP, KK, SL, DN and TT, delete the **-r* and show instead vowel lengthening. Thus:

Table 3.22 **-r* > vowel lengthening

PM *		**MS**	**TT**	
akar	>	akaː	akaː	'root'
bənər	>	bənaː	bənaː	'true'

The only "abnormal" site is TK. TK's **-ar* words retain the final velar fricative (so faint that it could be considered a velar approximant), but instead of **a* there is a high central vowel [ɨ]. So TK reflexes are like this:

Table 3.23 TK **-r* vowel raising

PM *		**TK**	
libar	>	libɨɯ	'wide'
ulər	>	ulɨɯ	'snake'
bənər	>	bənɨɯ	'true'

When I was surveying Jambi, I was told that TK was like Peninsular Malay, because it had the same [ɨ] word ending. I was rather surprised to hear that, but it gave me extra motivation to choose TK as a data point. I quickly found out it was not the *-*a* words like [apɨ] 'what' that had that ending, but rather *-*r* words.[52]

If we consider other environments for *-*r* in the JM varieties, like following **u* or **i*, the waters get muddier. Some varieties carry their patterns through in all environments; for example TK stays steady at [ɨuɻ], DT has an [r] in all three environments, LK has [ʁ], and MS, MP and TT have lengthening in all three environments. But the other seven JM sites have some variation according to preceding vowel. In fact, one could say that they all share the same innovation, in different degrees. The innovation is that a low central vowel, somewhere between [ə] and [a], is epenthesized and *pronounced concurrently* with the voiced fricative. For examples see Table 3.24.

Table 3.24 Vocalic fricative

PM *			**loc.**	
kapur	>	kapuɐ̯ʁ	ML	'lime (for betel chewing)'
lihər	>	leheɐ̯ʁ	ML	'neck'
lihər pre-JM *liyer	>	liyeɜ̯ʁ	SS	'neck'
bibir	>	bibiɜ̯ʁ	SS	'lip'

These examples use a curious notation, which I will explain. After the nuclear high vowel, there is an audible opening of the mouth while the fricative is beginning, thus simultaneously producing a low vowel sound. It is quite rare phonetically for two sounds to be pronounced simultaneously, but not impossible. In this case, the uvular fricative is pronounced far back in the mouth with the back of the tongue, so the forward parts of the oral cavity are free to do other work, which in this case is to maintain a low vowel. So one could describe the sound as a vowel with uvular frication, or as a uvular fricative with open vocalic properties. The latter is preferable inasmuch as we are describing a diachronic process that is happening to a fricative consonant, but the former is preferable inasmuch as synchronically the frication tends to drop off altogether and we are left with just a low vowel, as in Table 3.25:

Table 3.25 KK *-*r* > low vowel

PM *		**KK**	
bibir	>	bibiᵊ	'lip'
lihər pre-JM *liyer	>	liyeᵊ	'neck'
tidur	>	tiduᵊ	'sleep'
kapur	>	kapuᵊ	'lime (for betel chewing)'

Table 3.26 gives the distribution of reflexes of final **r* in JM (and PGH under the first dotted line). Perhaps the most striking patterns are that DD, KK, SL and DN have uniformly replaced the **r* with a low vowel, while in ML and SS (both on Batanghari) the **r* and a low vowel are pronounced concurrently. Moving onto non-JM areas in my sample (below second dotted line), KBJ areas show high vowels in some environments, but there may be other conditioning factors at work. Quite interestingly, the three PGH sites do not show this innovation, while MIN1 does. See Maps 5.13, 5.21 and 5.22.

[52] I have since heard that at least one MIN dialect has the same innovation (*-*ar* > *ɨuɻ*), but I have not yet verified that.

Table 3.26 Distribution of *-*r* reflexes in JM and PGH

Loc.	*-ar	*-ur	*-ir
ML	ʁ	ʁ, low ʁ	ʁ
DT	r	r	r
MR	ɣ	low	low
LK	ʁ	ʁ	ʁ
DD	ː	low	low
MS	ː	ː	ː
MP	ː	ː	ː
KK	ː	low	low
SL	ː	low	low
SS	ʁ	ʁ	low ʁ
DN	ː	low	low
TT	ː	ː	ː
TK	ɨɣ	ɨɣ	ː
PA	ʁ	ʁ	ʁ
BT	ː	ː	ː
LT	ː	ː	ː
KJ4	r	r	r, Ø, ʔ
KJ5	high	r	r, Ø, ʔ
SWY	x	x, low ʔ	x
MIN1	Ø	low	low
MIN2	Ø, r, high h	r, Ø, ʔ	ʔ, low ʔ
KER	Ø, high	Ø	Ø, low

Legend	
ʁ, ɣ, r, x	*no epenthesis of low vowel, followed by regular *r reflex*
ː	**r > Ø, vowel lengthened, quality unchanged*
low ʁ	*regular *r reflex with epenthesis of low vowel*
low	*low vowel, *r > Ø*
high	*high vowel, *r > Ø*
low ʔ	*low vowel followed by ʔ*
(x), (y)	*some reflexes one way, some another*

3.6.5 **-as*, **-us* > [front, high] vowel + [backed] fricative

While the JI sites (ML, DT and transitional MR) consistently reflect **s* in word-final environments following **a, *i* and **u*, none of the upstream sites do.

Table 3.27 *-*s* in sample of JU areas

PM *		MR	MS	TK	
bəras	>	bɣas	bəʁɛç	bəɣɛh	'(uncooked) rice'
di atas	>	datas	dəteç	deːteh	'above'
nipis	>	tipis	tipəyç	tipiç	'thin'
taŋis	>	naŋis	naŋeç	-	'cry'
sa-ratus	>	sɣatus	saratuyç	səɣatuyç	'one hundred'
haus	>	aws	auç	auç, auyç	'thirsty'

All the variation that occurs geographically and within different phonological environments is difficult to summarize, but one consistent thing is that the **s* is nearly always backed, becoming *ç*, *x* or *h*. The process these varieties may have gone through is reflected in these rules:

Table 3.28 Changes in JU *-*s*

I.	*-s	→	*-ç (voiceless palatal fricative)
II.	Simultaneously, final syllable vowels were often stretched into a diphthong *Vy by the palatal obstruents:		
	*a(ç)	→	*ay(ç)
	*u(ç)	→	*uy(ç)
	*i(ç)	→	*i(ç) (no change because the vowel is already close-front)
III.	In some geographical areas, the distance between the two poles of the diphthong *ay was reduced, with varying results:		
	*ay	→	*əy, *ey, *e
IV.	In some areas, final fricatives weakened to a glottal fricative:		
	*-ç, *-x	→	*-h
V.	In some variants, a later rule deleted the secondary *-h		
	*-h	→	Ø

It seems that the same processes have been at work in the PGH varieties, but there the innovations are more advanced, with frequent elision of the final fricative:

Table 3.29 *-*s* in PGH

PM *		**PA**	**LT**	
di atas	>	di ateh	di ate	'above'
nipis	>	mipih	mipi	'thin'
sa-ratus	>	saʁatuy	satuy	'one hundred'
haus	>	awi	auyç	'thirsty'

Similar forms were documented by Asmah (1977:9) for various Peninsular Malay varieties, but the presence of the palatal sibilant *ç* was not noted in any of the varieties, nor did she offer an explanation for the presence of the glide *y* before the h in words like *bəRayh* 'rice'. However Collins does document the palatal sibilant in Kedah Malay (1996 and elsewhere).

One JU area, DD, has a particularly curious innovation, where final fricative **s* has become a palatal nasal followed by a voiceless palatal nasal, with occasional preplosion even. This innovation consistently occurs in environments following **a*, and occasionally following **i* and **u*. See Table 3.30.

Table 3.30 *-*s* in DD

PM *		**DD**	
panas	>	panaɲn̥	'hot'
bəras	>	bəʁaʰɲn̥	'(uncooked) rice'
nipis	>	tipis	'thin'
taŋis	>	naŋiɲn̥	'cry'
sa-ratus	>	saʁatus	'one hundred'
haus	>	auɲn̥	'thirsty'

This change seems to be shadowed in Sungai Tenang, which regularly reflects **s* after **i* and **u* but occasionally has a form like DD:

Table 3.31 *-*s* in ST

PM *		**ST**	
haus	>	aus	'thirsty'
SM halus	>	alus	'small; refined'
SM hapus 'erase'	>	apunt	'wipe'

How could this fricative to nasal change have occurred? Collins (p.c.) has suggested that it may have started as nasal insertion; e.g. *-as* → $a^{n}s$ → $a^{n}ç$ → $aɲ^{ŋ}$.

3.6.6 Upstream shared unique lexical items

In §3.4.8 it was mentioned how there is a divide between downstream and upstream on both phonological and lexical levels. There are a number of lexical items in my sample which only occur upstream, sometimes in all JU, sometimes in only some of the areas. In Table 3.32 these lexical items are listed, beginning with phonetically leveled JU form, then the corresponding orthographized JI form, then whether the JU form is universal, widespread or limited to a few areas, as well as whether it is shared with PGH, MIN, KER, KBJ and SWY. It should also be noted that the distribution of JI forms is broader than the distribution of JI phonological innovations (which is evidence that lexicon is easier to borrow than sounds), so often the shared lexical items will spread up the Batanghari to MR, SS and occasionally even TK. LK also often shares lexical items with JI. See the more graphical representation given in Table 3.32.

Table 3.32 JU lexical items not shared by JI

JU form	**gloss**	**JI form**	**distribution of JU form**	**PGH too?***	**MIN1,2, KER, KJ4, KJ5, SWY?**
jukut	'pig'	babi	universal	all 3	-
gədaŋ	'big'	bəsaʔ	universal	all 3	MIN1,2, KER, KJ4,5
bayir	'pay'	bayar	universal	all 3	MIN1,2, KJ4
gəlaʔ	'laugh'	ta-tawo	universal	all 3	MIN1,2, KER
kubaŋ	'dirty'	kotor	widespread	PA, LT	KJ4
kumoh	'dirty'	kotor	limited	BT	MIN1,2, KER, SWY
məɲcit	'mouse'	tikus	universal	all 3	MIN1,2
rimbo	'forest'	utan	universal	all 3	MIN1, KJ5, SWY
induʔ	'mother'	əmak	universal	BT, LT	MIN1, KER, KJ4,5, SWY
gəpuʔ	'fat (adj.)'	gəmuʔ	universal	all 3	MIN2
abaŋ	'red'	merah	universal	PA	KER, KJ4,5, SWY
ba-cəkaʔ	'to fight'	ba-balah	universal	all 3	KER, KJ4
pandaʔ	'short'	pendeʔ	universal	LT	MIN1, KER, SWY
ɲo	'3S'	dioʔ	universal	all 3	MIN1,2, KER, KJ4,5
imbaw	'call'	səru	universal	all 3	MIN1
buŋo	'flower'	kəmbaŋ	universal	all 3	all
ca(m)paʔ	'throw away'	kibar	universal	all 3	MIN1,2, KER, KJ4,5
əmbus	'blow'	tiup	universal	all 3	MIN1,2, KJ4
kidaw	'left'	kiri	widespread	PA	-
kərat	'cut'	tətaʔ	widespread	BT, LT	-
bar-usiʔ	'play'	main	widespread	BT, LT	-
bəŋis	'angry'	marah	widespread	BT, LT	MIN2
tantiʔ	'wait'	tuŋgu	widespread	BT	-
kəpiŋ	'to split'	bəlah	widespread	all 3	-
biduʔ	'canoe'	pərau	widespread	all 3	-
imbaŋ	'hide'	səmuɲi	widespread	-	-

suruʔ	'hide'	səmuŋi	limited	PA, BT	MIN1,2
tulaʔ	'push'	doroŋ	widespread	PA, LT	MIN1, KER
tundo	'push'	doroŋ	limited	BT	-
bubuʔ	'termite'	anay-anay	limited	PA, LT	MIN2
səlay (sə-həlay)	'one'	sekoʔ	limited	-	KJ4
kicuh	'to lie'	sumbaŋ	limited	BT	MIN1
lapiʔ	'mat'	tikar	limited	all 3	MIN1,2
piuh	'squeeze'	pəras/h	limited	BT, LT	-

*I.e. does this form also appear in the three Penghulu villages sampled?

3.7 Innovations unique to Lubuk Kepayang

It was briefly mentioned in §3.4.1.1 that LK has some innovations not found in other areas. One, the seemingly sporadic **a* > *e* or *o* in final closed syllables, was discussed in that section in conjunction with JM's merger of PM **ə* and **a*. I mention a few other innovations here with the hope that, in the future, other areas may be identified which share these. Around 40 km from LK there is an area with many people evidently from the Sekayu area of South Sumatra, who are sometimes labeled *Suku Pindah* (e.g. Sagimun 1985). Unfortunately, I was not able to sample their speech, but it would be interesting to see if there are connections with LK.

3.7.1 **s- > h*

In word-initial position, PM **s* is often realized as [h].

Table 3.33 LK **s- > h*

PM *		**LK**	
suŋay	>	huŋay	'river'
sakit	>	hakit	'sick, painful'
sa- (as in sa-puluh 'ten')	>	ha-	'one '
sapu	>	hapum	'broom'
SM sirih	>	hiʁiç	'betel leaf'

Two of the ten etyma for which I have a PM reconstruction break this pattern and retain the **s*, specifically **susu* 'breast' and **si-apa* 'who'. My hypothesis, which suffers from lack of supporting data, is that this change may more commonly occur before low vowels than high. A possible phonological motivation for a change like this is that it could be slightly more difficult to maintain a sibilant as the vocal cavity is preparing for a low (open) vowel versus a high (closed) vowel.

3.7.2 Excrescence of nasal after final high vowel

A rather interesting and linguistically unusual innovation occurs in LK: after final high vowels (*u*, *i*) there is an excrescent nasal consonant. These consonants could be interpreted as homorganic: a labial vowel (*u*) is followed by a labial nasal (*m*), while a coronal vowel (*i*) is followed by a coronal nasal (*n*).

Table 3.34 Excrescence of *m* after word-final *u*

PM *		**LK**	
sapu	>	hapum	'broom'
bulu	>	bulum	'feather'
kutu	>	kutum	'louse'
susu	>	susum	'breast'
baharu	>	baʁum	'new'

Table 3.35 Excrescence of *n* after word-final *i*

PM *		**LK**	
impi	>	mimpin	'dream'
m/ati	>	matin	'die'
pagi	>	pagin	'morning'
jari	>	jaʁin	'finger'
kaki	>	kakin	'leg/foot'

Trask, in his historical linguistics textbook (1996:67) maintained that word-final excrescence was a quite rare phenomenon after consonants and more so after vowels. Neither of these two related innovations is exceptionless in my data: the *m* excrescence occurs 19 of 21 times in my sample while the *n* excrescence occurs 20 of 25 times. Yet if there were nearby varieties with the same innovation, in my opinion that would be indicative of a particularly close relationship. There also is a hint of LK-like excrescence in the Dutch colonial authority's report (*Djambi* 1912) on upland Jambi, which transcribes *lagin* 'again, later on' < PM **lagiʔ* for a speech variety around Bangka, but no other information was provided as to exactly where the speaker(s) recorded were from or if this was a systematic innovation. Interestingly, Muko-Muko also has nasal excrescence after *i* and *u*, but the nasal is evidently always velar, e.g. *tiŋgiŋ* < PM **tiŋgi* and *ʁibuŋ* < PM **ribu*.[54]

3.8 Description of Penghulu

In these next two sections I will describe Penghulu and Jambi Kubu (KBJ) in historical linguistics terms. Why do that in a monograph on Jambi Malay? There are two good reasons. The first is that these varieties have never before been described in published form to my knowledge. Maryono *et al.* (1997) was a data-rich accounting of Kubu in Jambi, but the manuscript seemingly was never published in any accessible way, and also there was certainly not a historical linguistic perspective in their writing. The second reason is that in chapter 5 connections will be examined between JM and other varieties, two of which will be PGH and KBJ. Since there are no other publications to refer to, those varieties need to be detailed somewhat here.

3.8.1 **ə* in penultimate syllable > *o*

PGH shares a number of distinctive innovations with Minangkabau. The first innovation we treat is not shared with the coastal Minangkabau of Padang and Bukittinggi, such as described in Moussay's grammar (1998) and represented in this study by the MIN1 wordlist. Rather it is shared with the variant(s) of Minangkabau in the eastern interior areas that is represented here by the MIN2 wordlist. In penultimate syllables, both open and closed, **ə* is backed to *o*. See §3.2.2.3 for examples as well as Map 5.14. This occurs in PA and LT but not in BT.

3.8.2 Changes in final syllables

Adelaar (1995b) wrote an introduction to a Minangkabau wordlist, published as part of the *Comparative Austronesian Dictionary*. He posited a set of chronologically ordered rules (Adelaar 1995b: 436–437) for changes in MIN final syllables. I reproduce his rules here with a slight modification and then discuss their applicability to PGH.

I. after high vowels, final labials merged with alveolars:
   **-(u,i)p, *-(u,i)t* → **(u,i)t*
   **-(u,i)m, *-(u,i)n* → **(u,i)n*
II. final alveolar obstruents were palatalized:
   **-t* → **-Ċ* (voiceless palatal stop)

[54] Ulu Terengganu also has plenty of excrescence (Collins 1983), although in its case it is triggered by the preceding nasal. No such conditioning environment is required in LK.

	**-s*	→	**-ç* (voiceless palatal fricative)
III.	final syllable vowels were colored by the following consonants:		
	**-a(Ċ,ç)*	→	**-e(Ċ,ç)*
	**-u(Ċ,ç)*	→	**-uy(Ċ,ç)*
	**-i(Ċ,ç)*	→	**-i(Ċ,ç)*
	**-ap*	→	**-op*
	**-u(k,ŋ,h,l,r)*	→	**-uᵊ(k,ŋ,h,l,r)*
	**-i(k,ŋ,h,l,r)*	→	**-iᵊ(k,ŋ,h,l,r)*
IV.	final stops and fricatives were reduced to glottals, and final linguals disappeared in absolute-final position:		
	**-p, *-Ċ, *-k*	→	*-ʔ*
	**-h, *-ç*[55]	→	*-h*
	**-l, *-r*	→	Ø

I added rule II, which shifts alveolar obstruents to palatal position as an intermediate sound change. I will try to justify that addition now. We have already seen that in JU and PGH, final **s* shifts to palatal position or even further back (see JU sound change rules given in Table 3.28). There is also evidence that this palatal shift occurred in final **t* in PGH:

Table 3.36 Shift to palatal stop in PGH

PM *		**PA**	**LT**	
pərut	>	poʁuyʔ	poːuyĊ	'belly'
takut	>	takuyʔ	takuyĊ	'afraid'

So this would seem to be evidence that PGH did undergo rule II, and LT did not undergo rule IV, thus preserving evidence of the earlier shift.

Also, there is a phonetic motivation for rule II. When the tongue is in position to make a palatal obstruent, there is a natural tendency for the preceding vowel to be pronounced with an off-glide *y*. We notice that in rule III **u* shifts to **uy*, and Adelaar put in a footnote that the **a* to **e* shift must have also occurred via an intermediate stage where **a* shifted to **ay*.

Adelaar noted that MIN1 underwent all the changes given in these rules but that not all other Minangkabau dialects did. I will now show examples of the rule application by MIN1, MIN2 and the PGH varieties. Grayed-out areas indicate where the given rule does not apply.

Table 3.37 **inum* 'drink'

rule	MIN1	MIN2	PA	BT	LT
PM	*inum	*inum	*inum	*inum	*inum
I.	*(m)inun		*(m)inun	*(m)inun	
	minun	minum	minun	minun	minum

Table 3.38 **hidup* 'live'

rule	MIN1	MIN2	PA	BT	LT
PM	*hidup		*hidup	*hidup	*hidup
I.	*(h)idut		*(h)idut	*(h)idut	*(h)idut
II.	*(h)iduĊ		*(h)iduĊ	*(h)iduĊ	*(h)iduĊ
III.	*(h)iduyĊ		*(h)iduyĊ	*(h)iduyĊ	*(h)iduyĊ
IV.	iduyʔ	(not available)	iduyʔ	iduyʔ	iduyʔ

[55] For MIN2, final **-ç* > *-ʔ*, not > *-h*. For LT, there is an additional, later, rule, **-h* > Ø.

Table 3.39 **hisap* 'suck'

rule	MIN1	MIN2	PA	BT	LT
PM	*hi(ŋ)səp	*hi(ŋ)səp	*hi(ŋ)səp	*hi(ŋ)səp	*hi(ŋ)səp
ə>a, h>Ø	*(h)is(a)p	*(h)is(a)p	*(h)is(a)p	*(h)is(a)p	*(h)is(a)p
III.	*isop	*isop	*isop	*isop	*isop
IV.	isoʔ	isoʔ	isoʔ	isoʔ	isoʔ

Table 3.40 **takut* 'afraid'

rule	MIN1	MIN2	PA	BT	LT
PM	*takut	*takut	*takut	*takut	*takut
II.	*takuĊ	*takuĊ	*takuĊ	*takuĊ	*takuĊ
III.	*takuyĊ	*takuyĊ	*takuyĊ	*takuyĊ	takuyĊ
IV.	takuyʔ	takuyʔ	takuyʔ	takuyʔ	

Table 3.41 **urat* 'vein'

rule	MIN1	MIN2	PA	BT	LT
PM	*urat	*urat	*urat	*urat	*urat
II.	*uraĊ	*uraĊ	*uraĊ	*uraĊ	*uraĊ
III.	*ureĊ	*ureĊ	*ureĊ	*ureĊ	*ureĊ
IV.	urek*	urɛʔ	uʁeʔ	uʁɛʔ	uɣeʔ

*I do not have an explanation why, in the application of rule IV, the final stop went to a velar rather than a glottal stop.

Table 3.42 **beras* 'rice'

rule	MIN1	MIN2	PA	BT	LT
PM	*bəras	*bəras	*bəras	*bəras	*bəras
penult. *ə>a,o	*baras	*baras*	*boras		*boras
II.	*baraç	*baraç	*boraç	*bəraç	*boraç
III.	*bareç	*barɛç	boʁeᶜ	*bərɛç	*boreç
IV.	bareh	barɛʔ		bəʁɛh	boɣe

*MIN2 regularly reflects **ə* as *o*; this instance is exceptional.

Table 3.43 **sa-ratus* 'hundred'

rule	MIN1	MIN2	PA	BT	LT
PM	*sa-ratus	*sa-ratus	*sa-ratus	*sa-ratus	*sa-ratus
II.	*saratuç	*saratuç	*saratuç	*saratuç	*saratuç
III.	*saratuyç	*saratuyç	*saratuyç	saʁatuyç	*saratuyç
IV.	saratuyh	saratuyʔ	saʁatuy		satuy

One of the sets of innovations shown above, where **at* ends up as *eʔ* (cf. Table 3.), has a distribution substantially wider than just Minangkabau. As can be seen in Map 5.17, reflexes of **at* showing this

innovation (> *-et* or *-eʔ*) can also be found consistently in MUK, and sporadically in LK, DN, ST, RAW, KER and KJ4.[58] This change is also evident in the variety around Bangko described in the Dutch colonial authority report (*Djambi* 1912).

The following ten related innovations (applications of Rule III) found in MIN1 have limited distribution in the other Minangkabau members under consideration here. These innovations all involve the epenthesis of a low vowel between a high vowel and a post-velar or lingual consonant. See Table 3.44 which lists the innovations and whether the area in question has that innovation according to my sample. Even though KK and SWY are not MIN variants, they are included as they have some of these innovations also. See also Map 5.20, Map 5.21 and Map 5.22.

Table 3.44 Distribution of Rule III word-final innovations

innov.	uᵊ(k)	iᵊ(k)	uᵊ(ŋ)	iᵊ(ŋ)	uᵊ(h)	iᵊ(h)	uᵊ(l)	iᵊ(l)	uᵊ(r)	iᵊ(r)
MIN1	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	no	**yes**	**yes**	**yes**
MIN2	**yes**	**yes**	**yes**	**yes**	**yes**	**part.**	no	**yes**	no	**part.**
PA	**yes**	**yes**	**part.**	**yes**	**yes**	**yes**	no	?	no	no
BT	no	no	no	no	no	no	no	?	no	no
LT	no	no	**part.**	**yes**	no	no	no	?	no	no
KK	**part.**	no	no	no	no	no	**yes**	?	**yes**	**yes**
SWY	**yes**	**yes**	no	no	**yes**	**yes**	no	?	**part.**	no

Rule IV deletes **-l* and **-r* also. Table 3.45 lists the same areas as above and whether Rule IV is operative in them. Note that this table is a partial duplication and simplification of Table 3.26, but it approaches the information from a different angle.

Table 3.45 MIN **-l* and **-r* deletion

innovation	*-(a)l	*-(u,i)l	*-(a)r	*-(u,i)r
MIN1	**yes**	**yes**	**yes**	**yes**
MIN2	**yes**	no	**partial**	***-r>ʔ**
PA	no	no	no	no
BT	**yes**	**yes**	**yes**	**yes**
LT	**yes**	**yes**	**yes**	**yes**
KK	**yes**	**yes**	**yes**	**yes**
SWY	no	no	no	no

3.8.3 Penghulu shared unique lexical items

There are a number of lexical items that seem to orbit in the Minangkabau constellation. Table 3.46 gives a list of these items in leveled phonemic style, along with a gloss, the common JM form(s), and the distribution of this lexeme in the sample. Note that my sample for MIN2, KER, SWY, KJ4 and KJ5 is somewhat limited in comparison to the JM and MIN1 data, which may skew apparent distribution patterns.

[58] For at least some of these areas Rule II (palatalization of the stop) and Rule IV (shift to glottal stop) do not seem to apply, and the lack of Rule II would also require a revision of Rule III for these areas allowing the vowel to be colored by **-t*.

Table 3.46 PGH lexical items not generally shared by JM

PGH form	gloss	JM	distribution of PGH form
majal	'dull'	tumpul	MIN1, BT, LT
sirah	'red'	merah, abaŋ	MIN1, BT, LT
kəsat	'sand'	buŋin	MIN2, KER, BT
(b)indo	'rainbow'	pəlaŋi, etc.	PA, BT, LT
lauʔ	'fish'	ikan	MIN1,2, KER, BT, SL
muɲcuŋ	'mouth'	mulut	MIN1,2, LT, LK, DN
mərih < AR 'gullet'	'neck'	leher, liyer	PA, BT, LT, DN
cəliʔ	'see'	teŋoʔ	MIN1, PA, BT, LT, TT
rabun	'blind'	buto	BT, LT, MS, MP
ciloʔ	'steal'	maliŋ	MIN1,2, BT
kidal	'left'	kiri, kidaw	MIN1,2, BT, LT, SWY
tanjaʔ	'dibble stick'	tugal, rənjam	MIN2, PA, LT, TK
dədaʔ	'husk of rice'	səkam	MIN2, BT
litaʔ	'hungry'	lapar	MIN1, BT, LT, MS, MP, KK
cieʔ	'one'*	sekoʔ	MIN1,2, PA, BT, LT, MS, MP, SL, DN, TK
(k/l)oɲceʔ	'(small) frog'	kaŋkoŋ	MIN1, PA, BT, LT, MP, SL, DN
mipis	'thin'	tipis	MIN1, PA, BT, LT, KJ4
ambo	'1S'	aku	MIN1,2, PA, BT, LT
(baʔ)aŋ	'you'	kau	MIN1,2, PA, BT
əŋap	'breathe'	ɲawa, napas	MIN1, PA, BT, LT, MS, MP, SL, DN, TT

*MIN *cieʔ* 'one' is genetically related to SM *sayat* 'classifier for thin slices' and is therefore a semantic rather than lexical innovation.

3.9 Brief description of Kubu in Jambi

It is difficult to write clearly and concisely about Kubu in Jambi,[60] because it is difficult to find consistent patterns of sound changes in the data. This may be due to typographical errors in the report or possibly a very heavy pressure on Jambi Kubu to assimilate to more standard Malay. There is certainly a surprising amount of words in KBJ which can only be attributed to borrowing from Indonesian, such as *keringat* 'sweat'. Also the amount of data I have is often too small to make conclusive judgments as to what is happening in the language. The researchers (Maryono *et al.* 1997) took wordlists and sample sentences in five different locations in Jambi Province. I decided to mostly work with their fourth and fifth data points, because the quality of the data for those sites seemed more trustworthy. On the basis of lexicostatistics the authors divided the five sites into three dialects, and both KJ4 and KJ5 were grouped by the authors into one dialect. However in this section I present evidence from all five areas and attempt briefly to show that KBJ is different enough from JM varieties to justify a classification of KBJ separate from Jambi Malay.

3.9.1 **h* in Kubu

Jambi Kubu often shows retention of **h* in word-initial and word-medial positions, something that is unheard of in JM. Table 3.47 gives a tabulation of how often **h* is retained in the sample (left number) versus how often it is deleted (right). These amounts are divided up further according to whether the **h* is present in SI or not. We see that KJ1 and KJ2 could be considered to have lost **h* in both word-initial and word-medial position, whereas KJ3, KJ4 and KJ5 show a quite strong retention of **h*.

[60] In this study I am careful to differentiate between the Kubu of Jambi Province and the Kubu of South Sumatra Province. Dunggio *et al.* (1985) have written about the Kubu spoken in South Sumatra, and we should not assume these varieties are identical.

Table 3.47 Jambi Kubu retention of word-initial and -medial *h

	word-initial		word-medial (different vowel)	
Loc.	**in SI**	**not in SI**	**in SI**	**not in SI**
KJ1	3~13	0~4	3~4	0~2
KJ2	8~8	0~4	0~5	0~2
KJ3	15~2	2~2	6~1	2~2
KJ4	10~6	2~2	4~3	2~2
KJ5	14~1	3~1	6~1	2~2

Table 3.48 gives a few examples of *h in KBJ.

Table 3.48 KBJ examples of *h retention

PM *		**KJ1,2**	**KJ5**	
hatəp	>	atap	hatop	'roof'
hayam 'domesticated animal'	>	ayam	hayom	'chicken'
tuha(ʔ)	>	tuo, tue	tuha	'old (person)'
tihaŋ	>	tiaŋ	tihaŋ	'post (house)'
baharu	>	baru	bəheru	'new'

3.9.2 Vowels in Jambi Kubu

There are some really bizarre changes occurring in KBJ vowels. But if there were one generalization, it would be that many vowels end up as *o*. One environment where this commonly occurs is in the penultimate syllable with PM *ə, just as it does in PGH. This innovation is most common in KJ3, KJ4 and KJ5, and rarely happens in KJ1 and KJ2. A possible conditioning environment is whether the vowel in the final syllable is high (*u,i) or low (*a,ə). *ə in words with a final high vowel more often changes to *o* than in words with a final low vowel. For example:

Table 3.49 KJ5 penultimate *ə > *o* before ultimate high vowels

PM *		**KJ1**	**KJ5**	
bəlah	>	bəlah	bəlah	'to split'
bəli	>	bəli	boli	'buy'
dəkət	>	dəkat	dəkat	'near'
pərut	>	pərut	porut	'belly'

KJ1 has nearly no examples of *ə > *o*. In KJ5, in words with a final high vowel, *ə > *o* in twelve out of thirteen cases in my sample (92%), and eight out of sixteen times in cases of a final low vowel (50%). So at best this conditioning environment of vowel height produces a tendency to shift to *o* or stay as ə, and at worst the connection between the two variables is spurious.

One could justifiably ask if this is a change that affects only *ə and not *a in the penult. A scan through the multitudinous examples of penultimate *a reveals that the vast majority of KJ5 examples stay as *a* or change to *e*, but there are only two examples of *a > *o*. Therefore it seems we can say with relative assurance that KJ3, KJ4 and KJ5 penultimate *ə (but not *a) goes to *o*, particularly when the ultimate syllable has a high vowel.

This one retention (word-initial and word-medial *h > *h*) and one innovation (penultimate *ə > *o*) in KJ3, KJ4 and KJ5 should provide tentative grounds for a subgrouping(s) together and separate from JM. I will leave the task of subgrouping KJ1 and KJ2 to others, although it can be mentioned in passing that KJ2

shares in the central Sumatran innovation of final **a* > *o*, while KJ1, which is closer to the South Sumatran border, shares with Musi and other South Sumatran varieties the change **-a* > *e*.

3.10 Central Sumatran dialect network – illustration through semantic and lexical innovations

There are a number of words interesting for their lexical or semantic innovativeness that occur in either downstream or upstream regions or both. The following tables are rather impressionistic listings of words that seem semantically or lexically distinctive, including an accounting of other locations where these same (possible) innovations can be found. While most likely not useful for genetic subgrouping, they are nevertheless interesting for how they illustrate the complex dialect network described in this chapter.

Table 3.50 Semantic innovations in JM and other Malay varieties

JU	**gloss**	**where found**	**comments**
buŋin	'sand'	JU, JI, KBJ, KSS, SWY, RAW, Palembang area	SM *pasir bungin* 'sand mixed with mud'; W. Kalimantan 'sandbar' (Collins, p.c.)
iko, siko	'this', 'here'	JI, JU, MIN, KBJ, RAW, Musi, not KER or SWY	?? < JV *iku* 'that' or Jv and SKT *eka* 'one'; Jakarta Malay *sika* 'here'
sekoʔ	'one'	JI, JU, KBJ, BNK	< **sa-* + **ikur*
keceʔ	'to say'	JU, MIN	SM (Wilkinson) *kecek* 'cheating with plausible stories'; (*Kamus Perwira* 1998) 'chit-chat'
laŋaw	'fly'	JU, MIN	Non-Sumatran areas 'horsefly' (cf. Wilkinson)
(bar)əŋap	'to breathe'	JU, MIN	SI *engap* 'panting, puffing; tight in the chest, breathe with difficulty'
cirit	'defecate'	JU, MIN	SM *ceret* 'diarrhea'
səpədeh	'ginger'	JU, MIN	Kamus Dewan *sipedas* MIN 'halia'
puan	'canned milk; breast'	JI, JU	SM (*Kamus Perwira* 1998) *kelapa puan* 'young coconut with soft, spongy meat'; (Wilkinson) *puan* 'caddy-shaped large betel bowl'
jukut	'(live) pig'	JU, KER	Kutai Malay 'fish'; W. Kalimantan 'salted meat or fish' (Collins, p.c.); Wilkinson (Borneo) 'vegetable condiment'; *ikan jukut* 'all kinds of fish to eat'. Proto-Malayo-Polynesian **zukut* '(edible) thing; side-dish' (Adelaar 2001)
ŋ/kəɲcam	'dibble stick'	JU	SI *runjam*, *runjang* 'thrust, stab'; Palembang Malay *reɲcəm* 'sow seeds'
səpay	'broom'	JU	?? SM (*Kamus Perwira* 1998) *sepai*1 adj. 'broken into small pieces and scattered everywhere'
padeʔ	'strong (person)'	JU	?? related to SM *padat* 'compact'

Table 3.51 Possible lexical innovations

JU	**gloss**	**where found**	**comments**
ja(ha)ra	'skinny'	JU, KBJ, KSS	?? SM jara 'churner or twister; name for any instrument worked by a revolving shaft'; AR jarah 'something very small'
(k)aniŋ	'listen'	JI, JU, KBJ	no dictionary match found
səruni/rone	'rainbow'	JI, JU, KBJ, not sure if found anywhere else	?? > *seruni* SM (*Kamus Perwira* 1998) 'k.o. seashore plant'; serunai 'a flute, clarinet' < Persian *surnai* (Wilkinson 1959); also SM *pedang serunai* 'fencing rapier'
bəlambun	'many'	JI, JU, MIN	no dictionary match found
tulup	'blowpipe'	JI, JU	no dictionary match found
(k)əɲoʔ	'not'	JI, JU	no dictionary match found
gimbaŋ	'hide'	JU	no dictionary match found

3.11 Conclusion

In this chapter JM dialectal data have been presented toward a number of ends. First, a brief overview of JM phonology was given, including the question of JM's vowel inventory. It was concluded that JM retains the distinction between **ə* and **a* in penultimate position, and that areas on the Batanghari have evidently gained a phonemic split of high vowels, while JM sites in other areas have not. Tentatively PGH was identified as having five vowels like Minangkabau from a split of the high vowels **u* and **i* into two vowels each and a merger of **ə* and **o*. Next in this chapter the eleven distinctive Malayic innovations were presented with examples from JM, demonstrating both JI and JU's pedigrees as Malayic. The rest of the chapter was devoted to documenting innovations according to their geographical distribution: first those universally present in all JM areas sampled, then downstream (JI) and upstream (JU) innovations, followed by LK, Penghulu and Jambi Kubu. The import of these innovations and their implications in subgrouping have only been touched on briefly; it is the goal of Chapter 5 to take all the patterns that have been presented thus far and begin to apply them towards more clearly defining the relationships between the Malay varieties we are examining. But before that is done, Chapter 4 will discuss nasals and variable occlusion in JM. The discussion will examine preploded and postploded nasals, pre- and post-nasalized stops, intervocalic consonant clusters and consonant clusters formed by prefixation, and end with a mention of nasal deletion before voiceless stops.

4 “Plugged nasals” and “squishy stops” in Jambi

"What once was hurt
What once was friction
What left a mark
No longer stings
Because Grace makes beauty
Out of ugly things"
-U2, *Grace*

4.1 Introduction

R.A. Blust, in an excellent 1997 article "Nasals and nasalization in Borneo" discussed what he called preploded and postploded nasals, and documented the occurrence of these phenomena in a substantial number of languages, with a good concentration in Borneo, Sumatra and insular Southeast Asia (including Peninsular Malaysia). He built a solid theoretical framework to explain and categorize what he and other linguists have observed, as well as noting "residue" or patterns that were not immediately explainable by the theory. In Jambi Malay there are parallels to what he described in his article. The diversity of what is occurring in JM, however, seems to go beyond what was addressed in Blust's article, and so an attempt is made to expand the framework to accommodate this diversity of phenomena. My goal is a modest one: to propose and describe a system of categorization for these developments, but not to try to find airtight phonological explanations for them.

The vast majority of Blust's article was devoted to examples and discussion of the phenomenon of preploded nasals. A preploded nasal, as Blust used the term, is a nasal preceded by a brief homorganic stop, such as Selako (Borneo) *ba-jaa^{t}n* 'walk', which generally developed historically from a simple nasal. Blust demonstrated how the occurrences of these preploded nasals were connected with the feature of nasality or, more precisely, the lack of it. He explained that the vast majority of AN languages have onset-driven nasal harmony, which means if nasality is going to spread from a nasal consonant, it will spread primarily to the segment on the right rather than the left. So, in languages with preploded nasals, words without medial nasal consonants (like the Selako example above) will tend to have a final preploded nasal, while words with medial nasal consonants, like *taŋan*, will not.

Blust then spent a little more than a page describing word-medial "nasal postplosion", which is where historic consonant clusters consisting of a nasal + voiced stop experience a diminished prominence of the voiced stop. He illustrated these instances of nasal postplosion with Narum (Sarawak) *am^{b}iŋ* 'goat', *men^{d}au?* 'to bathe', *pin^{j}am* 'to borrow', and *puŋ^{g}ok* 'owl', and demonstrated how instances of nasality (or lack of) in the following vowel can be explained as allophonic based on the presence of occlusion.

As will be seen below, the diversity of seemingly related sound changes in JM exceeds what was treated in Blust's article, and squeezing all these phonation types into the two categories of preplosion and postplosion would be like trying to fit onto a Procrustean bed; something would get cut off. In Figure 4.1, I attempt to schematize the JM phenomena that all share one thing in common, which is an interaction of timing between velic occlusion and oral occlusion. Then in the sections following I will develop these categories.

On the left side of the diagram are the word-final phenomena, specifically final nasals with pre- or postplosion, and final stops with pre- or postnasalization. On the right are the word-medial phenomena, consonant clusters that partially or completely simplify to either just the nasal or just the plosive component. At least one variety of JM provides an example for each category, except for denasalized stops, which *is* however attested in Rawas to the south. The categories in gray are those discussed by Blust, which is where we will begin.

		word-final		word-medial
nasals dominant		**additive plosion**		**de-occluded nasals**
		preploded nasals	**voiced stops →**	word-medial nasal diphthongs (Blust's *postploded nasals*)
		postploded nasals		stem-initial nasal diphthongs
stops dominant		**additive nasalization** prenasalized stops postnasalized stops	**voiceless stops →**	**denasalized stops** plosive diphthongs

Figure 4.1 Schema of oral/nasal occlusion changes attested in JM

4.2 Word-final (additive) plosion

4.2.1 Preploded nasals

Word-final preplosion has already been briefly defined above, but the ways velic and oral occlusion interact needs to be elucidated. In a typical CVC syllable such as the second syllables in the words *kə-BAT* 'tie' and *ma-KAN* 'eat', velic and oral mechanisms work together to produce stops, vowels and nasals. Close both the velum and the oral cavity and one has a stop, such as *b*. Open the oral cavity (and optionally the velum) and a vowel like *a* is produced. Close the oral cavity again by placing the tongue tip on the alveolar ridge, and keep the velum closed, and the stop *t* is produced. Figure 4.2 illustrates this using just the parameters of velic and oral closure.

closure	b	a	.	t	.
velic	‾‾‾‾‾	_ _ _ _ _ _ _ _ _		‾‾‾‾‾‾‾‾‾‾‾	
oral	‾‾‾‾‾			‾‾‾‾‾‾‾‾‾‾‾	

Figure 4.2 *kəbat*

JM it will be seen has onset-driven nasal harmony, as is typical of AN languages (Blust 1997:151). So the strongest nasality on the vowel will come from a preceding nasal consonant (as in *jaŋ**at*** 'skin'), not a following nasal such as in *ma**kan***. Yet Blust discussed an inevitable contragrade nasality spreading from a nasal back into the preceding vowel, and it is this contragrade nasality that we see in the next figure.

closure	k	a	.	n
velic	‾‾‾‾‾‾‾‾	_ _ _ _ _ _ _ _		
oral	‾‾‾‾‾‾‾			‾‾‾‾‾‾‾‾‾‾

Figure 4.3 *makan*

Figure 4.3 gives a stop-vowel-nasal sequence. The oral cavity is blocked for the *k*, opens fully for the vowel *a*, then is closed again for *n*. The velum is also closed for the initial stop, then while the vowel is produced, the velum opens progressively wider in anticipation of the final nasal. This is contragrade nasality.

closure	k	a	^{d}	n	.
velic	‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾				
oral	‾‾‾‾‾‾‾		‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾		

Figure 4.4 *maka^{d}n*

Figure 4.4 shows the last syllable of the same word but with a slightly different phonetic quality, [maka^{d}n]. What produces this preplosion? In this case, the velum stays firmly closed from the syllable-initial consonant, through the entire course of the vowel, and into the beginning of the consonant, opening

only slightly after the oral cavity has closed as well. No contragrade nasality is produced. The difference between *makan* and *maka^{d}n* is simply a matter of the relative timing between the velic and oral closures.

Blust convincingly demonstrated how the languages in his sample differentiate between words with a nasal onset in the final syllable and those with a non-nasal onset. Non-nasal onsets such as *makan* above can have preploded nasals, while nasal onsets will have simple final nasals only, due to onset-driven nasality. I will illustrate this latter category with the nasal-onset word *taŋan* in Figure 4.5.

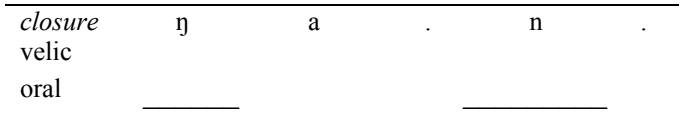


Figure 4.5 *taŋan*

Notice in this figure that the velum can be open for the entire syllable, producing in phonetic terms [taŋãn]. Because the velum stays open, there is no possibility of the final nasal being preploded. This pattern, and thus the hypothesis of non-phonemic, onset-driven nasality in this type of syllable, is consistent with JM areas that have preploded nasals: preplosion only occurs in non-nasal-onset syllables. See Table 4.1 for examples of this restriction in Mersam, the JM area with the greatest incidence of preploded nasals.

Table 4.1 Syllable onset and preploded nasals in MR

nasal-onset				**non-nasal-onset**			
PM *		**MR**		**PM ***		**MR**	
ənəm	>	nam	'six'	tajəm	>	taja^{b}m	'sharp'
inum	>	minum	'drink'	gəŋgəm	>	gəŋ^{g}ga^{b}m	'hold'
taŋan	>	taŋan	'hand'	ikan	>	ika^{d}n	'fish'
aŋin	>	aŋin	'wind'	əmbuŋ 'dew'	>	mu^{d}n	'fog'
(mb)a-rənaŋ	>	bə^{ɣ}naŋ	'swim'	uraŋ	>	uɣa^{g}ŋ	'person'

4.2.2 Postploded nasals

So far we have discussed word-final preplosion. There is one JM variety that shows a related but different development which I will call postplosion, which is when a final nasal ends in a stop. This phenomenon differs in two ways from the postplosion discussed by Blust (1997) and in §4.4 of this monograph where I call the same phenomenon described by Blust *subtractive plosion*. The first difference is that the postplosion described in this section occurs word-finally rather than word-medially. The perhaps more important difference is that these postploded nasals are diachronically derived from simple nasals, whereas Blust's postploded nasals are derived from consonant clusters.

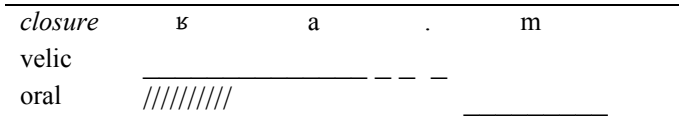


Figure 4.6 *garam* 'salt'

Figure 4.6 shows a schematic of how the final syllable of [gaʁam] is produced. Frication here is represented with [//////////]. The oral cavity is partially closed to allow uvular frication (ʁ), then opens for the vowel *a*, then closes again for the final consonant *m.* The velum is closed for the ʁ and *a*, then opens to allow the nasal *m.* Figure 4.7 is a similar schematic, but with a postploded nasal, giving [gaʁam^{p}]. Everything is the same as Figure 4.6 until the coda, when the velum also closes, producing an unreleased stop.

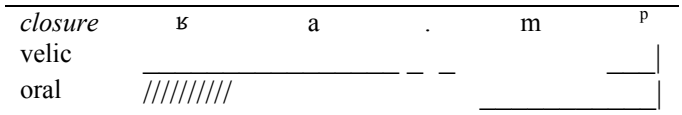


Figure 4.7 *garam*^{p}

I consider this phenomenon as very closely related to preploded nasals, their mirror image really. Evidence for this assertion comes from geographical distribution and nasality. Geographically, one can say that if a JM variety is going to have something funny about its final nasals, they will either be preploded or postploded, but not both. In terms of nasality, postploded nasals obey exactly the same rule as preploded nasals: they only occur after a non-nasal syllable onset. See Table 4.2.

Table 4.2 Syllable onset and postploded nasals in DD

nasal-onset				**non-nasal-onset**			
PM *		**DD**		**PM ***		**DD**	
ənəm	>	nam	'six'	garəm	>	gaʁam^{p}	'salt'
diŋin	>	diŋin	'cold'	tahun	>	tao^{n}t	'year'
(mb)a-rənaŋ	>	baʁɜnaŋ	'swim'	jantuŋ	>	jantu^{ŋ}k	'heart'

Why would postploded nasals follow a nasality rule? It is relatively easy to understand how the nasality of a word-medial nasal consonant would carry through the vowel and prevent plosion *before* the final nasal, but a little more difficult to conceive of how nasality perseveres from the nasal consonant, through the vowel, and on through the final nasal consonant. Or more specifically, it is difficult to conceive of how the *absence* of perseverative or onset-driven nasality might encourage the closure of the velum at the end of the final nasal. Yet that is what happens in JM, at least in one variety of it. It is probably this lack of compelling phonological motivation that explains why postploded nasals are much less common in the world's languages than preploded nasals.

One can notice a few things from the examples of Table 4.2. One is that for the DD final postploded nasals the plosives are voiceless. This is not surprising for a language that only has voiceless stops word-finally.

Another thing that one might notice is that the first example (bilabial) is transcribed with the plosive lower in prominence than the nasal, whereas the second (alveolar) and third (velar) are transcribed with the nasal lower in prominence. One would need instrumental tests and a larger sample to determine whether relative prominence is linked to place of articulation or other factors, but I can say with confidence that this does vary within the DD sample; in some words the nasal seems more prominent than the stop, in others the stop more than the nasal, and in some the nasal is so low in prominence it audibly disappears, leaving only the stop. For example, PM **hiduŋ* > DD *iduk.*

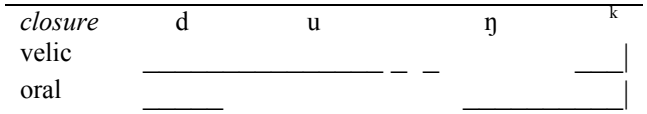


Figure 4.8 *iduŋ*^{k}

Figure 4.8 shows what velic and oral closure would look like where the nasal is of higher prominence than the stop: the velum closes only for a brief moment at the coda. Figure 4.9 illustrates the situation where the stop is of higher prominence: here the velum is open just briefly to produce the nasal before closing. Figure 4.10 shows what happens when the situation goes a little further and the velum does not open at all. The three figures here are clearly just arbitrary positions on a continuum, but the point is that all three of these positions are attested in DD.

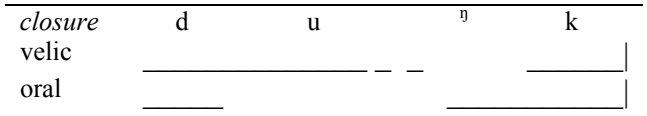


Figure 4.9 *idu^{ŋ}k*

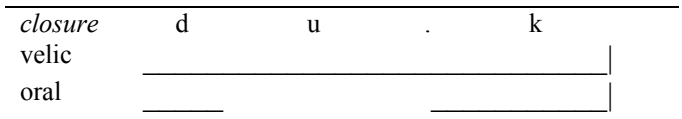


Figure 4.10 *iduk*

DD exhibits postploded nasals (or their extreme end-product, a simple stop) in over half of the possible words in the sample. One would think that postploded nasals could easily develop into stops; the principle of economy of movement would encourage the velum to stay closed rather than opening briefly then closing again.

Another JM area, Seling (SL), unsurprisingly dispensed with the pre/postploded phenomenon entirely and went to a simple stop in non-nasal-initiated syllables:

Table 4.3 SL final *nasals

PM *		**SL**	
SM harum	>	hup	'fragrant'
ma/kan	>	makat	'eat'
aŋjiŋ 'domestic animal'	>	aɲek*	'dog'

*The observant reader will have noticed that this final example seems to have a nasal as its syllable onset. Perhaps there is something in the sound or sound system of SL that preserves the synchronic affricate /j/ (discussed in §4.4.1; cf. Collins 1976:23 for a similar phenomenon in Kedah Malay).

SL exhibits these simple stops in nearly 100% of the possible words in the sample. This is certainly a striking change in the language and seems to have led to a chain shift in its phonology, as we will see in §4.3.

One can justifiably ask whether these simple stops of SL have developed historically from preploded or postploded nasals. Here is an example of how dialectology can be of benefit to historical linguistics. Blust (1997:157,159,160) concludes that certain languages with final stops in place of a historical nasal (Kendayan Dayak, Mentawai, Urak Lawoi') must have developed from preploded nasals. SL is Jambi's example of a similar-looking variety. If we only had SL as our sample for Jambi Malay, we might conclude *a la* Blust that it had had preploded nasals at some point which then simplified to plain stops. However, the fact that we have another JM sample (DD) with postploded nasals gives us reason to reconsider this assumption. As we have seen, DD occasionally has simple final stops like SL, but more often has postploded nasals. It has also been demonstrated how simple stops can easily develop from postploded nasals. In fact, this development is attested in Jambi (DD), while a development from preploded nasals to simple stops is not. ST's reflexes like SL are usually stops but are occasionally also postploded nasals. Collins (1998a:153) documents a similar progression in Hulu Tembeling, Pahang (peninsular Malaysia), where *m → [mp] → [p], *n → [nt] → [t], and *ŋ → [ŋk] → [k]. Given the close connections between SL and DD in this and other features such as discussed in §4.4 and §3.6.4, it seems a better than even chance that SL's simple final stops developed from postploded, not preploded, nasals.[62]

[62] Blust (1997:160) looked at the case of Urak Lawoi', which has the same distribution of original final nasals as SL, and stated, "Given this distribution and the facts in the other languages already considered, we have little choice but to conclude that final nasals in Urak Lawoi' passed through a stage in which they were preploded". With the evidence from DD and Hulu Tembeling, Blust may now have more choice.

We now come to the question of geographical distribution. Are pre- or postploded nasals found everywhere in Jambi? According to my sample, the occurrence of word-final additive plosion in Jambi is the exception rather than the rule. DD, SL and ST[63] have occluded nasals in well over half of the sampled items, while the area with the most preploded nasals is Mersam (MR), which has them in about half of the words where one could expect them to appear. Four other areas (ML, MP, DN and TK) have preploded nasals in about one-tenth of the possible items, and the rest of the areas either do not have any examples of preploded nasals or just one or two. If there is any pattern that could be inferred from this distribution it escapes me, except for the fact that they are all in Jambi. Table 4.4 gives a breakdown of occurrence according to area and phonological environment.

Table 4.4 Occurrence of pre- and postploded nasals sorted by frequency

Loc.	***-am**		***-(u,i)m**		***-an**		***-un**		***-aŋ**		***-(i,u)ŋ**	
SL	9/9	p	2/3	p	8/9	t	2/3	t	8/8	k	13/13	k
ST	most	p	most	p	most	t	most	t	most	k	most	k
DD	5/8	m^{p}	2/4	^{p}	7/9	^{n}t	3/3	^{n}t	0/8		10/13	k(6), ^{ŋ}k(4)
MR	2/9	^{b}m	2/3	^{b}m, m^{p}	5/10	^{d}n	1/4	^{d}n	4/8	gŋ	4/12	gŋ
ML	1/9	^{b}m	0/4		0/10		2/3	^{d}n	0/8		2/13	gŋ
MP	2/10	(^{ʔ}m)	0/4		1/9	^{d}n	0/3		0/8		0/11	
DN	0/9		0/4		0/10		2/4	^{d}n	0/8		1/13	gŋ
TK	1/9	^{b}m	0/4		0/10		2/3	^{d}n	0/8		0/13	
MS	0/9		0/4		2/10	^{d}n	0/2		0/8		0/13	
TT	0/9		0/4		0/10		1/3	^{d}n	0/8		1/12	
LK	0/9		0/4		0/10		1/4	^{d}n	0/8		0/14	
SS	0/9		0/4		0/10		1/4	^{d}n	0/8		0/12	
DT	0/9		0/4		0/10		0/3		0/8		0/12	
KK	0/9		0/4		0/10		0/3		0/8		0/13	

For the fractions in Table 4.4, the denominator is the total number of examples of a particular environment like *-*am* in my data, while the numerator is the total number of preploded nasals. So in the MR data, 2 of the 9 *-*am* words have preploded nasals, while 7 do not.

It is even possible that one could posit some sort of implicational hierarchy, for Malayic languages anyway, where if a language is going to have word-final additive (pre- or post-nasal) occlusion it will occur first in *-*n* and then in other positions. Blust did not address this issue in his article, but a scan of the examples he provided seem to indicate something like this. He provided examples from eight AN languages; of those eight, five were documented to have additive plosion in at least labial, alveolar and velar position (some also have in palatal position). Kendayan Dayak showed examples of alveolar and velar preplosion only, as did Tunjung. Rejang had examples of alveolar position only. (The non-AN languages he discussed do not have detailed enough examples to address this question.) The least we can say is that in Blust's article there is no AN counterexample to this possible implicational hierarchy.

Are there examples of pre- or postploded nasals in areas bordering the Batanghari basin? There is no evidence of them in Minangkabau (MIN1, MIN2 and Penghulu wordlists), nor in Kerinci, Kubu (KJ4 and KJ5), Serawai or Talang Mamak.[64] There is also no evidence of preploded or postploded nasals in Rawas, which I find rather surprising given its proximity to DD and the subtractive plosion found word-medially

[63] Sungai Tenang (Znoj n.d.).
[64] Talang Mamak is a Malay variety spoken in the interior of Riau Province and Jambi Province bordering Riau.

(see §4.4).[65] In short, I can find no evidence for pre- or postploded final nasals in Malay varieties immediately neighboring JM. Going a little further afield, though, preploded nasals can be found on Bangka island (Nothofer 1997), in groups in the Riau-Lingga archipelago (Blust 1997), and simple stops are the regular reflex of historical final nasals in Sakai in northern Riau (Kalipke & Kalipke 2001).[66]

In discussing the existence of nasal preplosion as an areal feature in Borneo, as well as within the Aslian (Peninsular Malaysian Mon-Khmer) language family, Adelaar (1995a) presented a case for language shift among speakers of Bornean languages (both Malayic and non-Malayic), either from Aslian or from an unknown third language. He adduced two pieces of evidence, one being shared lexical items and the second being nasal preplosion. Thurgood (1999:308) added a third piece of evidence, which was a phonological argument related to unexplained final glottal stops in Bornean languages. It is justifiable to ask whether the existence of pre/postploded nasals in JM and other non-Bornean areas should also be attributed to language shift from Aslian. Adelaar's answer was that this one phenomenon is not conclusive in itself without the confluence of corroborating evidence; other (more superficial) forms of language contact could also explain the spread of such an areal feature. Given that other corroborating evidence of Aslian influence seems lacking in JM, I am compelled to remain agnostic on precisely what type of contact, and from where, may be responsible for the behavior of final nasals in JM. Or, could it be, given the seeming uniqueness of the related phenomena in Jambi such as unconditioned additive nasalization discussed in the following section, that additive plosion there should be considered an independent innovation? Perhaps further studies can shed more light on this.

Now we have looked at the upper left quadrant in Figure 4.1 which includes both word-final preploded and postploded nasals. It has been shown that these two phenomena are closely related, but a phonological explanation for the appearance of one form in one area and the other form in others has not been attempted. Preploded nasals are probably much more common in the world's languages, but when a variety turns in the direction of postploded nasals, the resulting phonological developments may be more striking.

4.3 Word-final pre- and postnasalized stops

Some varieties of JM exhibit prenasalized stops, where there is at least some nasal consonant prior to the final stop. For example, PM **urat* > SS *uʁant* 'vein'.

In phonetic terms, the velum inexplicably opens sometime during the course of the vowel, and only closes sometime *after* the oral cavity closes, producing a nasal-unreleased stop sequence, as demonstrated in Figure 4.11.

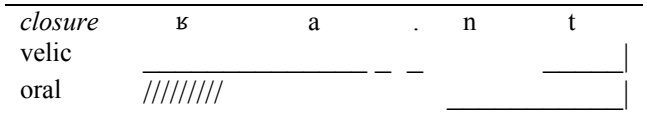


Figure 4.11 *urant*

One could understand if this prenasalization occurred after a word-medial nasal consonant. For example, in some Bornean Malayic varieties, there is "a strict allophonic relationship, whereby a final nasal is preoccluded following an oral vowel, and a final voiceless stop is prenasalized following a nasalized vowel (following a syllable initial nasal)" (Tadmor, p.c.). This is also the situation in Lom of Bangka Island (Smedal 1987) and Jakun of Peninsular Malaysia (Seidlitz forthcoming). Similarly, final *stops in the Austro-Asiatic (Central Aslian) language Jah Hut go to a nasal plus glottal stop in the presence of nasalization from earlier in the word (Diffloth 1976). These are all examples of *assimilatory* nasalization, the final stop assimilating to a nasalized environment. However, in JM varieties there seems to be no such

[65] Muko-Muko (Bengkulu Province) could also be investigated for this phenomenon. The lightly phoneticized wordlist given in Zainul Arifin Aliana *et al.* (1993) gives no indication of any occluded final nasals.
[66] I am not aware of evidence in Sakai that would help one determine whether the path to the simple stops was via preploded nasals, postploded nasals, or directly from the simple nasal.

connection, only apparently unmotivated free variation. Sometimes final stops following nasals are prenasalized, occasionally they are *post*nasalized, and sometimes they remain as stops. The same pattern, or lack thereof, goes for final stops following non-nasal medial consonants such as *l, r, p, b, k,* etc. For example, in SS we find some occurrences of prenasalization after word-medial nasals, but also occurrences after non-nasals, and non-occurrences after nasals too. See Table 4.5.

Table 4.5 Prenasalization in Suo Suo

nasal-onset				**non-nasal-onset**			
PM *		**SS**		**PM ***		**SS**	
jaŋat ? 'bark'	>	jaŋant	'skin'	uap	>	kuamp	'yawn'
laŋit	>	laŋit	'sky'	tulup ?	>	tulump	'blowpipe'

I have wavered on how to transcribe these words, particularly the final stops. To be honest I am not sure what is causing the post-nasal stop. Is it the velic/velum that closes and blocks off the air to the nose? Or is it the glottis that blocks the airflow? Is there some phonological clue, some aspect of symmetry that would predict one over the other? In the absence of an audible release, it is quite difficult to determine without machine testing or very cooperative native speakers. One could try to elicit a suffixed form, but since these prenasalized stops do not seem to be phonemic, they might just disappear before a suffix.

To make matters more interesting, varieties which prenasalize some final stops usually also postnasalize others. To continue we need to define postnasalization. Postnasalization as I am using it means that a homorganic nasal will appear *after* the final stop. For example, SS *cakap*^{m} 'speak', where an earlier form presumably is **cakap* (cf. SM *cakap*). Phonetically, it seems that the velum is closed during the vowel and certainly during the stop, and then opens briefly after the stop, perhaps as a result of air pressure, while the oral cavity remains closed. This produces a homorganic nasal. See Figure 4.12.

closure	k	a	.	p	^{m}
velic	_____	_ _		_____	
oral	_____			_____	

Figure 4.12 *cakap*^{m}

Following the above example, many of the postnasalized stops are voiceless. Voiced postnasalized stops in the JM data set only occur in two areas, DD and SL. For example, SL *uhadn* 'vein' < PM *urat*. Figure 4.13 shows the six JM areas (all upstream) where additive nasalization is present in the sample to a significant degree.[67] One will notice that prenasalization is the most common pattern, and that voiceless postnasalized stops are also frequent. SL is one of the most striking and also the most aberrant, with voiced postnasalized stops being most common, and reduction to simple nasals also frequent. So we see things like PM **hidup* 'live' > SL *idum*. In fact, the geographical distribution for additive nasalization bears a strong resemblance to that of additive plosion discussed in §4.2. As with that development, the three most prominent areas are SL, ST and DD, and DN is toward the high end also. But there are differences, one being that two downstream sites, ML and MR, do not show significant additive nasalization, whereas they do show significant additive plosion.

[67] MR, MP and KK (not shown) have a negligible amount of prenasalized words in the sample; the others have none.

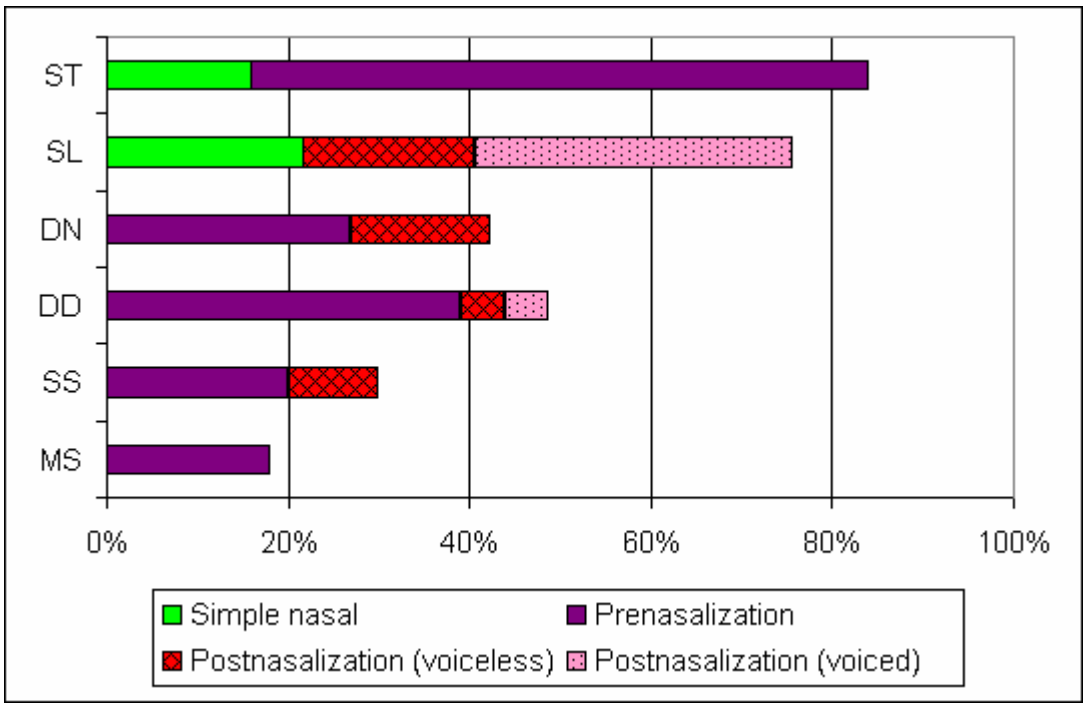


Figure 4.13 Additive nasalization in JM

Interestingly, an area close to TT, Desa Panjang,[68] also shows significant voiceless postnasalization. It was not added to the chart because its sample was too small for any sort of accurate percentage estimate.

What do we do with the bewildering variety of additive nasality shown in the JM sample? If the preplosion and postplosion discussed in §4.2 had variation, at least one area had either preplosion or postplosion but not both. DD did have both postploded nasals and simple stops (as well as unchanged simple nasals), but at least I was able to posit some sort of phonological motivation for that variation, and we could view it as a change in progress. But what is occurring with historical final stops in JM seems to defy explanation and flagrantly violate the Neogrammarian Hypothesis, which states that *sound change is always regular* (Osthoff & Brugmann 1878:xiii). One could chalk it up to the transcriptionist being a very poor phonetician, and it *is* certain that there are errors of that sort. The phenomena discussed here involve subtle and ephemeral details, details that I heard once then, when I asked the informant to repeat the word, disappeared. As mentioned in chapter 2, some wordlists were able to be rechecked using recordings, but listening to a medium-fidelity recording is definitely a step below face-to-face. Would clearer patterns emerge with something more consistent like instrumental testing? One would hope. But the fact is that studies in dialectology and historical linguistics often uncover apparent irregularities in sound changes that are difficult if not impossible to explain (e.g. Blust and others in Durie & Ross 1996). It should be mentioned that the vast majority of the sound changes mentioned here are on the *phonetic* level; few if any could be seen as phonemic. Thus one could assert that JM is still regular in its phoneme system, just (possibly) irregular in its allophony. Inasmuch as these phenomena are difficult to perceive, it could be argued as Blust does (Durie & Ross 1996:152) that irregularity in difficult-to-perceive environments is actually a symptom of physiological regularity, that people regularly misinterpret certain types of sounds, which then makes for irregular variants. In a way possibly not foreseen by the Neogrammarians, this is a sort of confirmation of their hypothesis.

As one will notice, in one of the most enthusiastic varieties (SL) additive nasalization occurs in about 75% of the sample, which means a quarter of the words have simple stops. DD has about half-and-half. Is

[68] Desa Panjang was not a primary data point so is rarely mentioned in this study. It is located approximately 10 km downstream from Tanah Tumbuh (TT) in Bungo regency, Tanah Tumbuh subregency. For the most part the language spoken there is the same as TT, but it does often feature postnasalized stops rather than simple stops as in TT.

there some other conditioning environment? Additive nasalization occurs before high vowels and low vowels, front vowels and back vowels, appears and disappears seemingly on a whim. The only variable that seems to correlate well with the presence or absence of additive nasalization is the position of the stop itself. Table 4.6 lists the percentage of additive nasalization in the three most active JM varieties broken down by position. In DD and SL, the percentage of historical final *alveolar* stops which have additive nasalization of some sort is significantly greater than that for *velar* or *labial* positions. ST's sample is not structured enough to give a percentage, but it is safe to say that most labial and alveolar stops have additive nasalization, while preceding final **k* [ʔ] there is none. DN seems to be exceptional in this regard, but my sample of **-p* words is quite a bit smaller than that of the others. There are also two areas (MS and PJ) for which the only recorded additive nasalization is in the alveolar position. We may go so far as to suggest that the implicational hierarchy posited in §4.2 for additive plosion may also exist for the phenomenon of additive nasalization.

Table 4.6 Percentage of additive nasalization by position

	*-p	*-t	*-k
DD	0%	52%	31%
SL	43%	77%	0%
DN	57%	47%	0%
ST	most	most	0%

Blust (1997) demonstrated how the presence of additive plosion in a language could have broader implications for its sound system. In SL, we have final nasals becoming stops, and final stops becoming nasals, and in other areas like DD, there is the possibility of paired homophones, for example between *antat* 'send' and *antan* 'pestle'. Suggestions for further research are given in the final chapter.

We now ask the same question asked at the end of §4.2: is word-final additive nasalization, unconditioned by the presence of a medial nasal, found in any Malayic varieties around JM? The answer is, not to my knowledge; in this feature Jambi Ulu Malay seems to stand out from its neighbors.[69]

4.4 Word-medial de-occlusion (subtractive plosion)

We have now covered the left hand side of the grid given in Figure 4.1 dealing with either additive plosion or nasalization in word-final environments. Now we move onto phenomena that are diachronically *subtractive* in nature; in other words taking two segments and making one. These phenomena are almost exclusively word-medial, although later stem-initial clusters will be treated.

4.4.1 Intervocalic consonant clusters

In nearly all Malay varieties, the only consonant clusters that are allowed phonotactically are intervocalic nasal + homorganic stop, and velar nasal + **s* (Adelaar 1992:102). This is also true in JM.[70] But there is a development that has occurred in both JU and JI, as well as Rawas to the south.[71] What has happened to the nasal + homorganic voiced stop is that it has fused to a single complex sound. Phonetically, what seems to be happening is the velum is open for the majority of the phone, and then during transition to the succeeding vowel it briefly closes, allowing air pressure to build up and "pop" out a stop as coda to the phone. I have rendered this phenomenon in imperfect phonetic notation as follows:

[69] [p], [t] and [k] do not occur word-finally in MIN, MUK and KER, which precludes them from exhibiting additive nasalization. Syahwin Nikelas *et al.* (1986) reported Pekal *ŋuam* < PM *uap* 'yawn', but I do not have the data to determine the extent of such nasalization in other **-p* words or if that nasalization extends to lexemes without medial nasals. There may be additive nasalization in some Riau *orang asli* Malay varieties (Gil, p.c.), but I am not aware of that possibility having been verified.

[70] It is not known whether there are N + **s* sequences in JM varieties; cf. §6.4.8.

[71] Yuslizal Saleh (1984:75)

ʁam^{b}ut	'hair'
pan^{d}aʔ	'short'
tuŋ^{g}u	'wait'

According to the articulatory schematic used frequently in this chapter, the medial VCCV of a canonical [rambut] ‘hair’ would look like this:

closure	a	m	b	u
velic	——— – –		———————	
oral		———————		

Figure 4.14 *rambut* (consonant cluster)

In this typical nasal-stop cluster, the velum is closed for roughly the same time as it had been open to produce the nasal consonant. Figure 4.15 gives [ʁam^{b}ut], a configuration common to JM:

closure	a	m	^{b}	u
velic	——— – –		———————	
oral		———————		

Figure 4.15 *ram^{b}ut* (partial de-occlusion)

There is just a brief moment where both the velic and oral cavities are closed. For this reason Blust (1997) labels this phenomenon a *postploded nasal*, since what is prominent is the nasal, with a slight plosion at the end. In this study I will more frequently use the term *nasal complex,* because this term brings to the forefront the concept of an articulatorily complex, yet unitary phoneme (discussed later in this section).

Besides the examples above, one could easily imagine a whole spectrum of possibilities, from complete denasalization of the cluster, producing a simple stop (Figure 4.16), to where there is a brief nasal before a complete stop (Figure 4.17), to the other extreme where the nasal is full but the stop is reduced (above in Figure 4.15) or even disappears completely (Figure 4.18).

closure	a	b	u
velic	———————————————		
oral		———————	

Figure 4.16 **rabut* (complete denasalization; not attested)

closure	a	^{m}	b	u
velic	——— – – –		———————	
oral		———————		

Figure 4.17 **ra^{m}but* (partial denasalization; not attested)

closure	a	m	u
velic	——— – –		————————
oral		———————	

Figure 4.18 **ramut* (complete de-occlusion; questionable in JM)

The truth of the matter is that half of this imaginary spectrum is simply not attested in JM, specifically the half where the stop is primary, and the preceding nasal is minimized or eliminated.[72] The nasal in JM is always at least as prominent as the stop, and often more so. A possible explanation for why this is the case is offered later in this section.

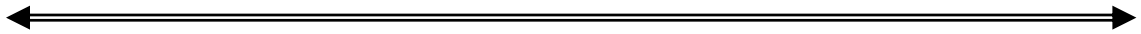
As one may notice from the examples given earlier, in word-medial position this phenomenon only occurs with consonant clusters involving *voiced* stops. Consonant clusters with *voiceless* stops remain two distinct phones, which is not too surprising given that two processes have to change in the switch from nasal to stop: velic closure and voicing.

We see a similar phenomenon as with the nasal-stop clusters occurring with palatal nasal + voiced alveopalatal affricates (**ɲj*), but instead of reduced prominence of the nasal we more often see complete de-occlusion:

aɲiŋ	'dog'
paɲaŋ	'long'

Other than the voicing restriction and word-medial position, there are no constraints on the occurrence of these historical consonant clusters cum postploded nasals cum nasal complexes – they can occur before or after any vowel, and do not seem to be affected by nasality as is the case with word-final nasals.

How often these nasal complexes occur and in what areas of Jambi they are found, however, are different matters. The various areas surveyed show a cline of prominence of the stop, from high prominence of the stop (equal to that of the preceding nasal), to such a diminished prominence of the stop that it disappears entirely. See Figure 4.19.



high prominence of stop			**low prominence of stop**
simple cluster N + voiced stop	mixed some lexemes are complexes, some are simple clusters	partial de-occlusion nasal complex	full de-occlusion stop disappears (simplex)

Figure 4.19 Prominence of the voiced stop in JM consonant clusters

Table 4.7 gives a breakdown by data point of the occurrence of de-occluded nasal complexes (label: *partial)* and simplexes (label: *full*) in my data as I perceived them. They are divided by place of articulation and sorted from least conservative (i.e. right of the cline in Figure 4.19) to most conservative (i.e. left of the cline). Two Penghulu areas surveyed (PA and BT) were generally at the far left of the cline, as were MIN1 and MIN2.[73] But only one of the eleven transitional or upstream Jambi Malay sites surveyed (KK) was on the far left of the cline, and that is an area showing closer connections with Minangkabau (see §3.8.2). Five areas – SL, MR, MS, DD and DN were positioned on the right side of the above cline, in other words, all or nearly all of the original consonant clusters were either partially or fully de-occluded. The other Jambi varieties including the two downstream sites and seven upstream sites locate at various points between the extreme reducers on the right of the cline and the Minangkabau varieties on the left.

[72] Prentice & Hakim Usman (1978:133) noted that in KER the nasal preceding a voiced stop will occasionally be lost. It is possible that this is also an occasional sound change in JM that would show up with a larger data corpus.
[73] It seems to be the case also that SWY, KJ4 and KJ5 are firmly in the conservative, non-de-occluding camp, but this appearance may just be due to a lack of data in general or of phonetic detail in the data.

Table 4.7 Occurrence of partial and full de-occlusion by area

	mb			nd			ɲj			ŋg			TOTAL		
	even	partial	full	even	partial	full	even	partial	full	even	partial	full	even	partial	full
KER	** *reduction reported in Prentice & Hakim Usman 1978* **												some		most
SL		6	1	1	6				3		3	1	1	15	5
MR		7	1	1	4				2		4		1	15	3
MS	1	6	1		6		3		1		2	2	4	14	4
DD	1	6	1		6		2		1		4		3	16	2
DN	2	6			4		1	1	2	1	4		4	15	2
MP	3	3	1	1	4		2	1	1	1	3		7	11	2
SS	5	4		2	4				2		2		7	10	2
LK	2	4		1	3	1	3			3	3		9	10	1
ML	2	3	1	2	2		1	1	1	3			8	6	2
DT	2	3		3	3		2	1		3		1	10	7	1
LT	5	4		3	3		1	3		5			14	10	
TT	5	2		3	3		2			2	1		12	6	
TK	6	2		4	2		2	2		2			14	6	
BT	6	2		3	1		2	1		4			15	4	
PA	7			5			3	1		4	1		19	2	
KK	7			6			1	1		5			19	1	
MIN1	7		1										7		1
MIN2	3		1										3		1
KJ4	3												3		
KJ5	2												2		
SWY	4												4		

Again, it is roughly the same constellation of JM areas which exhibit the more extreme changes as in the other phenomena we have examined. SL, DD and DN in particular are at the top of all three lists, and MR is at the top of the word-final postploded nasal list as well as this. Just as with additive plosion, this cluster reduction does not seem to be shared by JM's neighbors like MIN and TAL to the north, Kubu to the east or SWY to the south. However, the related phenomena discussed in this section are shared by KER to the west. Prentice and Hakim Usman (1978:133) reported that the most frequent KER pattern was for the stop to be completely de-occluded, which would make KER's degree of innovation more extreme than any JM variety. This innovation is also shared by Rawas, which is the Malay variety immediately to the south of JU, across the border in South Sumatra and part of the Musi tributary system. The authors reported that voiced consonant clusters are regularly partially de-occluded, and their data indicate that some lexemes fully de-occlude, for example [əmun] 'embun' (Yuslizal Saleh *et al.* 1984:57).

Blust (1997) wrote that many languages, particularly in Borneo, featured either partially or fully de-occluded historical consonant clusters. Often the plosives have de-occluded so far that they are perceptually nearly identical to regular nasals. The best way to identify them in these cases is to determine whether or not the vowel after the nasal consonant is nasalized or not. If the vowel is nasalized, the nasal is normal, but if it is not nasalized, that is a clue that the consonant is a nasal complex (although the plosive may be perceptually invisible). Durie wrote about "funny" nasals in Acehnese, spoken in northern Sumatra, and stated that the following vowel is not nasalized, and that these "funny" nasals "correspond diachronically with prenasalized voiced stops in other Austronesian languages" (1995:412). Much closer to JM and

therefore more intriguing is what is reported for Rejang, Rawas' immediate neighbor to the west (but not contiguous with JM). J. Coady and R. McGinn, in a 1982 paper entitled "On the so-called implosive nasals of Rejang" discussed a phenomenon they call "barred nasals". After a lengthy discussion on the phonetics of these barred nasals, one of the conclusions they considered was that "the barred nasal…is a pseudo cluster /mb/ [diachronically **mb* -KA] with only the briefest of velic closures. That is, /m̄/ =[mmmmb], where each phonetic symbol represents ten milliseconds of closure." They showed evidence that these Rejang barred nasals "have developed from intervocalic clusters of a nasal followed by a voiced stop". In this phenomenon, then, JM and RAW show tendencies for what in Rejang has fully and consistently developed.[74] It is not clear whether the KER nasals which are historically derived from consonant clusters (described by Prentice & Hakim Usman 1978) would show phonetic differences from "plain" nasals.

Further away, Collins (1976) much earlier documented similar yet different phenomena in Kedah Malay (Langkawi). He noted that some speakers seemed to exhibit a de-occlusion of consonant clusters followed by a nasalized vowel, while others did not, and that the reason for the variation was not immediately apparent. The fact that this development is so variable in JM is also puzzling. One possible hypothesis is that this feature has spread from Rejang to JM via RAW, and being that JM is also in contact with more standard varieties of Malay, this development exists as an optional rather than mandatory feature. Or, as Blust (1997) suggested, this phenomenon may often (incompletely) pair with preploded (and I might add, postploded) final nasals.[75]

In most JM areas this feature is optional *between* lexical items; in other words, when, say, *rambut* is elicited, the stop shows low prominence, but when another item is elicited, say *tembak,* the cluster is even in prominence. But this feature is also optional *within* items; so using the previous example, if *rambut* 'hair' is elicited, the native speaker gives [ʁam^{b}ut], but then if she is asked to repeat it, she may say [ʁambut]. Sociolinguistically therefore this feature in JM is rather shy; as the speech register becomes more formal, the odds drop of getting a nasal complex. This could be due to the influence of standard varieties of Malay like Indonesian as discussed briefly in §1.4.8.

As mentioned earlier, this de-occlusion in JM is restricted to voiced stops only. Consonant clusters with voiceless stops consistently show equal prominence between the two members of the cluster – there seems to be no innovation. This is consistent with other languages with medial nasal complexes.

I wrote above that there is a possibility that these complex segments in JM could be considered unitary phonemes; i.e. an /m^{b}/ phoneme, an /n^{d}/ phoneme and an /ŋ^{g}/ phoneme, nasal consonants with a plosive "offglide".[76] Certainly some of my language consultants expressed the perception that this was one sound, not two. Kalipke & Kalipke (2001:XXXIII) also noted the same for Sakai (Riau), stating that voiced consonant clusters were actually one sound and could not be decomposed. This complex concept could go some way toward explaining the conundrum mentioned earlier, which is that if anything is going to be lowered in prominence, it is the voiced stop and not the nasal. If they are nasal complexes (versus "stop complexes"), the nasal is at the core of the phoneme and less likely to undergo change.

In Figure 4.18, I marked the attestation of forms like [ramut] as questionable. While there are many instances in JM of medial clusters that seem to simplify completely to a nasal, e.g. ML [temaʔ] 'shoot', is this really the case? Have these clusters completely simplified, or is there still a trace of the original plosive, as in Rejang? See the final chapter's section on suggestions for further research. Also to be found there is an exhaustive list of putative phoneme simplexes in JM.

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[74] My data are not very helpful when it comes to the issue of nasality and whether vowels following nasal complexes differ from vowels following regular nasals. Being a native of the Upper Midwest of the United States, I am "nasally challenged" in identifying nasality in languages.

[75] Lom (Smedal 1987) exhibits both preploded final nasals and (apparently) fully de-occluded clusters of a nasal + *voiced stop.

[76] Other examples in Malay of complex phonemes are the bi-segmental affricates *c* and *j*, both phonetically consisting of a stop plus fricative.

4.4.2 Morphophonemics – stem-initial nasal complexes

There is a morphophonemic change that occurs in Jambi Malay that may be a corollary of the decrease in prominence of voiced stops mentioned above. In Standard Malay and many other Malay varieties, there is a distinction between voiced and voiceless stem-initial obstruents in how they assimilate (de-occlude) to the *meN-* or *peN-* prefixes. Voiceless obstruents undergo a homorganic nasal substitution, while voiced obstruents do not. Hence:

Table 4.8 *meN-* prefix and stem-initial assimilation in SM

voiceless	**voiced**
meN- + putar = memutar	meN- + baca = membaca
meN- + tikam = menikam	meN- + dengar = mendengar
meN- + karang = mengarang	meN- + gelegak = menggelegak

However, in JM not only do voiceless obstruents get replaced by a homorganic nasal but voiced obstruents as well:

Table 4.9 *(ma)N-* prefix and stem-initial assimilation in JM

N- + baco 'read'	=	maco, or occasionally m^{b}aco
N- + dəŋaː 'hear'	=	nəŋaː
N- + jait 'sew'	=	ɲait
N- + gələgaʔ 'boil'	=	ŋələgaʔ

To my knowledge, this was first mentioned as true for JI in Wiryatmojo (1983). I did not track this phenomenon carefully in my data, so I am not able to discuss distribution within JM except to say that it is documented in both JU and JI. In terms of distribution outside of JM, I have not found any trace of this in the varieties to the north and west of JM (TAL, MIN and KER) except for further away in Sakai, but this process does seem to be operative in RAW as well as SWY (Adelaar 1992:18) and Pekal[77] (Syahwin Nikelas *et al.* 1986).[78] It would be interesting to explore further how closely this stem-initial de-occlusion corresponds with the word-medial de-occlusion discussed earlier. The two phenomena co-occur in JM, RAW and Sakai but not evidently in SWY. They co-occur in Kedah Malay (Collins 1996), but evidently only the stem-initial development exists in Sarawak Malay (Newman 1989). My sense is that, if these phenomena are related it is only distantly, given that in one, the voiceless stop component is completely unaffected, while in the other, the voiceless stop is consistently assimilated. See §6.4 for a suggestion on further research.

4.5 Word-medial denasalization (subtractive nasals)

Something very interesting occurs as a regular sound change in the contiguous Malay varieties RAW, MUK and Pekal, as well as non-Malay languages, Rejang and some Lampungic varieties, and it would seem to fit in our schema as a subtractive word-medial change. In these varieties, word-medial nasal plus voiceless stop clusters are denasalized, reducing to the stop only. For example, in RAW, as shown in Table 4.10, we see:

[77] Pekal is a Malay variety used by approximately 10,000 speakers and located between the Muko-Muko and Rejang areas on the west coast of Sumatra, i.e. southwest of Jambi.

[78] Nothofer (1995:92) reported a similar "package" of morphophonemic processes, with the same loss of all verb-initial consonants when *ŋ-* is prefixed, however before *r-, l-, m-, n-, ɲ-, w- and y-* the prefix appears in the form *ŋə-*, similar to Balinese. He seemed to claim that this set of processes, *including* the *ŋə-*, is found in Bangka Malay, Palembang Malay, SWY, Iban (northwestern Borneo) and possibly Jakarta Malay. However, Adelaar (1992:160, elsewhere) reported the *ŋə-* prefix as productive in Jakarta Malay but with only limited distribution in Iban (preceding *l-* and *r-* only) and not at all in SWY, so perhaps I am misinterpreting Nothofer's relatively brief comments. As far as I am aware, *ŋə-* is not a productive prefix in any Jambi Malay variety.

Table 4.10 Denasalization of clusters with voiceless stop in Rawas Malay

PM *		**RAW**	
səmpit	>	səpit	'narrow'
bintaŋ	>	bitaŋ	'star'
lantay	>	latay	'floor'
laŋkah	>	laka	'step'
SM tiŋkat	>	tikat	'level'

The same process has occurred in Muko-Muko, as seen in Table 4.11.

Table 4.11 Denasalization of clusters with voiceless stop clusters in Muko-Muko

PM *		**MUK**	
əmpat	>	peʔ	'four'
jantuŋ	>	jatuᵊŋ	'heart'
bintaŋ	>	bitaŋ	'star'
SM rantiŋ	>	ʁatiŋ	'twig'
SM kancil	>	kaci	'mousedeer'

So why bring this up in a study on JM? It has already been stated that JM regularly retains PM N + voiceless stop medial clusters. Besides wanting to fill in the last quadrant of the matrix, it is fair to ask if there is any trace of this in a JM variety. As it turns out, there are a couple of leads. The first is that SL has a less-prominent nasal in about a third of the *-*nt*- sample. SL could be in the early stages of a change that has reached full fruition in RAW. One other lead, less likely but still worth mentioning, is that there are at least a couple of doublets common in JM: *campaʔ/capaʔ* 'throw', *muntah/mutah* 'vomit', but the latter's nasal is noted by Adelaar (1992) as being optional in PM also. Overall, we can say that this subtractive nasal development is not present in JM and thus is a significant disjunction between JM and RAW or MUK.

Could it be that this phenomenon is connected to other parts of the matrix (Figure 4.1)? RAW it was seen, does not seem to share in the left, word-final side of the matrix, but it is represented in both word-medial quadrants, both voiced and voiced stops. Is it possible that the occurrence of the reduction of voiced stops in word-medial clusters would also predispose a language toward denasalization of voiceless stops in word-medial clusters? Perhaps a way to answer that question would be to look for related developments in other languages, as Blust has done for postploded nasals. This search will not be attempted here.

4.6 Conclusion

The main contribution of this chapter to the study of Austronesian linguistics will not be to the realms of phonetics, in hypothesizing the articulatory processes that are occurring in JM variable occlusion. That has been done already and better by others, some mentioned above. Nor will it be to phonological theory for the rather *ad hoc* classification of these phenomena given at the beginning of the chapter, the terminological system attached to them, or any explanation as to why these phenomena occur in such a way in JM. If there is any profit to this chapter it is probably as an extension of Blust (1997), a documentation not only of phonation patterns such as described in his article but also of other phonation patterns, some of which must be related in some way, and discussed not in isolation but considered in broader perspective.

It was demonstrated in this chapter that, not only is word-final *pre*plosion conditioned by the presence or absence of a word-medial nasal consonant (as Blust demonstrated), but that *post*plosion seemingly operates under the same constraints as well.

Blust provided circumstantial evidence that word-final preplosion is related to word-medial nasal complexes based on the fact that they often co-occur in language varieties. Blust's line of evidence can be extended to JM: the patterns of geographical distribution of these two phenomena (extended to word-final postplosion as well) bear a strong resemblance to each other. I argue here that the two broad groupings of

word-final phenomena, nasals with additive plosion (pre- and post-), and stops with additive nasalization (pre- and post-), also have a high likelihood of being related. There are two main pieces of evidence for this assertion, both having to do with how they are distributed. The first is that these two classes of phonation types have quite similar *geographical* distribution. I speculated that, in SL and DD, areas with more extreme changes occurring, the presence of additive plosion may have triggered additive nasalization in some sort of phonological chain shift. The reason I would suggest that additive plosion forms the trigger (rather than the reverse) is that there is a clear phonological motivation for this phenomenon, while there is not the same evident motivation for additive nasalization. Left unexplained, however, are the cases (e.g. MS and SS) which have additive nasalization but not additive plosion. The second piece of evidence is *articulatory* distribution: in both classes an implicational hierarchy was asserted, where if a variety is going to have additive plosion or nasalization, it will obligatorily occur in the alveolar position and optionally in labial or velar position.

The question of whether the morphophonemic lowering of prominence of stem-initial voiced stops is related to word-medial nasal diphthongs was left open. Notwithstanding its inclusion in the schema of oral/nasal occlusion changes given in the introduction, there does not seem to be strong evidence that this phenomenon is related. Perhaps future researchers can discern a connection not seen here.

Discussed finally was the phenomenon of word-medial denasalization of voiceless stop clusters. This phenomenon was documented to occur in Rawas, Pekal and Muko-Muko to the south and west of JU but not in JU itself, with the possible partial exception of SL. It is not therefore considered that this innovation is phonologically related to the de-occlusion of medial nasal clusters.

5 Language Relationships and Mapping

"We're one, and we're not the same"
-U2, *One*

5.1 Introduction

The problem with dialectology is rarely having enough data; the problem with dialectology is having more data than one can handle. So far in the monograph a small and carefully selected sampling of data has been presented, but still large enough to potentially tax a reader's limits. The goal in this chapter is to apply the data so far presented in laying out general network patterns within Jambi Malay varieties, and between them and other language varieties around them and related to them. As this is done it will be good to keep in mind that establishing dialect boundaries is a difficult and somewhat arbitrary task. As W.N. Francis writes, "The truth is that dialect boundaries are usually elusive to the point of non-existence" (1983:1). Yet this does not negate the existence of dialects; it is often very obvious that there are dialect *centers*, just not where the borders are. As we go through the process of looking for patterns of innovations, we will hearken back to the discussion in chapter 1 about shared innovations due to *migration* versus those due to *diffusion*, and make some conjectures as to what the patterns of innovations in this area seem to indicate.

First we will look at the data in terms of diffusion of lexical items and percentages of shared cognates. Then we will move on to an examination of specific shared innovations and their implications for mapping out dialects, focusing mostly on the relatively stronger innovations at the phonological level (Trudgill 1986:25).

5.2 Lexicon and Lexicostatistic evidence

A complete percentages matrix of the thirteen JM varieties, three PGH varieties, plus MIN1, MIN2, KER, KJ3-5, SWY, SI and PM, is given in Table 5.1. As discussed in §2.6, we should not expect lexicostatistics to give us any more than very preliminary hypotheses regarding genetic relatedness, but it should do better in illuminating patterns of contact, illustrated by lexical borrowing. Several things stand out from a lexicostatistical analysis of the 200-item Basic Wordlist.

Table 5.1 Lexicostatistic matrix of languages in sample

	PM																						
SI	**86**	**SI**																					
SWY	**83**	79	**SWY**																				
MIN1	68	69	68	**MIN1**																			
MIN2	74	76	70	80	**MIN2**																		
KER	81	**82**	79	74	**83**	**KER**																	
LK	73	75	73	67	77	76	**LK**																
PA	74	75	77	73	81	77	80	**PA**															
BT	66	66	69	76	80	74	74	**84**	**BT**														
DD	74	73	77	69	77	78	79	**84**	77	**DD**													
MS	72	72	74	71	76	77	76	**84**	**83**	**82**	**MS**												
MP	69	69	73	70	76	75	77	**83**	**82**	**84**	**85**	**MP**											
KK	74	74	76	70	78	80	80	**83**	80	**88**	**85**	**85**	**KK**										
SL	73	73	75	71	81	80	78	**85**	**82**	**84**	**86**	**86**	**86**	**SL**									
DN	70	70	71	69	77	76	80	81	79	**84**	81	**84**	**85**	**86**	**DN**								
TT	75	75	74	72	78	**82**	80	**86**	81	**85**	**85**	81	**86**	**88**	**85**	**TT**							
LT	67	68	69	72	75	73	75	**83**	**85**	79	**84**	81	**82**	**83**	**84**	**85**	**LT**						
TK	72	74	73	68	77	77	78	**85**	76	**82**	79	81	81	81	80	**84**	76	**TK**					
SS	74	78	74	67	76	73	81	**83**	76	79	78	77	80	78	79	**83**	79	81	**SS**				
MR	72	76	72	67	75	75	**82**	**82**	76	80	80	77	79	**82**	81	**88**	79	**82**	**84**	**MR**			
KJ4	69	73	70	66	75	76	75	77	72	79	74	76	78	80	76	**82**	74	78	76	**84**	**KJ4**		
DT	76	78	73	62	72	74	77	76	68	75	73	70	75	78	72	79	72	76	79	**83**	75	**DT**	
ML	75	80	72	65	73	76	76	77	69	73	73	69	75	76	71	79	71	75	79	78	74	**84**	**ML**
KJ3	73	73	75	66	74	78	75	76	72	75	75	71	78	78	74	79	73	74	75	79	**83**	75	74	**KJ3**
KJ5	71	74	73	65	72	77	75	77	72	77	75	73	78	78	75	80	73	77	77	81	**83**	73	73	**87**	**KJ5**

Note: Lexicostatistic percentages 82% and above are marked in bold; those below 70% are marked in red.

5.2.1 Relationships within JM

There is a divide between JI and JU in the inventory of basic lexical items, also discussed in §3.6.6. From a lexicostatistic perspective and as Table 5.2 demonstrates, on the Batanghari river we see a fairly classic example of a dialect chain, where point A (ML) links to point B (DT), which links to point C (MR) which links to point D (SS), which links to point E (TK), but where point A doesn't link closely with point C, point B with point D, etc. That villages on the Batanghari show evidence for the hypothesis that the river system has an influence on dialect patterns is unsurprising in that the Batanghari is the largest and most navigable river in the basin. LK, also included in the table, is not a Batanghari site but is the furthest downstream of the southern JU sites sampled.

The following JU areas all have relatively high percentages of shared cognates one with another: DD, MS, MP, KK, SL, DN, and TT, ranging from 81% to 88%.[79] We can preliminarily call this the JU Cluster (JUC). Of these seven locations, KK, SL and TT stand out as "hub" areas, with high percentages of shared cognates (PSC) with nearly all the other areas in the group. These three, interestingly, also exhibit the highest shared percentages with KER out of any varieties treated.[80]

[79] PA and LT by virtue of the bare numbers probably deserve to be part of this cluster, but they will be considered separately on account of the strong phonological innovations separating them from JU varieties.
[80] It should be noted that KER also has high percentages with MIN2, SI and PM.

LK could be considered a peripheral area to the Jambi Ulu Cluster, not surprisingly given its number of shared cognates with JI.

Table 5.2 Distribution of non-upstream lexical items

gloss	JI form	ML	DT	MR	SS	TK	LK	JU form(s)
'3S'	dioʔ	+	+	-	-	-	-	ɲo
'call'	səru	+	+	-	-	-	-	imbaw
'blow'	tiup	+	+	-	-	-	-	əmbus
'hide'	səmuŋi	+	+	-	-	-	-	suruʔ, imbaŋ
'push'	doroŋ	+	+	-	-	+	-	tulaʔ, tundo
'pay'	bayar	+	+	+	-	-	-	bayiᵊ
'laugh'	tətawo	+	+	+	-	-	-	gəlaʔ
'forest'	utan	+	+	+	-	-	+	rimbo
'fat'	gəmuʔ	+	+	+	-	-	+	gəpuʔ
'big'	bəsaʔ	+	+	+	+	-	-	gədaŋ
'mother'	əmaʔ	+	+	+	+	-	-	induʔ
'pig'	babi	+	+	+	+	-	+	jukut
'dirty'	kotor	+	+	+	+	-	+	kumoh, kubaŋ
'mouse'	tikus	+	+	+	+	-	+	məɲcit
'red'	merah	+	+	-	+	+	+	abaŋ
'fight'	batiŋju, babalah	+	+	+	-	+	-	bacəkaʔ
'short'	pendeʔ	+	+	+	+	+	-	pandaʔ
'left'	kiri	+	+	+	+	+	+	kidaw

TK and MR, and to some extent SS, also could be classified as being on the periphery of the Jambi Ulu Cluster based on percentages of shared cognates. For example, TK has roughly the same amount of shared cognates with TT, DN, SL, KK, MP, DD and PA, as it does with SS or MR. This is true to a lesser extent with MR and SS, and is suggestive that the influence of the river in dialect determination becomes progressively weaker as one moves upstream.

The JU cluster (averaged) and JI share a relatively low 74% of the 200-item wordlist. Another contributor to this relatively low percentage, beyond the words listed above, are the various Javanese loans in JI discussed in chapter 3.

5.2.2 Relationships with other varieties

The percentage of shared cognates between JI (ML and DT averaged) and Standard Indonesian is 79%, while the PSC between the JU cluster averaged and SI is 73%.

The three Penghulu villages, PA, LT and BT, by virtue of some highly salient shared Minangkabau lexical items such as [cieʔ] 'one' and [ambo] '1P' (see §3.8.3), are slightly outside the central JUC, with PSCs with JUC at 84, 83 and 81 respectively. They therefore show links to each other (83–85%) equal or stronger than their links with members of the JUC. PA and BT also show modestly strong links to MIN2 (and to a lesser extent MIN1), but still lower than with JUC. We will see later that the phonological innovations do not exactly mirror this lexical pattern, painting a picture of close genetic links between Penghulu and Minangkabau but not with neighboring JU varieties (see §5.4.1). Does the apparent mismatch between the percentage of cognated and the shared innovations from reconstructed phonology mean that either lexicostatistics or the comparative method is flawed? Not necessarily, in fact having the two separate measures can be a good thing. Put simplistically, in this case the comparative method demonstrates that Penghulu varieties are genetically descended from Minangkabau, while lexicostatistics shows that, since

immigrating to Jambi, speakers in these villages have had substantial contact with both other Penghulu villages as well as with Jambi Malays, leading to substantial sharing of lexical items.

In terms of PSC, coastal MIN1 barely figures in the Jambi language situation, while highlands MIN2 is usually several percentage points better. MIN2 and KER both have an average of 78 PSC with the seven core JUC sites (PA and LT excluded as Penghulu villages). This is not low but not remarkably high either. To give a little perspective, both PM and SI average 72 PSC with the same seven sites, while SWY scores 74. There seems to be a rough negative correlation between similarity and distance.

Not surprisingly, the highest PSC with SI is ML (80), with other Batanghari sites DT (78), MR (76), and SS (78) right behind. Compare Chambers and Trudgill (1998) for a discussion of how innovations travel from major urban center to major urban center; Jambi city is the largest city in Jambi Province and the most cosmopolitan. We can probably say many of the lexical similarities with SI are innovations rather than the upstream having innovated away from the standard, due to the urban phenomenon cited above, and also because PSC between JU varieties and PM are not very different upstream (72) than downstream (75.5). This subject is discussed further in the section on phonological innovations.

Kubu areas KJ3, 4 and 5 show strongest linkages to each other, not surprisingly, given the cultural issues involved. Specifically, KJ3 and KJ5 are closely linked, and KJ4 is more peripheral.

KJ4, somewhat surprisingly, has roughly the same percentage of shared cognates (84) with MR as it has with KJ3 and KJ5 (both 83). Looking on a map, the description given by the authors of the Kubu study (Maryono 1997) places KJ4 to the south of Bukit Duabelas, and therefore close to LK. In terms of shared cognates, though, there is nothing suggestive of a close relationship between LK and KJ4. The high percentage shared with MR, however, suggests that the group (or language consultant, anyway) identified as KJ4 has spent substantial time to the *north* of Bukit Duabelas, in areas neighboring MR.[81] We will see later in the chapter how these varieties are separated by a gulf of phonological innovations, so I will assume that the apparent lexical closeness is due to relatively low-level contact and borrowing rather than common genesis.

Saidat Dahlan *et al.* (1985) also included lexicostatistical analyses of Malay varieties in Jambi and Riau. Most points in Jambi were between 80–90% cognate with various Riau Malay varieties, the notable exception being Kerinci, which regularly scored around 70%.[82] The PSCs between JM and Riau Malay seem high, but they did not include their entire wordlists so these numbers cannot be verified.

The truth is that lexicostatistics does not necessarily support our somewhat *a priori* assumption of JM as a discretely bounded speech variety. If this assumption were true we would expect to see higher percentages between JM varieties than with others outside. This is the case between members of the JU cluster and between JI members ML and DT, but this breaks down between JI and JU. JI is actually closer lexicostatistically, for example, to SI (79%) than to JU (average 74%), and roughly the same as with KER (75%), SWY and MIN2 (both 72.5%) and Jambi Kubu (3, 4 and 5 averaging 74%). While it is too early to start throwing out hypotheses on the basis of shaky lexicostatistic evidence, something we will explore later in the chapter is whether "Jambi Malay" has any validity as a linguistic entity. As discussed in §2.6, lexicostatistics is a blunt and unreliable instrument for subgrouping and therefore can only suggest relationships. For this reason we will seek to confirm or disconfirm our findings in this section using phonological innovations in the rest of this chapter.

[81] This underlines the criticalness of one's choice of language consultants, more so perhaps in the lexical area and lexicostatistics than in terms of the phonology.

[82] Some of the lower percentages assigned by the authors for Kerinci are probably due to the major phonological changes that have occurred in KER and obscured cognacy with the Riau Malay words; cf. Prentice and Hakim Usman (1978) for more verifiably accurate statistics.

5.3 Historical-comparative evidence

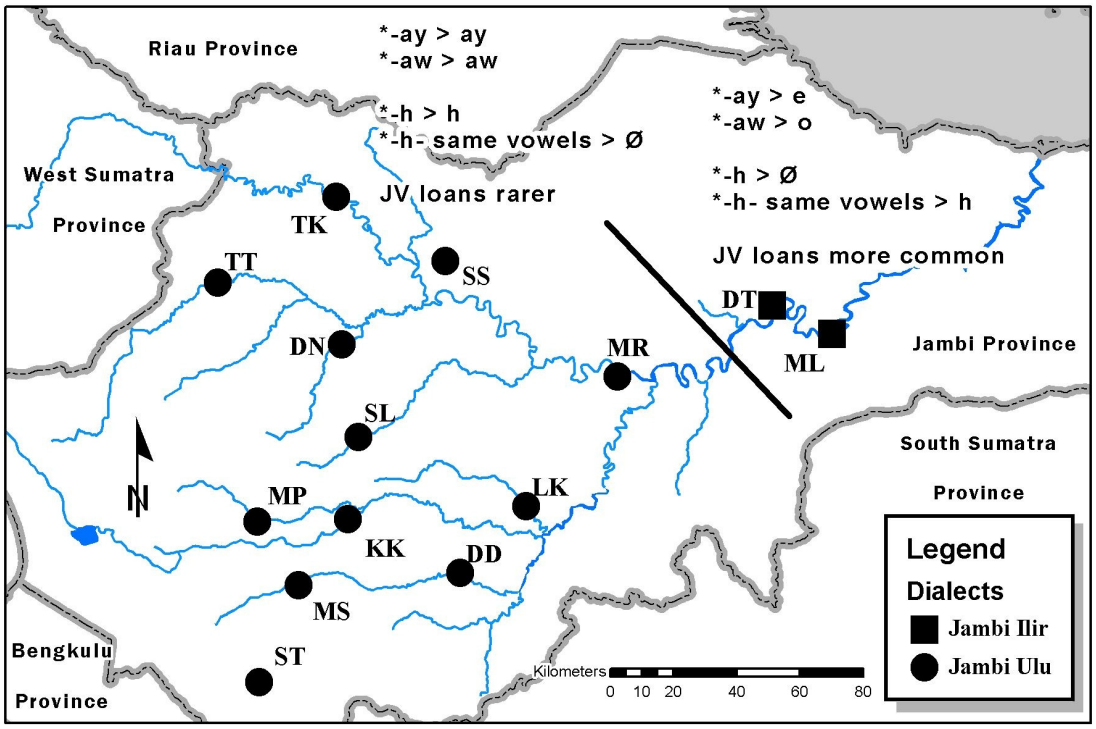
In the remainder of this chapter the focus will be on innovations only, not innovations mixed with retentions as in the previous section, and especially on phonological innovations, which are less easily borrowed than their lexical counterparts and thus can allow us to probe deeper into the past for evidence of relatedness. In the following sections are laid out several innovations that have been highlighted in Chapters 3 and 4, with a particular emphasis on showing the geographical spread of these innovations through the graphical medium of maps. (See Map 5.4 for general orientation.)

5.3.1 Innovations dividing JI and JU

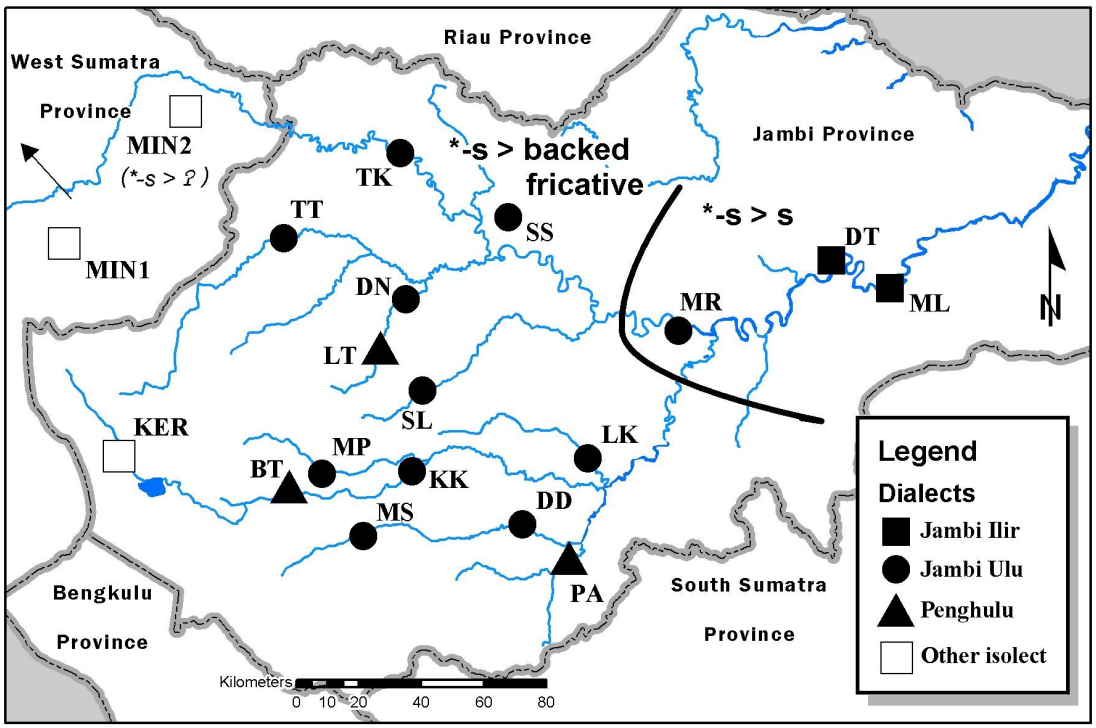
The clearest boundary we can draw within JM varieties is between downstream and upstream Jambi. There are six features that stand out as differences:

- the JI monophthongizing innovation *-*aw* > *o*, *-*ay* > *e* discussed in §3.5.1.
- the JI innovation *-*h* > Ø discussed in §3.4.3
- the greater incidence of apparent JV loans in JI.
- the JU *-*s* > [backed fricative] innovation discussed in §3.6.5.
- the JI split of high vowels **i, u* into high and mid vowels, *i, e* and *u, o* respectively. Although the innovation is found all along the Batanghari river, this can be considered a JI/JU difference based on the discussion in §3.2.4.1.
- a divide between JI and JU in the inventory of basic lexical items, discussed above. As was seen in Table 5.2, the pattern of distribution mirrors that of the high vowel split, with the addition of LK as an area seemingly showing strong influence from downstream.

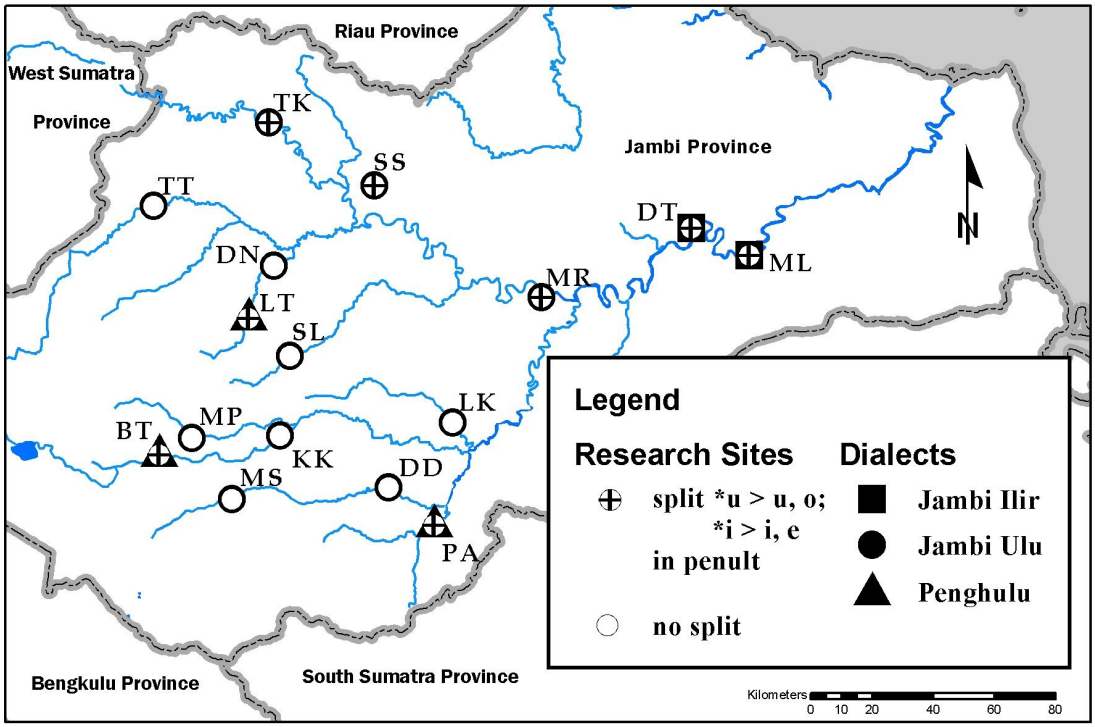
Refer to Map 5.1, Map 5.2 and Map 5.3 for further illustrations of the boundary between JI and JU.



Map 5.1 Three innovations separating upstream and downstream JM



Map 5.2 *-*s* in central Sumatra

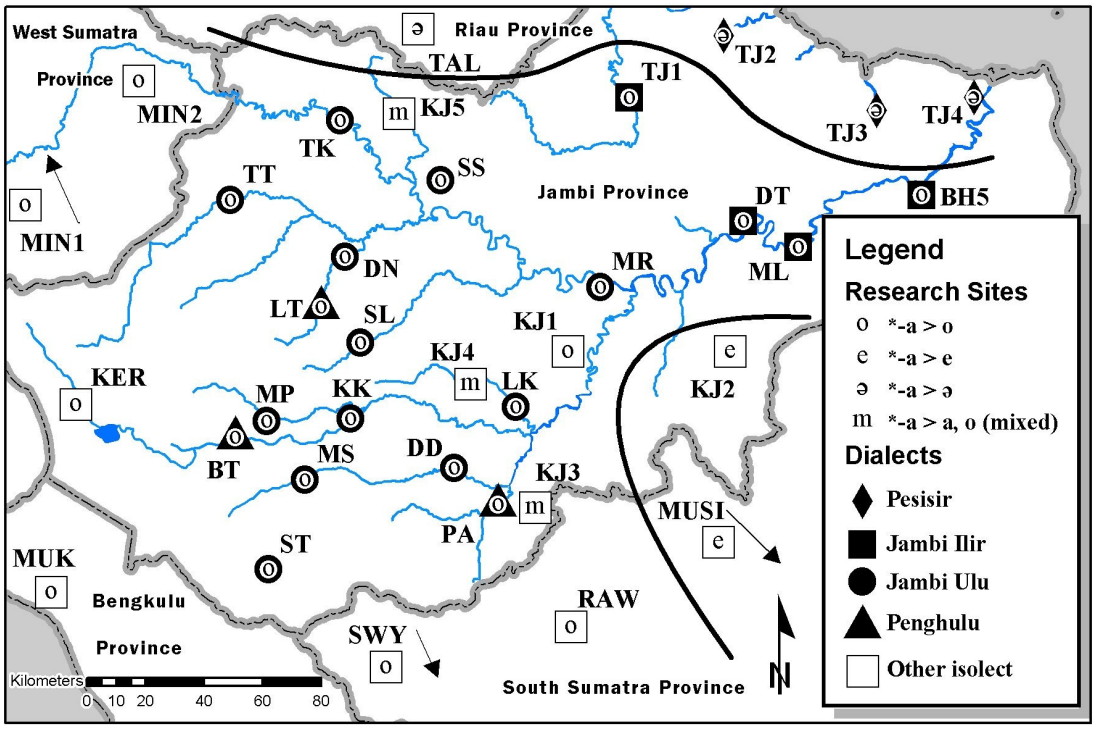


Map 5.3 Split of penultimate high vowels

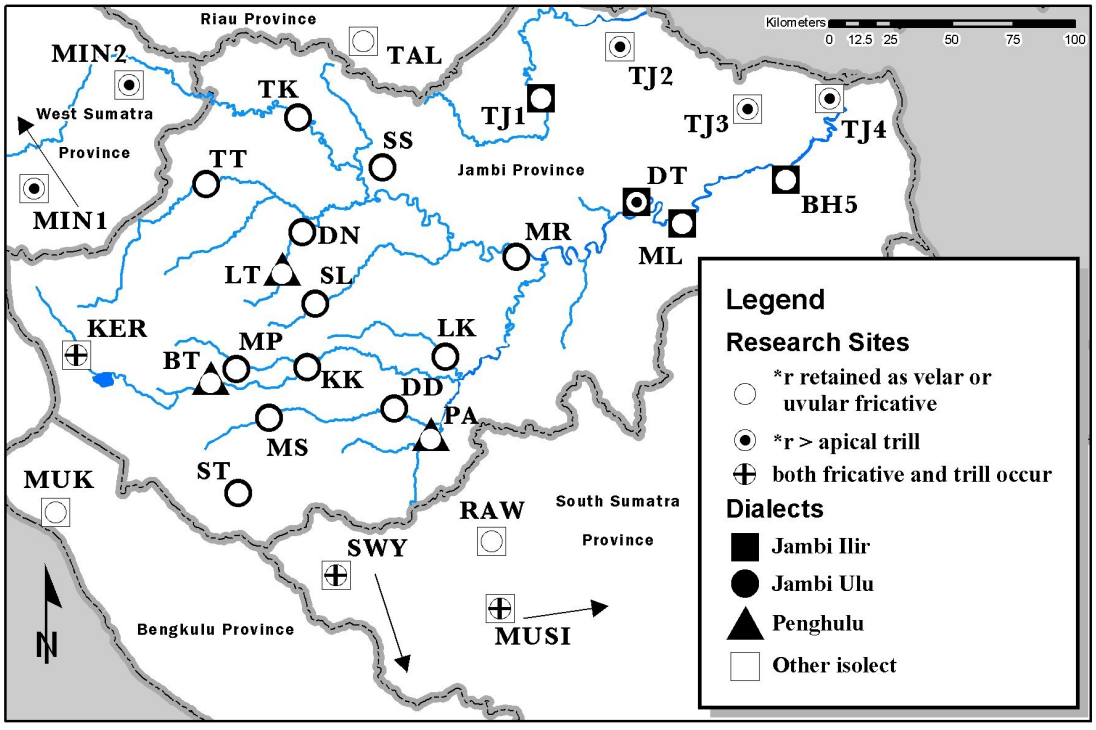
(Note that the three upstream sites showing the split of high vowels are all Penghulu villages.) We see from these three maps some sort of dialect continuum with JI at one end, featuring both innovations and retentions that generally accord with more "cosmopolitan" influences, through areas like MR, SS and TK where those cosmopolitan influences wane, into the "true" JU area where those cosmopolitan influences are conspicuously absent and rather where more localized or parochial features abound.

5.3.2 Other JM innovations

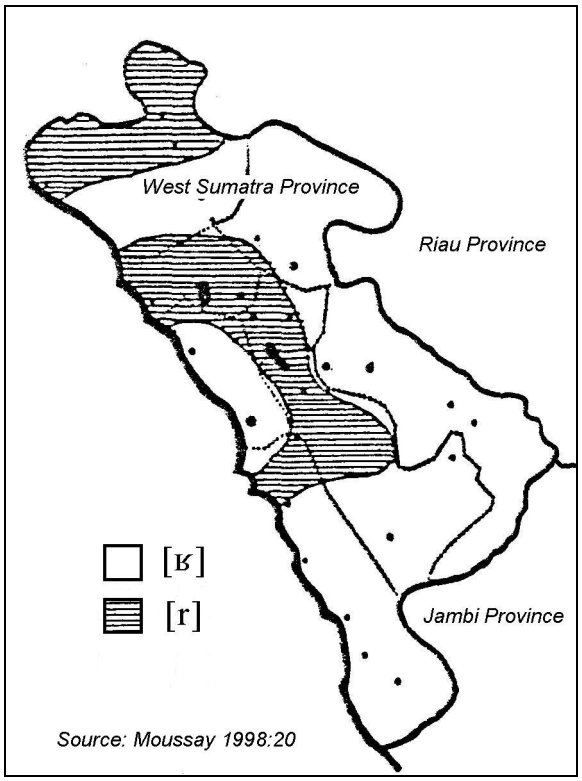
In this section a number of maps will be presented summarizing many of the innovations discussed in previous chapters. This next set of maps will focus on innovations mainly, but not exclusively, found in upstream areas. Non-JM data points will be shown on the maps where relevant and/or if data is available.



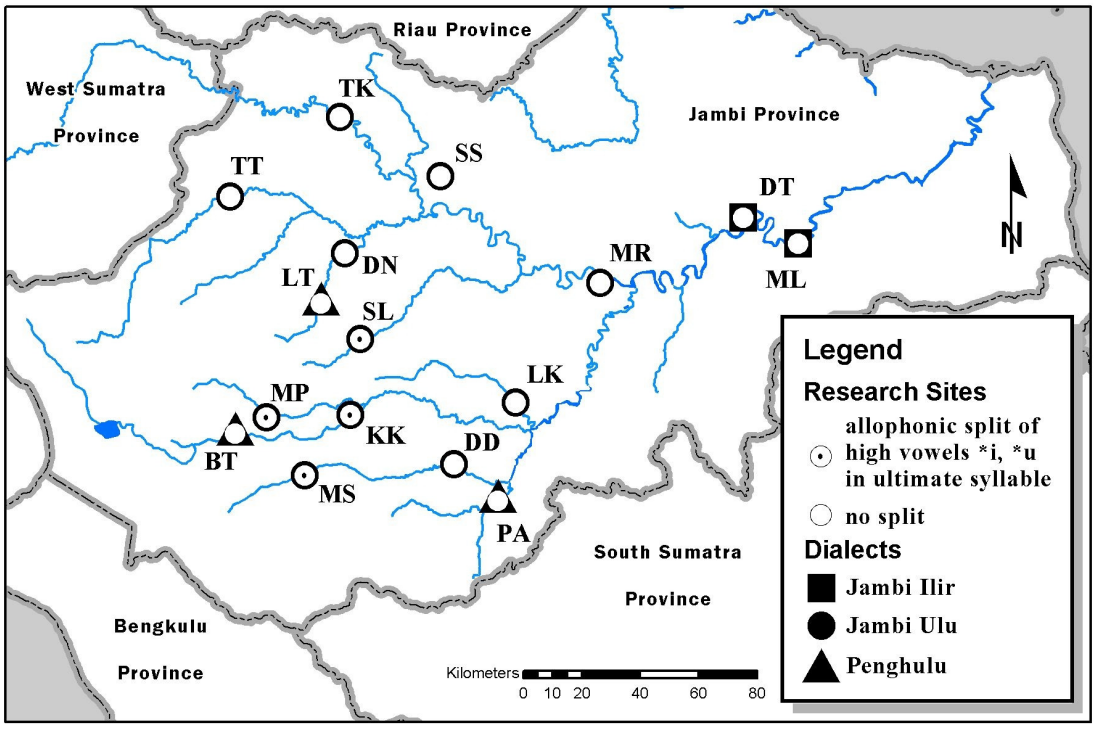
Map 5.4 *-*a* in central Sumatra (see §3.4.2)



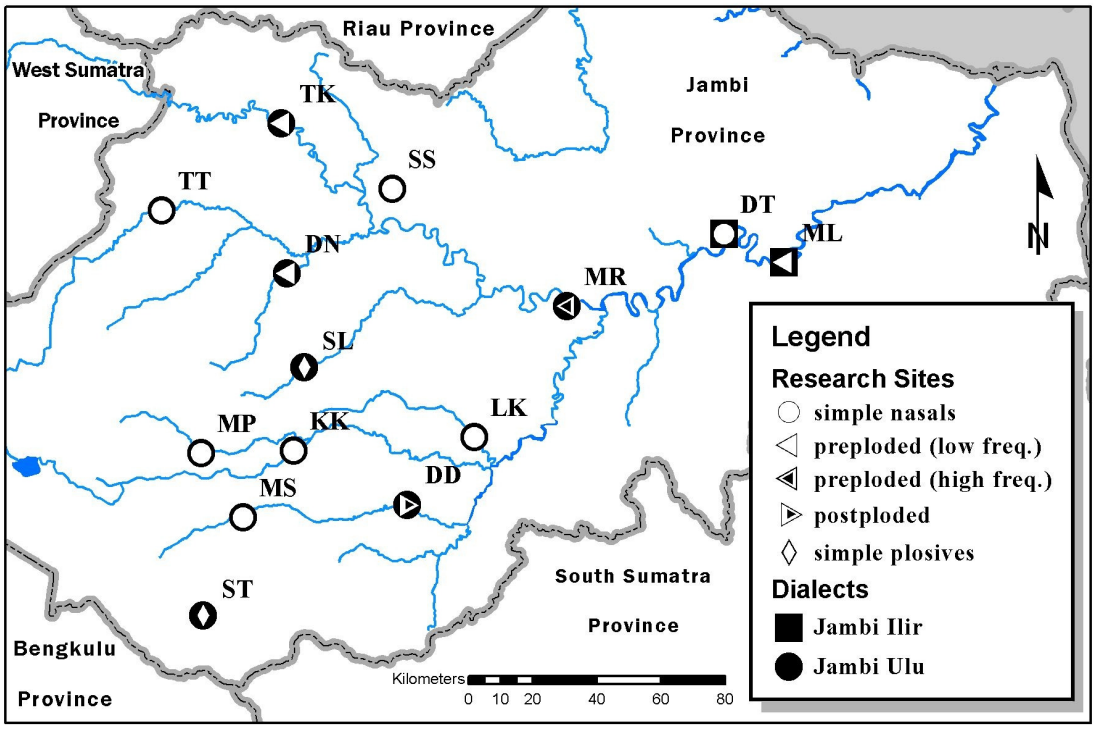
Map 5.5 Phonetic content of *r* in central Sumatra



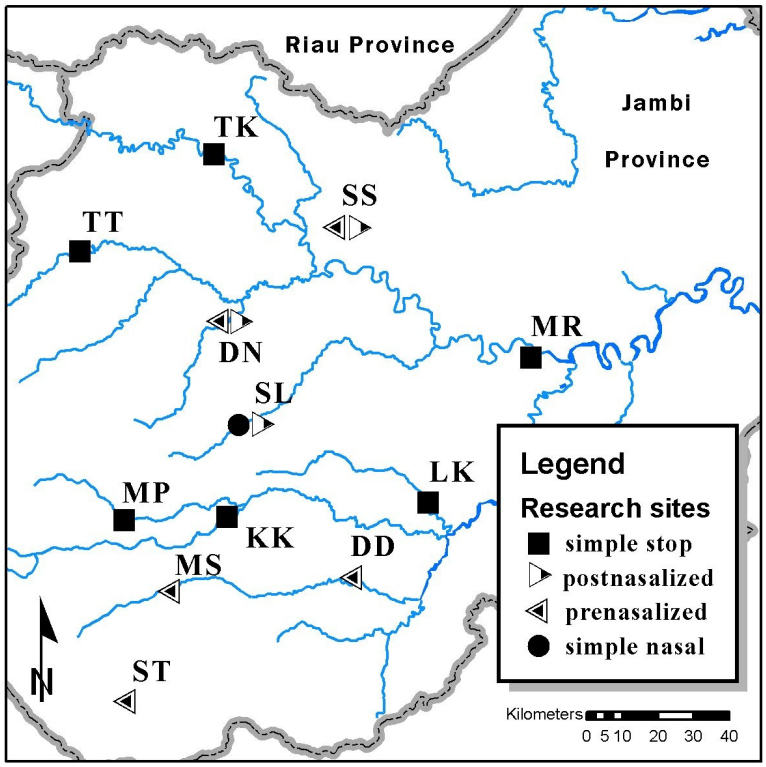
Map 5.6 Phonetic content of **r* in West Sumatra Province (Minangkabau)



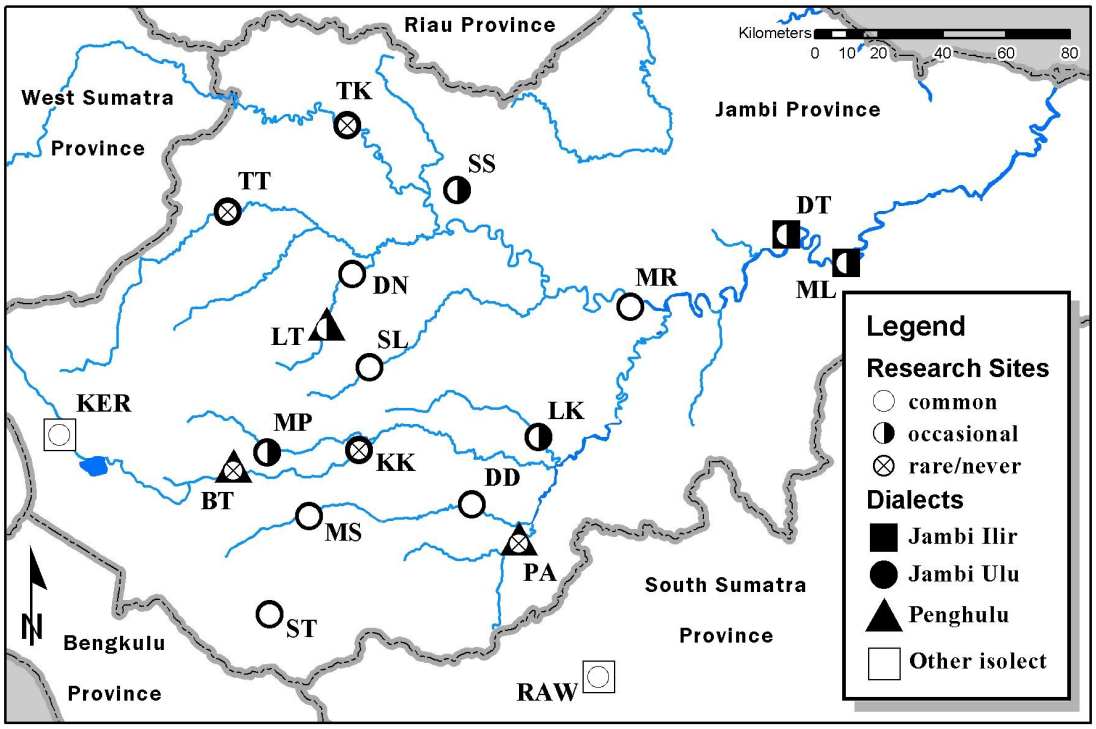
Map 5.7 Allophonic split of ultimate high vowels



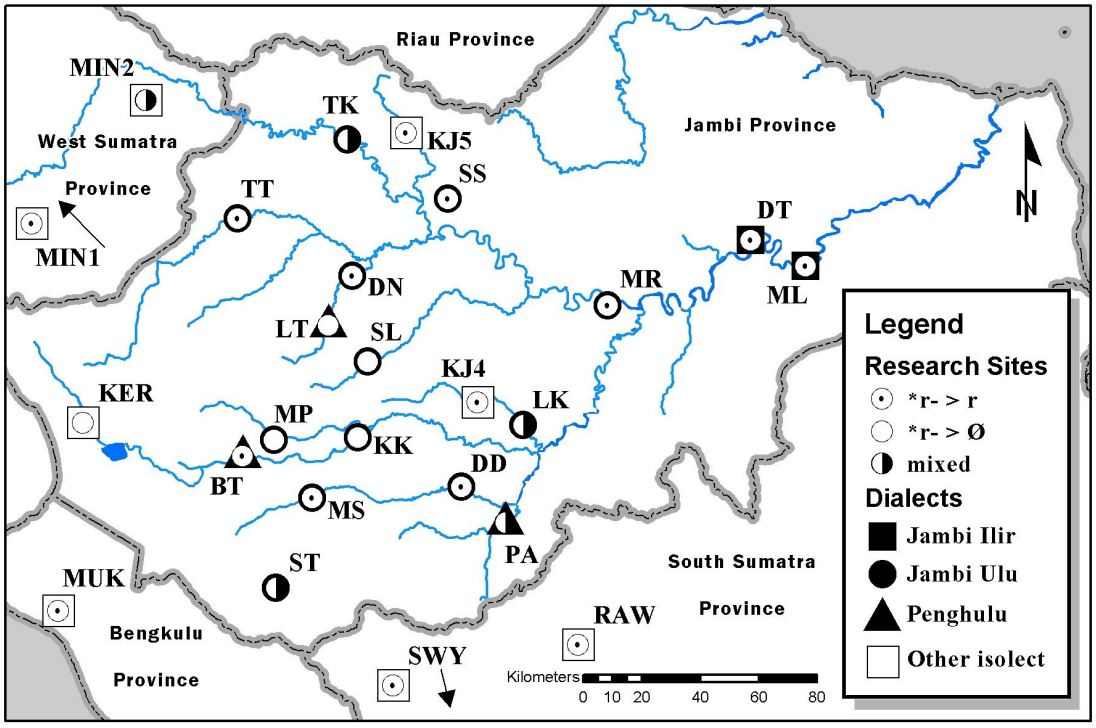
Map 5.8 Variable-plosion nasals in JM, e.g. *buruᵍŋ, buruŋk, buruk* 'bird'



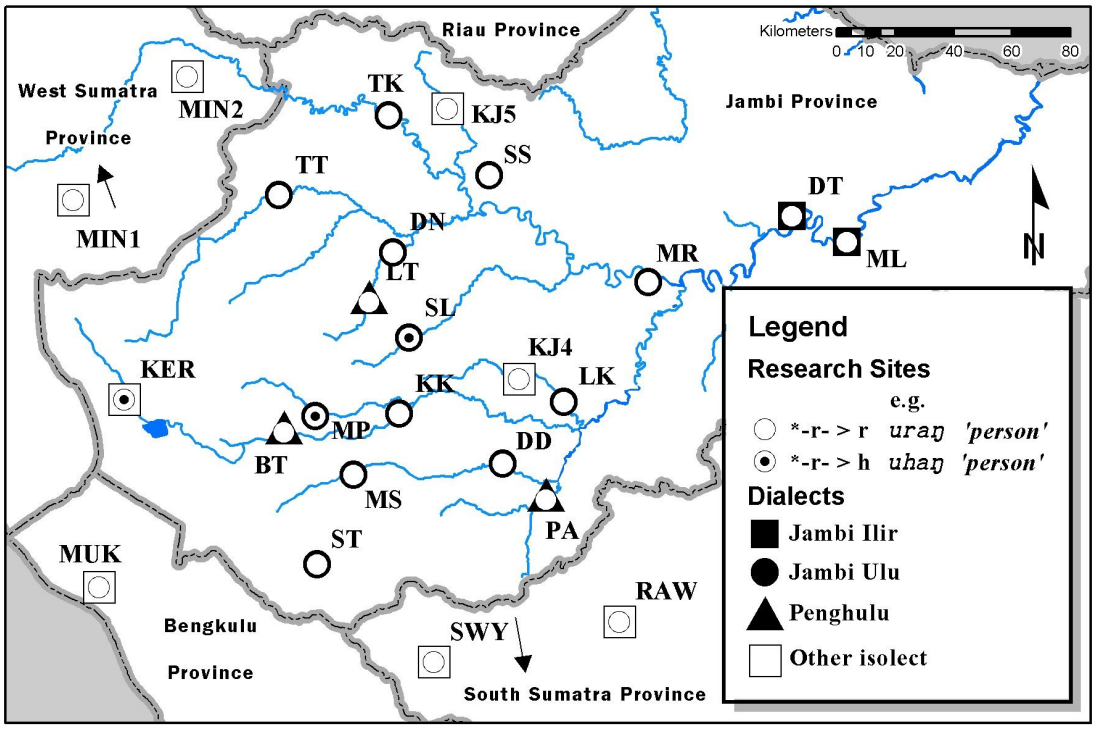
Map 5.9 Additive nasalization in JU, e.g. *uraⁿt, uradⁿ* 'vein'



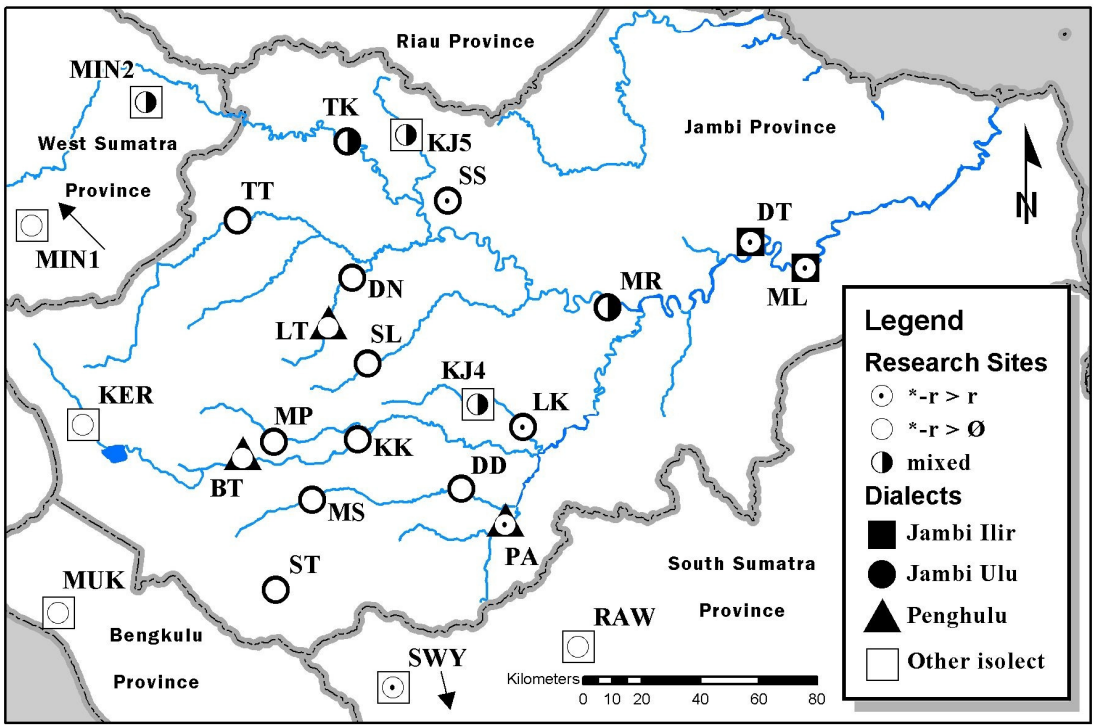
Map 5.10 De-occlusion of consonant clusters, e.g. *kam^{b}iŋ, kamiŋ* 'goat'



Map 5.11 **r*- in central Sumatra



Map 5.12 *-*r*- in central Sumatra



Map 5.13 *-*r* in central Sumatra

These maps, including Map 5.1, and the innovations shown within evince a great deal of variation within a relatively small area. There does not seem to be a "smoking gun", an innovation or set of

innovations that allow us to break JU down into clear dialect or subdialect areas. There are, however, some generalizations that can be made.

As mentioned in §5.3.1, the Batanghari river seems to be a very significant standardizing variable. The sites on the Batanghari, ML, DT, MR, SS and TK, tend to have less innovations away from PM in general, and when there are innovations, they tend to be innovations as a result of influence from outside, such as the JV borrowings in JI, and the high vowel split and monophthong innovations, which are both shared by several Malay varieties outside of Jambi. This would seem to provide support for the riverine hypothesis put forth in the first chapter.

But when we look at the other JU areas, we do not see the same riverine connection between tributaries as we do between whole river basins. For example, we can see that DD and SL share a few very distinctive innovations (e.g. Map 5.8 and Map 5.22), yet DD is part of the southern tributary system and SL part of the northern. Similarly, the occurrence of innovations like additive nasalization of final stops (Map 5.9) and additive plosion of final nasals (Map 5.8) is sprinkled here and there throughout both the northern and southern tributary systems. Perhaps I need to modify my hypothesis a bit. The bigger and more navigable the river, the greater its influence will be on linguistic patterns. So the Batanghari, being the longest and most navigable, has the greatest effect, while the smaller rivers exert less influence on the patterns of language spoken in the villages that line their banks.

Do the innovations shown so far give us any clues as to whether the areas share them because of migration or diffusion? The sharp discontinuity between the upstream and downstream JM areas is the only feature which could be potentially interpreted as evidence for separate migration of speech communities. But before accepting this (as Mitani did for South Sumatra), we need to ask if there are geographical or cultural boundaries that could explain this linguistic division. The answer, clearly, is yes. It was discussed at length in the first chapter, in line with Bronson's model, how the downstream versus upstream areas (geographical) naturally bring about cultural (and hence, linguistic) divisions. It would seem that one must take the wave model (diffusion) as the default assumption, and reject it only if the evidence for another model, such as the tree model, necessitates it.

Is there actually a cohesive dialect area such as has been labeled *Jambi Ulu*? Is there an innovation or set of innovations which definitively set JU off from its neighbors? If one is seeking in these language varieties evidence of migration in order to set apart family tree relationships, one would have to say that the evidence simply is not there. There is perhaps only one significant phonological innovation which characterizes every JU area surveyed (except MR), which is the backing of final **s* (Map 5.2). This innovation might set off JU from JI and South Sumatran varieties, but it does not necessarily do the same with JU's other neighbors, as it is also found in MIN and KER and to some extent in Kubu. Other innovations cover only certain areas in JU, as discussed above. Some innovations occur in a few JU areas and areas outside JU as well (e.g. Map 5.12, as well as Map 5.17, Map 5.19, Map 5.21 and Map 5.22 below). Yet this is just what we would expect in a relic area that has had continuous settlement for nearly two thousand years. §5.4 explores this question in further detail.

5.3.3 This research and Saidat Dahlan's conclusions

In *Pemetaan bahasa daerah Riau dan Jambi* ("Mapping the local languages of Riau and Jambi"; Saidat Dahlan *et al.* 1985), the authors found themselves unable to delineate dialects on the basis of the data they presented. Instead they relied on the language names given by their language consultants and came out with fourteen separate languages. These "languages" had a very close correlation to subregency boundaries, coincidentally enough. The authors knew that, given the definitions of *language* and *dialect* with which they began their work and the close similarities of the varieties they investigated, this plethora of languages could not have been actual, so they concluded that these fourteen autonyms were dialects. Ironically, the area with the greatest diversity, Kerinci regency, they concluded was one dialect, while other areas of much less phonological and lexical diversity they split up into several. Their concluding advice to future scholars was 1) to not believe the language names people gave, and 2) to do more research so that one could get better results. I faithfully followed both pieces of advice.

Based on the two innovations shown in Map 5.4 and Map 5.5, I delineate a tentative *Pesisir* (coastal) dialect separate from Jambi Ilir which is composed of the three coastal varieties sampled in Saidat Dahlan *et al.*, Tanjung Jabung (TJ) 2, 3 and 4, but excludes their TJ1 and Batanghari (BH) 5. This dialect is probably very similar to coastal Malay varieties in Riau Province, and perhaps further research will group them together as one dialect. As with the JM innovations discussed above, there is no reason not to posit diffusion (from *lingua franca* Malay) for these coastal innovations.

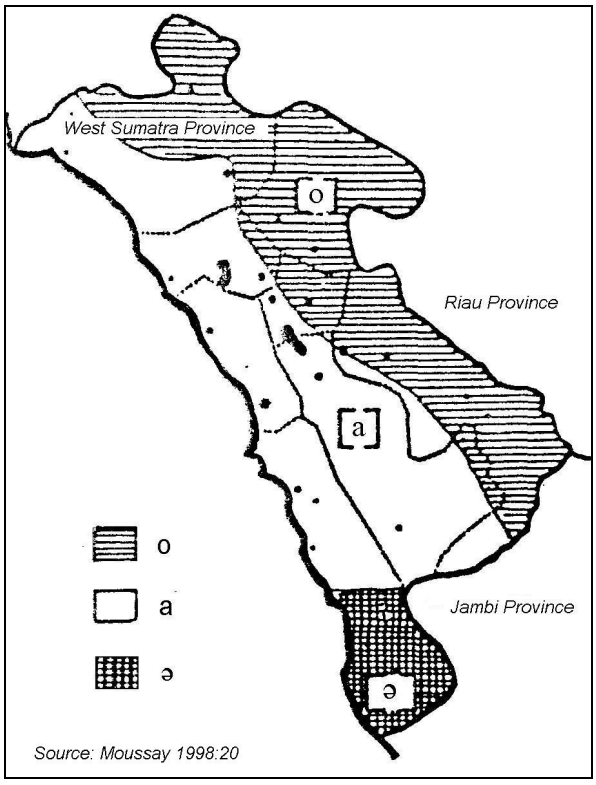
5.4 Relationships with other Malay varieties

5.4.1 Innovations with a strong Minangkabau connection

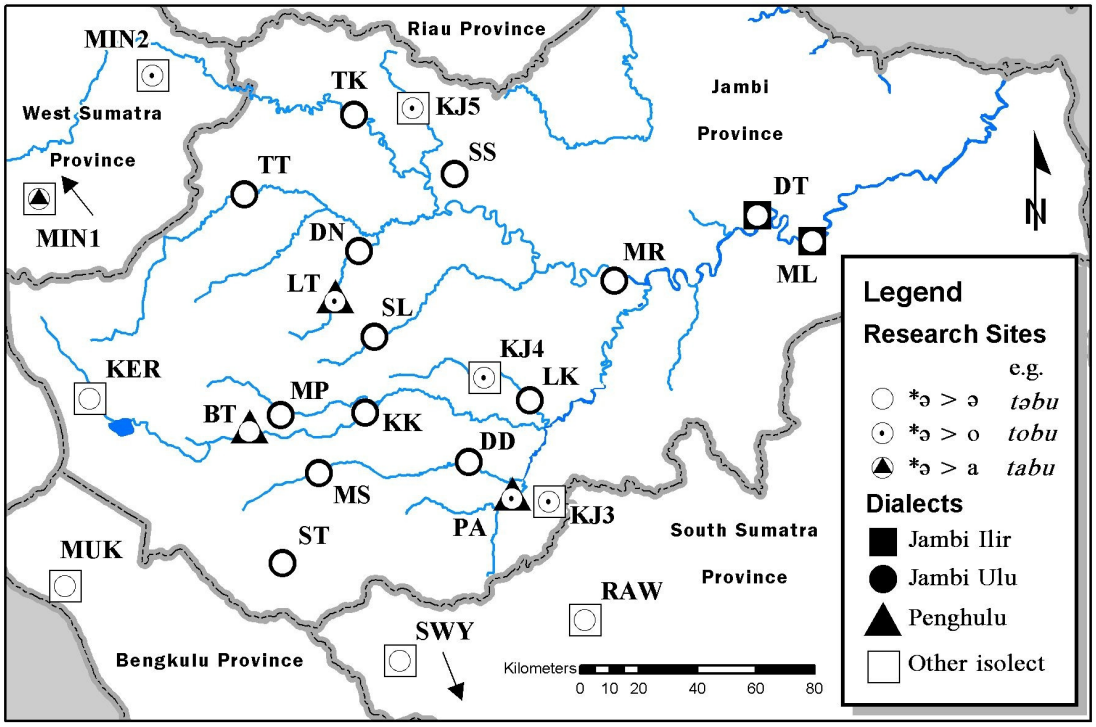
Coastal Minangkabau, with its distinctive innovations and mergers and large, highly-mobile population, has made less of an impact on JM than I expected to find. I think much of it has to do with my sampling choice. I chose the most rural, isolated areas I could find, and chose as language consultants those with the least familial influence from other areas. If I had sampled, say, the *lingua francae* of the larger cities like Bangko, Sarolangun and Muara Bungo, I have no doubt that more Minangkabau influence would be evident. My consultants have reported this very fact.

This is not to say that there is no connection between JM and MIN or no MIN influence in (historical) JM. One does not have to spend much time at all in upstream Jambi to hear *dapeʔ* 'get, be able to' (SM *dapat*); evidently this is a common MIN loan. Another common MIN loan with the same sound change is *cieʔ* 'one' (see footnote to Table 3.46), which appears in several JU wordlists. The following maps show various innovations which seem centered in MIN, and one will notice that occasionally a JM site will share an innovation with MIN1, MIN2 and/or the three sites of Minangkabau immigration sampled, PA, BT and LT.

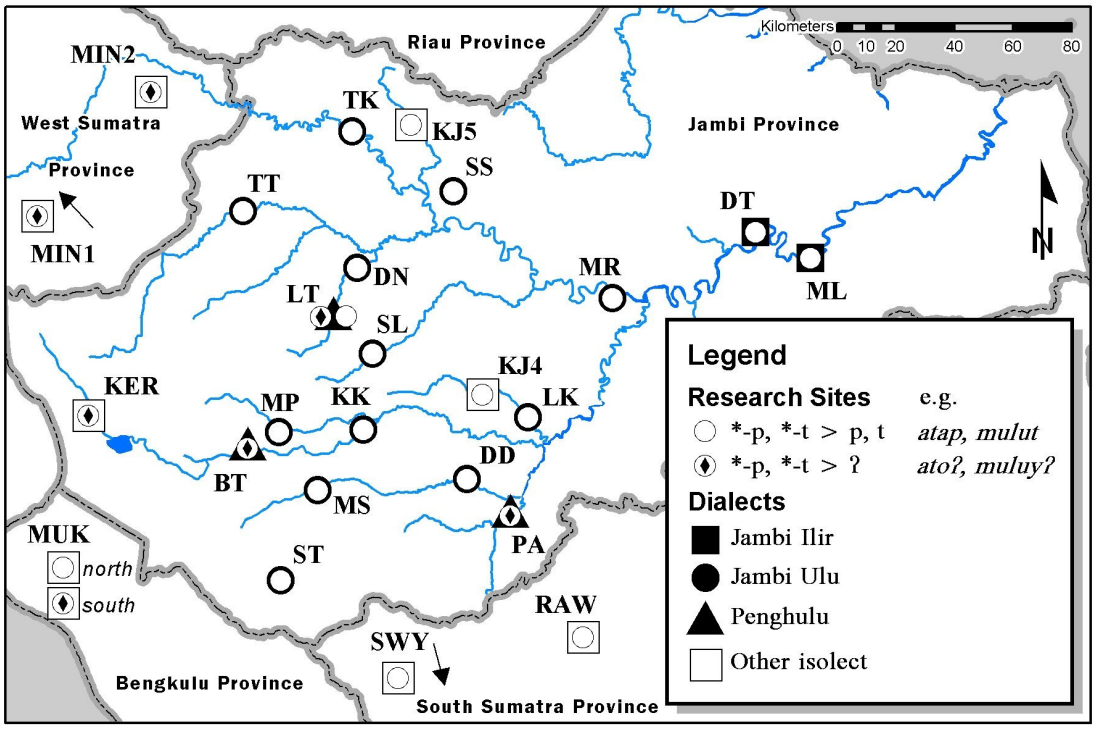
Map 5.14 is adapted from Moussay (1998:20) and shows West Sumatra Province and areas where penultimate **ə* has gone to *a, o* or stayed as *ə*. The following map shows the various points sampled and how they fall on this issue. We can assume that the original PA and LT immigrants came from the *o* area, and BT perhaps from the *ə* area.



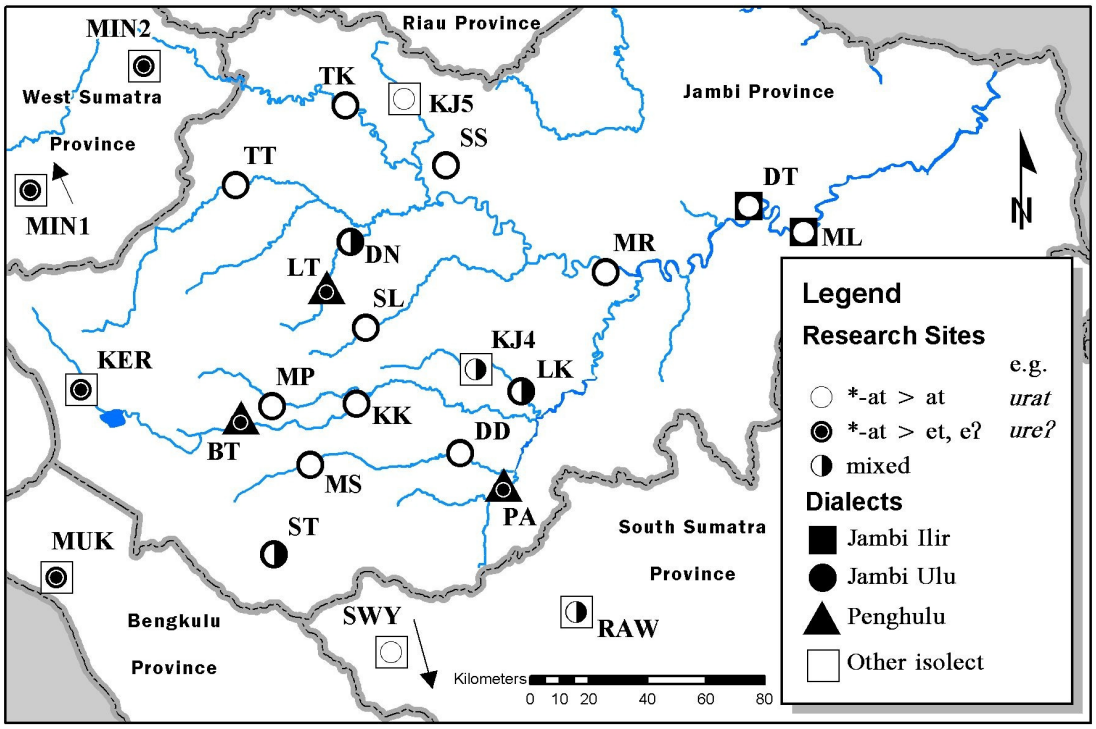
Map 5.14 Penultimate *ə in West Sumatra Province (Minangkabau)



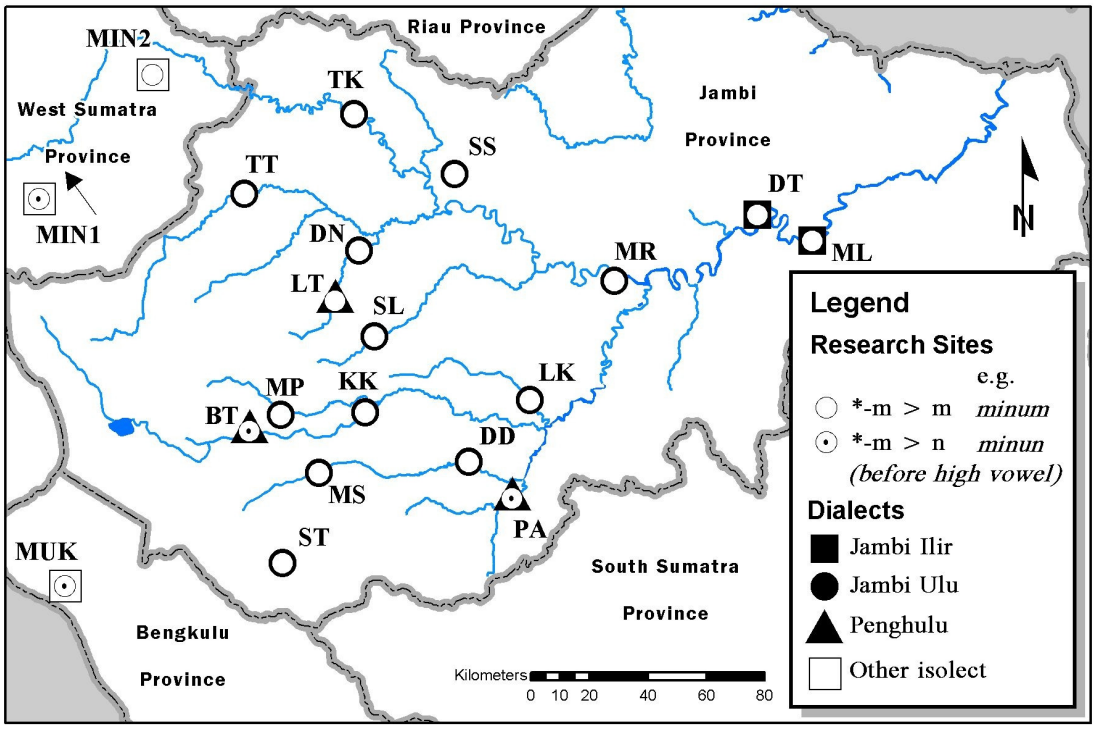
Map 5.15 Penultimate *ə in central Sumatra, e.g. *tobu, tabu* 'sugar cane'



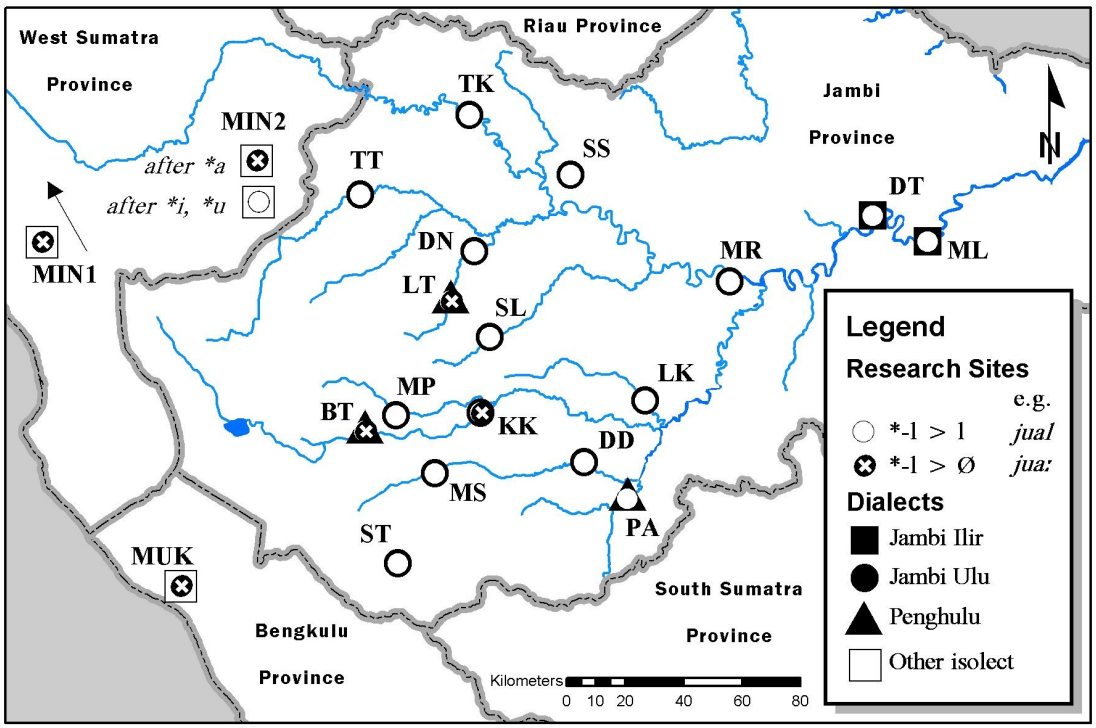
Map 5.16 *-*p, -t* in central Sumatra, e.g. *atoʔ* 'roof', *muluyʔ* 'mouth'



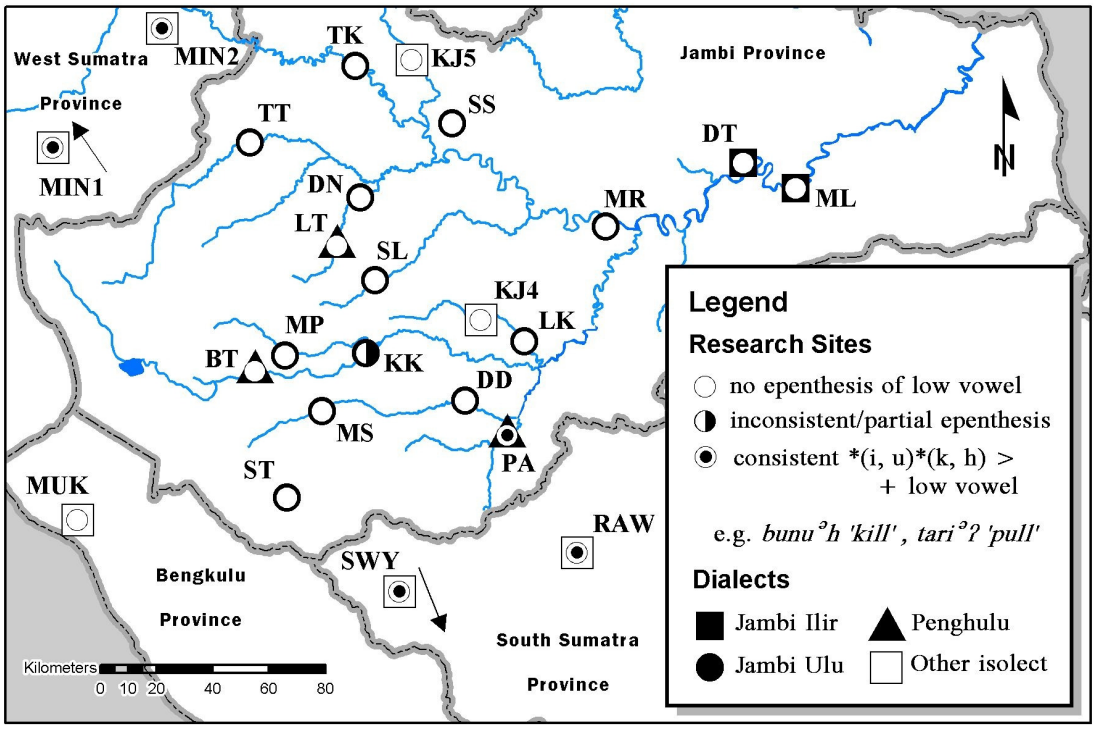
Map 5.17 *-*at* in central Sumatra, e.g. *ureʔ* 'vein'



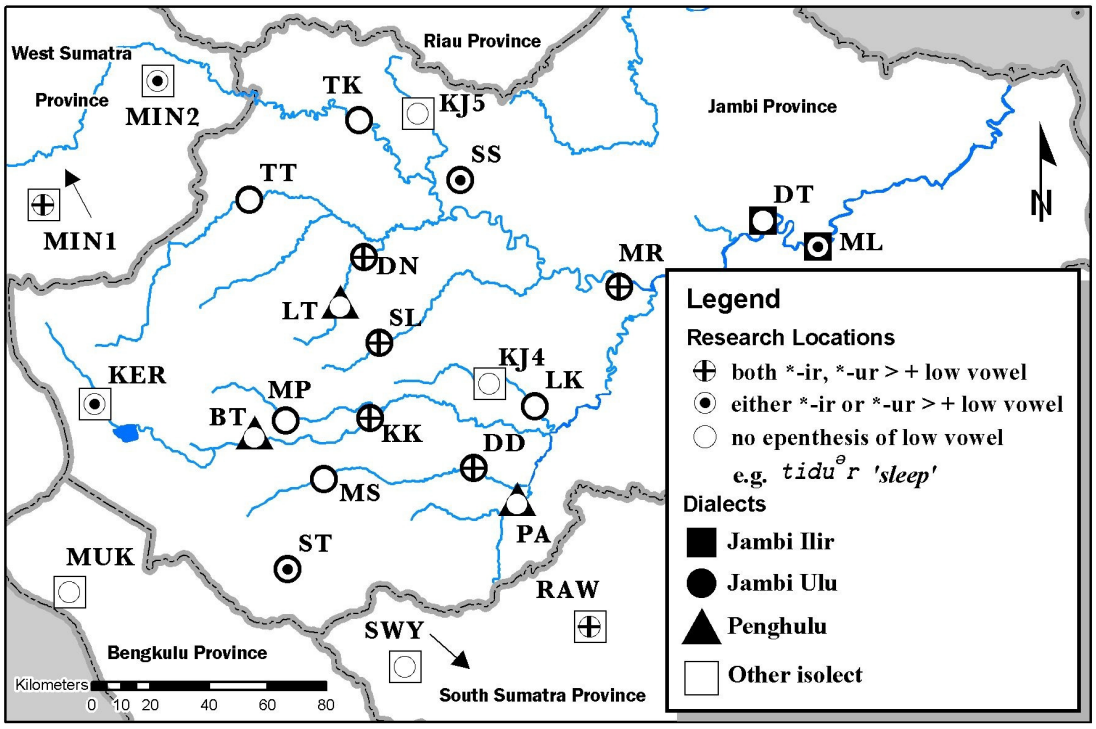
Map 5.18 *-*m* before high vowel in JM and MIN, e.g. *minun* 'drink'



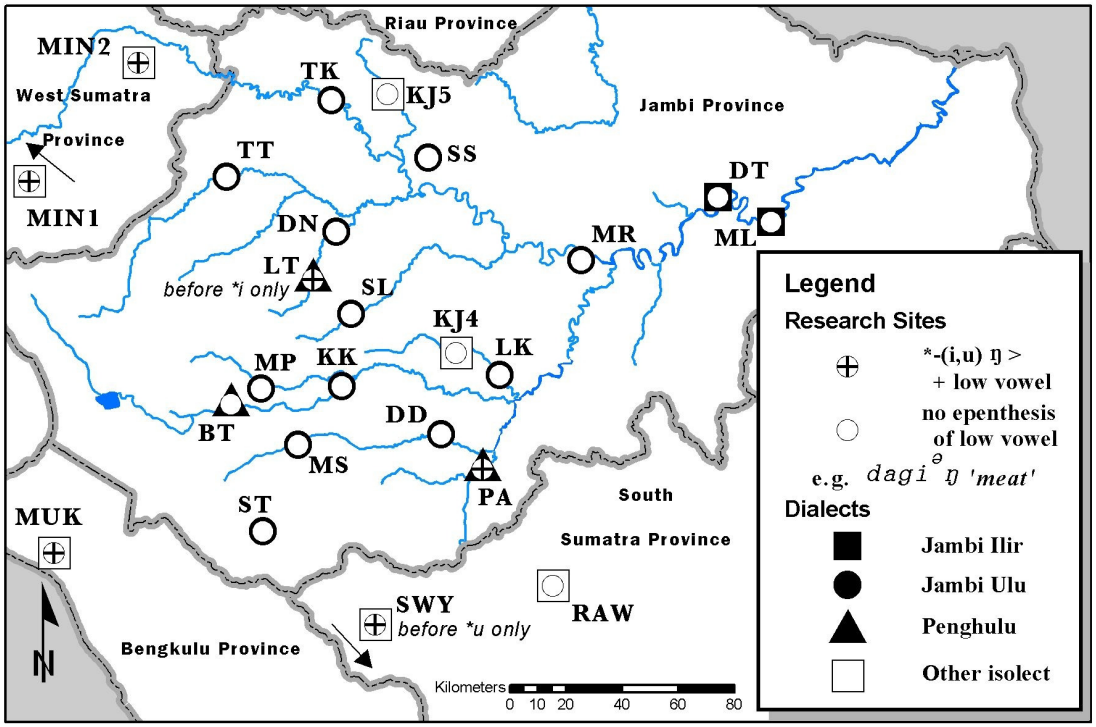
Map 5.19 *-*l* in JM and MIN, e.g. *jua:* 'sell'



Map 5.20 Low-vowel epenthesis between high vowel and *-*h*, *-*k*



Map 5.21 Low-vowel epenthesis between high vowel and *-*r*



Map 5.22 Low-vowel epenthesis between high vowel and *-*ŋ*

In Chapter 1, various hypotheses were put forth for testing. One of them was the *Penghulu Hypothesis*: "speech varieties in villages self-identified as Penghulu show greater genetic affinity to Minangkabau than to JM." We have seen in the preceding maps that there is a cluster of significant innovations shared exclusively by MIN and PGH varieties. There is some affinity between PGH sites and the JU sites they neighbor, but this affinity is usually of the nature of shared lexical items (cf. the results in §5.2) which are more easily borrowed than phonological innovations. I therefore conclude that the *Penghulu Hypothesis* has been validated. We can thus reject the Penghulu null hypothesis (no special connection between PGH and MIN) as well as an alternate hypothesis (expressed by some authors cited in chapter 1) that the speech of PGH is a relatively even mixture of JM and MIN elements.

We also note that there is not uniformity in these innovations; for example, all three PGH areas have the innovation *-*p, *-t* > Ø like MIN (1 and 2), but only LT and MIN1 have the distinctive shift of final labial nasal to alveolar after high vowels, while PA and LT share with MIN2 only the shift of penultimate *ə to *o*.

How can the relationship between MIN and JM varieties (i.e. not Penghulu) be described? As mentioned above, there are lexical items in some JU areas that can be positively identified as MIN loans. KK shares one significant phonological innovation in particular with MIN, which is the elision of final **l*. It was also mentioned above how JM and MIN share the innovative backing of final **s*. But the differences, such as the differing vowel inventories, seem greater than the similarities. It is safe to say that Minangkabau, whether we are speaking of coastal MIN1, interior MIN2, or immigrant PGH, is in a different dialect group than any JM variety sampled.

The bundle of isoglosses that separates PGH from the JU varieties around them is very clearly caused by migration and not mere diffusion. It would be extremely difficult if not impossible to convincingly argue that the disjunction between these areas is caused by geographical or social barriers. The fact that we have historical evidence to support this further confirms the independent findings of this linguistic analysis.

5.4.2 Relationship with Kerinci

Steinhauer (2002) gave a comprehensive listing of the sound changes that occurred in KER from Proto-Malayic and attempted to give a relative chronology to those changes. It is striking, given the proximity of JM to KER, how few of the KER innovations have any reflection in JM. One exception is the (in Steinhauer's opinion) relatively early rounding of *-*a* which also occurred in JM and other areas, shown in Map 5.4. Another commonality is the backing of final **s* (Map 5.2). There are also several innovations shared with some JM varieties, such as the loss of initial and final **r* (Map 5.11 and Map 5.13), the change of medial **r* to *h* (Map 5.12) shared with SL and MP, and the existence of medial nasal diphthongs. There may have been more shared innovations, but the drastic nature of later KER sound changes has probably obscured earlier ones. Regardless of the apparent relative lack of shared innovations between the JM areas I sampled and KER (Sungai Penuh variety), it still seems very likely that JM and KER exist in some sort of dialect continuum. Steinhauer, in discussing the dialects of KER, stated that these dialects are mainly clustered within just a few kilometers of Sungai Penuh, and if one travels just twenty kilometers to the north or a similar distance to the south, the sound changes in these dialects are quite minimal compared to those in Sungai Penuh. So there probably is a continuum, it is just that the isoglosses become very close together geographically immediately around Sungai Penuh. This is not surprising given Sungai Penuh's position on a plain surrounded by mountains.

The pattern of innovations alternately linking and separating JU varieties and Kerinci varieties seems to be a confused tangle of isoglosses suggesting a long shared period of settlement. Given that Steinhauer, in concert with Prentice and Hakim Usman's earlier (1978) efforts, successfully demonstrated how Kerinci's current qualities could have descended from Proto-Malayic, there seems to be no serious reason to question the assumption that Kerinci's distinctiveness vis-à-vis other Sumatran Malay varieties developed *in situ* and is not a product of migration from elsewhere.

5.4.3 Relationship with Kubu varieties

The available evidence seems to indicate that JM and KBJ, while both clearly being Malay varieties, are not very closely related in spite of their geographical proximity. KBJ (at least K3, 4 and 5), it has been seen, has at least one retention (word-initial and word–medial **h*; §3.9.1) where the corresponding sound has probably been lost for a long time in JM. KBJ also has a significant innovation (penultimate **ə* > *o*) of which there is no trace in JM. The fact that the percentage of shared lexical items between KBJ and some JM varieties (like MR) is relatively high (see §5.2.2) is probably due to patterns of contact and borrowing not genetic relationship. So in this case I feel that the tree model is appropriate for describing the relationship between the speech of Jambi Malays and the *Suku Anak Dalam* or Kubus, that there was a common origin to their speech but divergence since then. Yet there is no reason to doubt that either variety, KBJ or JM, did not develop in the locations where they are presently. The linguistic similarities are not that great because there have evidently been centuries of separate development, understandable given the social distance separating non-Muslim forest dwellers (Kubus) from Muslim agriculturists (Jambi Malays).

5.4.4 Relationship with South Sumatran varieties

There are some innovations, like *-*a* > *o*, which are shared between SWY, RAW and JM (Map 5.4), but there are other innovations which do not occur in SWY but are shared between RAW and many JU varieties, such as epenthesis of a low vowel between a high vowel and final **r*, and the loss of final **r* (shown in Map 5.21 and Map 5.13 respectively).

Does the innovation PM *-*a* > *o* provide evidence that Rawas is more closely linked with JU than with Musi, which has PM *-*a* > *e?* The -*o* ending on words such as *sayo, mano, duo, tigo*, is very striking, but perhaps for that reason it is not the strongest evidence for subgrouping. Just as words are easily borrowed, straightforward and salient innovations such as these are generally more easily borrowed and manipulated

than more complex and/or less salient or marked innovations (Trudgill 1986:11).[83] This dialect split, although striking in its wide distribution, does not militate against the position that all of central-south Sumatra was once settled by a relatively homogenous Malay-speaking group and that the differences that exist today are the result of centuries of accrued *in situ* developments.

Yet, grounds still exist for placing a dialect isogloss between JU and Rawas. As pointed out in §4.5, there is at least one very significant innovation which is consistently reflected in Rawas but not in any JM variety, which is the elision of the nasal consonant in a word-medial cluster with a following voiceless stop (e.g. **bintaŋ* > RAW *bitaŋ*). There is also a significant innovation in all JU varieties which does not occur in Rawas,[84] which is the shift of **s* to backed fricative (Map 5.2). The separation between these varieties is yet one more piece of support for the riverine hypothesis.

In terms of shared innovations Muko-Muko demonstrates close links with Rawas such as the innovation discussed above, and even closer links with Minangkabau as can be seen on the maps already given, but surprisingly few shared innovations with JU, in spite of the geographical proximity. This is even more surprising when one considers the trade routes linking upstream Jambi and Muko-Muko as documented by Znoj (2001) and shown in Map 1.5; even Sungai Tenang which sits astraddle the trade routes evinces little similarity with Muko-Muko.

5.4.5 Relationship with Malay varieties outside Sumatra

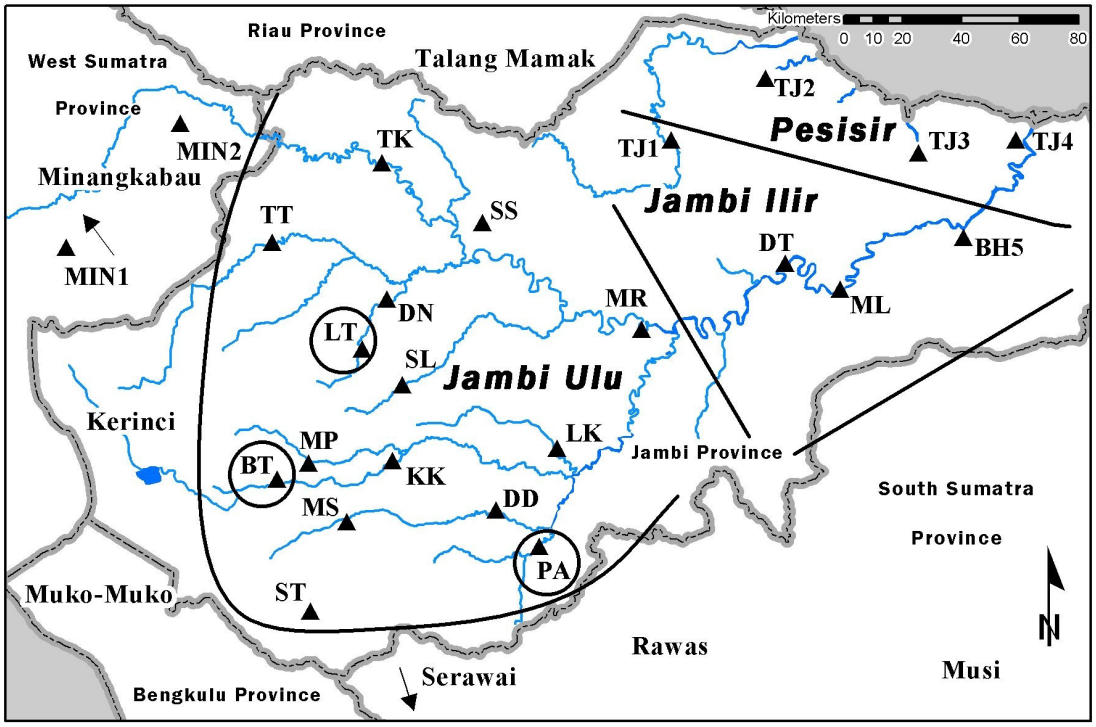
It is difficult to discern any significant shared innovations from PM between JM (particularly JU) varieties and Malay varieties not in geographical proximity to them (e.g. Peninsular and Bornean Malay varieties). One innovation comes to mind, ultimate closed-syllable **ə* > *a*, but that innovation is so widespread within Malayic varieties as to be almost useless for subgrouping. There are Peninsular Malaysian innovations which are strikingly reminiscent of JM innovations, such as some of the things happening with final **s* in Penang, Kedah and Negeri Sembilan (cf. Asmah 1977:9), and of KER-like innovations, such as mergers of final nasals in Kelantan Malay (Prentice & Hakim Usman 1978:153). But no mechanism has been proposed to actually link these innovations in a genetic sense, and their co-occurrence may be the result of common phonological processes or at best the result of latent tendencies within PM itself. One significant innovation which covers nearly all of Peninsular Malaysia, the split of high vowels into high and mid-high vowels, and which seems to be a rather early innovation because of its wide geographical distribution, has not happened at all in JU and seemingly only exists in JI because of diffusion from exo-Jambi sources.[85] Also worth mentioning is the occasional innovation **r* > *ʔ* which was discussed in footnote 44.

[83] When I say "striking", it is not my perception of markedness which I am discussing but rather markedness apparently perceived by any Indonesian person who has described Jambi Malay to me. The first and often only thing they mention about the differences between JM and Indonesian is the *-o* innovation. In addition, the intermediate dialect labeled *Jambi Indonesian* by Kristen Anderbeck (2003) also makes use of this innovation, apparently to assert indigenousness at little cost to intelligibility with other Indonesians.

[84] Or if this innovation does occur in Rawas, it is not noted the phonemicized data given in Yuslizal Saleh *et al.* (1984).

[85] Collins (p.c.) holds that this innovation owes much if not all of its present distribution in peninsular Malaysia to diffusion rather than migration.

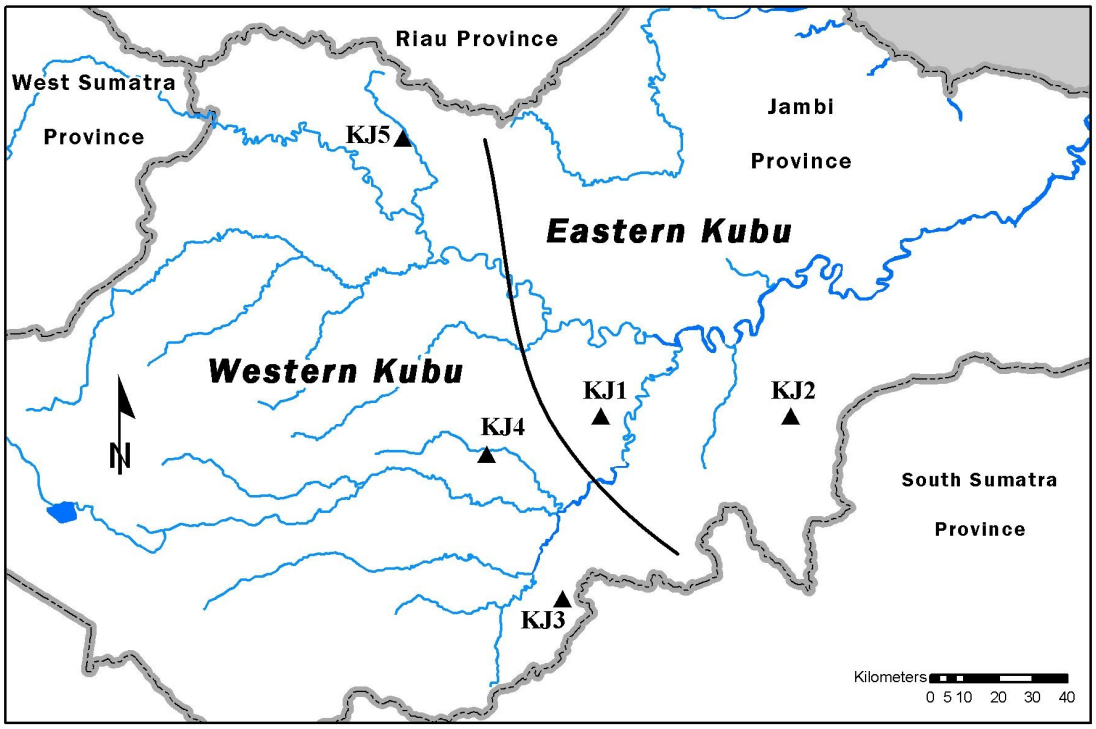
5.5 Division of dialects



Map 5.23 Jambi Malay dialects

In Map 5.23 I make some judgments as to dialect boundaries in Jambi, delineating two Jambi Malay dialects among the areas I personally researched, plus a coastal dialect ("Pesisir") based on published data, and pockets of an immigrant Minangkabau dialect (shown in circles) generally called *Penghulu*. Some boundaries are more attested than others. The distinction between Jambi Ilir and Jambi Ulu is quite firm, for example, as is the distinction between any Jambi dialect and Kerinci, Minangkabau, Muko-Muko and Serawai. I do not want to gratuitously assume that these dialects automatically stop at provincial borders; I do not have enough data (and time and space for analysis) to make a good decision in some cases (for example, with Musi and Talang Mamak to the south and north, respectively). However, since the provincial borders closely follow the borders between river basins, and since the riverine hypothesis of predicting the diffusion of innovations has generally held up, there actually seems to be a decent correspondence between provincial boundaries and dialect boundaries. I also do not try to make a subdivision of Penghulu or of Jambi Ulu; one could possibly be attempted but the isoglosses do not seem to convincingly converge.[86] It is quite possible that, to further delineate JU dialect areas, one would need to go beyond the linguistic evidence and test for intelligibility.

[86] In my estimation there would be a decent chance of using the linguistic patterns of the Penghulu villages described here and a knowledge of Minangkabau dialectology to trace back quite accurately from which area the original immigrants came, even if their oral history is unclear. Given the cultural/historical fact that Sumatran Malays tend to migrate en masse and create new villages composed mostly of people from their same village (Znoj 2001:69 and elsewhere), a research project like that is a conceivable possibility.



Map 5.24 Preliminary division of Kubu Malay dialects in Jambi Province

Map 5.24 is an early dialect division of the Kubu Malay varieties spoken in Jambi Province, based mainly on the one innovation and one retention described previously, which seem matched by lexicostatistic evidence. We see that KJ3, KJ4 and KJ5 group together in what I, for lack of a better term, label *Western Kubu*. That KJ1 and KJ2 actually group together has only been assumed (not demonstrated) but for now they have been labeled *Eastern Kubu*.

5.6 Conclusion

In this chapter, after a brief discussion of lexicon and lexicostatistical results, the focus has been on summarizing the phonological innovations discussed in chapters 3 and 4 and displaying them in the form of maps which show the geographical distribution of these innovations. New data have also been added in the maps for varieties like Muko-Muko and Sungai Tenang which did not receive much attention in previous chapters. The goal was to make a preliminary attempt at delineating the Malay dialects of this region, both within the Jambi Malay areas sampled as well as between them and neighboring Malay varieties.

Two general themes stand out. The first is that the riverine hypothesis based on Bronson (1977) and discussed in Chapter 1 has received broad support from the data presented. For example, there is a strong linguistic divide between downstream and upstream areas. Additionally, the Batanghari river basin is bordered on every side by Malay varieties that seem to differ more greatly with JM varieties than JM varieties do with each other.

The second theme is that the proto-uniformity hypothesis put forth in Chapter 1 has also received good support. The pattern of innovations shown in the maps is indicative of an area that has been continuously settled for over a thousand years, with unequal and sporadic diffusion of innovations and crisscrossing isoglosses. In the same lines, I have been unable to find evidence for two or more proto-languages in the Malay varieties treated here. It should be admitted that there may have been evidence for such a split but that evidence has been obliterated by centuries of contact. Still I do not identify any exclusively Sumatran innovations that cannot be attributed to diffusion. But what innovations there are illustrate the closely interwoven *linkage* relationships between the Malay varieties that exist in central-south Sumatra.

There are two caveats to be made about the issue of diffusion versus migration. The first is that Kubu Malay in Jambi evinces more a *lack* of diffusion than the presence of diffusion, which is probably a result of low levels of contact with other varieties for long periods of time. The second is that there is a language variety in this geographical area which does show evidence of migration, the Penghulu dialect of Minangkabau evidently produced by a migration of speakers from West Sumatra to the upstream regions of Jambi a few hundred years ago.

6 Conclusion

"You put your lips to her lips
To stop the lies"
-U2, *You're So Cruel*

6.1 Introduction

In this chapter, a summary of each of the preceding chapters is given, ending with a listing of the Malay dialects determined to exist in the Batanghari basin. Then the hypotheses presented in Chapter 1 are repeated and weighed in light of the evidence brought forth by this work. Finally, suggestions for further research are given.

6.2 Monograph summary

This monograph began with an overview of what is known about Jambi Malay, and it was found that there has been quite a bit of confusion and conflicting statements about what languages are actually spoken in Jambi. It was concluded that much of the confusion was simply due to a lack of carefully interpreted data, particularly regarding areas outside the capital city Jambi. To provide a suitable backdrop for this study, then, in Chapter 1, Jambi Malay was situated in its current context as a minority language of Indonesia with influences from a variety of outside sources, both historical and modern. In addition, an attempt was made to briefly look at the history of southeast Sumatra and identify the potential contributions a study like this could make to better understanding the history and spread of the Malay language.

By using the methodology of dialect geography and historical linguistics described in Chapter 2, this research attempted to partially remedy the above-mentioned deficit of understanding by providing a sketch of Malay as it is spoken in various parts of Jambi Province and an examination of what significant linguistic patterns can be discerned there. Chapter 3 examined salient phonological characteristics of Jambi Malay varieties, proceeding from characteristics these varieties share with all Malayic varieties, to characteristics shared by all Jambi Malay varieties, to those which occur only in downstream or upstream locations. The Minangkabau dialect(s) *Penghulu* spoken in villages contiguous to Jambi Malay-speaking areas, as well as Kubu which is spoken in forested pockets throughout Jambi Province, were also briefly examined for classificatory purposes. Chapter 4 focused on a subset of the innovations, the common denominator being the interplay of nasals and stops, and how these consonants are occluded and/or nasalized in varying ways in different areas in Jambi.

Chapter 5 focused on the forest rather than on the trees, in order to provide a sense of the implications of the previously detailed innovations for language relationships both within Jambi Malay and with other Malay varieties. The lexical items were discussed first using the rubric of lexicostatistics, and then the more significant phonological innovations were depicted in the form of maps. It was tentatively concluded that the autochthonous Malay varieties in the Batanghari river basin consist of at least the following dialects:

- Jambi Malay
  - Pesisir
  - Jambi Ilir
  - Jambi Ulu
- Kubu Malay of Jambi
  - Eastern Kubu
  - Western Kubu

In addition, Hakim Usman (1988) delineated six dialects of Kerinci, bordering the upstream reaches of the basin: Sungai Penuh, Pondok Tinggi, Dusun Baru, Rawang, Semurup and Lempur. Some of these in fact may bear very close similarity with JU.

6.3 Hypotheses

A number of hypotheses were advanced in the first chapter regarding Malay varieties spoken in Jambi Province. It is now time to sum up our findings in terms of these hypotheses.

The first hypothesis advanced was the *riverine hypothesis*, which stated: "JM dialect networks show a determinative connection with river patterns; linguistic innovations follow tributaries both within JM and in determining JM's boundaries vis-à-vis other Sumatran Malay speech varieties." It was discussed in Chapter 5 how this hypothesis is most true for the Batanghari river specifically and generally where the river has been most useful for travel, but that this hypothesis breaks down in areas where the rivers are smaller and less navigable. Thus we can see a clear distinction linguistically between Jambi Ilir and Musi or Palembang Malay, which occupy downstream positions on the Musi river to the south of Jambi, but we cannot see as clear a distinction between the northern and southern tributary systems, or between Jambi Ulu and Rawas Malay, which are both found in upstream regions. Yet we can observe a crucial distinction, as was noted in the previous chapter: linguistic differences between JU areas and areas outside the Batanghari river basin (like Rawas or Talang Mamak) seem more pronounced than differences between areas within the Batanghari river basin (e.g. between northern and southern tributary sites). I consider this a validation of at least part of the riverine hypothesis. An interesting follow-up to this research would be to test a similar hypothesis in upstream regions based on the historical trade routes as delineated by Znoj (2001) and shown in Map 1.5.

The second hypothesis given was the *non-Malayic Batin hypothesis*: "The speech variety sometimes called *Batin* exhibits a lack of shared innovations with other Malayic varieties, and/or separate innovations that lead us to subgroup it with a non-Malayic language ("*Melayu Tua*" in terms of the theory detailed in §1.4.2)." This hypothesis was decisively disproved in §3.3 where it was shown that these Batin areas shared in all of the distinctive Proto-Malayic innovations. There is no linguistic evidence for a *Proto/Deutero-Malay* distinction in Jambi.

The third hypothesis given was the *Penghulu hypothesis*: "Speech varieties in villages self-identified as Penghulu show greater genetic affinity to Minangkabau than to JM." Although lexically there are many similarities between Penghulu villages sampled and the JU villages contiguous to them, phonologically these Penghulu areas definitely align with the Minangkabau cluster and not with Jambi Malay (see §3.8), so we can strongly affirm this hypothesis.

The fourth hypothesis was the *proto-uniformity hypothesis*: "The pattern of innovations among central-south Sumatran Malay varieties is indicative of diffusion and not migration. Evidence suggests that there was a single, relatively uniform proto-language that is the parent of the varieties treated here." In the data presentation of chapters 3 and 4 and then particularly in the mapping and summaries of Chapter 5, the question was asked whether it was possible to reconstruct a daughter language of Proto-Malayic that would include, say, some or all Jambi Malay varieties to the exclusion of other (central-south) Sumatran Malay varieties such as were briefly treated in this study. My chief criterion was that there would have to be at least a few significant isoglosses that bundled together, not just one. While there were a few possible diagnostic candidates such as occasional **r* > *ʔ* discussed in §3.4.5 and a couple other very limited phonological innovations, no significant patterns emerged to dispel the assumption of a uniform Malay parent language. I am led to conclude that the *proto-uniformity hypothesis* is still our most likely option for (at least) central-south Sumatran Malay. Stated another way, all the Sumatran Malay varieties examined seem to be members of a single *linkage* whose differences can primarily be explained in terms of the *diffusion* (or lack thereof) of various innovations traceable back to Proto-Malayic or an immediate descendant.

The final hypothesis put forth was the *southeast Sumatran dispersion hypothesis*. It was presented as: "There is evidence in terms of shared innovations that Malay varieties such as Jambi Malay, perhaps propelled by the strength of coastal kingdoms, were dispersed to other parts of Southeast Asia such as Peninsular Malaysia or coastal Borneo." As mentioned in the first chapter, it is outside the scope of this monograph to really address this question, but it is the hope of this author that the information presented herein can be useful in providing supporting data for studies that take up the issue.

6.4 Further research

There are a number of questions about Jambi Malay and the Penghulu Minangkabau dialect that have not been answered by this study. The following section gives some areas that could be fruitfully investigated in the future.

6.4.1 Antepenultimate vowels

One item that would benefit from further research is the phonotactic status of antepenultimate vowels. Adelaar (1992; 1995b) pointed out that MIN is the only non-Bornean Malayic member to retain the threefold vowel distinction (a,i,u) in the antepenult. Initial evidence seems to indicate that no JM varieties retain this distinction, but further research could confirm or disprove this. This could have implications for tracing the history of MIN vis-à-vis other Malayic varieties.

6.4.2 Lax central vowels

The phonological status of the alleged lax central vowel in JM phonology needs to be explored in more detail and with more evidence. Minimal pairs such as the following should be explored in both upstream and downstream areas:

galak	'often'	vs.	*gelak*	'laugh'
parang	'machete'	vs.	*perang*	'war'
karat	'rust; bad'	vs.	*kerat*	'cut'
karas	'aloes wood, camphor tree'	vs.	*keras*	'hard'
pagi	'morning'	vs.	*pergi*	'go'
garam	'salt'	vs.	*geram*	'infuriated; growl'
jamur	'fungus, mushroom'	vs.	*jemur*	'dry in the sun'
balas	'reply'	vs.	*belas*	'-teen'

True homophones should be distinguished from words which differ in accentuation; Tadmor (2000) cited minimal pairs from other Malay dialects (e.g. *bárat* 'west' vs. *barát* 'heavy') where the only difference lies in which syllable is accented.

6.4.3 Phonological status of [i,e], [u,o] phones in Batanghari sites

The fact that JM sites on the Batanghari river seem to exhibit the split of PM **i, *u* into *i,e* and *u,o* respectively was discussed in §3.2.4.1, but proof was not available as to whether this split in these JM areas is phonemic or not. Minimal pairs need to be sought out, such as SM *burung* 'bird' and *borong* 'gross, by the wholesale' or *dinding* 'wall' and *dendeng* 'jerked meat'.

6.4.4 Homophony between prenasalized stops and postploded nasals

It is not known whether the prenasalized stops described in §4.3 and the postploded nasals of §4.2.2 could be homophonous. Minimal pairs such as the following could be tested:

suap	'a mouthful; to feed'	vs.	*suam*	'lukewarm'
kuap	'yawn'	vs.	*kuam*	'hot'
asap	'smoke'	vs.	*asam*	'sour'[87]
malap	'dim, flickering'	vs.	*malam*	'night'
antat	'to send'	vs.	*antan*	'pestle'
jangat	'skin'	vs.	*jangan*	'don't'
kilat	'lightning'	vs.	*kilan*	'hand span'
ikat	'to tie'[88]	vs.	*ikan*	'fish'
ubat	'medicine'	vs.	*uban*	'grey hair

In general, instrument testing of word-final postploded nasals, particularly in terms of prominence, would be a very interesting and potentially fruitful project.

6.4.5 Nasal simplexes in JM?

Speaking of instrument testing, the alleged nasal simplexes of JM should be tested to see if these are identical to simple nasals, or if there are still traces of plosive left. Here is an exhaustive listing of historical consonant clusters which I transcribed as being simple nasals, and their locations:

PM *	**form**	**gloss**	**location**
timbak	*temaʔ*	'shoot'	ML
əsaʔ ambil-an	*samilan*	'nine'	various
əmbun 'dew'[89]	*mu^{d}n*	'fog'	MR
SI hembus	*muyç*	'blow'	DD, MS, MP, SL
induʔ	*inuʔ*	'mother'	LK
aɲjiŋ	*aɲiŋ*	'domesticated animal'	MR, DD, SL, SS
paɲjaŋ	*paɲaŋ*	'long'	MR, SL
SI *tiɲju*	*tiɲu*	'punch (v.)'	ML, MS, MP, SL, SS, DN
SI *tuŋgu*	*tuŋu*	'wait'	DT, MS
puŋguŋ	*buŋoŋ*	'back'	MS
SI *tiŋgal*	*tiŋal*	'dwell'	SL

6.4.6 Distribution of voiced stem-initial obstruents

Newman (1989) made a very interesting observation about Sarawak Malay, and the well-known fact that its voiced stem-initial obstruents regularly undergo nasal replacement. He observed that this nasal replacement was not as regular as the nasal replacement undergone by voiceless stem-initial obstruents. For example, according to Newman's sampling, *b* assimilated to *m* 95% percent of the time, *d* assimilated to *n* only 60% of the time, *g* assimilated to *ŋ* 97% of the time, and *j* to *ɲ* 60%. Is JM also less regular in replacing voiced than unvoiced stem-initial obstruents?

6.4.7 LK and South Sumatra

It was discussed in chapter 3 how LK has some innovations not shared by other JM varieties, and speculated that LK shares some connections with the Sekayu population (or *Suku Pindah*) around Pauh in the Sarolangun regency. It would be interesting to sample the speech of the *Pindah* group to see if any of the distinctive LK innovations are found in their speech as well.

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[87] Nearly all Jambi locations have *masam* 'sour', not *asam*.
[88] All Jambi locations have *kebat* 'to tie', not *ikat*, but perhaps the lexeme exists with a slightly different meaning.
[89] The words *əmbun* and *(h)embus* may be exceptional as, after the word-initial schwa is elided, these consonants end up being word-initial. Their distribution is certainly exceptional.

6.4.8 **Ns* sequences in JM

Prentice and Hakim Usman (1978:133) reported some interesting innovations with **Ns* sequences in KER, specifically 1) voicing of *s* to *z*; 2) loss of *N*; and 3) centralization of preceding *a* (if any) to *ə*. My wordlist unfortunately did not have any examples of **Ns* sequences, so it is not known if these innovations are shared by any JM varieties. Here is a list of some SI *Ns* sequences that could be investigated (Velar nasal is symbolized as “ng”.):

angsa	'goose'
bangsat	'villain'
engsel	'hinge'
gangsa	'brass'
kongsi	'partnership, syndicate'
pingsan	'faint, swoon'
ungsi	'flee, evacuate'
singsing	'roll up (e.g. a sleeve)'

6.4.9 Suffixes in JU

Steinhauer (2002) in an analysis of the chronological changes in Kerinci phonology and morphology, concluded that "[p]re-Kerinci, like some other Malay varieties, must have been poor in suffixes. There are no traces of suffixes corresponding to the Indonesian verbal suffixes *-kan* and *-i*." If my assertion that the Malay in upstream Jambi and Kerinci are both autochthonous speech varieties descending from a relatively homogenous ancestor (Early Sumatran Malay?) is correct, Steinhauer's conclusion of a lack of suffixes would have a substantial likelihood of being true in JU as well. If pre-Jambi Malay also lacked those suffixes, JU, being a relic area, may still evince that lack, or at least perhaps show similar syntactic and semantic strategies as are employed by Kerinci to communicate transitive and locative verbal concepts.

6.5 Conclusion

The Malay spoken in the Batanghari river basin is a truly fascinating subject of study; my chief regret is not having had the opportunity to better plumb its depths, and to better understand the generous, hospitable people who speak it. Perhaps there will be opportunity later. Likewise, this monograph is a very limited look at a small segment of the language, and many of the most interesting conclusions are still frightfully tentative. Nonetheless I hope there are a few areas where this study may have made a contribution to the fields of linguistics, dialectology and Austronesian studies. Perhaps the chief contribution was the delineation and more precise description of six Malay dialects of the Batanghari basin, namely Jambi Ilir, Jambi Ulu, Pesisir, Penghulu, and Western and Eastern Kubu. Also potentially interesting is how these dialects, delineated chiefly by phonological innovations, can serve as another case study of the untrustworthiness of lexicostatistics for subgrouping. The conclusions of this research also highlight the potential mismatch between linguistic findings and local epistemologies (e.g. *orang Batin* and the *Melayu Tua* label). Another contribution is the delineation of an additional area of preploded nasals beyond the areas surveyed by Blust (1997). A more variegated overview than Blust's was given of various types of variable occlusion such as final pre- and post-plosion, final pre- and post-nasalization and medial nasal complexes, and their possible relations with each other. This research also corresponds to and refines the hypothesis behind other riverine-based research in areas such as Ulu Terengganu/ coastal Terengganu (Collins 1983), Ulu Kutai/ Ilir Kutai (Collins 1991) by emphasizing not only the downstream/ upstream division but also the concept of navigability as a potentially important variable influencing language patterns. Finally, this research engages the question of the nature of pre-Malay in Sumatra, and joins other studies in failing to present counterevidence to the hypothesis that Sumatran Malay was once a relatively uniform direct descendant of Proto-Malayic.

Appendix A
List of primary language consultants

Village	Code	Age	Sex
Mudung Laut	ML	50s	F
Dusun Teluk	DT	30s	M
Lubuk Kepayang	LK	50s	M
Pulau Aro	PA	60s	M
Dusun Dalam	DD	50s	M
Muara Siau	MS	70s	F
Muara Panco	MP	70s	M
Bunga Tanjung	BT	60s	M
Kungkai	KK	60s	F
Seling	SL	50s	M
Mersam	MR	90s	F
Suo Suo	SS	70s	F
Dusun Danau	DN	60s	M
Tanah Tumbuh	TT	40s	M
Lubuk Telau	LT	70s	M
Teluk Kuali	TK	50s	M

Appendix B
Regencies of Jambi Province and distribution of Jambi Malays

Pre-1999 Regency	Present Regency	majority JM
Tanjung Jabung	TanjabBarat	mixed
	TanjabTimur	mixed
Kotamadya Jambi	Kota Jambi	yes
Batanghari	Batanghari	yes
	Muaro Jambi	yes
Saro-Bangko	Sarolangun	yes
	Merangin	yes
Bungo-Tebo	Bungo	yes
	Tebo	yes
Kerinci	Kerinci	no

Appendix C
Coordinates of research sites

Village	Abb.	Subregency	Regency	n/s	deg	minutes	e/w	deg	minutes
1. Thesis Research Sites									
Mudung Laut	ML	Pelayangan	Kota Jambi	S	1	35.168	E	103	36.575
Dusun Teluk	DT	Pemayung	Batanghari	S	1	30.916	E	103	26.444
Mersam	MR	Mersam	Batanghari	S	1	42.137	E	103	0.000
Lubuk Kepayang	LK	Pauh	Sarolangun	S	2	5.725	E	102	55.556
Pulau Aro	PA	Pelawan Singkut	Sarolangun	S	2	22.214	E	102	41.778
Dusun Dalam	DD	Sarolangun	Sarolangun	S	2	15.573	E	102	33.111
Muara Siau	MS	Muara Siau	Merangin	S	2	17.634	E	102	5.556
Muara Panco	MP	Sungai Manau	Merangin	S	2	6.870	E	101	58.444
Bunga Tanjung	BT	Sungai Manau	Merangin	S	2	9.847	E	101	52.667
Kungkai	KK	Bangko	Merangin	S	2	6.412	E	102	14.000
Seling	SL	Tabir	Merangin	S	1	52.443	E	102	15.778
Suo Suo	SS	Tebo Tengah	Tebo	S	1	22.443	E	102	28.222
Teluk Kuali	TK	Tebo Ulu	Tebo	S	1	11.450	E	102	12.000
Dusun Danau	DN	Pelepat	Bungo	S	1	36.641	E	102	12.889
Tanah Tumbuh	TT	Tanah Tumbuh	Bungo	S	1	26.107	E	101	51.778
Lubuk Telau	LT	Pelepat	Bungo	S	1	45.802	E	102	8.444
2. Additional Data Points									
Muara Rupit	RAW	Rupit	Musi Rawas (S. Sumatra)	S	2	44.727	E	102	54.545
Bukit Duabelas South	KJ4			S	2	0.000	E	102	36
Dusun Tuo	KJ5			S	1	10.200	E	102	22.8
(no coordinates available)	MIN1 MIN2 SWY								

Appendix D
Wordlists from 16 research sites in Jambi

Numbering follows Blust (1981) with additional items listed by alphabetical English gloss.

Section 1: Eight wordlists, five from sites on the Batangahari including downstream, plus three Penghulu (MIN) lists.

#	English	Indonesian SI	Mudung Laut ML	Dusun Teluk DT	Mersam MR	Suo Suo SS	Teluk Kuali TK	Lubuk Telau LT	Bunga Tanjung BT	Pulau Aro PA
001	hand	tangan	taŋan	taŋan	taŋan	taŋan	taŋan	taŋan	taŋan	taŋan
002	left (hand)	kiri	kiʁi	kiri	kiɣiᶜ	kiʁi	kiɣi	kida	kida:	kidaw
003	right (hand)	kanan	kanan	kanan	kanan	kanan	kanan	kanan	kanan	kanan
004	leg (foot)	kaki	kaki	kaki	kakiᶜ	kaki	kaki	kaki	kaki	kaki
005	walk/ go	berjalan	jalan	bɐjalan	bɜjalaᵈn	bajạlạn	bɨɯjalan	bajalan	bajalan	bajalan
006	road/ path	jalan	jalan	jalan	jalaᵈn	jạlạn	jalan	jalan	jalan	jalan
007	come	datang	tibo	tibo	tibo	tibo	tibo	tibo	tibo	tibo
008	turn (v.)	belok	putaʁ	malegoʔ	maleŋkoʔ	bapạliŋ	bɨɯkeloʔ	keloʔ	puta:	meŋkol
009	swim (v.)	berenang	baʁnaŋ	barnaŋ	bəʸnaŋ	baʁnạŋ	bo͡ɣnaŋ	bo:naŋ	bəʁənaŋ	baʁonaŋ
010	dirty (clothes)	kotor (pakaian)	kotoʁ	kotor	kotoᵉ	kotoᵡ	kubaŋ	kubaŋ	kumɔ	kubaŋ
011	dust	debu	ləbu	ləbu	lɜbu	dɛbu	dəbu	lobu	baabu	dobu
012	skin (person)	kulit (orang)	kulɪt	kʊlit	jaŋaⁿt	jaŋaⁿt	jaŋat	jaŋeʔ	jaŋɛʔ	jaŋeʔ
013	back	belakang	bəlakaŋ	blakaŋ	bḷakaŋ	bɐlạkạŋ	bəlakaŋ	puŋguŋ	puŋguŋ	balakaŋ
014	belly	perut	pʁut	pərʊt	pɣut	paᵡut	pəɣʊt	po:uyʈ	pəʁuyʔ	poʁuyʔ
015	bone	tulang	tulaŋ	tulaŋ	tulaᵍŋ	tulaŋ	tulaŋ	tulaŋ	tulaŋ	tulaŋ
016	guts	isi perut	isi pəʁut	pərut rayo	isi pɣut	isi paʁʊᵈt	isi pəɣut	lalaŋ	isi pəʁuyʔ	isi powuyʔ
017	liver	hati	ati	ati	atiᶜ	ati	ati	ati	ati	atiy
018	breast	susu	susu	cut	susu	susu	susu	susu	susu	susu
019	shoulder	bahu	bau	bau	bau	bau	bau	bau	bau	bau
020	know	tahu	tau	səntuw	tau	tau	təntu	tau	tau	tau
021	think	berpikir	pikiʁ	bapikir	pikiᵉ	bapikiᵡ	bɨɯpiki:	piki:	piki:	bapikɪʁ
022	be afraid	takut	takut	takʊt	takuᵈt	takuᵈt	takut	takuyʈ	takuyʔ	takuyʔ
023	blood	darah	daʁah	dara	daʸah	daʁah	daɣah	daɣah	daʁah	daʁah
024	head	kepala	kɜpalaʔ	kəpalaʔ	kapalaʔ	kɐpalo	kəpalaʔ	kapaloʔ	kəpalɔʔ	kapalaʔ
025	neck	leher	leheɐ͡ʁ	leher	leheᵉ	liyeɜᵡ	leẹ:	moɣi, məɣi	məʁeχ	moʁiᵃ
026	hair (head)	rambut	ʁamᵇut	rambʊt	ˠamᵇʊt	ᵡamᵇut	ambuṯ	amᵇuyʈ	ʁambut	ambuyt
027	nose	hidung	iduŋ	iduŋ	idoŋ	iduŋ	iduŋ	idʊᵊŋ	iduŋ	iduŋ
028	breathe	bernafas	[ba]napas	ɴ-tariʔ napas	napas	maŋgoᵡ	napeh	oŋoʔ	bəŋoʔ	baᵡoŋoʔ

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029	sniff/ smell	cium	sium	cium	cium^{p}	cium	cium	upaː	cium	cium
030	mouth	mulut	mulut	mʊlʊt	mulut	mulut	mulut	muɲcoŋ	muluyʔ	muluyʔ
031	teeth	gigi	gigi	gigi	gigi^{x}	gigi	gigi	gigi	gigi	gigi
032	tongue	lidah	lidah	lida	lidah	lidah	lidah	lida	lidah	lidah
033	laugh	tertawa	tɐtawo	tawo	tatawo	gəlaʔ	gəlaʔ	golaʔ	gəlaʔ	golaʔ
034	cry (v.)	menangis	naŋis	naŋis	naŋɪs	naŋiç	matap	naŋiː	naŋih	manaŋi
035	vomit (v.)	muntah	muntah	muta	mutah	mutah	mutah	muta	mutah	mutah
036	spit (v.)	meludah	bɜludah	baluda	bɜludah	maludạh	məludah	maluday	mali^{y}u	məludah
037	eat	makan	makan	makan	maka^{d}n	makan	makan	makan	makan	makan
038	chew (v.)	mamah/ kunyah	kuɲa	ŋuɲa	ɲəcep	mamah	məŋuɲah	sopa	ŋuɲah	ŋuɲah
039	cook (v.)	masak	masaʔ	masaʔ, batanaʔ	masaʔ	batạnạʔ	masaʔ	masaʔ	masaʔ	masaʔ
040	drink (v.)	minum	minum	minum	minum	minum	minum	minum	minun	minum, minun
041	bite (v.)	gigit	gigit	gẹgẹt	ŋigit	gigit	gigit	gigit	gigiʔ	gigit
042	suck	(h)isap	isap	isap	ŋ-isap	maŋisam^{p}	sədut	m^{ə}isoʔ	isoʔ	isoʔ
043	ear	telinga	kupiŋ	kupiŋ	təliŋo	tɐliŋo	təliŋo	taliŋo	liŋoʔ	taliŋo
044	hear	dengar	dəŋaʁ,kaniŋan	aniŋ	n/tanẹŋ	tadəŋaː	ŋaniŋ	kadoŋaː	nəŋaː	doŋaʁ
045	eye	mata	mato	mato	mato	mato	mato	mato	mato	mato
046	see	lihat (nampak)	neŋoʔ	liat	nọlẹ/tọlẹ	maliɛt	mandaŋ	maɲcaliʔ	məɲcəlɪʔ	coli^{ə}ʔ
047	yawn (v.)	kuap	aŋop	aŋop, ŋuap	ŋuam^{p}	maŋua^{m}p	məŋuap	kuoʔ	kuɔʔ	kuoʔ
048	sleep	tidur	maʁiŋ	tẹdʊr	tidu^{ɐ}	tidʊ^{ɤ}	tidɨɯ̩, tɨɯ̩-tidɨ	tiduː	tiduː	tiduʁ
049	lie down	berbaring	baʁiŋ	bariŋ	baɣiŋ	baʁiŋ	baɣiŋ	baɣi^{ə}ŋ	ŋuliŋ ŋuliŋ	baʁi^{ə}ŋ, bagoleʔ
050	dream	mimpi	mimpi	mimpi	mimpi^{x}	mimpi	mimpi	mimpi	mimpi	mimpi
051	sit	duduk	duduk	dʊdʊʔ	dudu	dudu	dudu	dudu	dudʊʔ	dudu^{ə}ʔ
052	stand (v.)	berdiri	tgaʔ	təgaʔ	tgaʔ	tagaʔ	tgaʔ	togaʔ	təgaʔ	togaʔ
053	person	orang	oʁaŋ	ʊraŋ	uɣa^{g}ŋ	uʁaŋ	u^{ɣ}aŋ	uɣaŋ	uʁaŋ	uʁaŋ
054	man	laki-laki	jantan	jantan	janta^{d}n	jantạn	jantan	jantan	jantan	jantan
055	woman	perempuan	bɐtino	bɐtino	bɜtino	batino	bətino	batino	batino	bətino
056	child (small)	anak (kecil)	buda	anaʔ	anaʔ	anaʔ	anaʔ	anaʔ	anaʔ	anaʔ
057	husband	suami	laki	lakiy	laki^{x}	laki	laki	laki	laki	laki
058	wife	isteri	bini	bini	bini	bini	bini	bini	bini	gabiah
059	mother	ibu	mạʔ	maʔ	meʔ	amạʔ	in^{d}uʔ	an^{d}awʔ	in^{d}ʊʔ	umaʔ
060	father	bapak	ayah	paʔ	bapaʔ	bæpạʔ	ayah	apaʔ	bapaʔ	ayah
061	house	rumah	ʁumah	ruma	ɣumah	ʁumah	umah	uma	umah	umah

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062	roof	atap	atap	atap, bʊbʊŋ	paɣo, dek	ade^{g}k	dek	atəʔ	atoʔ	atoʔ
063	name	nama	namo	namo	namo	namo	namo	namo	namo	namo
064	say	berkata	kato, səbut	bacakap	bəcakap	bacạkạp^{m}	bəkato	cakap	ŋəcɛʔ	bakato, bacakap
065	rope	tali	tali	tali	tali^{ç}	tali	tali	pɪtɛt	tali	tali
066	tether, tie	ikat	kəbat, tam^{b}at	tam^{b}at, k^{ə}bat	ŋəbat	kabɛ^{d}t	kəbat	kobeʔ	kəbɛʔ	kobeʔ
067	sew	jahit	ɲait	jait	ɲait	manjæit	ɲ/jait	jaiʔ	jaiʔ	jaiʔ
068	needle	jarum	jaʁum	jarʊm	pəɲait	jạʁum	jaɣum,pəɲait	paɲaiʔ	pəɲaiʔ	jaʁum,pəɲ^{j}aiʔ
069	hunt (v.)	buru	babuʁu	baburu	babuɣu	basiyap^{m}	bəbuuɥu	babuɣu	kəjaː	babuʁu
070	shoot	tembak/ panah	temaʔ	nem^{b}aʔ	bədil	manem^{b}e^{a}ʔ	mənembaʔ	tembaʔ	tɛmbaʔ	tembaʔ
071	stab	tikam	tikam	tikam	tikam	mɛnikam	tujah	tikam	tikam	tikam
072	hit (not punch)	pukul	tiɲju	paldaʔ	gual	manutuk	tambɨuɥ	tuku	tokɔʔ	godo
073	steal	curi	mali^{g}ŋ	malɪŋ	mali^{g}ŋ	maliŋ	maliŋ	mali^{ə}ŋ	cilʊʔ	mali^{ə}ŋ
074	kill	bunuh	bunuh	bunu	bʊnʊ	bunuh	bunoh	bunu	bunuh	bunu^{ə}
075	dead	mati	mati	mati	mati	mati	mati	mati	mati	mati
076	live/ be alive	hidup	idʊp	idup	idup	idup	idup	iduyʔ	iduyʔ	iduyʔ
077	scratch	garuk	gaut	gaʊt	gau^{d}t	gauʔ	gaut	gaːuyʈ	gauyʔ	gawuyʔ
078	cut/ hack	Potong, tetak	k[ə]ʁat, tetaʔ	tətaʔ, kerat	tətaʔ	bakaʁat, maŋaʁat	mantay	koɣeʔ	kəʁɛʔ	paɲcu^{ə}ŋ
079	wood	kayu	kayu	kayu	kayuɸ	kayu	kayu	kayu	kayu	kayu
080	split	belah	kapaʔ	bəla	bəlah	maŋapiŋ	bəlah	kopi^{ə}ŋ	kəpiŋ	kopi^{ə}ŋ
081	sharp (machete)	tajam (mata parang)	tajam	tajam	taja^{b}m	tajam	tajam	tajam	tajam	tajam
082	dull (machete)	tumpul (mata parang)	tumpul	tumpul	tumpul	tumpul	tumpul	majaː	majaː	tumpuʁ
083	work (v.)	bekerja	kərjo, bagawe	bagawe	bɜgawe	bakaʁajo	bəgawe	bagawe	bagawe	bagawe
084	plant (v.)	tanam	tanam	tanam	tanam	batanam, mananam	tanam	tanam	tanam	tanam
085	choose	pilih	milih	pẹlẹ	m/pilih	mamilih	pilih	pili	pilih	pili^{ə}
086	grow	tumbuh	tumbu	tum^{b}u	tum^{b}uh	tumbuh	tumbuh	tumbu	tumbuh	tumbu^{ə}
087	swell (v.)	bengkak	bəŋkaʔ, ŋanonoŋ	bəŋkaʔ, ɲəm^{b}ʊl	bəŋkaʔ	baŋkạʔ pad^{e}ah	bəŋkaʔ	boŋkaʔ	bəŋkaʔ	boŋkaʔ
088	squeeze	peras	ʁamas	pra	pə^{v}ah, pi^{y}u	bapaʁaç	pə^{v}ah	piuh	piuh	poʁah
089	hold (v.)	genggam (pegang)	pəgaŋ	gəŋgam	gəŋ^{g}a^{b}m	pɐgạŋ	pəgaŋ	pogaŋ	pəgaŋ	pogaŋ, goŋgam
090	dig	gali	gali	gali	ŋali^{ç}	gæli	kali	kali	kaleʔ	gali
091	buy	beli	bli	bli	bli	bɛli	bəli	boli	bəli	boli

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092	open (v.)	buka	bukaʔ	bukaʔ	bukaʔ	bukaʔ	bukaʔ	bukaʔ	bukaʔ	bukaʔ
093	pound (v.) (rice)	menumbuk (padi)	numᵇuʔ	tumᵇuʔ	numᵇuʔ	numᵇuʔ	numbʊʔ	numᵇuʔ	tuᵐbuʔ	tumbʊᵊʔ
094	throw away (trash)	buang (sampah)	kibaʁ	kibar	cepaʔ	cạmpạʔ	campaʔan	campaʔ	capaʔ	campaʔ
095	fall (v.)	jatuh	jatuh, campaʔ, guguɛ̄ʁ	jatʊ	jatuh	jatuh	jatuh	jatuh	jatuh	jatuᵊ
096	dog	anjing	aɲɟiŋ	aɲɟiŋ	aɲiᵍŋ	aɲiŋ	aɲɟiŋ	aɲɟiŋ	aɲɟiŋ	aɲɟiᵊŋ
097	bird	burung	buʁuŋ	buruŋ	buʸuᵍŋ	buʁʊŋ	buɯuŋ	buɣuŋ	buʁuŋ	buʁuŋ, buwuŋ
098	egg	telur	təloᵏ	tᵊlor	təluᵉ	taloᵏ	təlɨɯ	tolu:	təlo:	təlʊʁ
099	feather (chicken)	bulu (ayam)	bulu	bulu	bulu	bulu[ɸ]	bulu	bulu	bulu	bulu
100	wing	sayap	kəpaʔ	kəpaʔ	kəpaʔ	kɐpaʔ	kəpaʔ	kopaʔ	kəpaʔ	kopaʔ
101	fly (v.)	terbang	tɐbaŋ	tərbaŋ	tɣbaŋ	taʁbᵉaŋ	tobaŋ	tobaŋ	təbaŋ	tobaŋ
102	rat	tikus	tikus	tikus	tikus	tikuç	məɲcit	moɲcit	məɲciʔ	moɲcit
103	meat	daging	dagiŋ	dagɪŋ	dagiᵍŋ	dagiŋ	dagiŋ	dagiᵃŋ	dagiŋ	dagiᵊŋ
104	fat (noun)	lemak	ləmaʔ	ləmaʔ	ləmaʔ	lamạʔ	ləmaʔ, enaʔ	lomaʔ	maʔ	lomaʔ
105	tail	ekor	buntʊt	buntut, ekoʔ	ekoʔ	ikoʔ	ikʊʔ	ikuʔ	ikọʔ	ikụʔ
106	snake	ular	ulaʁ	ular	ulaᵛ	ulaᵍ	ulɨɯ	ula:	ula:	ulaʁ
107	worm (earth)	cacing (tanah)	caciŋ	caciŋ	caciŋ	caciŋ	caciŋ	caciŋ	cɛʔciŋ	caciᵊŋ
108	lice (animal)	kutu (binatang)	kutu	kutu	kutu	kutu	kutu	kutu	kutu	kutu
109	mosquito	nyamuk	ɲamụk	ɲamʊʔ	ɲamoʔ	ɲamoʔ	ɲamoʔ	ɲamʊʔ	ɲamoʔ	ɲamọʔ
110	spider	laba-laba	laba laba	mɐmaŋᵍo, maŋᵍo maŋᵍo	kalalaba	lawah	lawah	aŋgaw aŋgaw	lawah	lawa lawah
111	fish	ikan	ikan	ikan	ikaᵈn	ikạn	ikan	ikan	lauʔ	ikan
112	rotten	busuk	busoʔ, boɲɐʔ	mamᵇu, busuʔ	busuʔ	busuʔ	busuʔ	busuʔ	busuʔ	busuᵊʔ
113	branch	dahan	bataŋ kayu, dahan	dahan	dahan	dạhạn	daan	daan	daán	dahan
114	leaf	daun	daun	daun	daun	daun	dauᵈn	daun	daun	daun
115	root	akar	akaᵏ	akar	akaᵛ	akaᵏ	baŋkɨɯ	aka:	uʁɛʔ	akaʁ
116	flower	bunga	kəmᵇaŋ	kəmᵇaŋ	buŋo	buŋo	buŋo	buŋo	buŋo	buŋo
117	fruit	buah	buah	bua	buah	buah	buah	bua	buah	buah
118	grass	rumput	ʁumput	rumput	ɣumput	ʁumpuᵈt	umpuʸt	umpuyʔ	umpuʸʔ	ʁumpuyʔ
119	earth	tanah	tanah	tanah	tanah	tanah	tanah	tanah	tanah	tanah
120	stone	batu	batu	batu	batu	batu	batu	batu	batu	batu
121	sand	pasir	buŋin	buŋin	puláu	buŋin	buŋin	bʊŋin	kəsẹʔ	buŋin
122	water	air	aeʔ	aeʔ	aeʔ	aeʔ	ayiʔ	aʸiʔ	ayiʔ	aʸɨŋ

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123	flow (v.)	alir	aɲut	aɲu^{n}t	aɲon^{t}	aɲut	ili:	aɲuyʔ	nuʁu^{y}ʔ	aɲuyʔ
124	sea	laut	laut	laut	laut	laut	laut	laut	laut	lawəyʔ, laut
125	salt	garam	gaʁa^{b}m	garam	gaɣam	gąʁąm	gaɣa^{b}m	gaɣam	gaʁam	gaʁam
126	lake	danau	dano	dano	danaw	danaw	danaw	danaw	ləbaʔ	danaw
127	forest	hutan	utan, ^{ʁ}imbo	utan	ɣim^{b}o, utan	ʁim^{b}o	im^{b}o	im^{b}o	imbo	imbo
128	sky	langit	laŋit	laŋit	laŋit	laŋit	laŋit	laŋit	laŋik	laŋiʔ
129	moon	bulan	bulan	bulan	bulan	bulan	bulan	bulan	bulan	bulan
130	star	bintang	bintaŋ	bintaŋ	bintaŋ	bintaŋ	bintaŋ	bintaŋ	bintaŋ	bintaŋ
131	cloud	awan	awan	awan	awan	awan	awan	omaŋ	kabuyʈ	awan
132	fog	kabut	kabut	kabut	mụu^{d}n	mụbu^{d}n	kabu^{y}t	ombun	asoʔ	kabuyʔ
133	rain	hujan	ujan	ujan	ujan	ujan	ujan	ujan	ujan	ujan
134	thunder	guntur	guʁuh,gələdeʔ	bələdek	bələdek, pətuʂ	guʁu	pətuyç	guɣuh	guʁu, pətuyç	guʁuh
135	lightning	kilat	kilat	kilat	kilat	kilat	kilat	kilat	kilɛt	kileʔ
136	wind	angin	aŋin	aŋin	aŋin	aŋin	aŋin	aŋin	aŋin	aŋin
137	blow (v.)	tiup	tiụp	tiʊp	ŋəm^{b}us	maŋambus	mbuyç, mbus	ombuy	m^{b}uyç	ombuy
138	hot (water)	panas (air)	aŋat, oŋkap	aŋat	aŋa^{n}t, uŋkap	panayç,aŋa^{d}t	paneh	aŋeʔ	aŋeʔ	paneh, aŋeʔ
139	cold (water)	dingin (air)	səjuʔ	səjuʔ	səjuʔ	sæjʊʔ	diŋin	diŋin	diŋin	diŋin
140	dry (not wet)	kering	kʁiŋ	krẹŋ	kəriŋ	kɐʁẹŋ	kəɣiŋ	koɣi^{ə}ŋ	kʁiŋ	koʁi^{ə}ŋ
141	wet (cloth)	basah (kain)	ləmbab	kubus	basah	bæsạh	basah	basa	basah	basah
142	heavy	berat	bʁat	brat	bəɣat	baʁą^{d}t	bəɣat	boɣeʔ	bəʁɛʔ	boʁeʔ
143	fire	api	api	api	api^{x}	api	api	api	api	api
144	burn (a field)	bakar (ladang)	məʁu^{d}n	bakar	bakaɣ	baka^{ʁ}	bakɨɯ	paŋgaŋ	paŋgaŋ	paŋ^{g}aŋ
145	smoke (from fire)	asap	asap	asap	asap	asab͡p	asap	asoʔ	asoʔ	asəʔ
146	ashes	abu	abu	abu	abu	abu	abu	abu	abu	abu
147	black	hitam	itam	itam	ita^{p}m	ita^{p}m	itam	itam	itam	itam
148	white	putih	puti	puti	putih	putih	putih	puti	putih	putih
149	red	merah	meʁah	mera	abaŋ	meʁah	meɣah	siɣa	siʁa:	abaŋ
150	yellow	kuning	kuniŋ	kuniŋ	kunɪŋ	kunɪŋ	kuniŋ	kuni^{ə}ŋ	kuniŋ	kuni^{ə}ŋ
151	green	hijau	ijo	ijo	ijaw	ɪjạw	ijaw	ijaw	ijaw	ijaw
152	small (object)	kecil (benda)	kəciʔ	kəciʔ, alus	kəciʔ	kaceʔ	keteʔ	kociʔ	aluyç, keneʔ	kɛteʔ
153	big (object)	besar	bəsaʔ, gədaŋ	bəsaʔ, gədaŋ	gəda^{g}ŋ	bɐsą^{ʁ}, gądąŋ	gədaŋ	godaŋ	gədaŋ	godaŋ
154	short (object)	pendek (benda)	pendeʔ	pendeʔ	pendeʔ	pen^{d}eʔ	pendeʔ	pan^{d}aʔ	ciŋkɛʔ	pendeʔ

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155	long (object)	panjang (benda)	paɲʲaŋ	paɲjaŋ	paɲaŋ	dæpo	paɲjaŋ	paɲʲaŋ	paɲjaŋ	paɲʲaŋ
156	thin (object)	tipis (benda)	tipis	tipis	tipis	tipiç	tipiç	mipi	mipih	mipih
157	thick (object)	tebal (benda)	təbal	təbal	təbal	tạbæl	təbal	toba:	təba:	tobal
158	narrow	sempit	səmpit	səmpit	sə^{m}pit	sampi^{d}t	səmpɪt	kociʔ	səmpit	sompiʔ
159	wide	lebar	lebaʁ	lebar	lebaɣ	lebạʁ	libɨɯ	godaŋ	lueh	loweh
160	sick/ painful	sakit	sakit	sakit	sakit	sakit	dəmam	sakiʔ	sakiʔ	sakit
161	shy/ ashamed	malu	malu	malu	malu	mạlu	malu	malu	malu	malu
162	old (person)	tua (orang)	tuo	tuo	tuo	tuo	tuo	tuo	tuo	tuo
163	new	baru	baʁu	baru	ba^{ɣ}u	bạʁu	bayu	bayu	baʁu	baʁu
164	good (person)	baik (orang)	baẹʔ, eloʔ	baẹʔ	baiʔ	eloʔ	baiʔ	eloʔ	eləʔ	eloʔ
165	bad (person)	jahat (orang)	dəgil	jaẹl	buɣʊʔ	daʔ eloʔ	cəŋkiŋ, dəgil	nakal, nakar	jaɛʔ	jahat
166	true/ correct	benar/ betul	bənaʁ	bənar	bənaɣ	bənạ^{ʁ}	bənɨɯ	bona	bəna:	bonaʁ
167	night	malam	malam	malam	malam	malam	malam	malam	malam	malam
168	day	hari	aʁi	ar^{ə}i	a^{ɣ}i	haʁi	aɣi	aɣi	aʁi	aʁi
169	year	tahun	tau^{d}n	taun	taun	taun	taun	taun	taun	taun
170	when	kapan	kapan	bilo	bilo	bilo	bilo	bilo	bilo	bilo
171	hide	sembunyi	sɛmuɲi	səmuɲi	ɲuɣuʔ	səʁʊʔ-an	ɲạp ɲạp	ontəʔ	ɲuʁoʔ	ɲuʁuʔ
172	climb	naik	naeʔ	naẹʔ	naeʔ	naɪʔ	naeʔ	kate	katɛh	najɪʔ
173	at	di	di	di	di	di	di	di	di	di
174	inside	di dalam	di dalam	[di] dalam	di dalam	di dạlạm	dalam	dalam	di dalam	di dalam
175	above	di atas	di atas	[di] atas	datas	di atas	de:teh	di ate	da:tɛh	di ateh
176	below	di bawah	bawa	[di] bawa	bawah	di bawah	bawah	bawa	bawah	di bawah
177	this	ini	iko	iko	iko	iko	iko	iko	iko	iko
178	that	itu	itu	itu	itu	itu	itu	itu	itu, itɛn	itu
179	near	dekat	dəkat	dəkat	dɜkat	dɐkạt^{n}	dəkat	dokeʔ	dəkoʔ	dokeʔ
180	far	jauh	jau	jau	jauh	jạuh	jauh	jau	jauh	jau^{ə}
181	where	di mana	di mano	di mano	di mano	di man^{a}o	di mano	mano	[di] mano	di mano
182	I	saya, aku	sayo	aku	awaʔ	sayo	kito, awaʔ	am^{b}o	ambo	ambo
183	you (singular)	kamu, engkau, anda	kau, kamu	kau	ka^{d}n	kamu	kaan	kamu	aŋ, kau, kayo	baʔaŋ
184	he/ she	dia, ia	dioʔ	dioʔ, ɲo	ɲo	kau	ɲo	ɲo	ɲo	iɲo
185	we (excl.)	kami	kami	kito	kami	kami	kami	kami	kami	kito

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186	you all	kamu semua, kalian	galo galo-ɲo	kito galo galo	kamu	miko	kamo	biko	kalɛn, kayo	kamu
187	they	mereka	məʁeka, dioʔ	kau kau tu	oɣaŋ baɲaʔ [tu]	kau	uɣaŋ tu	biko	uʁaŋ tu	uʁaŋ [tu]
188	what	apa	apo	apo	apo	apo	apo	apo	apo	apo
189	who	siapa	siapo	siapo	sepo	siapo	sepo	syapo	sapo	siapo
190	other	lain	lain	lain	lain	lain	lain	lain	lain	læin
191	all	semua	galo galo	galo-e	galo galo	sagạlo	galoé	galo	galo	galo galo
192	and/ with	dan	dan	dan	da^{d}n	dan	dan	dan	dan	dan
193	if	jika	kalu	jiko, kalu	kalu	bil^{a}o	kalu	jiko	koʔ	kalu
194	how	bagaimana	bagimano, macam mano	macam mano	macam mano	mạcạm mạn^{a}o	macam mano	macam mano	macam mano, apo mɛnɛ	macam mano, bagimano
195	not	tidak	idaʔ, daʔ	tidaʔ, daʔ	deʔ edo	idaʔ	idaʔ	idaʔ	idaʔ	idaʔ, daʔ do
196	count (v.)	hitung	hituŋ	bilaŋ	babilaŋ	bilaŋ	bilaŋ	bilaŋ	babilaŋ	etoŋ
197	one	satu	satu	sekoʔ	sekoʔ	sekoʔ	ciɛʔ	cieʔ	cieʔ, so	cieʔ
198	two	dua	duo	duo	duo, dɐːkoʔ	duo	duo	duo	duo	duo
199	three	tiga	tigo	tigo	tigo	tigo	tigo	tigo	tigo	tigo
200	four	empat	əmpat	mpat	mpat	mpat^{n}	mpat	ompeʔ	əmpɛt	ompeʔ
Additional										
	angry	marah	maʁah	mara	maɣah	maʁah	maɣah	ɲoŋiʔ	məŋ^{g}ih	maʁah
	answer	jawab	jawab	ɴ-jawab	jawap	jawap	jawap	jawap	juwob	jawab͡p
	banana	pisang	pisaŋ	pisaŋ	pisa^{g}ŋ	pisaŋ	pisaŋ	pisaŋ	pisaŋ	pisaŋ
	bathe	mandi	man^{d}i	man^{d}i	man^{d}i^{ç}	mạn^{d}i	mandi	mandi	mandi	mandi
	betel leaf	daun sirih	siʁi	siri	daun siɣih	daun siʁih	siɣih	siɣi	siʁeh	daun siʁi^{ə}
	betel nut	pinang	pinaŋ	pinaŋ	pinaŋ	pinaŋ	pinaŋ	pinaŋ	pinaŋ	pinaŋ
	bitter	pahit	pait	pait	pait	pai^{d}t	pait	paiʔ	pait	paiʔ
	blind	buta	buto	buto	buto	buto	buto	buto, abʊ^{d}n	ʁabun	buto
	blowpipe	sumpit	sumpit		tulup	tulum͡pan	suliŋ	sumpiʔ	sumpit	sumpit
	body	badan	badan	badan	badan	bạdạn	badan, awaʔ	badan	badan	badan
	boil	bisul	bisul	bẹsul	bisul	bisul	bisul	boŋkaʔ	bisuː	bisul
	boil	mendidih	ŋɜlgaʔ	ŋələgaʔ	ŋaləgaʔ	mandidiç	ŋələgaʔ	ŋologaʔ	ŋəlgaʔ	ŋəlogaʔ
	broom	sapu (penyapu)	sapu	sapu	sapu	sapay	səpay	sepay	sepay	sapay
	brother (older)	kakak laki-laki		abaŋ	aba^{g}ŋ	abaŋ	uoː	oŋa	wːo	uwo
	bury	kubur	kubuʁ	kʊbʊr	kubu^{ᵉ}	kubʊ^{ᵏ}	kubɨɥ̨, pəkubɨ^{ɣ}an	kubuː	kubuː	kubuʁ
	call (v.)	panggil	səʁu[kan]	sərʊ	im^{b}aw	imbaw	im^{b}aw	imbaw	imbaw	imbaw
	canoe	perahu	paʁau	prau	p^{ɣ}au	paʁau	puɥau	biduʔ	bidʊʔ	bidu^{ə}ʔ

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	canoe paddle	dayung	pɐŋayu	pəŋayu	pəŋayɵ̃	paŋayõ	pəŋãyõh	paŋayu	pəŋayu	pəŋaɲuˀ
	cassava	singkong	ubi kayu	ubi	ubi kayu	ubi	ubi	ubi	ubi	ubi
	chest	dada	dado	dado	dado	dado	dado	dado	dado	dado
	chicken	ayam	ayam	ayam	ayam	ayam	ayam	ayam	ayam	ayam
	chin	dagu	daguʔ	daguʔ	dagu, daguʔ	daguʔ	dagʊʔ	dagʊʔ	dagɵ̱ʔ	daguᵃʔ
	coconut (ripe)	kelapa	kəlapo	kəlapo	kəlapo	kəlapo	niɬɯ	kəlapo masaʔ	kəlapo	kəlapo
	coconut (unripe)	kelapa muda	dogan	dogan	dogan	dogaᵈn	niɬɯ mudo	kəlapo mudo	kəlapo mudo	kəlapo mudo
	comb	sisir	sikat	suri	sikat	sisiə̃ʁ	sikat	sikeʔ	sikɛʔ	sikeʔ
	cooking pot (for rice)	panci (untuk nasi)	saʁiŋ nasiʔ, bəskːom	pəriuʔ	puyuʔ	paʁa̱yuʔ	cəmbuŋ	suŋkuyʔ	piuʔ	piʁuᵊʔ, sːkɔm
	cough	batuk	batuʔ	batuʔ	batuʔ	bætuʔ	batʊʔ	batuʔ	batɵ̱ʔ	batuᵊʔ
	crocodile	buaya	buayo	buayo	boyo	buayo	boyo	boyo	bɔyo	boyo
	deaf	tuli	pkaʔ	pəkaʔ	pkaʔ	pakaʔ	pəkaʔ	pokaʔ	pəkaʔ	pokaʔ
	deer	rusa	ʁuso	ruso	ˠuso	ʁuso	uːso	uso	ʁuso	ʁuso
	defecate	berak	bɛʁaʔ	beraʔ	beˠaʔ	beʁaʔ	ciɣit	ciɯiʔ	ciʁiʔ	ciʁit
	descend	turun	tuʁuᵈn	tʊrʊn	tuˠun	tuʁun	tuɯuᵈn	tuˠuᵈn	kabawah	tuʁun
	dibble stick	tugal	tugal	tugal	tugal	tugɻal	naɲʲaʔ	taɲʲaʔ	ŋəɲcam	taɲjaʔ
	difficult	susah, sukar	payah	sɜrit	susah masa atiˣ	susah	payah	suko, susah	bantan	saʁo
	dipper	gayung	cantɪŋ	sənᵈʊʔ	centoŋ	sɛnduʔ	cintuŋ	ceɣeʔ	tekoŋ	cintuᵊŋ
	dry (rice in sun)	jemur	jəmə̃ɐʁ	jəmʊr	agay		jəmɨɯ	jomu	ampaː	jomuʁ
	durian	durian	duʁen	duren	dəˠian	dɜʁyɜn	douɻyan	diˠan	dian	diʁan
	east	timur	timuɐ̃ʁ	timur	iliᵉ	ka iliᵃ	keliː	ili	iliː	timuʁ
	eggplant	terong	təʁuᵍŋ	truŋ	təˠuŋ	taʁoŋ	təɣuŋ	toɣoŋ	təʁuŋ	tɔʁʊŋ
	eight	delapan	lapan	lapan	lapan	lapan	lapan	lapan	lapan	lapan
	eleven	sebelas		səbəlas	səbəlay					
	excrement	tai	tai	tai	tai	tai	ciɣit	ciɯiʔ	ciʁiʔ	ciʁit
	face	muka	muko	muko	muko	muko	muko	muko	muko	muko
	fast	cepat	cəpat	cəpat	cəpat	capaᵈt	cəpat	copeʔ	cəpɛʔ	copeʔ
	fat (person)	gemuk (orang)	gəmuʔ, bontet	gədaŋ	gəmʊʔ	gɐpʊʔ	gəpʊʔ	gopuʔ	gəpoʔ	gopuᵊʔ
	fence	pagar	pagaʁ	kandaŋ	kanᵈaŋ	kandaŋ	kandaŋ	paga	paga:	pagaʁ
	field	ladang (umum)	ladaŋ	umo	ladaŋ, umo	umo	umo	umo	umo	umo

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	fight	berkelahi	babala	bɐbala	batiɲu	cakaʔ	bətiɲʲu	bacokaʔ	bacəkaʔ	bəcokaʔ
	finger	jari	jąʁi	jari	anaʔ jaʸiᶜ	jaʁi	anaʔ jaɣi	jaɣi	jaʁi	jaʁi
	fire place	tungku (tempat tradisional)	tuŋku	tuŋku	tuŋku	tuŋku	tuŋku	tuŋku	tuŋku	tuŋku
	fish line	pancing	paɲciŋan	paɲcẹŋ	paɲciŋ	paɲciŋ	paɲciŋ	paɲciᵊŋ	paɲciŋ	paɲciᵊŋ
	five	lima	limo	limo	limo	limo	limo	limo	limo	limo
	floor	lantai	lante	lante	lantay	lantay	lantay	lantay	lantay	lantay
	fly	lalat	lalat	lalat	lalat	lalat	lalat	laŋaw	laŋaw	laŋaw
	forget	lupa	lupo	lupo	lupo	lupo	lupo	lupo	lupo, daʔ təkəna:	lupo
	fragrant	wangi	ᵃʁum	bau	ɣuᵇm	aʁum	ə̄ɣ̄ːum	bauᵈn	ʁun	owʊn, oʁʊn
	friend	kawan	kanti	kanti	kaⁿtiç	kawạn	kawan	kawan, kanti	kanti	kantiy
	frog	katak	kodoʔ	kodoʔ	kodok	kodoᵍk	kaŋkuŋ	loɲceʔ	loɲceʔ	loɲceʔ, kaŋkuŋ
	full (cup)	penuh (cawan)	pənu	pʊl	pənʊh	panọh	pənoh	ponu	pənoh	ponuᵊ
	full (of food)	kenyang	kəɲaŋ	kəɲaŋ	kəɲaŋ	kɐɲạŋ	kəɲaŋ	koɲaŋ	kəɲaŋ	koɲaŋ
	ginger	jahe	jae	jae	jae	jae	jae	jae	səpədeh	sapode
	give	beri	m/bagi	bagi	m/bagiᶜ	bagɪh	bagɪˣ	bagi	bage	bogiᵊ
	go home	pulang	baliʔ	balẹʔ	baliʔ	baleʔ	baliʔ	baliʔ	baleʔ	baliᵊʔ
	hand span	jengkal	kilan	kilan	kilan	kilan	kilan	joŋka	jɪŋka:	[sa]kilan
	hard (object)	keras (benda)	kʁas	kras	kɣas	kaʁayç	kəɣeh	koɣe:	kəʁɛh	koʁeh
	heart	jantung	jantuŋ	jantʊŋ	jantʊŋ	jantʊŋ	jantuŋ	jantʊŋ	jantuŋ	jantʷọŋ
	hornbill	tingang			kikiʔ, ŋːᵍaŋ	aŋᵍaŋ	laŋkəloʔ, kikiʔ	oŋgaŋ	ŋᵍaŋkəloʔ	kəlaŋkəloʔ
	hundred	seratus	saʁatus	səratus	sɣatus	sɐʁatuṣ	səɣatuʸç	satuy	saʁatuyç	saʁatuy
	hungry	lapar	lapaʁ	lapar	lapaɣ	lapaᵡ	lapɨɥ	litaʔ	litaʔ	lapaʁ
	husk of rice	sekam	səkam	səkam	səkam	sɐkam	səkam	sokam	dədaʔ	sokam
	hut in field	gubuk	pondoʔ	ponᵈoʔ	ponᵈoʔ	pondoʔ	ponᵈoʔ	ponᵈoʔ	sudʊŋ	pondoʔ
	ironwood	ulin (kayu besi)	bulian	bulian	bulian	kulim	kulim	kuliᵈn	kulin	kulin
	itch	gatal	gatal	gatal	gatal	gatal	adaŋ	gata:	gata:	gatal
	knife	pisau	piso	piso	pisaw	pisaw	pisaw	pisaw	pisaw	pisaw
	ladder	tangga	taŋgo	taŋgo	taŋᵍo	taŋᵍo	taŋgo	taŋgo	taŋgo	taŋgo
	lie (untruth)	bohong	ɲomboᵍŋ	məlaŋgʊʔ	ŋəbʊᵍŋ	pambuoŋ	boʊŋ	boŋaʔ	ŋicuh	ɲeceʔ
	lime	kapur	kapuɐ̄ʁ	kapʊr	kapuᵉ	kapʊᵡ	kapɨɥ	kapu	kapu:	kapuʁ
	lip	bibir	bibiʁ	bibir	bibiᵉ	bibiɜ̄ʁ	bibɪ	bibi:	bibi:	bibiʁ

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	live (dwell)	tinggal	tiŋgal	diam	tiŋ^{g}al	tiŋ^{g}a̤l	tiŋgal	tiŋgaː	tiŋgaː	tiŋgal
	loincloth	cawat	cawat	kaɲcʊt	kaɲcut	cawɛ^{n}t	cəlano	cawe?	sokoto?	kaɲcuy?
	longhouse	rumah panjang	bedeŋ	ruma paɲjaŋ, bedeŋ	kamaɣ		umah gədaŋ	kama	umah gədaŋ	umah tuo
	lose	hilang	ilaŋ	ilaŋ	ila^{g}ŋ	ilaŋ	ilaŋ	ilaŋ	ilaŋ	ilaŋ
	machete	parang	paʁaŋ	paraŋ	pa^{ɣ}aŋ	paʁa̤ŋ	paɣaŋ	paɣaŋ	paʁaŋ	paʁaŋ
	many	banyak	baɲa?, bəlambun	bəlambun	baɲa?	baɲa?	baɲa?	baɲa?	baɲa?	bəlambun
	mat	tikar	tikaʁ	tikar	tikaɣ	tika^{ʁ}	tikɨɯ	lapi?	lapɪ?	lapi^{e}?
	medicine	obat	obat	ubat	ubat	ubæ^{d}t	ubat	ubɛ?	ubɛ?	ubɛ?
	monkey	monyet	moɲet	kro	kəɣo̤	baʁo̤?	ciɣa?, ceŋko?	ciga?	bəʁo̤?	boʁʊ^{ə}?
	morning	pagi	pagi	pagi	pagi	pagi	pagi	pagi	pagi	pagi
	mortar (rice)	lesung (padi)	ləsuŋ,siŋkalan	ləsʊŋ	ləsuŋ	lasọŋ	ləsuŋ	losuŋ	ləsuŋ	losʊ^{ə}ŋ
	mountain	gunung	gunuŋ	bukɪt	gonoŋ	gunʊŋ	gunuŋ	gunuŋ	gunuŋ	gunuŋ
	mud	lumpur	lumpuʁ	lea?	lea?, lumpu^{ᵉ}	lumpu^{ʁ}	lumpɨ^{ɣ}	lumpuː	gəca	lumpuʁ
	nine	sembilan	samilan	sɛmilan	sɜm^{b}ilan	sɛmbilan	səmilan	samilan	samilan	samilan
	not	bukan	kəɲo?	kəɲo?	kɲo?	kaɲo?	kəɲo?	kiɲo?	ida?	bukan, keɲo?
	old (object)	lama	lamo	lamo	lamo	lamo	lamo	lamo	lamo	lamo
	pay	bayar	bayaʁ	bayar	bayaɣ	bæyːạː	bayiː	bayɪː	bayi^{ə}	bayɨ^{ʁ}
	peanut	kacang	kacaŋ	kacaŋ	kacaŋ	kacaŋ	kacaŋ	kacaŋ	kacaŋ	kacaŋ
	pestle (rice)	alu (padi)	ana? siŋkalan	antan	antan	antan	antan	antan	antan	antan
	pig	babi	babi	babi	babi	babi	jukut	jukuy?	juku^{ʸ}?	jukuy?
	pillow	bantal	bantal	bantal	bantal	bạntạ̤l	bantal	banta	banta:	bantal
	play (v.)	bermain	main	main	maen	maɪn	busi?	main, busi?	bausẹ̤?	bamain
	post (house)	tiang (rumah)	tiaŋ	tiaŋ	tiaŋ	tiaŋ	tiaŋ	tiaŋ	tiaŋ	tiaŋ
	pull	tarik	taʁi?	tarẹ̤?	na^{ᵛ}i?	manaʁɪ?	ta^{ᵛ}i?	elo	juju^{ʸ}?	taʁi^{ə}?, elo
	punch (with fist)	tinju (dgn. buku lima)	niɲu	tiɲ^{j}u	num^{b}u?, mɛkop	manɪɲu	teɲ^{j}u	teɲ^{j}u	teɲ^{j}u	teɲju
	push	dorong	doʁoŋ	doroŋ	nʊla?	manula?	doɣoŋ	tula?	tundo^{a}	tula?
	raft	rakit	ʁakit	rakit	^{ᵛ}akit	^{ʁ}aki^{d}t	akit	aki?	ʁaki?	aki?
	rainbow	pelangi	pəlaŋi, kuwuŋ	səruni, sərune	ɣone	^{ʁ}une	onɛh	indo	bendo	indo
	rattan	rotan	ʁotan	rotan	^{ᵛ}o̤tan	ʁotan	utan	otan	ʁotan	ʁotan
	revolve (like top)	putar (spt. gasing)	pusɪŋ	pusiŋ	baputaɣ	baputaː^{ʁ}	bəputɨɯ	lenoŋ	putaː	putaʁ
	rice	padi	padi	padi	padi^{ɕ}	padi	padi	padi	padi	padi
	rice	beras	bʁas	bras	bɣas	baʁayç	bəɣɛh	boɣe	bəʁɛh	boʁe^{ɕ}

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	rice (cooked)	nasi	nasiʔ	nasiʔ	nasi^{x}	nasi	nasi	nasi	nasi	nasi
	rice wine	tuak	tuaʔ			tuaʔ	tuaʔ, niɣo	aɣaʔ	tuaʔ	niʁo
	ring (for finger)	cincin	ciɲcin	ciɲcin	ciɲcin	ciɲcin	ciɲcin	ciɲcin	ciɲcin	ciɲcin
	river	sungai	suŋe	suŋe	suŋay	suŋay	suŋay	suŋay	suŋay	bataŋ a^{y}iŋ
	run	lari	bɜlaʁi	lari	bəla^{v}iç	laʁi	laɣi	laɣi	balaʁi	laʁi
	sago	sagu	sagu	sagu	sagu	sagu	sagu	sagu	sagu	sagu
	sarong	sarung	kain saʁuŋ	kain	kain	kain	saɣuŋ	saɣʊŋ	sampiŋ	kain saʁuʔŋ
	sell	jual	jual	jual	jual	juæl	jual	jua:	jua:	jual
	seven	tujuh	tujuh	tuju	tujuh	tujuh	tujuh	tuju	tujuh	tujuᵊ
	shore	pantai	buŋin	pantay	lan^{d}ay		pasi:	pantay	pantay	topi a^{y}iʁ
	sister (older)	kakak perempuan		ayuʔ, kamboʔ	m^{b}oʔ, upɪʔ	m^{b}oʔ	moʔ daŋ	uo	w:o	uwo
	six	enam	ənam	n:am	nam	ənam	ṇam	onam	ənam	onam
	skinny (person)	kurus (orang)	kuʁus	kurus	ku^{v}us	kuʁuç	kuɯu^{y}ç	kuɣuy:^{ç}	kuʁuyç	kuʁuy
	sore	luka	luko	luko	luko	luko	luko	luko	luko	luko
	sour	asam	asam	masam	masam	masam	masam	masam	masam	asam
	spear	tombak	tum^{b}aʔ	tʊmbaʔ	tʊm^{b}aʔ	tombæʔ	tomba?	tom^{b}aʔ	tom^{b}aʔ	kujuʁ
	story	cerita	cəʁito	baroyat, cərito	cəɣito	caʁit^{a}o	cɯito	cᵊito	kunʊn	cito
	straight	lurus	luʁus	lurus	luɣus	luʁuç	luɯu^{y}ç	luɣuyç	luʁuyç	luʁuy
	strong (person)	kuat (orang)	kuat	kuat	padeʔ	kua^{d}t	kuat	kueʔ	kuɛʔ	kueʔ
	sugar cane	tebu	təbu	təbu	təbu	tɜbu	təbu	tobu	təbu	təbu
	swallow (food)	telan (makanan)	nəlan	təlan	nəguʔ	talan	təguʔ	toguʔ	təgoʔ	təguᵊʔ
	sweat	keringat	kəʁiŋat	pəluh	kə^{v}iŋat	pɐlʊh	pəluh	poluh	pəluh	poluᵊ
	sweet	manis	manis	manis	manis	maniç	maniç	mani	manih	mani:
	taro	keladi (ubi)	kəladi	kəladi	kəladi	kəladi	kəladi	kəladi	talɛ	kəladi
	tell	beritahu	bɐcakap	cərito	bapṣan	pɐsạn	katoan	bagı tau	ge tau	bogiᵊ tau
	ten	sepuluh	sapulu	səpulu	səpuluh	sɐpuluh	səpuluh	sapulu	sapuloh	sapuluᵊ
	termite	rayap	ane ane, tetɐʁan	ulat	bubuʔ	bubʊʔ	kumbaŋ,bubuʔ	bubuʔ	nanay	bubuᵊʔ
	thigh	paha	poho	poho	pao	pao	pao	pao	pao	pao
	thirsty	haus	aws	aus	aws	aus	auç, auyç	au^{y}ç	auyç	awi
	thorn	duri	duʁi	duri	du^{v}i	duʁi	duɯi	duɣi	duʁi	duʁi
	thousand	seribu	saʁibu	sribu	sɣibu	sɐʁibu	səɣibu	saibu	saʁibu	saʁibu

#	English	Indonesian SI	Mudung Laut ML	Dusun Teluk DT	Mersam MR	Suo Suo SS	Teluk Kuali TK	Lubuk Telau LT	Bunga Tanjung BT	Pulau Aro PA
	throat	tenggorok	təŋgoʁok	karoŋkoŋan	kɐlkum	kaʁakuŋan	koŋkuŋan	koːŋkuŋ	kəːŋkʊŋ	koŋkuˀŋ
	tomorrow	besok	isuʔ	besoʔ	bẹ̣sʊʔ, isʊʔ	isuʔ	isuʔ	isuʔ	pagi səʔ	bisʊˀʔ pagi
	tree	pohon	bataŋ [kayu]	bataŋ	ˌɣimᵇo	kayu	kayu, bataŋ	kayu	bataŋ	bataŋ, dahan
	turtle	kura-kura	kuʁo kuʁo	kuro kuro, kakuro	kakuɣo	labi	kuɣo kuɣo	baniˀŋ	kuʁo kuʁo	kuʁo kuʁo
	urine	kencing	kəɲciŋ	kəɲciŋ	kn̰ciŋ	kɐɲciŋ	kəɲciŋ	koɲciˀŋ	kəɲciŋ	koɲciˀŋ
	vein	urat (darah)	uʁat	urat	uɣat	uʁanᵗ	uɣat	uɣeʔ	uʁɛʔ	uʁeʔ
	wait	tunggu	tuŋgu	tʊŋʊ	tantiʔ, tuŋᵍu	tantiʔ	n/tantiʔ	tuŋgu	nanteʔ	tuŋgu
	wall (of house)	dinding	dindiŋ	dindiŋ	dindiŋ	dindiŋ	dindiŋ	dindiˀŋ	dindiŋ	dindiˀŋ
	wash (clothes)	cuci (kain)	basuh	basʊ	ɲəsah	ɲəsah	səsah	sosa	basuh	basuˀ
	we (incl.)	kita	kito	kito, kito galo galo	kito	kito	kito	kito	kito	kito
	we two	kita berdua	kito baduo	kito bɐduo	kito bduo				kito baduo	kito baduo
	weave (mat)	anyam (tikar)	ŋaɲam	ŋaɲam	ŋãyãm	maŋa̰ɲãm, ba̰ːɲãm	aɲam	aɲam	aɲam	aɲam
	west	barat	baʁat	barat	mudiʔ	ka ulu,mudiʔ	koʷlu	mudiʔ	mudɪʔ	baʁat
	widow	janda	janᵈo	jando	janᵈo	ja̰ndo	jando	jando	jando	jando
	winnow	menampi	nampi	tampi	nampi	manampi	nampi	nompi	nampi	tɔmpi
	wipe	lap	lap	lap	lap	bakusuʔ	apuyç, apus	apuyː	apuyç, apuyh	apuy
	yesterday	kemarin	səmalam, səˣontu	sore tu, sore dulu	səpətaŋ	saˣetu	pətaŋo	potaŋ	pətɐŋ	potaŋ
	(transitive suffix)	-kan	kan			-an, -kan	-an			
	3SG.POSS	-nya	-ɲo, -e	-e	-ɲo	-ɲo				

Section 2: Eight wordlists, all from upstream and south of the Batanghari.

#	English	Indonesian SI	Lubuk Kepayang LK	Dusun Dalam DD	Muara Siau MS	Muara Panco MP	Kungkai KK	Seling SL	Dusun Danau DN	Tanah Tumbuh TT
001	hand	tangan	taŋan	taŋan	taŋan	taŋan	taŋan	taŋan	taŋan	taŋan
002	left (hand)	kiri	kiʁin	kidaw	kidaw	kidaw	kidaw	kidaw	kidaw	kiʁi
003	right (hand)	kanan	kanan	kanan	kanan	kanan	kanan	kanan	kanan	kanan
004	leg (foot)	kaki	kakin	kaki	kakey	kak͡ɘ̃e	kakˀi	kaki	kaki	kaki
005	walk/ go	berjalan	bajalɛn,baʁayo	bajalanᵗ	bajalaᵗn	bejalɛn	bajalan	bəjalat	bajalan	bejelan
006	road/ path	jalan	jalɛn	jalanᵗ	jalan	jalan	jalan	jalat	jalan	jelan
007	come	datang	tibʊ	tibo, dataŋ	tibo	tibo	tibˀo	tibo	tibo	tibo

#	English	Indonesian SI	Lubuk Kepayang LK	Dusun Dalam DD	Muara Siau MS	Muara Panco MP	Kungkai KK	Seling SL	Dusun Danau DN	Tanah Tumbuh TT
008	turn	belok	miŋkol, maliŋkoʔ	baʁaliɲ,baʁalih	kiloʔ	bakilᵊo	bakilᵊoʔ	kiloʔ	baliʔ	kiloʔ
009	swim	berenang	baʁnaŋ	baʁɜnaŋ	banaŋ	bənaŋ	bənaŋ	bənaŋ	baʁɜnaŋ	bəʁənaŋ
010	dirty (clothes)	kotor (pakaian)	kutoʁ	kubạŋ	kumoh	kumoh	ŋubaŋ	gudeŋ	kubaŋ	kubaŋ
011	dust	debu	dəbum	ləbu	dəbu	dəbu	dəbᵊo	ləbu	ləbu	ləbu
012	skin	kulit (orang)	jaŋet	jaŋaⁿt	jaŋaⁿt	jaŋat	kulᵊet	kuliᵈn	jaŋeʔ	kulit, jeŋat
013	back	belakang	puŋguŋ	bəlakaŋ	buŋoŋ	lakoŋ	puŋgoŋ	piŋᵍak	puŋguŋ	puŋᵍuŋ
014	belly	perut	pəʁʊt	pəʁʊdⁿ	pʁut	pahot	pəʁᵊut	pəhuᵈn	pəʁutⁿ	pɜʁuᵈt
015	bone	tulang	tulaŋ	tulaŋ	tulaŋ	tuloŋ, tulaŋ	tulᵉaŋ	tulak	tulaŋ	tulaŋ
016	guts	isi perut	isi pəʁut	liŋka: pəʁunʔ	kalaᵍŋ	isi pəhot	isi pəʁot	kalak	isi paʁut	isi pəʁut
017	liver	hati	atin	ati	atᵉi	atᵊi	atᵊi	atᵊi	ati	ati
018	breast	susu	susum	susu	susu	susu	susᵊo, puan	susu	susu	susu
019	shoulder	bahu	baum	bạu	bau	bao:	bau	bau	bau	beu
020	know	tahu	taum	tau	tau	təntəw	tau	ṇtuh	tau, ŋ-aʁᵊti	tau
021	think	berpikir	bapikiʁ	panano	piki:	bapikəy	pikiᵊ	pikiᵃ	bapikiᵃ	piki:
022	be afraid	takut	takut	takuⁿt	pəŋleʔ	kətakʊn	takᵃon	takuᵈn	takut	takut
023	blood	darah	daʁah	daʁah	daʁah	daha	daʁah	dahah	daʁah	deʁah
024	head	kepala	kəpalow	kəpalo	paloʔ	kᵊpaloʔ	kəpalᵊo	kəpaloʔ	kɜpaloʔ	kɜpalo:
025	neck	leher	liʸeɘʁ	liyeᵃ	lie:	liye:	liyeᵊ	liyiᵃ	meʁih	liyẹ:
026	hair (head)	rambut	ʔamᵇut	ʁamᵇut	amᵇoⁿt	ambut	ambᵊut	amᵇuᵈn	ʁamᵇut	ʁambut
027	nose	hidung	iduŋ	iduk	idoŋ	idowŋ	idᵊoŋ	iduk	idʊŋ	idʊŋ
028	breathe	bernafas	banapaʸç	naʁik ɲawo	naʁik ŋap	bəŋap	bənapaʸx	əŋoʔ	naʁiʔ əŋoʔ	ŋ:oʔ
029	sniff/ smell	cium	cium	cium	cium	beon	ciom	ciup	ŋidu	cium
030	mouth	mulut	muɲcoŋ	muluⁿt	mulut	mulot	mulᵊut	muluᵈn	muɲcʊŋ	mulut
031	teeth	gigi	gigin	gigi	gigi	gigᵊi	gigᵊi	gigi	gigi	gigi
032	tongue	lidah	lidah	lidah	lidah	lidah	lidᵉah	lidah	lidah	lidah
033	to laugh	tertawa	gəlaʔ	gəlaʔ	gilaʔ	gəlaʔ	gəlaʔ	gəlaʔ	gəlaʔ	gəlaʔ
034	to cry	menangis	naŋih	naŋiɲŋ̰	naŋeç	naŋayh	naŋᵊiç	mənaŋih	naŋiᶜ	naŋiᶜ
035	to vomit	muntah	mutah	muntah	mutah	mutah	mutᵋah, təjəlʊ̂aʔ	mutah	mutah	mutah
036	to spit	meludah	ludah	maludah	məliu	malio	ludạh	məludah	mɜludah	ludah
037	eat	makan	makan	makanᵗ, majuŋ/ majuh	makan	makan	makan	makat	makan	makan
038	chew	mamah/ kunyah	ŋuɲah	kuɲah	miɲam	məɲcəpaʔ	ŋuɲah	kuɲah	mɜɲcəpaʔ	ŋəcap
039	to cook	masak	masaʔ	masaʔ, batanaʔ	masaʔ, pintah	masaʔ	pintah	masaʔ	masaʔ	masaʔ
040	to drink	minum	minum	minum	minum	minum	minʊm	minum	minum	minum

#	English	Indonesian SI	Lubuk Kepayang LK	Dusun Dalam DD	Muara Siau MS	Muara Panco MP	Kungkai KK	Seling SL	Dusun Danau DN	Tanah Tumbuh TT
041	bite	gigit	gigit	gigit	gigi^{n}t	ŋigəyt	gig^{ə}it	gigin	gigi^{n}t	gigit
042	suck	(h)isap	isap, isop	isap	içap	içap	isap	isa^{p}m	isap	isap
043	ear	telinga	təliŋo	taliŋ^{ə}oʔ	taliŋoʔ	taliŋow	taliŋ^{ə}o	taliŋo	taliŋo	təliŋo
044	hear	dengar	ŋaneŋ	dəŋa:	nəŋa:	məŋɛn	nəŋ̣a:	dəŋa:	dəŋ̣a:	dəŋa:
045	eye	mata	matow	mato	mato	mat̪ow	mat^{ə}o	matə	mato	mato
046	see	lihat (nampak)	teŋoʔ	ŋimaʔ	ŋəle	ŋəlɛn	ŋəleh	ŋəleh, neŋoʔ	tiŋoʔ	cəliʔ
047	yawn	kuap	ŋũap	kuap	kua^{m}p	kuap	kuap	ŋuap	kuam^{p}	kuap
048	sleep	tidur	tidʊʁ	tidu^{a}	tidu:	tido:	tidu^{ə}	tidu^{a}	tidu^{a}	tidu:
049	lie down	berbaring	baʁiŋ, ɲadəy	baʁɪŋ	banaŋ	ŋul^{ə}iŋ	baʁ^{y}eŋ	bahik	baʁɪŋ	baʁiŋ
050	dream	mimpi	mimpin	mimpi	mimpi	mimpəy	mimp^{ə}i	mimpi	mimpi	mimpi
051	sit	duduk	duduʔ	duduk	duduʔ	dudowʔ	dudo^{ə}ʔ	duduʔ	duduʔ	duduʔ
052	stand	berdiri	təgaʔ	təgaʔ	təgaʔ	təgaʔ	təgaʔ	təgaʔ	təgaʔ	təgaʔ
053	person	orang	ʊʁaŋ	uʁaŋ	uʁaŋ	uhaŋ	uʁ^{y}aŋ	uhak	uʁaŋ	uʁaŋ
054	man	laki-laki	jantɛn	jantan^{t}	jantan	jantan	jantan	ja^{n}tat	jantan	jentan
055	woman	perempuan	batinʊ	batino	tino	batin^{ᶜ}o	batin^{ə}o	batino	bɜtino	bətino
056	child (small)	anak (kecil)	budaʔ	anaʔ	anaʔ	anaʔ	anaʔ	anaʔ	anaʔ	anaʔ
057	husband	suami	laki	lak^{e}i	lak^{e}i	lak^{ə}i	lak^{ə}i	lak^{ə}i	laki	laki
058	wife	isteri	bini	bini, ʁabiah	bini, biyah	bin^{ə}i	bin^{ə}i	bini	bini	bini
059	mother	ibu	inuʔ	in^{d}oʔ	in^{d}oʔ	in^{d}oʔ	indoʔ	in^{d}uʔ	in^{d}ʊʔ	induʔ
060	father	bapak	bapaʔ	bapaʔ	bapaʔ	bapaʔ	bapaʔ	bapaʔ	bapaʔ	ayah
061	house	rumah	umah	umah	umah	umah	umah	umah	ʁomah	ʁumah
062	roof	atap	atap	atap	atap	atap	atap	atap	de^{ŋ}g	atap
063	name	nama	namo	namo	namo	namo͡o	namo	namo	namo	namo
064	say	berkata	bacakap	bɛcakap, bɛkato	bakiceʔ	ŋiceʔ	bəcakap	bakiceʔ	bɔcaka^{m}p	bəcakap
065	rope	tali	talin	tali	tal^{ə}i	taləy	tal^{ə}i	tal^{ə}i	tali	tali
066	tether, tie	ikat	kəbet	kəbat	kəbat	kəbat	kəb^{e}at	kəba^{d}n,kəbɛ^{d}n	kəbeʔ	kəbat
067	sew	jahit	ɲait	ɲait^{n}	ɲaet	ɲa^{ə}it	ɲait	jait^{n}	jait^{n}	jeit
068	needle	jarum	jaʁʊm	jaʁum	pəɲaet	pəɲa^{ə}it	jaʁom, pəɲait	pəɲait^{n}	paɲait^{n}	pəɲeit, jeʁum
069	hunt	buru	babuʁum	babu̯ʁu̯	buʁu	babuʁ^{ə}o	buʁ^{ə}o	babuhu	babuʁu	babuʁu, bebuʁu
070	shoot	tembak/ panah	ɴ-tim^{b}aʔ	nɪm^{b}aʔ	tim^{b}aʔ	nim^{b}æʔ	tembaʔ	tim^{b}aʔ	tim^{b}aʔ	bədɪl
071	stab	tikam	tikam	amawʔ	tikam	tujit	tuj^{y}ah	tikap	tuji^{n}t	tikam, cucuʔ
072	hit (not punch)	pukul	baŋkʊ^{g}ŋ	tukul, mpa͡ɛh, gudo	baeh	gugoʔ	tuko^{ə}	guguh	tukul	tukul
073	steal	curi	maliŋ	maleŋ^{k}	maliŋ	malə͡eŋ	maleŋ	malik	maliŋ	malɪŋ
074	kill	bunuh	bunuh	bunuh	banta^{e}	bunoh	bunoh	bun̯oh	bunoh	bun̯oh
075	dead	mati	matin	mampuɲ	məmpoyç	matəy	mat^{ə}i	mati	mati	mat^{e}i

#	English	Indonesian SI	Lubuk Kepayang LK	Dusun Dalam DD	Muara Siau MS	Muara Panco MP	Kungkai KK	Seling SL	Dusun Danau DN	Tanah Tumbuh TT
076	live/ be alive	hidup	idʊp	idup	idup	idᵊup	idᵊop	idup	idup	idup
077	scratch	garuk	gaut	gauⁿt	gaut	ŋaut	gauk	gauᵈn	bagautⁿ	geut
078	cut/ hack	potong, tetak	hamliç, kisot	kutʊŋ	kʁat	kahat	kəʁat	kahat, kahɛt	kəʁeʔ	kəʁat
079	wood	kayu	kayum	kayu	kayu	kayu	kayow	kayu	kayu	kayu
080	split	belah	kəpiŋ	bəlah	kəpᵊɪŋ	kəpᵊiŋ	kəpᵊeŋ	bəlah	bəlah	bəlah
081	sharp (machete)	tajam (mata parang)	tajom	tajam	tajam	tajam	tajam	tajap	taʲam	tajam
082	dull (machete)	tumpul (mata parang)	tumpul	tumpul	tumpul	tumpul	tumpɵ	tumpul	tumpul	tumpul
083	to work	bekerja	kəʁjo, bagawe	bagawe	gawe	bəgawᵊe	bəgawe	bəgawe	bɜgawe	bagawe
084	to plant	tanam	timbuᵈn	tanam	tanam	nanam	nanam	tanam	tanam	tanam
085	choose	pilih	ɴ-pilih	pilih	pilih	pileᵊn	pileh	pilih	pilih	pilih
086	grow	tumbuh	idʊp	idup	tumbuh	idᵊup	idᵊop	idum, idup	iduᵐp, tumbuh	tumbuh
087	swell	bengkak	biɲcul	bəŋkaʔ	bəŋkaʔ	bəŋkaʔ	bəŋkaʔ	bəŋkaʔ	bəŋkaʔ	bəŋkaʔ
088	squeeze	peras	pəʁaʔ, picit	pəʁiⁿt, məʁaʔ	pəʁaç	pio	pəʁah	pio	m/piuh	pəʁah
089	hold	genggam (pegang)	gəŋgam, pəgaŋ	gəŋᵍam, kəcaʔ	pəgaŋ	gəŋᵍam	gəŋgam	gəŋᵍop	gəŋᵍam	pəgaŋ
090	dig	gali	ŋali	kaleŋk	ŋaleʸʔ	ŋaləyʔ	kaleʔ	ŋ/galᵊi	kali	kaliˣ
091	buy	beli	blin	bəli	bli	mələy	bəlᵊi	bəli	bəli	bəli
092	to open	buka	bukaʔ	bukaʔ	bukaʔ	bukaʔ	bukaʔ	bukaʔ	bukaʔ	bukaʔ
093	pound (rice)	menumbuk (padi)	tumᵇʊʔ	numᵇuʔ	nʊmᵇʊʔ	nʊmᵇok	numboʔ	numᵇuʔ	numᵇuʔ	numbʊʔ
094	throw away (trash)	buang (sampah)	capaːʔ	caːpaʔ	campaʔ	campaʔ, campɛʔ	capæʔ	capaʔ	cɜpaʔ	capaʔ
095	fall	jatuh	umeᵈn	gugu[a]	jatoh, taluci	taluce	guguᵒ	jatoh	jatuh	jetuh
096	dog	anjing	aɲjiŋ	aɲek	aɲjiŋ	aɲjiŋ	aɲjᵊeŋ	aɲek	aɲjiŋ	aɲjiŋ
097	bird	burung	buʁʊŋ	bɒʁʊk	buʁo̤ŋ	buʁuŋ	buʁoŋ	buʁuk	buʁuŋ	buʁoŋ
098	egg	telur	təluʁ	tɛlo[a]	təlo̤ː	təloː	təluː	təlu[a]	tɛlu[a]	təlʊː
099	feather (chicken)	bulu (ayam)	bulum	bulu	bulu	bulu	bulaw	bulu	bulu	bulu
100	wing	sayap	kəpaʔ	kəpaʔ	kəpaʔ	kəpaʔ	kəpᵉa̤ʔ	kəpaʔ	kəpaʔ	kəpaʔ
101	to fly	terbang	təʁbaŋ	taʁbaŋ	tabaŋ	təbaŋ	təbᵉaŋ	təbak	taʁbaŋ	təʁbaŋ
102	rat	tikus	tikuyç	məncitⁿ	mɛncɪt	mᵊncɪt	mencᵊet	mənciᵈn	mɲcit	mɲcit
103	meat	daging	dagiŋ	dagɪŋ	dagiŋ	dᵊegᵊeŋ	dageŋ	dagik	dagɪŋ	dagiŋ
104	fat (noun)	lemak	ləmaʔ	ləmaʔ	ləmaʔ	ləmaʔ	ləma̤ʔ	ləmaʔ	ləmaʔ	ləmaʔ
105	tail	ekor	ikʊʔ	iko[a]	iko̤ː	ikɔʔ	ikʷoʔ	iko̤ʔ	ikuʔ	ikʊʔ
106	snake	ular	ulaʁ	ulaː	ulaː	ula̤ː	ulᵉa̤ː	ulaː	ula̤ː	ulaː
107	worm (earth)	cacing (tanah)	caciŋ	cacek	cɛciŋ	cac̤iŋ	cacᵊeŋ	cacik	caciŋ	caciŋ

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108	lice (animal)	kutu (binatang)	kutum	kutu	kụtụ	kutu	kut^{ə}o	kutu	kutu	kutu
109	mosquito	nyamuk	ɲamoʔ	ɲamoʔ	ɲamoʔ	ɲamawʔ	ɲamɔʔ	ɲamoʔ	ɲamoʔ	ɲamoʔ
110	spider	laba-laba	lawa lawa, lalawa	kalawahtaun	labo labo	lawah	lawah lawah	kəlawah	lawah	lawaː
111	fish	ikan	ikan	ika^{n}t	ikan	ika^{d}n	ikan	lauʔ	ikan	ikan
112	rotten	busuk	busuʔ	busuʔ	busuʔ	bus^{u}oʔ	busoʔ	busuʔ	busuʔ	busuʔ
113	branch	dahan	dɛːn	daːn	daan	daan	daan	daːn	daːn	daːn
114	leaf	daun	daun	dau^{n}d̪t̪	daun	daun	daun	daut	daun	deu^{d}n
115	root	akar	uʁat	akaː	akaː	uhat	ak^{e}aː	akaː	akaː	akaː
116	flower	bunga	buŋọ	buŋo	buŋo	buŋo	buŋ^{ə}o	buŋo	buŋo	buŋo
117	fruit	buah	buah	buah	buɔh	buɐh	buɛh	buah	buah	buah
118	grass	rumput	umput	ʁumpɒt	um^{b}ut	umpot	umpot	umput	ʁɵmput	ʁumput
119	earth	tanah	tanah	tanah	tanah	tanah	tane^{a}h	tanah	tanah	tanah
120	stone	batu	batu	bạtu	batu	batu	batá̰ò	batu	batu	batu
121	sand	pasir	pasiʁ	buŋin	buŋin	buŋin	buŋaːyn	buŋin	bʊŋin	buŋin
122	water	air	a^{y}iʔ	ayeʔ	ayiʔ	ayeʔ	ayi^{a}	a^{y}iʔ	ayeʔ	ayeʔ
123	flow	alir	alɨʁ, aliʁ	aɲu^{n}tʔ	ŋaliː	cucᵊo	ŋal^{i}e	aɲut	ŋali^{a}, aɲut	aɲut
124	sea	laut	ləm^{b}aʔ	laut	laut	laut	laut	laut	laut	laut
125	salt	garam	gaʁom	gaʁam^{p}	gɔʁam	gaha^{ʔ}m	gaʁam	gahap	gaʁam	geʁam
126	lake	danau	danaw	danaw	danaw	danaw	danaw	danaw	danaw	denaw
127	forest	hutan	utan	ʁim^{b}o, bəlukạː	im^{b}o	imbo	imbo	im^{b}o	ʁẹm^{b}o	ʁim^{b}o
128	sky	langit	laŋit	laŋit	laŋit	laŋiʔ	laŋ^{a}et	laŋin	laŋit	laŋit
129	moon	bulan	bulẹn	bulan	bulan	bulan	bulan	bulat, bulan	bulan	bulan
130	star	bintang	bintaŋ	bintaŋ	bintaŋ	bintaŋ	bint^{e}aŋ	bintak	bintaŋ	bintaŋ
131	cloud	awan	awan	awan^{t}	awan	au:	awan	awat	awan	awan
132	fog	kabut	ə̀mbu^{d}n	kabu^{n}t	kabɒt	kabut	kabəot	kabut	mụ^{b}u^{d}n	kabut
133	rain	hujan	ujɛn	ujat	ujan	ujan	ujan	ujat, ujan	ujan	ujan
134	thunder	guntur	guʁu	pətʊɲ	guntuː	pətuç	guntowː	guhu	pətuyç	guʁʊh
135	lightning	kilat	kilat	pəte^{ə}	kilat	kileʔ	kilat	kitan, kitat	kilat	kilat
136	wind	angin	aŋɪn	aŋin^{t}	aŋin	aŋin	aŋ^{a}en	aŋin	aŋin	aŋin
137	blow	tiup	mụbu^{y}ç	mụɰ^{n}, mụbuyç	muyç	məyç	^{m}bɵyx	mʊyç	maləpeh əŋõʔ	^{m}buyç
138	hot (water)	panas (air)	panaç	panaɲŋ̩, aŋat	aŋa^{n}t	panəyh, aŋat	aŋat	aŋat^{n}	pane^{ç}	aŋat
139	cold (water)	dingin (air)	səjuʔ	diŋin, səjuʔ	diŋin	diŋin	diŋin	diŋin	sɜjuʔ	səjʊʔ
140	dry	kering	kəʁiŋ	kəʁeŋ^{k}	kʁiŋ	kahə̀ĩŋ	keʁeŋ	kəhek	kəʁɪ^{g}ŋ	kəʁɪŋ
141	wet (cloth)	basah (kain)	ləm^{b}ob	basah	bəsah	bəsah	ləmpe, basah	basah	basah	besah
142	heavy	berat	bəʁet	bəʁat	bʁat	behat	bəʁat	baha^{t}n	bəʁeʔ	bəʁat

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143	fire	api	apin	api	api	apᵊi	apᵊi	apᵊi	api	api
144	burn (a field)	bakar (ladang)	paŋᵍaŋ	paŋᵍaŋ	pəŋaᵍŋ	paŋᵍaŋ	paŋgaŋ	baka:	paŋᵍaŋ	beka:
145	smoke (from fire)	asap	asap	asap	asap	asap	asap	asap	asap	asap
146	ashes	abu	abum	abu	abu	abu	abow	abu	abu	abu
147	black	hitam	itam	itam	itam	itam	itam	itap	itam	itam
148	white	putih	putih	putih	putih	putəyç, putəyh	putᵊeh	putᵊih	putih	putih
149	red	merah	meʁah, abaŋ mələk	abaŋ	abaŋ	abaŋ	abᵉaŋ	abak	abaŋ	abaŋ
150	yellow	kuning	kuniŋ	kunıŋ	kunıŋ	kunəyŋ	kunᵊeŋ	kuniŋ	kuneŋ	kuneŋ
151	green	hijau	hijaw	ijaw	ijaw	ijaw	ijaw	ijaw	ijaw	ijaw
152	small (object)	kecil (benda)	kəciʔ, aluyç	alus	kəceʔ, aləyç	aluɲ	aləyh, kəci	kəciʔ	kəciʔ	kəciʔ
153	big (object)	besar	gədaŋ	gədaŋ	gədaŋ	gədaŋ	gədᵉaŋ	gədak	gədaŋ	gədaŋ
154	short (object)	pendek (benda)	panᵈaʔ	panᵈaʔ	siŋkaⁿt	panᵈaʔ	pandaʔ	panᵈaʔ	panᵈaʔ	panᵈaʔ
155	long (object)	panjang	paɲjaŋ	paɲjaŋ	paɲjaŋ	sədədo	paɲʲʲaŋ	paɲak	paɲʲaŋ	paɲjaŋ
156	thin (object)	tipis (benda)	tipih	tipis	tipəyç	mipəyç	tipᵊix	tipih	tipiç	tipix
157	thick	tebal (benda)	təbel	təbạl	təbal	təbal	təba:	təbal	təbal	təbal
158	narrow	sempit	həmpit, səsak	səmpinᵗ	kəceʔ	səmpəyt	səmᵊit	səmpᵊit	səmpinᵗ	səmpit
159	wide	lebar	liboʁ	libạ:	liba:	luəy	liba:	ujo	ujo	liba:
160	sick/ painful	sakit	hakit	sakiⁿt	sakit	sakᵊet	sakᵊet	sakit	sakit	sakit
161	shy/ ashamed	malu	malum	malu	malu	malo	malᵊo	malu	malu	malu
162	old (person)	tua (orang)	tuọ	tuo	tuo	tuo	tuᵊo	tuo	tuo	tuo
163	new	baru	baʁum	baʁu	baʁu	bɛhu	baʁᵊo	bahu	baʁu	beʁu
164	good (person)	baik (orang)	baiʔ	iloʔ	iloʔ	ilə̀ʔ	ilᵊoʔ	baiʔ	baɪʔ	beiʔ
165	bad (person)	jahat (orang)	jet	jːanᵗ	jaat	jaat	siyə́ẽŋ	jahan, jahat	səle:	jehat, nakal
166	true/ correct	benar/ betul	bənoʁ	bənạ:	bəna:	bəna:	bəna:	bəna:	bənạ:	bəna:
167	night	malam	malam	malamᵖ	malam	maləm	malam	malap	malam	malam
168	day	hari	aʁi	aʁiy	aʁi	ahey	aʁᵊi	ahi	aʁi	aʁi
169	year	tahun	taun	taoⁿt	taun	taun	taun	taun	taun	taun
170	when	kapan	bilo	bilo	bilo	bilᵃo	bilᵊo	bilo	bilo	bilo
171	hide	sembunyi	ɲuʁuʔ	ŋimᵇaŋ	ɲimᵇaŋ	ŋimᵇaŋ	ŋimbᵉaŋ	ŋimᵇak	sɜŋimᵇaŋ	ɲuʁʊʔ
172	climb	naik	naiʔ	nãẽʔ	naeʔ	naeʔ, maɲʲat	naeʔ	naeʔ	naɪʔ	naęʔ
173	at	di	di	di	di	di	di	di	di	di
174	inside	di dalam	di dalom	dalam	di dalam	dælᵊom	di dalam	di dalap	dalam	dalam

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175	above	di atas	di date^{y}ç	dateh	dətɛç	dɛteh	da:tayh	da:teh	dɛ:tɛ^{x}	dɛteh
176	below	di bawah	di bawah	bawah	bawoh	bawo^{a}h	bawah	di bawah	bawah	bewah
177	this	ini	iko	ko	ko	ko	in^{ə}i	iko	siko	iko
178	that	itu	tu ɲo, tu hã, itum	tʊw	tu̯	itu, tu hõ	it^{ə}u	itu	itu	itu
179	near	dekat	dəket	dəkat	dəkeʔ	dəket	dəkat	dəka^{t}n	dəkeʔ	dəkat
180	far	jauh	jauh	jauh	jauh	jauh	jaoh	jauh	jauh	jeuh
181	where	di mana	di mano	di mano	di mano	di man^{a}o	di man^{ə}o	di mano	di mano, deno	di mano
182	I	saya, aku	awaʔ	aku, sayo	aku̯	ak^{a}u	ak^{ə}o	aku	aku	ŋan
183	you (singular)	kamu, engkau, anda	kan	kau, kamu	kau̯	əmpo^{ə}n	kau, kayo, iko	kawat, kamu	kawan	kau, kamu
184	he/ she	dia, ia	ɲo	ɲo	ɲo	ɲo, uhaŋ tu	ɲo	ɲo	ɲo, ʁoŋ tu	ɲo
185	we (excl.)	kami	kito	kami	kam^{e}i	kaməy	kam^{ə}i	kam^{ə}i	kami	kami
186	you all	kamu semua, kalian	kamum	kamu kami	lagalo	ik^{ə}o	iko iko	galo galo	kan [galo]	kamu
187	they	mereka	panto	panto ʁuntu	uʁaŋ uʁaŋ	gal^{ə}on	uʁaŋ uʁaŋ t͡ʃû	uhaŋ baɲaʔ	ʁoŋ tu	ɲo [galo]
188	what	apa	apə	apo	apo	ap^{a}o	ap^{ə}o	apo	apo	apo
189	who	siapa	siapo, hapuʁa	hapo^{a} tʊw	poʁaŋ	sɛp^{a}o	siap^{ə}o	siapo	se:po	sepo
190	other	lain	lain	lain, bukan	lae^{d}n	lain	lain	lait	bido	lain
191	all	semua	hagalo	galo^{a}	lagalo	legɛlo	gal^{ə}o gal^{ə}o	galo galo	gagalo^{a}, galo^{a}	səgalo
192	and/ with	dan	dan	dɛŋan	dan	dan	dan	dan	dan	dan
193	if	jika	bilo, kalu	kalaw	kalaw	kalo	umpam^{ə}o, kalá͡ô	kalun	bilo	kalu, bilo
194	how	bagaimana	macam mano	bagaymano	camno	man^{ə}ɛn	manan	manon	manon	macam mano
195	not	tidak	tido, daʔ do	daʔ	idaʔ	idaʔ	idaʔ	daʔ	idaʔ	idaʔ
196	to count	hitung	ituŋ	bil^{e}aŋ	itoŋ	bəikin	bil^{e}aŋ	ituk	bilaŋ	bilaŋ
197	one	satu	hikoʔ	soː, satu, sekoʔ, səlay	ciɛʔ	cieʔ	sat^{ə}o	cieʔ	ʃ̻ie̯ʔ	səlay, satu
198	two	dua	duo	duo	duo	duo	du^{ə}o	duo	duo	duo
199	three	tiga	tigo	tigo	tigo	tig^{ə}o	tig^{ə}o	tigo	tigo	tigo
200	four	empat	əmpat	mpa^{n}t	əmpat	əmpat	mpat	^{m}pat^{n}	mpeʔ	əmpat
	angry	marah	maʁah	maʁah,məŋjʃ̻	mŋe	məŋəyh	məŋ^{ə}ih	məŋih	məŋi^{ç}	gusaː
	answer	jawab	jawop	jawab	apo nadi kato	ɲuwoˀm	jawab	jawab	jawap	jawap
	banana	pisang	pisaŋ	pisaŋ	pisaŋ	pisaŋ	pis^{e}aŋ	pisak	pisaŋ	pisaŋ
	bathe	mandi	man^{d}in	man^{də}i	man^{də}i	mandə͡î	mand^{ə}i	man^{də}i	man^{d}i	mandi
	betel leaf	daun sirih	hiʁiç	daun siʁih	siʁeh	sihe	siʁeh	sihi	siʁih	daun siʁih
	betel nut	pinang	pinaŋ	pinaŋ	pinaŋ	pinaŋ	pinaŋ	pinaŋ	pinaŋ	pinaŋ
	bitter	pahit	pait	pait	pai^{n}t	pait	pa^{ə}it	pai^{d}n	paindt	pait

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	blind	buta	butow	buto	abu^{d}n	buto, abon	but^{ə}o	buto	buto	buto
	blowpipe	sumpit	tulʊp	sumpit	sump^{u}it	sumpəyn	sump^{ə}e^{n}t	sump^{ə}it	tulu^{m}p	tulʊp
	body	badan	badɛ̣n	bạdạ^{n}t	badan	badan	badan	badat	bạdạn	bedan
	boil	bisul	bisul, koʁeŋ	bisul	bəŋka?	bəŋka?	bis^{ə}o	bisul	bisul	bisul
	boil	mendidih	ŋələga?	ŋaʁga?,ŋaʁgak	nərga?	ŋ^{ə}o:ga?	ŋələgạ?	ŋərəga?	ŋaʁəga?	ŋəʁəga?
	broom	sapu (penyapu)	hapum	sapu, paɲapay	s^{ə}pay	s̩pay	səpa͡ɛ̃	səpay	sə̩pay	səpay
	brother (older)	kakak laki-laki		kulup	wau	uwo	uwo͡a	kaka?	kaka? tuo	abaŋ, kulup
	bury	kubur	kubʊʁ	kubu^{a}	kubu:	bakubon	kubo^{ə}	kubu^{a}	kubu^{a}	kubu:
	call (v.)	panggil	im^{b}ow	ŋim^{b}aw	im^{b}a͡o	imbaw	ŋimbaw	lim^{b}aw	im^{b}aw	imbaw
	canoe	perahu	bidu?	biduŋk	bido?	bido?	bido^{ə}?	bidʊ?	paʁau	pʁau
	canoe paddle	dayung	pəŋayũ	paŋayõ	pəŋayo	paŋayõ	pəŋayo	paŋayo	pɜŋayuh	kayu^{x}
	cassava	singkong	ubi kayum	ubi	ubi	ubəy, ubəyn	ub^{ə}i	ubi	ubi	ubi
	chest	dada	dado	dado	dado	dadaw	dad^{ə}o	dado	dado	dado
	chicken	ayam	ayam	ayam^{p}	ayam	ayam	ayam	ayap	ayam	ayam
	chin	dagu	dagʊ?	daguŋ?	dago?	dagaw?	dag^{a}o?	dagu	dagu?	degʊ?
	coconut (ripe)	kelapa	kəlapo	niõ	kəlapo	kəlap^{a}o	nio:	niu^{a}	nio^{a}	ɲio tuo
	coconut (unripe)	kelapa muda (dogan)	dugɛn	niõ mudo	kəlapo mudo, doga^{d}n	kəlap^{a}o mud^{a}o	nio: mud^{ə}o		dugan	ɲio mudo
	comb	sisir	sikat	sikan^{t}, juŋkeɲ, juɲkeh	sika^{n}t	sikat	sikat	sikat^{n}	sikat^{n}	sikat
	cooking pot (for rice)	panci (untuk nasi)	pəʁiu?	paʁiʊ?, daluŋ^{k}	pəɲci	piʊ?	pi^{ə}o?	bakul, piyo?	pɜʁiu?	pəʁiu?
	cough	batuk	batu?	batu?	bato?	batok	bato?	batʊ?	batu?, bəʁəneh	betʊ?
	crocodile	buaya	buayow	buyo	buayo	boyo	boyow	bayo	bo:yo	boyo
	deaf	tuli	tuli, pəka?	pəka?	pəka?	pəka?	pəka?	pəka?	pka?	pəka?
	deer	rusa	ʁuso	ʁuso	ʁuso	huso	uso	uso	ʁuso	ʁuso
	defecate	berak (buang air besar)	beʁa?	biʁa?	ciʁit	cihəyt	biʁ^{i}a?	biha?	biʁa?	biʁa?
	descend	turun	tuʁun	tuʁu^{n}t	kawah	tuʁun	tuʁown	tuhut	tuʁu^{d}n	tuʁun
	dibble stick	tugal	tugel	ʁɛɲcam^{p}	məʁəŋjam	mə^{n}jam	ŋəɲcam	məɲcap	taɲa?	ʁəɲcam
	difficult	susah, sukar	payah	susah, pani^{n}t	saʁo	payah	[bə]səg^{ə}o	susah	susah	payah
	dipper	gayung	centoŋ	cibuk	sn^{d}ok	tak^{ə}oŋ	cint^{ə}oŋ	sən^{d}u?	cintʊŋ	cintʊŋ
	dry (rice in sun)	jemur	jəmʊʁ	ampa:	ŋ-ambah	ampa:	ŋ-ampạ	n-amba:	ampah	ampa:
	durian	durian	dʊʁiɛn	daʁayat	dian	dian	dian	diat	dəʁiyan	dɜʁiyan

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	east	timur	timuʁ	timuʁ	kiliˀ	dilr̃eː	timow, kˀiliː	ili[a]	keːli[a]	iliː
	eggplant	terong	tɛɣʊŋ	təʁok	təʁoŋ	təhoŋ	təʁoŋ	təhok	tʁʊŋ	tʁo[g]ŋ
	eight	delapan	lapen	lapan	lapa[d]n	lapan	lapan	lapat	lapan	lapan
	eleven	sebelas							sabəleç	
	excrement	tai	tain	tai	tai	tai	tayi	tai	tayi	tai
	face	muka	muko	muko	muko	muko	mukˀo	muko	muko	muko
	fast	cepat	cəpat	cəpan[t], saŋan[t]	cəpat	cəpat	dəʁəyx	cəpa[t]n	cəpeʔ	cəpat
	fat (person)	gemuk (orang)	gəmuʔ	gəpuʔ	gəpoʔ	gəpok	gəpoʔ	gʉpuʔ	gəpʊʔ	gəmʊʔ, gpʊʔ
	fence	pagar	kandaŋ	kan[d]aŋ	kan[d]a[g]ŋ	kan[d]aŋ	kand[e]aŋ	kan[d]ak	paga:	kandaŋ,kendaŋ
	field	ladang (umum)	umo	umo	umo	umo	umo	umo	umo	kbʊ[d]n
	fight	berkelahi	batiɲjum, bacəkaʔ	bacəkaʔ	bəcikaʔ	bəcɨkaʔ	bəcəkaʔ	bəcikaʔ	bɜcəkaʔ	bəcəkaʔ
	finger	jari	jaʁin	jaʁi	jaʁi	jahəy	jaʁˀi	jahi	anaʔ jaʁi	jeʁi
	fire place	tungku (tpt. tradisional)	tuŋkum	tuŋku	tuŋku	tuŋkow	tuŋkow	tuŋku	tuŋku	tuŋku
	fish line	pancing	paɲciŋ	paɲciŋ	paɲciŋ	paɲciŋ	paɲceŋ	paɲcik	paɲciŋ	kaɪl
	five	lima	limo[w]	limo	limo	limˀo	limˀo	limo	limo	limo
	floor	lantai	lantay	lantay	lantay	lantay	lantay	la[n]tay	lantay	lantay
	fly	lalat	lalat	lalat	laŋaw	laŋaw	lalat	lalan	lalat	lalat
	forget	lupa	lupo	lupo	lupo,daʔ tiŋam	lupow	daʔ təkəna:	lupo	lupo	lupo
	fragrant	wangi	aʁum	ʁop	aʁum	haom	əʁowm	hụp	ʁum	ʁʊm
	friend	kawan	kanti	kant[e]i	kənt[ˀ]i	kantəy	kant[ˀ]i	kantə̃ĩ	kanti[ɕ]	kant[e]i
	frog	katak	kudoʔ	kaŋkoŋ, ciay	kaŋkoŋ	luɲceʔ	kodoʔ, kaŋkoŋ	luɲceʔ, kaŋkuŋ	luɲceʔ, kaŋkuŋ	kaŋkuŋ
	full (cup)	penuh (cawan)	pol	pənʊh	pənoh	pənawh	pənɔh	pənuh	pənoh	pənʊh
	full (of food)	kenyang	kəɲaŋ	kəɲaŋ	ɲaŋ	kəɲaŋ	kəɲaŋ	kəɲaŋ	kəɲaŋ	kəɲaŋ
	ginger	jahe	jae	jạe	səpədeh	səpəde	[sə]pəd[ˀ]e	lio	jae	jae, lio
	give	beri	bagi	baginn̰, bagih	bagə̃ĩ	bage, bagə̃ĩ	bage	bag[ˀ]i	bagih	begɪ[x]
	go home	pulang	baliʔ	bali[ŋ]k	baleʔ	balə̃ẽʔ	balɛʔ	baliʔ	balɪʔ	belɪʔ
	hand span	jengkal	hakilan	kilanʔ	sakila[d]n	kilaŋ	ṣkilan	sakilat, sakilan	kilan	kilan
	hard (object)	keras	kəʁaç	kəʁaɲɲ̰	kəʁɛç	kəhəyh	kəʁa[y]x	kəheh	kəʁe[ɕ]	kəʁeh
	heart	jantung	jantuŋ	jantu[ŋ]k	jantoŋ	jɛnt[e]oŋ	jant[ˀ]oŋ	jantok	jantuŋ	jentʊŋ
	hornbill	tingang	kəlaŋkəlowʔ	laŋkəlog[ŋ]	kəlok	ŋa[g]ŋklok	ŋg[e]aŋ	ŋoŋ	ŋaŋ, kikiʔ	ŋgaŋ, kikiʔ
	hundred	seratus	haʁatuç	saʁatus	saratuyç	saːtoyç	so[ˀ]toyx	səratu[y]ç	saʁatu[y]ç	səʁatu[y]ç
	hungry	lapar	lapaʁ	lapaː	kəlito[t]n	litaʔ	litạʔ	lapaː	lapaː	lapaː, belepaː

#	English	Indonesian SI	Lubuk Kepayang LK	Dusun Dalam DD	Muara Siau MS	Muara Panco MP	Kungkai KK	Seling SL	Dusun Danau DN	Tanah Tumbuh TT
	husk of rice	sekam	həkam	səkam	sᵊkam	ṣkam	səkam	səkap	sᵊkam	səkam
	hut in field	gubuk	pundoʔ	pʊnᵈoʔ	ponᵈoʔ	sʊdo	pʊndoʔ	puⁿdoʔ	punᵈoʔ	pundoʔ
	ironwood	ulin (kayu besi)	kulim	kulip, bulit	kulim	kulim, məmpiay	kulᵊin	kulit	kulim	kulim, bulim
	itch	gatal	gatel	gatal	gatal	gatal	dadah	gatal	bintaⁿt	getal
	knife	pisau	pisaw	pisaw	pisaw	pisaw	pisao	pisaw	pisaw	pisaw
	ladder	tangga	taŋᵍo	taŋᵍo	taŋᵍo	taŋgᵃo	taŋgᵊo	taŋᵍo	taŋᵍo	taŋgo
	lie (untruth)	bohong	ɲomᵇoŋ	laŋᵍoᵑk	ɲicoh	mutow, nicoh	ŋico, mutạ	ɲicoh	məŋaʔ	sumboŋ
	lime	kapur	kapuʁ	kapuᵃ	kapoʔ	kapoʔ	kapoᵊ	kupoᵃ	kapuᵃ	kapuʔ
	lip	bibir	bibiʁ	bibiːᵃ	ɲoɲoŋ	bibɪː	bibiᵊ	bibiᵃ	bibiᵃ	bibiː
	live (dwell)	tinggal	tiŋᵍel	talamat	diam	tiŋᵍo	tiŋgaː	tiŋal	tiŋᵍal	tiŋgal
	loincloth	cawat	cəlano	cawat	cawat	sua kaɲcut, sua kutoʔ	suwaː	cawat	kaɲcutⁿ	sawal
	longhouse	rumah panjang	balay balay			umah gədaŋ	umah gədᵉaŋ			bideŋ
	lose	hilang	ilaŋ	ilaŋ	ilaŋ	ilaŋ	ilaŋ	ilak	ilaŋ	ilaŋ
	machete	parang	paʁaŋ	paʁaŋ	paʁaŋ	pahaŋ	paʁʸaŋ	pahak	paʁaŋ	paʁaŋ
	many	banyak	balamᵇun, tələyaw	baɲaʔ	baɲaʔ	bəɲoʔ	baɲaʔ	baɲaʔ	baɲaʔ	beɲaʔ
	mat	tikar	lapeʔ	tikaː	lapᵊit	lapə̀èʔ	lapᵊeʔ	tikaː	tikaː	tikaː
	medicine	obat	ubet	ubanᵗ	ubat	ubat	ubat	ubaf̃n	ubɛt	ubat
	monkey	monyet	bəʁuʔ	bəʁok	buʁoʔ	bəhᵊoʔ	bəʁoʔ	bəhuʔ	bɜʁo̤ʔ	bəʁuʔ
	morning	pagi	pagin	pagi	pagi	pagə̀è	pagᵊi	pagi	pagi	pagi
	mortar (rice)	lesung (padi)	ləsʊŋ	ləsʊŋ	lsoŋ	ləsə̀ðŋ	ləsoŋ	ləso̤k	ləsuŋ	ləsʊŋ
	mountain	gunung	bukit, gunuŋ	bukit	bukit	bukit	bukᵊet,gunawŋ	gunoŋ	gunuŋ	gunuŋ
	mud	lumpur	tanah liat	lumpuʁ, ləcaʔ	lumpuː	liaʔ	lumpoᵃ	lumpʊ̂o̤	lumpuᵃ	lumpʊː
	nine	sembilan	hamilen	samilan	samᵇilan	samᵇilan	sambilan	səmᵇilat	samilan	səmilan
	not	bukan	buken, keɲoʔ	kəɲoʔ, əɲoʔ	əɲoʔ	əɲᵊoʔ	əŋoʔ	daʔ	kəɲoʔ	kəɲoʔ
	old (object)	lama (benda)	lamo̤	lamo	lalamo	lamᵃo	lamᵊo	lamo	lamo	lamo
	pay (v.)	bayar	bayoʁ	bayiᵋ	bəyiᵊ	baye	bayⁱeː	bayiᵃ	bayiᵃ	beyẹː
	peanut	kacang	kacaŋ	kacaŋ	kacaŋ	kacaŋ	kacaŋ	kacak	kacaŋ	kacaŋ
	pestle (rice)	alu (padi)	antan	antan	antan	antan	antan	antat, antan	aᵈntaᵈn	antan
	pig	babi	babin	jukuⁿt	jukut	jukᵊut	jukᵊot	jukut	jukuⁿt	jukut
	pillow	bantal	bantel	bantal	bantal	bantal	bantaː	bantal	bantal	bental
	play (v.)	bermain	main	baʁoseʔ	useʸʔ	bːusə̀èʔ	bauseʔ	buse̤ʔ	maɪn	main
	post (house)	tiang	tiaŋ	tiaŋ	tiaᵍŋ	tiaŋ	tiaŋ	tiak	tiaŋ	tiaŋ
	pull	tarik	taʁiʔ, uɲⁱuᵈn	iʁinʔ	naʁeʸʔ, jujuⁿt	nahəyʔ	taʁeʔ	tahiʔ	taʁiʔ	taʁiʔ, jujut

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	punch (with fist)	tinju (dengan buku lima)	tiɲjum	tiɲju	tiɲu	tiɲu	bəlagow	tiɲu	tiɲu	tum͡bʊʔ
	push (v.)	dorong	tolaʔ	tʊlaʔ	tuno	tun^{d}o	tul^{e}aʔ	tulaʔ	tulaʔ	tulaʔ
	raft	rakit	ʁakit, jamban	ʁakit	akḙt	ak͡əet	ak^{ə}it	akin	ʁakit	ʁakit
	rainbow	pelangi	məŋkao	guneh	ulet danaw	uleʔ danaw	pəlaŋ^{ə}i	uleʔ danaw	ulaː danaw	gunɛh
	rattan	rotan	utan	ʁo̞ta^{n}t	ʁutan	utan	utan	utat	ʁotan	ʁutan
	revolve (like top)	putar (seperti gasing)	pusiŋ	ləget^{n}	putaː	bapaleŋ	putḁː, puseŋ	bakəliʔ	putḁː	putaː
	rice	padi	padin	padi	pad^{e}i	padəy	pad^{ə}i	pad^{ə}i	padi	padi
	rice	beras	bəʁeç	bəʁa^{j}ɲ, bəʁeh	bəʁɛç	bəh͡ɛəh	bəʁay^{x}	bəheh	bəʁeç	bəʁeh
	rice (cooked)	nasi	nasin	nasiy, nasɛy	nas^{e}i	nasəy	nas^{ə}i	nasi	nasi	nasi
	rice wine	tuak	tuaʔ	tuaʔ		tapay		tuaʔ	ayiʔ niʁɵ	tuaʔ
	ring (for finger)	cincin	ciɲcin	ciɲcin	ciɲcin	ciɲc^{ə}in	ciɲc^{ə}in	ciɲcin	ciɲcin	ciɲciɲ
	river	sungai	huŋay	suŋay	suŋay	suŋay	suŋ͡ae	suŋay	suŋay	suŋay
	run (v.)	lari	laʁin	laʁi	laʁi	lahəy	laʁ^{ə}i	lah^{ə}i	laʁi	laʁi
	sago	sagu	hagum	sagu	sagu	sagṳ, sagṳm	sag^{ə}u	sagu	sagu	sagu
	sarong	sarung	kain, saʁuŋ	kain^{t}	kaen	sampəy	saʁoŋ	kain sahuk	kain saʁʊ^{g}ŋ	saʁʊŋ
	sell	jual	juɛl	jual	jual	ɲual	juaw	jual	jual	jual
	seven	tujuh	tujuh	tujuh	tujuh	tujoh	tujoh	tujuh	tujuh	tujuh
	shore	pantai	pantay						pantay	pulaw
	sister (older)	kakak perempuan		supiʔ	p^{w}eʔ	uwo	kupeʔ	kakaʔ	kakaʔ tuo	supiʔ
	six	enam	ənam	nam	nam	ənam	n̩am	ənam	n̩am	ənam
	skinny (person)	kurus (orang)	kuʁuyç	jaʁo, kuʁus	kuʁəyç	kuhuyh	kuʁə^{y}x	jaho	kuʁu^{y}ç	jeʁo
	sore	luka	luko̞	luko	luko	luk^{a}o	luk^{ə}o	luko	luko	luko
	sour	asam	masam	masam^{p}	masam	masam	masam	masap͡m	asam	masam
	spear	tombak	kujuʁ	tʊm^{b}aʔ, kujua	tum^{b}aʔ	ləməyn, tum^{b}aʔ	tumbaʔ	tum^{b}aʔ	tumbaʔ	tum^{b}aʔ
	story	cerita	caʁito̞	do̞ŋeŋ, kunun	nanɛ^{d}n	ŋiceʔ	cəʁit^{ə}o	cərito	tutu^{a}, caʁito	cəʁito
	straight	lurus	luʁuyç	luʁus	luʁəyç	luhuyh	luʁəyx	luhuç	luʁu^{y}ç	luʁu^{y}ç
	strong (person)	kuat (orang)	kuat	kuat	kuat	kuat	kuat, pad^{ə}eʔ	kua^{d}n, padeʔ	kueʔ	kʊkʊ^{x}
	sugar cane	tebu	təbum	təbʊw	təbu	təb^{ə}oː	təbaw	təbu	təbu	təbu
	swallow (food)	telan (makanan)	təgʊʔ	təguŋʔ	təgoʔ	n̩goʔ	təgoʔ	təlan	təlan	təlan
	sweat (n.)	keringat	pəluh	pəlo^{g}ŋ	ploh	pəloh	pəloh	pəloh	pəluh͡ɸ	plo̞x
	sweet	manis	manih, maniç	maniç	maneç	manəyç	man^{ə}ih	manix	maniç	maniç
	taro	keladi (ubi)	kəladin	kəladi	kəladeʔ	kəladɛʔ	kəlad^{ə}i	kəladi	kəladi	kəladi

#	English	Indonesian SI	Lubuk Kepayang LK	Dusun Dalam DD	Muara Siau MS	Muara Panco MP	Kungkai KK	Seling SL	Dusun Danau DN	Tanah Tumbuh TT
	tell	beritahu	ɲəbʊt	pəgi katᵊo	bəʁito	bəito	mageh tau	bagi tau	bagiᶜ kabᵖaː	pɛsan, kabaː
	ten	sepuluh	hapuluh	sapuloh	sapuluh	sapuloh	sapuloh	səpuluh	sapʊlʊh	səpuluh
	termite	rayap	anay anay	anːanay	lipɛh	nːanay	ayap	anay anay	bubuʔ, ananay	bubuʔ, anay anay
	thigh	paha	pao	pao	pao	pao	pao	pao	pao	pao
	thirsty	haus	auç	auɲŋ̟/ aus, dahago	auç	auyç	gayç	auyç	auʸç	auç
	thorn	duri	duw͡ʁin	duʁi	duʁi	duhey	duʁᵊi	duhi	duʁi	duʁi
	thousand	seribu	haʁibum	saʁibu	saribu	saibu	səebᵊo	səʁibu	saʁebu	səʁibu
	throat	tenggorok	kɜʁəŋkoŋ	kaʁəŋkʊŋ	kəʁəŋkoŋ	kəŋᵊoŋ	kəkoŋ	kəːŋkoŋ	kaʁkuŋ	kəʁəkuŋ
	tomorrow	besok	bisʊʔ	pagi sug̃k	içoʔ	isᵘoʔ	isoʔ	isọʔ	isuʔ	isoʔ
	tree	pohon	bataŋ	kayu	kayo	bataŋ	batᵉaŋ	bataŋ	bataŋ	bataŋ, betaŋ
	turtle	kura-kura	kuʁo kuʁo, kəkuʁo	kuʁo kuʁo	kuʁo kuʁo	kuho kuho	kuʁo kuʁo	kuho kuho	kakuʁo	kuʁo
	urine	kencing	kəɲciŋ	kəmą̃ɲ, kəɲcik	kəɲciŋ	kəmɛ	kəɲcᵊeŋ	kəɲcik	kɲ̟cɪŋ	kɲ̟cɪŋ
	vein (blood)	urat (darah)	uʁat	uʁadⁿᵗ	uʁat	uhat	uʁat	uhaᵈn	ʊʁanᵗ	uʁat
	wait (v.)	tunggu	tuŋgum	tanten	noŋọʔ	nantə̃eʔ	nanteʔ	nantᵊeʔ	tantiʔ	n/tantᵉiʔ
	wall (house)	dinding	dindiŋ	dindiŋ	dindiŋ	dindiŋ	dindeŋ	dindik	dindiŋ	dindiŋ
	wash (clothes)	cuci (kain)	basuh	bą̣suʰh	ŋəsah	basoh	basoh	ɲəsah	səsah	besʊh
	we (incl.)	kita	kito	kito, awaʔ	kito	kitᵃo, awaʔ	kitᵊo	kito	kito, kito galo	kito
	we two	kita berdua	kito baduo	kito baduo	kito baduo	awaʔ duo	kitᵊo baduᵊo	kito bəduo		
	weave (mat)	anyam (tikar)	jalin	ŋaɲam	məlantet	ɲaɲam	aɲam	aɲam	ŋãɲãm	ŋãyãm
	west	barat	baʁat	baʁat	mudeʔ	mudeʔ	baʁat, mudeʔ	mudiʔ	mudɪʔ	mudiʔ
	widow	janda	janᵈo	janᵈo	janᵈo	janᵈo	jandᵊo	jando	janᵈo	jendo
	winnow	menampi	tampin	nampi	nampᵊi	nampᵊi	nampᵊi	nampəy	nampi	tampi
	wipe (v.)	lap	apʊç	apuç, apuɲŋ̟	hapoyç	hapəyç	apᵊiç	ŋəlam	lap	lap, apuyç
	yesterday	kemarin	habuko	pətaŋ	tooŋ	səpətəŋ	pətᵃoŋ	pətɔk	pətaŋ	pətaŋ

Appendix E
Kubu wordlists

These wordlists are included as an appendix to the monograph because, as far as I know, Maryono *et al.* (1997) only exists in manuscript form. Numbering follows Blust (1981) with additional items listed by alphabetical English gloss.

#	English	Indonesian	KJ1 Bukit Tembesu	KJ2 Tanjung Lebar	KJ3 Pematang Kolim	KJ4 Pematang Kabau	KJ5 Dusun Tuo
001	hand	tangan	taŋan	taŋan	taŋan	taŋon	taŋon
002	left (hand)	kiri	kiri	kiri	kidol	kiri	kiri
003	right (hand)	kanan	kanan	kanan	kanan	kanon	kanon
004	leg (foot)	kaki	kaki	kaki	kaki	kaki	kaki
005	to walk/ go	berjalan	bəjalan	bəjalan	bəjelon	bəjelon	bəjelon
006	road/ path	jalan	jelon	jalan	jelon	jelon	jelon
007	to come	datang	tibo	dataŋ	detoŋ	tiba	jadi
009	to swim	berenang	bərənaŋ	bərənaŋ	bərənaŋ	bərənaŋ	bərənaŋ
010	dirty (clothes)	kotor (pakaian)	kotor	kotor, jahat	kotor	kubaŋ, kotoʔ	bədeki, kotoʔ
011	dust	debu	dəbu	dəbu	habu	ləgu	dəbu, lebu
012	skin (person)	kulit (orang)	jaŋat	kulit	jaŋat	jahat	jaŋat
013	back	belakang	puŋguŋ	puŋguŋ	puŋguŋ	bəlakoŋ	puŋguŋ
014	belly	perut	pərut	prut	pərut	porut	porut
015	bone	tulang	tulaŋ	tulaŋ	tuluŋko	tulaŋ	tulaŋ
016	guts	isi perut	usus	isi porut	pərut	isi porut	isi porut
017	liver	hati	hati	hati	hati	hati	hati
018	breast	susu	nunuʔ	susu	titeʔ	susu	susu
019	shoulder	bahu	bahu	bau	behu	behu	behu
020	to know	tahu	tau	tau	tau	tau	tau
021	to think	berpikir	pikir	pikir	pikir	bəpikɛr	pəkion
022	be afraid	takut	takut	takut	kətakuton	takut	kətakuton
023	blood	darah	darah	darah	dərah	dıro	dero
024	head	kepala	kəpalo	kəpale	kəpalo	kəpalo	kəpaloh
025	neck	leher	leher	liher	leher	leher	leher
026	hair (head)	rambut	rambut	rambut	rambut	rambut	rambut
027	nose	hidung	hiduŋ	iduŋ	hiduŋ	iduŋ	hiduŋ
028	to breathe	bernafas	napas	napas	napas	napayi, ɲao	ɲaŋo, napas
029	sniff/ smell	cium	cium	cium	cium	cium	cium
030	mouth	mulut	mulut	mulut	mulut	mulut	mulut
031	teeth	gigi	gərman	gigi	gigi	gigi	gigi
032	tongue	lidah	lidah	lida	lidah	lidah	lidah
033	to laugh	tertawa	kətawo	tətawe	tətawo	tətawo	tətawo
034	to cry (weep)	menangis	naŋis	naŋis	məratop	məratop	məratop
035	to vomit	muntah	muntah	muta	muntah	muntah	mota
036	to spit	meludah	luda[h]	luda	ludah	ludasi, ludah	ludah, aiʔ liu
037	eat	makan	makan	makan	makon	makon	makon
038	to chew	mamah/ kunyah	m/pepaʔ	ŋepaʔ	bətopo	makon	mamoh
040	to drink	minum	minum	minoum	minum	minom	minom
041	to bite	gigit	gigit	gigɪt	gigit	gigɪt	gigit
042	to suck	(h)isap	ŋirup	hirup	horup	isop	horup
043	ear	telinga	kupiŋ	təliŋe	təloŋa	təliŋo	təliŋa

#	English	Indonesian	KJ1 Bukit Tembesu	KJ2 Tanjung Lebar	KJ3 Pematang Kolim	KJ4 Pematang Kabau	KJ5 Dusun Tuo
044	hear	dengar	ŋaniŋ	dəŋo	doŋo	aneŋ	doŋo
045	eye	mata	mato	mate	mato	mato	mato
046	see	lihat (nampak)	teŋoʔ	jiŋuʔ	ŋale	dikəlalo	kelalo, koli
048	to sleep	tidur	tiduʔ	tido	tidur	tidur	tidur
049	to lie down	berbaring	barıŋ	tidur	bereŋ	beriŋ	beriŋ
050	to dream	mimpi	mimpi	mimpi	bəmimpi	mimpi	bəmimpi
051	to sit	duduk	duduʔ	duduʔ	duduʔ	duduʔ	duduʔ
052	to stand	berdiri	bədiri, togoʔ	təgaʔ	togoʔ	togoʔ	togoʔ
053	person	orang	oraŋ, uraŋ	uraŋ	oraŋ, uraŋ	uraŋ, oraŋ	uraŋ, uraŋ
054	man	laki-laki	jantan	jantan	jenton	jenton	jəjenton
055	woman	perempuan	bətino	bətine	bətino	bətino	bətina
056	child (small)	anak (kecil)	anaʔ	anaʔ	anaʔ	anaʔ	anaʔ
057	husband	suami	suami	laki	laki	laki	laki
058	wife	isteri	bini	bini	bini	bini	bini
059	mother	ibu	mak	mek, meʔ	induʔ	induʔ	induʔ
060	father	bapak	bapaʔ, bepaʔ, ayah	bak	bepaʔ	bepaʔ	bepaʔ
061	house	rumah	rumah	ruma	rumah	pondoʔ	rumah
062	roof	atap	atap	atap	atop	hatop	hatop
063	name	nama	namo	name	namo	namo	namo
064	to say	berkata	bəkato	bəcakap, bəgəsa	bəcakap	bəcakap	bəcakap
065	rope	tali	tali	tali	tali	tali	tali
066	to tether, tie	ikat	ikat	kəbat	kəbat	kobot	kobot
067	sew	jahit	jahit	jait	jahit	jait	jahit
068	needle	jarum	jarum	jarum	jerum	pənjait, suntuʔ	jarom, pənjahit
069	to hunt	buru	bəburu	bəburu	bəburu	bəburu	bəburu
071	to stab	tikam	nikam	tikam	tikom	tikom	nikom
072	to hit (not punch)	pukul	pecut, nugual	teŋkuŋ, ɲebat	tepuʔ, nenjaŋ	[ku]gual	bedoʔ, nugual, tuga
074	kill	bunuh	bunuh	bonoh	bunoh	bunoh	bunoh
075	dead	mati	mati	mati	mati	mati	mati
076	to live/ be alive	hidup	idup	idup	hidup	idup	hidup
077	scratch	garuk	garuʔ	garuʔ	geruʔ	geut	geut
078	to cut/ hack	potong, tetak	kesot, tetaʔ	təbaŋ, tetaʔ	tato, togo	tuntuŋ, tetaʔ, gabuŋ	totoʔ
079	wood	kayu	kayu	kayu	kayu	kayu	kayu
080	to split	belah	bəlah	bela	bəlah	bəbəlah	bəlah
081	sharp (machete)	tajam (mata parang)	tajam	tajam	tajen	tajom	tajom
082	dull (machete)	tumpul (mata parang)	tumpul	tumpul	tompul	tompul	tompul
083	to work	bekerja		bəgawe			
084	to plant	tanam	tanam	tanam	nugal	tanom	nugal
087	to swell	bengkak	bəŋkaʔ	beŋkoʔ	boŋkaʔ	boŋkoʔ	boŋkoʔ
088	to squeeze	peras	pəras	pras	pərah	dıpəcit	parah
089	to hold	genggam (pegang)	gəŋgam, pəgaŋ	kepal, pgaŋ	oyoŋ, bətogoʔ	gəŋgam, pugor	goŋgom, pəgaŋ

#	English	Indonesian	KJ1 Bukit Tembesu	KJ2 Tanjung Lebar	KJ3 Pematang Kolim	KJ4 Pematang Kabau	KJ5 Dusun Tuo
090	to dig	gali	gali	kədoʔ	gali	gali	kali
091	to buy	beli	bəli	bli	bəli	boli	boli
092	to open	buka	buko	bukaʔ	buka	buka	buka
094	to throw away (trash)	buang (sampah)	campaʔ, poŋkaŋ	buaŋ, lempar	campaʔ, tohuka	capaʔ, tohuʔ	campoʔ, tohuʔ
095	to fall	jatuh	campaʔ	campak	ite	titiʔ	titiʔ
096	dog	anjing	anjiŋ	anjiŋ	anjiŋ	anjiŋ	anjiŋ
097	bird	burung	buruŋ	buruŋ	buruŋ	buruŋ	buruŋ
098	egg	telur	təloʔ	təloʔ	təloʔ	toluʔ	toluʔ
099	feather (chicken)	bulu (ayam)	bulu	bulu	bulu	bulu	bulu
100	wing	sayap	kopaʔ	sayap	kəpak	sayop	kəpaʔ
101	to fly	terbang	tərbaŋ	tərbaŋ	tərboŋ	tərboŋ	tərboŋ
102	rat	tikus	tikus	tikus	tikus, məncit	tikuy	tikuy
103	meat	daging	dagiŋ	dagiŋ	degiŋ	dɪgiŋ	degiŋ
105	tail	ekor	ekoʔ	ekoʔ	eku	ekoʔ	ikuʔ
106	snake	ular	ular	ular	ula	ulor, uloʔ	ulo, ula
107	worm (earth)	cacing (tanah)	caciŋ	caciŋ	cacɪŋ	caciŋ	caciŋ
108	lice (animal)	kutu (binatang)	kutu	kutu	kutu	kutu	kutu
109	mosquito	nyamuk	ɲamuʔ	ɲamuʔ	roŋet	oŋet	hoŋet
110	spider	laba-laba	lawa	laba laba	lelawo	lelawo	lelawo huŋka
111	fish	ikan	ikan	ikan	ikan	ikan	ikan
112	rotten	busuk	busuʔ	busuʔ	busuʔ	busuʔ	busuʔ
114	leaf	daun	daun	daun	daun	doun	doun
115	root	akar	akar	akar	ake	ukar	ako
116	flower	bunga	buŋo, kəmbaŋ	buŋe	buŋa	buŋo, buŋa	buŋa
117	fruit	buah	bua	buah	buah	buah	buah
118	grass	rumput	rumput	rumput	rumput	rumput	rumput
119	earth	tanah	tanah	tanoh	tanoh	tanoh	tanoh
120	stone	batu	batu	batu	betu	betu	betu
121	sand	pasir	pasir	pasir	boŋay	buŋen	buŋen
122	water	air	aeʔ	ayo	aiʔ	aeʔ	aiʔ
123	to flow	alir	ŋalɪr	ŋalir	haɲɔt	haɲot	haɲot
124	sea	laut	laut, lout	laut	lout	lout, aɛʔ	lout
125	salt	garam	garam	garam	gerom	gerom	gerom
126	lake	danau	ləboŋ	danaw	danaw	payo	ləpuŋ
127	forest	hutan	utan	hutan	hutan	utan	rimba
128	sky	langit	laŋit	laŋit	laŋit	laŋɪt	laŋit
129	moon	bulan	bulan	bulan	bulan	bulan	bulan
130	star	bintang	bintaŋ	bintaŋ	bintaŋ	bintaŋ	bintaŋ
131	cloud	awan	awan	awan	laŋit	awan	sələt
132	fog	kabut	kabut	kələm	kolom	kolomon	kələmon
133	rain	hujan	ujan	hujan	hujan	hujan	hujan
134	thunder	guntur	guntur		guruh	guru	bələdek
135	lightning	kilat	kilat	kilat	kilat	bələdeʔ	kiɲo
136	wind	angin	aŋin	aŋɪn	aŋin	aŋɪn	aŋin
137	to blow	tiup	tiup	tiup	tiep	həmbuy	tiup

#	English	Indonesian	KJ1 Bukit Tembesu	KJ2 Tanjung Lebar	KJ3 Pematang Kolim	KJ4 Pematang Kabau	KJ5 Dusun Tuo
138	hot (water)	panas (air)	panas	panas	haŋot	haŋot, panayi	puaŋ
139	cold (water)	dingin (air)	diŋin	diŋın	diŋin	pəndeŋın	diŋin
140	dry (not wet)	kering	kəriŋ	kriŋ	kohiŋ	koriŋ	koriŋ
141	wet (cloth)	basah (kain)	basah	basah	besah	besɔh	besoh
142	heavy	berat	bərat	bərat	bərat	bərat	bərat
143	fire	api	api	api	api	api	api
144	burn (a field)	bakar (ladang)	tunu	ɲulu	tunu, beko	bekor	beko
145	smoke	asap	asap	asap	asop	hasɔp	hasop
146	ashes	abu	abu	abu	habu	abu	abu
147	black	hitam	itam	hitam	hitom	hitom	hitom
148	white	putih	putih	puti	putıh	putih	putih
149	red	merah	merah, aboŋ	padam, aboŋ	abaŋ, aboŋ	aboŋ	aboŋ
150	yellow	kuning	kuniŋ	konıŋ	kuneŋ	kunıŋ	kuneŋ
151	green	hijau	ijaw	ijaw	hijaw	hijaw	hijaw
152	small (object)	kecil (benda)	kəciʔ	kəciʔ	kəcıʔ	kəcıʔ, haluwi	kəciʔ
153	big (object)	besar (benda)	bəsaʔ	bəsaʔ	godoŋ	godoŋ	godoŋ
154	short (object)	pendek (benda)	pendeʔ	pendeʔ	pendeʔ	pendeʔ	pendeʔ
155	long (object)	panjang (benda)	panjaŋ	panjaŋ	panjaŋ	panjoŋ	panjoŋ
156	thin (object)	tipis (benda)	tipis	tipis	tipes	mipi	nipis
157	thick (object)	tebal (benda)	təbal	təbal	təbol	tobol	tobol
158	narrow	sempit	səmpıt	səmpıt	səmpit	səmpit	sumpit
159	wide	lebar	lebar, lebor	lebar	leba:	lebor, luayi	ləbo
160	sick/ painful	sakit	sakit	sakit	sakɛt	sakit	sakit
161	shy/ ashamed	malu	malu	kəmaluan	kəmaluan	maluwen	moluh
162	old (person)	tua (orang)	tuo	tue	tuha	tuha	tuha
163	new	baru	baru	baru	bəheru	beru	bəheru
164	good (person)	baik (orang)	barʔ, eloʔ	baiʔ	beiʔ	beiʔ	beiʔ
165	bad (person)	jahat (orang)	buruʔ	buruʔ, jahat	buwuʔ	buruʔ	buruʔ
166	true/ correct	benar/ betul	bənar	bəna	suŋguh	suŋguh	
167	night	malam	malam	malaım	maləm	malom	malom
168	day	hari	ari	ari	hari	ari	hari
169	year	tahun	taun	taun	taun	taun	taun
170	when	kapan	bilomano	bilı	səkolomine	bilamano	
172	to climb	naik	narʔ	naiʔ	noeʔ	noıʔ	noeʔ
173	at	di	di	di	di	di	di
174	inside	di dalam	di dalam, di delom	dalam, di delom	di delom	di dalom	di delom
175	above	di atas	pucuʔ	atas, pucuʔ	pucɔʔ	depucuʔ	pucuʔ
176	below	di bawah	bawah	bawa	bewoh	bawo	bewoh

#	English	Indonesian	KJ1 Bukit Tembesu	KJ2 Tanjung Lebar	KJ3 Pematang Kolim	KJ4 Pematang Kabau	KJ5 Dusun Tuo
177	this	ini	iko	iko	ŋe	iko	nio
178	that	itu	itu	itu	iye	kiun	itu, iyoy
179	near	dekat	dəkat	paraʔ	dəkat	dəkeʔ	dəkat
180	far	jauh	jau	jau	jou	jouh	jouh
181	where	di mana	di mano	di mane	di mone	di mono	di mano
182	I	saya, aku	aku, sayo	kite, aku	ake	aku, ake	eŋge, aku
183	you (sing.)	kamu, engkau, anda	kau, miko	mika	miko	miko, kau	mikae
184	he/she	dia, ia	dio	iyo	howe	ɲo, guaʔ	ɲe, kowe
185	we (excl.)	kami	kami	kite	kami	kami	kami
187	they	mereka	miko pado, kami	miko pado, dio	uyaŋ, kowe	lobot	uyaŋ, iɲo
188	what	apa	apo	ape	apo	apo	apo
189	who	siapa	siapo	siape	siape	siapo	siapo
190	other	lain	lain	lain	lain	lain	bələ lain
191	all	semua	galo	galı galı	səgelo	səgeloɲa	səgəgelo
192	and/ with	dan	dan	dan	dahan	dan	dəŋan
193	if	jika	kalu	jike	mone	kalu	kalu
194	how	bagaimana	macəm mano, maʔ mano	bagaymane, maʔ mane	macam mano	mopamano, bepomono	kəmono
195	not	tidak	idaʔ, hopi	idaʔ, taʔ	tiado, hopi	hopi	hopi
196	to count	hitung	ituŋ	hituŋ	hituŋ	rekən	hituŋ
197	one	satu	sikoʔ, so	sikoʔ	soloy	səlay	satu
198	two	dua	duo	due	due	duwa	dua
199	three	tiga	tigo	tige	tigo	tiga	tiga
200	four	empat	əmpat	mpat	əmpat	əmpeʔ	əmpat
	angry	marah	marah	mara	memerah	marah	marah
	banana	pisang	pisaŋ	pisaŋ	pisaŋ	pisaŋ	pisaŋ
	bathe	mandi	mandi, ɲolom	mandi	mandi	mandi, ɲolom	mandi
	bitter	pahit	pait	pait	pahet	pahit	pahit
	blind	buta	buto	bute	buto	piciŋ	kabus
	blowpipe	sumpit	sumpit				
	body	badan	badan	badan	badan	badan	badan
	boil	bisul	bisul	bisul	boŋkoʔ	bisul	bisul
	brother (older)	abang, kakak laki-laki	abaŋ	abaŋ	kakoʔ	kakɔʔ	kakoʔ
	call	panggil	mintaw	mintaw		mikaɛʔna	
	canoe	perahu	pərau	pərahu	biduʔ	pərau, lambon	pərau
	canoe paddle	dayung	pəŋayoh	bədayuŋ	bəpərau	bəsataŋ	bəpərau
	cassava	singkong	ubi	ubi	ubi	ubi	ubi
	chest	dada	dado	dade	dedo	dedo	dedo
	chicken	ayam	ayam	ayam	hayom	ayam	hayom
	chin	dagu	dagu	dagu	dagu	deguʔ	degu
	coconut (ripe)	kelapa	kəlapo	kəlapo	kəlapo	kəlapo	kəlapo
	cooking pot (for rice)	panci (untuk nasi)	pəriuʔ	priuʔ	piriŋ	pəriuʔ	piŋgan
	cough	batuk	betuʔ	batuʔ	betuʔ	betuʔ	betuʔ

#	English	Indonesian	KJ1 Bukit Tembesu	KJ2 Tanjung Lebar	KJ3 Pematang Kolim	KJ4 Pematang Kabau	KJ5 Dusun Tuo
	crocodile	buaya	buayo	buaye	buayo	buayo	kuyah aiʔ
	deaf	tuli	pəkaʔ	pəkaʔ	pokokʔ	kokoʔ	pokok
	deer	rusa	rusa	rusa	roso	ruso	rusa
	defecate	berak (buang air besar)	beraʔ	beraʔ	beruʔ	tebiŋguʔ	beri
	descend	turun	turun	turun	turun	turun	turun
	difficult	susah, sukar	sulit	sulit	behelaʔ	susah	hopi depot
	dipper	gayung	cedok	centoŋ	catu, sonduʔ	catu, sonduʔ	catu, cibuʔ
	durian	durian	duren	durian	dureon	durion	durion
	eggplant	terong	teruŋ	truŋ	toruŋ	toruŋ	toruŋ
	eight	delapan	dəlapan	lapan	dəlapan	dəlapan	dəlapan
	eleven	sebelas	səbəlas	səblas	səbəlas	səbəlayi	səbəlas
	fast	cepat	gancaŋ	cəpat	cəpat	dedohoyi	cəpat
	fat (person)	gemuk (orang)	gəmuʔ	gəmoʔ	gomuʔ	gomoʔ	gomoʔ
	fence	pagar	kandang, rəban	pagar	kandoŋ	pagor	kandoŋ
	field	ladang (umum)	humo	hume	huma	huma, ladoŋ	huma
	fight	berkelahi	bəkəla[h]i	kla[h]i, ŋojo	bəbonuhan	bəcəkaʔ	bətinju, bətikom
	finger	jari	jəriji	jari	jari	tunjuʔ	tunjuʔ
	fire place	tungku (tempat tradisional)	tuŋku	tuŋku	tumaŋ	tumaŋ	tumaŋ
	fish line	pancing	panciŋ	panciŋ	panceŋ	panciŋ	panciŋ
	five	lima	limo	lima	bogih	lima	lima
	fly	lalat	lalat	lalat	lalat	lalot	lalot
	forget	lupa	lupo	lupe	lupah	lupo	lupah
	fragrant	wangi	arum	harum	horum	harum	horum
	frog	katak	kodoʔ	kodoʔ	katoʔ	kodoʔ	katoʔ
	ginger	jahe	jahe	jae	jahe	jae	jahe
	give	beri	unjɔʔ	ŋunjuk	dibəriko, mbori	bori	mbori
	go home	pulang	bale	balıʔ	balıʔ	beliʔ	beliʔ
	heart	jantung	jantuŋ	jantuŋ	jentuŋ	jentuŋ	jentuŋ
	hundred	seratus	sərotus	sratus	sərotus	sərotuyi	sərotus
	hut in field	gubuk	pondoʔ	kəlewaŋ	pondəʔ	pondəʔ	səsoduŋon
	knife	pisau	piso, kəladiŋ	pisaw	pisaw	pisaw	pisow
	ladder	tangga	taŋgo	taŋge	taŋgo	taŋgo	taŋgo
	lip	bibir	bibir	bibır	bibie	bibir	bibir
	loincloth	cawat	cawat	cawat	cawot	kancut	cawot
	machete	parang	paraŋ	paraŋ	paroŋ	paroŋ	paroŋ
	many	banyak	baɲaʔ, beɲoʔ	baɲaʔ	beɲaʔ, beɲoʔ	beɲoʔ	beɲoʔ
	mat	tikar	tikar	tikar	lape	tikor	tikor
	medicine	obat	ubat	ubat	obat	ubat	obat
	morning	pagi	pagi	pagi	pagi	pagi	pagi
	mortar (rice)	lesung (padi)	ləsuŋ	ləsuŋ	losuŋ	losuŋ	losuŋ
	mountain	gunung	gunuŋ	gonoŋ	gunuŋ	gunɔŋ	bukit
	nine	sembilan	səmbilan	səmbilan	səmbilan	səmbilan	səmbilan
	old (object)	lama (benda)	lama	lame	lamo	lamo	lamo

#	English	Indonesian	KJ1 Bukit Tembesu	KJ2 Tanjung Lebar	KJ3 Pematang Kolim	KJ4 Pematang Kabau	KJ5 Dusun Tuo
	pay	bayar	bayar	mayar	beir	bayi	bayeh
	peanut	kacang	kacaŋ	kacaŋ	kacaŋ	kacaŋ	kacaŋ
	pestle (rice)	alu (padi)	antan	antan	hanton	anton	hanton
	pig	babi	babi	babi	bebi	bebi	bebi
	pillow	bantal	bantal	bantal	bentol	bentol	bentol
	play	bermain	main	maın, musiʔ	moin	moin	moin
	post (house)	tiang (rumah)	tiaŋ	tiaŋ	tihaŋ	tihaŋ	tihaŋ
	pull	tarik	tariʔ	tariʔ	tarıʔ	tarıʔ	tariʔ
	punch (with fist)	tinju (dengan buku lima)	tinju	tinju	tinju	tinju	tinju
	push	dorong	doroŋ	doroŋ	doroŋ	tulaʔ	doroŋ
	rainbow	pelangi	rone		konı	ulor danu	senjah
	rattan	rotan	rotan	rutan	routan	routan	ruton
	rice	padi	padi	padi	padi	padi	padi
	rice	beras	bəras	bras	bəras	boras	bəras
	rice (cooked)	nasi	nasi	nasi	nasi	nasi	nasi
	rice wine	tuak	tuaʔ	tuak			
	ring (for finger)	cincin	cincin	cincin	cacıŋ	saruŋan tunjuʔ	cincin
	river	sungai	suŋay	suŋay	suŋay	suŋay	suŋoy
	run	lari	lari	blari	lari	lari	bəlari
	sago	sagu	sagu	sagu	tajen		
	sarong	sarung	kain sarɔŋ, koin	slendaŋ, koin	koin loju	saruŋ	koin saruŋ
	seven	tujuh	tujuh	tuju	tujuh	tujuh	tujuh
	shore	pantai		pantay	tobiŋ aıʔ		
	sister (older)	kakak perempuan	kamboʔ, ayuʔ	ayuʔ	ayuʔ	kakoʔ bətino	kakoʔ
	six	enam	ənam	nam	ənam	ənom	ənam
	skinny (person)	kurus (orang)	kurus	kurus	korus	kuruwi	mənjaro
	sore	luka	luko	luke	luka	luka	luko
	sour	asam	asam	asam	asom	hasom	hasom, lempahuŋ
	spear	tombak	tombaʔ	kujur	kujo	tumbaʔ	kujo
	straight	lurus	lurus	lurus	lurus	luruy	luruy, lurus
	strong (person)	kuat (orang)	kuat	kuat		kuat	kuat
	sugar cane	tebu	təbu	təbu	tobu	tobu	tobuh
	swallow (food)	telan (makanan)	təlan	tlan	tolon	tolon	tolon
	sweat (noun)	keringat	kəriŋat	kəriŋat	poluh	poluh	poluh
	sweet	manis	manis	manes	manis	manis	manıs
	ten	sepuluh	səpuluh	spulu	səpuluh	səpuluh	səpuluh
	thigh	paha	pao, pare	pae	paha	paho	paha
	thirsty	haus	aus	aus	haus	hauwi	haus
	thousand	seribu	səribu	sribu	səribu	səribu	səribu
	throat	tenggorok	kəroŋkoŋan	kroŋkoŋan	təmbuluh	təmboloʔ	təmbuluh
	tomorrow	besok	besoʔ	isuʔ	besuʔ	isuʔ	isuʔ

#	English	Indonesian	KJ1 Bukit Tembesu	KJ2 Tanjung Lebar	KJ3 Pematang Kolim	KJ4 Pematang Kabau	KJ5 Dusun Tuo
	tree	pohon	pohon, rumpun	kayu, bataŋ	pohon, kayu	bətoŋ	rumpun
	urine	kencing	kənciŋ	kənuŋ	konceŋ	kənciŋ	konciŋ
	vein (blood)	urat (darah)	urat	urat	urat	uirat	urat
	wash (clothes)	cuci (kain)	cuci	səsa	bərsihko	besuh	sasah
	we (inclusive)	kita	kito	kite	kita	kito	kita
	wipe	lap	apus	apus	apus	hapuyi	beros
	yesterday	kemarin	kəmarin	pətaŋgi	kəmarie	kəmarin	kəmarin
	(transitive suffix)	-kan	-ko	-ke	-ko	-kan, -ko	-ko, -a, -o
	3SG.POSS	-nya			-ɲo	-ɲo	-ɲe

Appendix F
Minangkabau2 (Tjia) wordlist

This wordlist was taken outside of West Sumatra in 1998 by Johnny Tjia, from a man who identified himself as Minang and as having been born in "Padang" (which could mean anywhere in West Sumatra). Since this wordlist has not been published elsewhere, Johnny has kindly granted permission to include it in this publication.

#	English	Indonesian	MIN2
001	mountain	gunung	gunuŋ
002	earth	tanah	tana
003	sand	pasir	kɔsieʔ
004	stone	batu	batu
005	mud	lumpur	bonca
006	water	air	aʲeʔ
007	river	sungai	kali
008	sea	laut	laut
009	moon	bulan	bulan
010	star	bintang	bintaŋ
011	sky	langit	laŋit
012	cloud	awan	awan
013	wind	angin	aŋin
014	rain	hujan	hujan
015	thunder	guntur	guruh
016	lightning	kilat	kilat
017	rainbow	pelangi	pelaŋi
018	day	hari	hari
019	year	tahun	tahun
020	morning	pagi	pagi
021	night	malam	malam
022	yesterday	kemarin	kəpataŋ
023	tomorrow	besok	besoʔ
024	forest	hutan	hutan
025	tree	pohon	pohon
026	leaf	daun	daun
027	thorn	duri	duwi
028	root	akar	akəʷh
029	ironwood	ulin (kayu besi)	
030	fruit	buah	buah
031	banana	pisang	pisaŋ
032	durian	durian	duwin
033	sugar cane	tebu	tobu
034	eggplant	terong	towuəŋ
035	sago	sagu	
036	cassava	singkong	ubi
037	taro	keladi (ubi)	kladi
038	rattan	rotan	otan
039	bird	burung	buruaŋ
040	wing	sayap	sayoʔ
041	feather (chicken)	bulu (ayam)	bulu
042	tail	ekor	ikuaʔ
043	egg	telur	tolu
044	fish	ikan	lawəʔ
045	snake	ular	ula
046	crocodile	buaya	buayo
047	chicken	ayam	ayam
048	deer	rusa	rusa
049	rat	tikus	monci
050	dog	anjing	aɲjiaŋ
051	worm (earth)	cacing (tanah)	caciaŋ
052	fly	lalat	laŋaw
053	mosquito	nyamuk	paŋkiaŋ
054	termite	rayap	bubuaʔ
056	skin (person)	kulit (orang)	kulit
057	sweat (noun)	keringat	paluaʔ
058	blood	darah	daɣa
059	body	badan	badan
060	bone	tulang	tulaŋ
061	urine	kencing	kajamban
062	excrement	tai	ciri
063	defecate	berak	mau aciri
064	vein (blood)	urat (darah)	urɛʔ
065	head	kepala	kapalo
066	face	muka	mukɔ
067	hair (head)	rambut	apuaʔ
068	lip	bibir	bibiᵉʔ
069	mouth	mulut	muncuaŋ
070	teeth	gigi	gigi
071	tongue	lidah	lido
072	nose	hidung	hiduəŋ
073	chin	dagu	daguaʔ
074	ear	telinga	teliŋo
075	eye	mata	mato
076	neck	leher	liʔiᵉʔ
077	chest	dada	dado

#	English	Indonesian	MIN2
078	heart	jantung	jantuaŋ
079	shoulder	bahu	baw
080	belly	perut	powuy
081	hand	tangan	taŋan
082	finger	jari	jari
083	leg (foot)	kaki	kaki
084	thigh	paha	pa^{u}o
085	see	lihat (nampak)	liɛʔ
086	blind	buta	buto
087	hear	dengar	daŋa
088	deaf	tuli	pokaʔ
089	fragrant	wangi	harum
090	itch	gatal	gata
091	scratch	garuk	garuyʔ
092	boil	bisul	bisul
093	to vomit	muntah	munta
094	lice (animal)	kutu (binatang)	kutu
095	cough	batuk	batuaʔ
096	dead	mati	mati
097	to bury	kubur	kubuaʔ
098	to sit	duduk	dudua?
099	to stand	berdiri	togaʔ
100	to sleep	tidur	laloʔ
101	to forget	lupa	lupo
102	to dream	mimpi	mimpi
103	to live (dwell)	tinggal	tiŋga
104	to wait	tunggu	tuŋgu
105	to play	bermain	main
106	to go home	pulang	pulaŋ
107	to fly	terbang	tabaŋ
108	to climb	naik	na^{i}ɛ̃ʔ
109	to descend	turun	tuwən
110	to fall	jatuh	jatuaʔ
111	to stab	tikam	tusuaʔ
112	to suck	(h)isap	isoʔ
113	to bite	gigit	gigit
114	to blow	tiup	hambuyʔ
115	to dig	gali	gali
116	to pull	tarik	helo
117	to push	dorong	tuŋoʔ
118	to run	lari	lari
119	to spit	meludah	luda
120	to throw away (trash)	buang (sampah)	campaʔ

#	English	Indonesian	MIN2
121	to revolve (like top)	putar (seperti gasing)	putaʔ putaʔ
122	to hide	sembunyi	maɲuruaʔ
123	to tether, tie	ikat	kabɛʔ
124	to wipe	lap	lap
125	to lose	hilang	hilaŋ
126	to give	beri	agiɛʔ
127	to steal	curi	ciloʔ
128	to choose	pilih	piliɛʔ
129	to hold	genggam (pegang)	kakɔʔ
130	to wash (clothes)	cuci (kain)	basuaʔ
131	to bathe	mandi	mandi
132	bad (person)	jahat (orang)	jahɛʔ
133	good (person)	baik (orang)	bayiɛʔ
134	dirty (clothes)	kotor (pakaian)	kumuaʔ
135	dry (not wet)	kering	kɔyiaŋ
136	to lie (untruth)	bohong	bɔhɔŋ
137	to cry (weep)	menangis	manaŋi
138	to laugh	tertawa	tagolaʔ golaʔ
139	angry	marah	boŋi
140	to punch (with fist)	tinju (dengan buku lima)	tinju
141	be afraid	takut	takuyʔ
142	to call	panggil	paŋgiɛʔ
143	to tell	beritahu	kasi tau
144	left (hand)	kiri	kida
145	right (hand)	kanan	kanan
146	east	timur	timur
147	west	barat	barat
148	to plant	tanam	tanam
149	dibble stick	tugal	tanjaʔ
150	to dry (rice in sun)	jemur	jemur
151	to pound (rice)	menumbuk (padi)	tumbuaʔ
152	mortar (rice)	lesung (padi)	lasuaŋ
153	pestle (rice)	alu (padi)	alu
154	to winnow	menampi	tampi

#	English	Indonesian	MIN2
155	field	ladang (umum)	ladaŋ
156	hut in field	gubuk	pondoʔ
157	raft	rakit	rakiʔ
158	canoe	perahu	pawow
159	canoe paddle	dayung	dayuaŋ
160	fish line	pancing	kaɲiəʔ
161	kill	bunuh	bunuəʔ
162	knife	pisau	pisaw
163	spear	tombak	tombaʔ
164	blowpipe	sumpit	sumpit
165	rope	tali	tali
166	machete	parang	paraŋ
167	comb	sisir	sikɛʔ
168	broom	sapu (penyapu)	sapu
169	to weave (mat)	anyam (tikar)	aɲam
170	sew	jahit	jayʔ
171	needle	jarum	jarum
172	medicine	obat	ubɛʔ
173	rice	padi	padi
174	rice	beras	barɛʔ
175	rice (cooked)	nasi	nasi
176	husk of rice	sekam	dodaʔ
177	salt	garam	garam
178	fat (noun)	lemak	lamaʔ
179	boil	mendidih	aŋɛʔ
180	cooking pot (for rice)	panci (untuk nasi)	panci
181	dipper	gayung	gayuaŋ
182	fire	api	api
183	ashes	abu	abu
184	fire place	tungku (tempat tradisional)	tuŋku
185	wood	kayu	kayu
186	smoke (from fire)	asap	asoʔ
187	burn (a field)	bakar (ladang)	paŋgaŋ
188	eat	makan	makan
189	hungry	lapar	lapar
190	full (of food)	kenyang	kaɲaŋ
191	to drink	minum	minum
192	thirsty	haus	awiʔ

#	English	Indonesian	MIN2
193	to swallow (food)	telan (makanan)	luluəʔ
194	bitter	pahit	payʔ
195	sour	asam	asam
196	sweet	manis	maniː
197	ginger	jahe	spadɛː
198	betel leaf	daun sirih	daun siri
199	betel nut	pinang	pinaŋ
200	lime	kapur	kapur
201	rice wine	tuak	tuaʔ
202	father	bapak	bapaʔ
203	mother	ibu	ibu
204	husband	suami	lakiː
205	wife	isteri	biniː
206	man	laki-laki	jantan
207	woman	perempuan	padusiː
208	widow	janda	jandoː
209	child (small)	anak (kecil)	anaʔ
210	person	orang	oraŋ
211	friend	kawan	kawan
212	name	nama	namo
213	to sell	jual	juaʔ
214	to buy	beli	bali
215	to pay	bayar	baʔiɛʔ
216	ring (for finger)	cincin	cincin
218	sarong	sarung	kain sa^{u}aŋ
219	pillow	bantal	bantəw
220	house	rumah	umaː
222	post (house)	tiang (rumah)	toŋgaʔ
223	ladder	tangga	taŋgoː
224	wall (of house)	dinding	dindiaŋ
225	floor	lantai	lantay
226	roof	atap	atoʔ
227	fence	pagar	pagaː
228	mat	tikar	lapiɛʔ
229	one	satu	ciɛʔ
230	two	dua	duoː
231	three	tiga	tigoː
232	four	empat	ompɛʔ
233	five	lima	limoː
234	six	enam	anam
235	seven	tujuh	tuju^{ə}ʔ

#	English	Indonesian	MIN2
236	eight	delapan	lapan
237	nine	sembilan	sambilan
238	ten	sepuluh	sapulu
239	hundred	seratus	saratuyʔ
240	thousand	seribu	saribu
241	to count	hitung	hituŋ
242	big (object)	besar (benda)	gadaŋ
243	short (object)	pendek (benda)	pendɛʔ
244	hand span	jengka	jaŋkaː
245	long (object)	panjang (benda)	paɲjaŋ
246	many	banyak	baɲaʔ
247	narrow	sempit	sampiʔ
248	far	jauh	jawʔuaʔ
249	near	dekat	dakɛʔ
250	wet (cloth)	basah (kain)	babiaʔ
251	sharp (machete)	tajam	tajam
252	dull (machete)	tumpul	tumpul
253	sore	luka	luko
254	fat (person)	gemuk (orang)	gapuaʔ
255	full (cup)	penuh (cawan)	panuaʔ
256	hard (object)	keras (benda)	karɛʔ
257	hot (water)	panas (air)	panɛ
258	cold (water)	dingin (air)	diŋin
259	skinny (person)	kurus (orang)	lesuyʔ
260	small (object)	kecil	kɛtɛʔ
261	straight	lurus	luruyʔ
262	strong (person)	kuat (orang)	kuɛʔ
263	thick (object)	tebal (benda)	tabaː
264	thin (object)	tipis (benda)	tipiʔ
265	new	baru	baru
266	old (object)	lama	lamo
267	old (person)	tua	tuɔ
268	fast	cepat	capɛʔ
269	black	hitam	itam
270	green	hijau	ijaw
271	white	putih	puti
272	yellow	kuning	kuniaŋ
273	red	merah	mɛra
274	not	bukan	bukan
275	not	tidak	tidaʔ
276	I	saya, aku	dɛn, ambo
277	you (singular)	kamu, kau, anda	waʔaŋ
278	he/ she (sing.)	dia, ia	iɲo
279	we (exclusive)	kami	kami
280	we (inclusive)	kita	kito
281	you all	kalian	kalian
282	they	mereka	iɲo
283	we two	kita berdua	kito duo
284	to walk/ go	berjalan	ba-jalan
285	road/ path	jalan	jalan
290	back	belakang	kudua?
291	guts	isi perut	usus
292	liver	hati	hati
293	breast	susu	susuəʔ
297	sniff/ smell	cium	cium
299	to cook	masak	masaʔ
302	to say	berkata	bicara
315	spider	laba-laba	laba-laba
318	flower	bunga	buŋo
323	heavy	berat	barɛʔ
324	wide	lebar	gadaŋ
328	when	kapan	bilo
329	at	di	di
332	below	di bawah	bawa
335	where	di mana	di mano
336	what	apa	apo
337	who	siapa	siapo
339	all	semua	sadoɛʔ
348	coconut (ripe)	kelapa	karambieʔ
358	3SG.POSS	-nya	-e

Appendix G
Nawawi Menerima Tamu interlinearized text

Phonetic transcription, Indonesian free translation, English free translation. Recorded May 2, 2001 Speaker is from Ulu Gedung, Kotamadya Jambi (JI), Jambi Province. This is an imagined dialogue performed by one speaker. U=Uncle, N=Nawawi, K=Kulup (Uncle's son).

U salamualaykum. ay kə mano pəᵏgi oʁaŋ ʁuma tu. salamualaykum
Salamua'laikum. Kemana pergi orang di rumah ini? Assalamu Alaikum.
(Calling out) Peace be unto you! Hey, where is this guy? Hello!

N walaykumsalam
Waalaikumsalam.
Peace be unto you.

N oː waʔ lamo niyan daʔ neŋoʔ waʔ waʔ ay kə mano waʔ sələmo iko
Hai paman, sudah lama sekali tidak melihat paman. Kemana saja paman selama ini?
Uncle! It's truly been a long time, uncle. Where have you been all this time?

U kəlagi la dulu ŋobʁol pɪːʔ, waʔ ko lagi capeʔ nian, jau bᵊjalan tadi
Nanti saja bicaranya nak, paman saat ini letih sekali karena tadi berjalan jauh.
Let's talk a bit later, son. I'm very tired from the long journey.

N ayo waʔ masuʔ la. kə mano waʔ bəjalan sələmo iko
Masuklah paman, kemana saja paman pergi selama ini?
Come on in, uncle. Where have you been all this time?

U a jaŋan ditaɲo lagi pɪʔ
A, jangan ditanya lagi nak.
Ah, don't keep after me, son.

U waʔ iko la puas, la sampe mudiʔ jau niyan kə baŋko, kə mano manoan
Paman ini sudah banyak berjalan, sampai jauh ke hulu, ke Bangko dan ke mana-mana.
I've traveled to my heart's content, all the way upstream, to Bangko, everywhere.

U maʔlum la mɲcaʁi ʁɛzəki
Maklumlah mencari rezki.
Trying to make a living, of course.

U səjaʔ waʔ bətino kau niŋgal dulu, pokoʔ ɲo waʔ tu naʔ malas baliʔ k kampuŋ waʔ
Sejak bibimu meninggal, paman jadi malas pulang kampung.
Ever since your aunt passed away, I just haven't been up to coming home.

U kalu təteŋoʔ k ʁuma waʔ ko, a tʁiŋat la pulaʔ dəŋan waʔ bətino kau tu
Kalau paman melihat rumah paman, paman jadi teringat lagi dengan bibimu.
Whenever I see my old house, I recall your aunt.

N jaŋan macam itu waʔ, itu namo ɲo la takdiᵏ. kito daʔ bole macam itu
Jangan seperti itu, paman, itu namanya sudah takdir. Kita tidak boleh seperti itu.
Don't talk that way, uncle. That's just destiny. We can't think like that.

N balıʔ balıʔ jugo la ka kampuŋ
Singgah-singgah juga ke kampung.
Come back home to visit.

N a cobo teŋoʔ wak, dulu jambi ko masi jadi utan
Lihat paman, dulu Jambi ini masih hutan,
Look here, uncle. Back then Jambi was still jungle.

N a kini, səkali waʔ pəᵏgi, la bʁapo taun waʔ pəᵏgi waʔ
A sekarang, setelah paman pergi - sudah berapa tahun paman pergi, paman?
Now, since you've gone – how long has it been since you left, uncle?

U ado la duo pulo taun pıʔ
Kira-kira sudah dua puluh tahun nak.
Yeah, it's been twenty years, son.

N ay lamo duo pulo taun
Wah, itu lama paman, dua puluh tahun.
Wow, twenty years, that's a long time.

N bə͡ati waʔ ko la lamo nian la bjalan tu
Artinya, paman sudah lama sekali perginya.
That means you've been traveling a long time.

U sayo pun daʔ iŋat lagi
Saya sudah tidak ingat lagi.
I don't even remember anymore.

U la dulu pıʔ, aku kə siko kau masi mudo lagi pıʔ
A dulu nak, waktu paman kemari engkau masih sangat muda.
When I was here last, you were still very young.

U kini ko kau hã la tuo jugo
Sekarang ini engkau sudah nampak tua juga.
Now you're looking rather old yourself!

N ay yo waʔ anaʔ sayo be la duo, a kini ko kmano pəᵏgi e tadi
Ya paman, anak saya saja sudah dua. A sekarang, kemana perginya tadi?
Yes, uncle. Now I have two kids myself. Now where did he go?

N c sayo paŋgil əntaʁ. lʊb̥. o lʊb̥, lʊb̥
Saya panggil dulu. Nak, o nak, nak!
Let me call him. Boy! Boy, boy!

K siapo maʔ
Siapa bu?
Who is it, Mother?

N hã. ɲoʔ maʔ kau, aya kau maŋgil tu hã
Bukan ibu yang memanggil tapi ayahmu.
Your mother isn't calling you, your father is!

K yo ŋapo, ŋapo ya
Ya, ada apa Yah?
Oh yeah, what do you need, Dad?

N a cobo kau t siko
Datanglah ke sini.
Come here, please.

N ko hã. teŋoʔ hã. ado datuʔ kau dataŋ
Lihatlah ke sini. Ada kakekmu datang.
Look – your great uncle came for a visit.

K o tuʔ apo kabaʁ tuʔ
O kakek, apa kabar kek?
Hello, great uncle. How are you?

U kabaʁ baɪʔ la
Kabar baiklah.
Fine, thank you.

N kənal kau ko dŋan datuʔ kau ko
Kenalkah engkau dengan kakekmu ini?
Do you remember great uncle here?

K ay ʁaso ʁaso e tu kənal tapi datuʔ ko siapo yo
Rasa-rasanya itu kenal, tapi kakek ini siapa ya?
You seem familiar, but... who are you?

U ay kau lagi kəciʔ dulu datuʔ tiŋgalkan.
Ay, kakek tinggalkan sewaktu engkau masih kecil dulu.
You were still little when I left.

U masi dalam buwenan tu hã, diayun ayun maʔ kau.
Engkau masih dalam ayunan itu, diayun-ayun oleh ibumu.
Still in the cradle-swing being rocked by your mother.

U a kini ko, kau la səbəsaʔ iko, a itu la
Nah sekarang, engkau sudah sebesar ini, nah itulah.
And look at you now; you're all grown up. Well, well.

N jadi waʔ səlamo iko waʔ tu kəmano be
Jadi paman, selama ini paman kemana saja?
So uncle, where have you been all this time?

U ay aku ko la baɲaʔ nian məʁantaw pɪʔ e
Ay, aku ini sudah banyak sekali merantau, nak.
Oh, I've been all over the place, son.

U di sano tu cobo cobo yo, la tiŋgal kampuŋ ko sampe kə kampuŋ oʁaŋ tu
Di sana coba-coba, sesudah meninggalkan kampung ini, sampai ke kampung orang itu.
After leaving this village, I tried my luck over there, made it to another village by Bangko.

U macam kampuŋ awaʔ deweʔ la, bəkəbun paʁah, bəsawah
Seperti di kampung kita sendirilah, berkebun karet, menanam padi.
Like in our village here, tapped rubber, planted rice.

U a hampiʁ pulaʔ uwaʔ kawin pulaʔ lagi situ
Hampir saja paman menikah lagi disana.
I even almost got remarried there.

N ay bnaʁ bnaʁ waʔ, kalu waʔ la kawin ɲela sano daʔ waʔ
Yang benar nich paman, jangan-jangan paman sudah menikah disana.
Stop pulling my leg! Did you really get married there or not?

U kau ko macam macam be. malu waʔ dio naʔ ŋato ɲo
Engkau ini, jangan seperti itu. Malu paman mengatakannya.
You're quite the rascal, you are! I'm embarrassed to talk about it.

U səbənaʁ ɲo yo kalu deweʔ deweʔan tunaʔ di kampuŋ oʁaŋ
Sebenarnya, ya, kalau sendirian tinggal di kampung orang,
Truth be told, yes, if you're alone in the village,

U syapo pulaʔ naʔ masukan baju, syapo pulaʔ naʔ bətanaʔ
siapalah yang mau mencucikan baju, siapa pula yang menanak nasi.
Who's going to do your laundry, who's going to cook your rice?

U a tapakso jugo la uwaʔ kawin di baŋko ətu
Akhirnya, terpaksa paman menikah di Bangko itu.
So, yes, I had to get married there in Bangko.

N nah waʔ btino ŋapo daʔ ado dibawaʔ
Lho kenapa bibi tidak diajak?
Well, why didn't you bring this new aunt along?

U ay dioʔ tu biaʔ la dulu. isʊʔ waʔ ko naʔ məʁente-ʁentes jalan dulu kə jambi ko
Ay, bibi itu, biarlah dulu. Besok, paman ingin merintis dahulu, jalan ke Jambi ini.
Ah, we'll let her stay for now. Tomorrow I want to test the waters here in Jambi first.

U anday kato kəlagi kalu la ʔ tau nian waʔ balıʔ kə kampuŋ asal ko,
Umpamanya nanti, paman benar-benar pulang ke kampung asal ini,
So maybe later, if I'm sure I want to come back to my hometown here,

U baʁu waʔ naʔ waʔ jəmput waʔ bətino kau tu
baru paman jemput tantemu itu.
Then I'll invite your aunt to come also.

N ay yo la waʔ. ɛ, waʔ la sampe kə mano bəjalan waʔ
O yalah paman. Paman ...kemana jalan paman?
Okay uncle. Uncle, where are you headed?

U aku ko tigo aʁi baʁu dataŋ pıʔ. bəjalan la ka pasaʁ, ka mano mano
Aku ini baru tiga hari datang nak, berjalan-jalanlah ke pasar, dimana-mana.
I just got here three days ago, son, going to the market, here and there.

U aku neŋoʔ pıʔ, yaʁabi, toko toko la eloʔ eloʔ nian, la bəteŋkat teŋkat
Aku lihat nak, ya rabbi, toko-tokonya sudah bagus bagus sekali, sudah bertingkat-tingkat.
Good Lord, the shops are all spiffied up, multi-storied.

U dulu waktu waʔ bʁaŋkat mudiʔ dulu, toko tu cuman toko papan
Dahulu, waktu paman pergi merantau, toko-toko itu masih papan.
Way back when I first left to start my travels, those shops were just made of boards.

U jalan tu lagi buʁuʔ. kini pɪʔ daʁi baŋko kə sano, cuman səmalam be la sampe waʔ
Jalan pada saat itu jelek. Sekarang, nak, dari Bangko ke sana cuma satu malam saja sudah sampai paman.
The roads were in bad shape. Now, son, from Bangko to here, it just took me one night.

U bʁaŋkat pukul limo soʁe səmalam tu, a subuh tadi la sampe k siko
Berangkat jam lima sore kemarin, subuh tadi sudah sampai kesini.
We took off at five in the afternoon, and were here by daybreak the next day.

U mun dulu zaman kau lagi kəciʔ, waktu waʔ baʁu bʁaŋkat tu,
Namun dahulu, waktu kau masih kecil, sewaktu paman baru berangkat dulu,
But back then, when you were still a kid, when I took off the first time,

U samiŋgu baʁu sampe kə baŋko ətu. a itu la
satu minggu baru sampai ke Bangko itu. Ya begitulah.
It took a whole week to get to Bangko. That's how it was.

N ɛ lʊɓ̀p, o lʊɓ̀p
Hei nak, o nak.
Hey Boy, Boy.

K yo, apo waʔ
Ada apa yah?
Yes, Dad?

N cobo dibawaʔkan aeʔ waʔ ko ko hã. dio litaʔ aus nampaʔ e ko
Tolong bawakan air untuk kakek ini, dia kelihatan letih dan haus.
Please bring some water for great uncle here – he looks tired and thirsty.

K yo yo yo
Ya, ya, ya.
Okay, sure.

N itu lah. anaʔ bətino pəˣgi, dioʔ ko bəgawe dikit nampaʔ e tu waʔ
Itulah. Anak perempuan saya lagi pergi, dia ini bekerja sedikit, kelihatannya itu paman.
Yessir. My daughter is gone, she's working a bit these days it seems, uncle.

N a iko la si kulubp̀ ko la kawan sayo di ʁuma ko
Ya itulah. Anak ini teman saya di rumah ini.
Yep, so Boy here keeps me company in the house.

N kulubp̀ ko kəbətulan səkola e pagi, soʁe ko ado d ʁuma
Anak ini kebetulan sekolahnya pagi hari, sore ini ada di rumah.
Boy of course has school in the mornings, then he's home in the afternoons.

N a itu la nulʊŋ nulʊŋ sayo
Ya dialah yang menolong saya.
So he helps me out.

N a maʔ e ko, yo, kadaŋ ado d ruma ko, duo aʁi ko tadi balıʔ k ʁuma maʔ e pulaʔ ko
Ibunya ini, kadang-kadang ada di rumah, sudah dua hari ini dia pulang ke rumah ibunya
His mother is sometimes home. These last two days she went to her mother's house.

N ado maʔ tu sakit d sano. a tiŋgal kami duo bʁanaʔ d ʁuma
Ibunya lagi sakit di sana, nah tinggallah kami berdua saja di rumah.
Her mother's sick there, so it's just us two at home here.

K a iko iko aeʔ yo waʔ minum waʔ. cuma aeʔ mədu be waʔ
Ini airnya kek, silahkan diminum tapi hanya air putih saja.
Here's your drink, great uncle. Help yourself; sorry it's just regular water.

U a. jadi la untuʔ ŋilaŋ ŋilaŋ^{k}an aus. a waʔ minum dlu pıʔ yo
Cukuplah untuk menghilangkan haus. Aku minum dulu, nak.
Oh? That's good enough to quench my thirst. I'll drink then, alright son?

N yo
Ya.
Please.

K aeʔ mədu andaʁ ko, daʔ ateʔ kawan
Hanya air putih saja, tidak ada kawannya (tidak ada makanan lain).
Just plain water, no food to go with it.

U yo la jadi lah. yaŋ pəntiŋ kito ko bətəmu.
Ya, lumayanlah, yang penting kita bisa bertemu.
That's good enough. What's important is that we get to see each other.

U lagi ado umuʁ macam ko nasıb baiʔ kito təmu
Selagi panjang umur, nasib baik kita dapat bertemu.
As you get older like me, you count yourself lucky to get to meet again.

U tu la waʔ ko ʁasoɲo la bosan jugo la tunaʔ d ulu tu
Begitulah, sebenarnya paman ini rasanya bosan jugalah tinggal di ulu (Bangko) itu.
Actually, I was starting to get tired of living upstream there.

U memaŋ kəpeŋen la naʔ baliʔ siko
Paman memang ingin pulang kesini.
I was really wanting to get back here.

U jadi kini ko, kau ko apo lokaʔ kini ko
Jadi, sekarang ini apa pekerjaanmu?
So, how are you making a living these days?

N a sayo ko biaso la waʔ. pəɲcaʁian tətap pun daʔ do
Ah, saya biasa saja paman, pekerjaan tetappun tidak ada.
Ah, the regular for me, uncle. I don't have a steady job.

N kadaŋ kadaŋ sayo, yo apo yaŋ ado lah, yaŋ biso dijadikan duit.
Kadang-kadang saya, ya mengerjakan apa yang ada, yang dapat dijadikan uang.
Occasionally I, well I make do, do what I can bring in some money.

N kadaŋ kadaŋ bʁʊmo, kadaŋ kadaŋ musim ikan baɲaʔ, maʁawe
Kadang-kadang saya mengerjakan sawah, kadang-kadang kalau musim ikan saya mencari ikan (dengan menggunakan banyak pancing).
Sometimes I work in the rice paddy, sometimes if it's fishing season I fish.

N bawaʔ ka pasaʁ aŋso duo tu ikan. ləpah ləpah makan be jadi la
Ikan itu dibawa ke pasar Angso Duo, cukup untuk makan, jadilah.
Bring the fish to the "Two Geese" market, it's just enough to eat.

U eloʔ la tu. yaŋ pəntiŋ kito ko məɲcaʁi ko halal
Itu bagus. Yang penting kita itu mencari yang halal.
That's good. What's important is that we make an honest living.

U a itu be la. jaŋan naʔ malu malu, səbab biaso kito ko siko ko baɲaʔ geŋsi
Begitulah, jangan kita malu-malu. Sebab biasanya kita disini banyak gengsinya.
That's it. We shouldn't shy away from work. Because there are a lot of our people who are too proud to get their hands dirty.

U anu luɓ͡p, daʁi dulu tu məɲcaʁi duit macam tu daʔ endaʔ, maɲo.
Anu nak, kalau dari dulu, mencari uang dengan pekerjaan seperti itu tidak mau, manja.
I mean, son, working like that to earn money, people haven't ever wanted to do that – they were spoiled.

U ayah awaʔ puɲo tana baɲaʔ, a kini haʁto la habih bəjual galo, a apo ʁaso
Orang tua kita punya banyak tanah, a sekarang kalau harta sudah habis dijual semua, bagaimana rasanya?
Our parents had a lot of land, but now all the inheritance is gone, sold off. How does that feel?

U baɲaʔ nan məlaʁat, awaʔ la jadi oʁaŋ pəmalas
Akhirnya, banyak yang miskin; kita sudah menjadi orang pemalas.
So many of us end up poor – we've become lazy.

U a co teŋoʔ oʁaŋ lain, ʁajin nian məɲcari duit
A, coba lihat orang lain [orang pendatang], mereka rajin sekali mencari uang.
But look at the others who come here, they work like crazy to earn a living.

U pukul tigo subu be kadaŋ kadaŋ tu hã ʁame di pasaʁ pasaʁ tu
Jam tiga pagi saja kadang-kadang di pasar itu sudah ramai.
Sometimes the markets are crowded at three in the morning!

U mun budaʔ budaʔ awaʔ ko, yaʔalah, pukul səmbilan pagi masi di bawa səlimuⁿt.
Sedangkan orang-orang kita, ya Allah, jam sembilan pagi masih dibawah selimut.
But our young people, good Lord, nine in the morning and they're still under the covers!

U waʔ bayaŋka la. macam mano naʔ dapat duit, macam mano naʔ bəbini, a ŋaŋguʁ
Coba kamu bayangkan, bagaimana bisa mendapatkan uang, bagaimana bisa mendapatkan istri, tidak bekerja.
Imagine, how can they support themselves, how can they get a wife, unemployed like that?

U səbənaʁ ɲo lubꝑ yo, di jambi iko masi baɲaʔ lokaʔ
Sebenarnya nak, di Jambi ini masih banyak pekerjaan.
Truthfully, son, in Jambi here there's a lot of work available,

U kalu dibandiŋkan dəŋan, apo namo tu, kampuŋ kampuŋ oʁaŋ laɪᵈn
Kalau dibandingkan dengan, apa namanya, daerah lain.
if you compare it to, what do you call it, other areas.

U kalu kito neŋoʔ di jawo ato di mano ətu memaŋ oʁaŋ tu paya nian
Kalau kita lihat di Jawa, atau dimana itu, orang-orang tersebut susah sekali.
If you look at Java or somewhere else, those people are in a really tough spot.

U bayaŋkan ado ŋambiʔ upahan, anu, apo namo e tu məʁsikan paʁit, məʁsikan got
Bayangkan saja, ada yang bekerja mengambil upahan, anu, apa namanya itu, membersihkan parit, membersihkan got.
Just imagine, there they have people working to, ah, what's that called, clean the gutters and the drains.

U kito siko lum ado ʁaso model itu
Kita disini rasanya belum ada yang bekerja begitu.
I don't think we have people that have to do that here.

U dan jugo kito di jambi ko walaw mano jugo miskin ɲo tu, masi makan jugo lah
Dan juga kita di Jambi ini, walau bagaimanapun miskinnya tapi masih bisa makan juga.
And us in Jambi, no matter how poor we are, we still have enough to eat.

U kalu di təmpat laın tu memaŋ la sulit, kito neŋoʔ di tipi tu, ye daʔ.
Kalau di tempat lain memanglah sulit, seperti yang kita lihat di tipi, ya kan?
In other places it's really tough, like we see on TV, right?

U oʁaŋ oʁaŋ baɲaʔ daʔ ado makan
Orang-orang banyak yang tidak bisa makan.
Lots of people without food.

U a iko la mako jadi ɲo baɲaʔ kini ko, pəʁampoʔan, pənodoŋan, gawe la tapakso.
Nah inilah, maka sekarang ini banyak terjadi perampokan, penodongan, pekerjaan yang terpaksa.
That's right, so now there is a lot of burglary, robbery, people forced to do what they don't want.

U buda? buda? sakola jugo paya, baɲaʔ la tuʁun ka jalan, ado nan mintaʔ sədəka macam macam
anak-anak sekolah sekarang juga susah, banyak anak-anak yang mencari pekerjaan, ada yang minta sedekah dan banyak macam yang lain.
Schoolkids have it tough too, lots are in the streets, begging for handouts and all sorts of things.

U a sədi neŋoʔ e. muda mudahan di kito jaŋan la macam tu
A sedih melihatnya, mudah-mudahan kita tidak mengalami hal seperti itu.
Sad to see. Hopefully we won't have to deal with things like that.

N ay waʔ sambi sambil itu ko ŋota ko diminum aeʔ ko
Hei paman, sambil ngobrol diminumlah airnya.
Hey uncle, while you're talking don't forget your drink.

N a isʊʔ ajaʔ kami mudiʔ pulaʔ
A besok ajaklah kami ke mudik.
Later you can invite us to come upstream too.

U yo lah. cuman tu la, kalu kamu mudiʔ tu ʁuma uwaʔ,
Iyalah, hanya saja, kalau kamu ke kampung paman,
That's right, just that, if you come upriver to my place,

U di sano tu maʔlum la ruma dusun, macam ʁuma di siko, ye daʔ
rumah paman di sana itu, maklumlah rumah dusun, seperti rumah di sini, ya kan.
of course it's a country house, like this house here, right?

U a tapi kalu ndaʔ jugo bəjalan jalan mudiʔ, a isʊʔ uwaʔ ajaʔ
Tapi kalau ingin juga jalan-jalan ke mudik, besok paman ajak.
But if you really want to come upstream, I'll invite you later.

U jadi, macam iko lah. waʔ ko memaŋ dataŋ ko, naʔ nəmu silatuʁahmi dəŋan kamu kamu ko la
Jadi, beginilah. Maksud paman kesini, mau bertemu bersilaturrahmi dengan kalian di sini.
Well, that's it. I came here because I wanted to strengthen our relationship again.

U mano anaʔ anaʔ bua uwaʔ yaŋ ado di jambi ko, a waʔ pəˣgi la kə ʁuma e tu masi masiŋ
Semua keponakan paman, yang ada di Jambi ini, ya, paman kunjungilah rumahnya masing-masing.
All my nephews who live in Jambi, I'm going and visiting each of their homes.

U a baɲaʔ yaŋ təkəjuⁿt, ado yaŋ ŋatoka uwaʔ ko la mati
A banyak yang terkejut, ada yang mengatakan paman ini sudah meninggal.
A lot of them are shocked, some even said I had died!

U tapi nampaʔ e tuhan lagi naʔ maɲʲaŋᵏan umuʁ. a bətəmu jugo kito
Tapi nampaknya, Tuhan masih memanjangkan umur paman, akhirnya kita bertemu lagi.
But evidently the Lord still wants to lengthen my life, so we were able to meet again.

U jadi kaʁno aʁi ko la soʁe, uwaʔ naʔ bəguyuʁ la dulu balıʔ
Jadi, karena hari sudah sore paman mau pelan-pelan pulang dulu.
So, since it's getting late in the day, I'd better be getting a move on.

U a muda mudahan isʊʔ pagi, kalu l uwaʔ lum ado ka mano mano, waʔ ka siko pulaʔ
Ah, mudah-mudahan besok pagi kalaulah paman tidak kemana-mana, paman akan datang ke sini.
So hopefully tomorrow morning, if I don't have to go anywhere else, I'll come back here.

N e cəpat nian waʔ. baʁu ko la bətəmu, naʔ balıʔ la
Ei, cepat sekali paman mau pulang, baru sekarang bertemu sudah mau pergi lagi.
So fast, uncle! We just met and now you want to go!

U ʔ ə ə pıʔ. muda mudahan kələgi kalu anu, malam kələgi, waʔ ka siko pulaʔ, waʔ naʔ tmalam siko be
Ya, tidak pasti juga nak, mudah-mudahan nanti malam bisa paman kemari. Paman ingin menginap disini saja.
Yeah, I don't know, son. Hopefully later, um, later at night, I can come back here and stay overnight here.

N kalu ndaʔ baʁı baʁıŋ di tikaʁ ʁumbe apo la sala e waʔ
Kalau mau istirahat di tikar rumbai, tidak apa-apa paman.
If you want to sleep on the reed mat, what's wrong with that, right uncle?

U a kau ko galaʔ muat muat ibo ati macam itu. a waʔ balıʔ la dulu yo
Kamu ini sering membuat iba hati paman seperti itu A paman pulang dulu ya.
You like to pull my heartstrings, don't you? I'll take my leave then.

N ayo la
A iyalah.
Okay then.

U slamlekum
Lamlekum!
Peace be unto you!

N kumsalam
Waalaikumsalam.
And peace unto you.

Appendix H
Dusun Dalam Boating Story interlinearized text

Phonetic transcription, Indonesian transliteration, English free translation.
Recorded July 22, 2001, Dusun Dalam (JU village), Sarolangun district, Sarolangun regency, Jambi Province. Speaker is recounting a story from his past.

1. kawan apo lokaʔ saeko
   kawan apa pekerjaan sehari ini?
   "Where are you going to work today, friend?"

2. daʔ kteʔ lokaʔ
   tidak ada pekerjaan.
   "I don't have work."

3. a. kay do lokaʔ, naʔ kito pəgi ŋaŋᵍo
   a. kalau tidak(?) ada pekerjaan, mari kita pergi cari ikan
   "If you don't have work, let's go net some fish."

4. wa, di mano ŋamᵇɪʔ aŋᵍo / aku dido puɲo aŋᵍo, ha daʔ
   wah, di mana mengambil jaring? aku tidak punya jaring, ya ndak.
   "Where can we get a net? I don't have one, you know."

5. a, piɲam aŋo kanti la, piɲam la aŋo kanti itu.
   a, pinjam jaring temanlah, pinjamlah jaring teman itu.
   "Let's borrow our friend's net, borrow a net from him."

6. biduʔ, biduʔ do go puɲõ
   biduk, biduk tidak juga punya.
   "A boat, we don't have a boat either."

7. lạju la piɲaʔ pun, puɲõ aŋᵍo ali, namoa ɲo.
   jadilah pinjam pun, punya jaring Ali, namanya.
   Well, we borrowed that too. The guy with the net was named Ali.

8. a biduʔ jugo puɲõ ali. pəŋãyõ, mĩnõ ŋãmᵇeʔ a
   a biduk juga punya Ali. pengayuh, di mana mengambilnya?
   Ali also had the boat. Where did we get the paddle?

9. a puɲõ pəŋãyõ ali tələh ambiʔ. piɲãm səgalo pado ɲo la.
   a punya pengayuh Ali telah diambil. pinjam semua padanyalah.
   We took Ali's paddle, we borrowed everything from him.

10. yo baːŋkat lah kami pəgi. pəgi ŋaŋᵍow
    ya, berangkatlah kami pergi. pergi cari ikan.
    So we set off to net fish.

11. kəmudian tibo mudiʔ di pulaw itu ŋaŋᵍo lah
    kemudian tiba di mudik, di pulau itu,mencari ikanlah.
    We eventually arrived upstream and fished by a sandbar.

12. hapo luat, hapo kəmudi
siapa di depan, siapa di kemudi?
Who was at the prow, and who was at the stern…

13. yo, kawat lah luat kawat tukaŋ.
ya, kawanlah di depan, kawan tukang.
My friend was at the prow, he was good with the net.

14. aku d tukaŋ, aku naʔ kəmudi bɛ̂a, aku bisa kəmudi.
aku tidak tukang, aku hendak di kemudi saja, aku bisa mengemudi.
I wasn't that good, I just wanted the rudder. I could steer.

15. ɲadi, watu aku də kəmudi itu, apo kato yaŋ di luat to
jadi, waktu aku di kemudi itu, apa kata yang di depan itu?
So, while I was at the rudder, what does my buddy up front say?

16. sintaʔ, sintaʔ! kayõ kə muko, kayõ kə muko! sintaʔ!
sentak, sentak! kayuh ke depan, kayuh ke depan! sentak!
"Pull, pull! Paddle forward, paddle forward! Pull!"

17. aeʔ kan dəras
air kan deras.
The current was strong, you know,

18. a bəbiduʔ kan, dalam biduʔ ito, la tibo masuʔ lam biduʔ to.
a berbiduk, kan, dalam biduk itu, telah tiba (air) masuk dalam biduk itu
and in the boat, you know, water was coming in the boat.

19. sintaʔ bəlakaŋ, sintaʔ bəlakaŋ
sentak belakang, sentak belakang!
"Pull back! Pull back!"

20. daʔ tau, di dəpan itu, di muko tu, itu ado kayu, tacacaʔ di təŋa ayi ito.
tidak tahu, di depan itu, di depan itu, itu ada kayu, tercacak di tengah air itu.
I didn't know, in front there, there was a log sticking up out of the water.

21. a, aŋkah. a, kəmudian daʔ dapeʔ lagi aku tu naʔ ɲintaʔ biduʔ tu,
a, ?? a, kemudian tidak dapat lagi aku itu hendak menyentak biduk itu,
We were caught on it. (??) Well, I couldn't pull the boat back anymore,

22. a laju la talintaŋ biduʔ ətu. a mano yaŋ tukaŋ aŋo məmuko itu.
a jadilah melintang biduk itu. a mana yang tukang jaring di depan itu
and we ended up sideways. The netter was up front.

23. lạju lạ camo kayo, kuncuy la galo-galoa kami ito.
jadilah cebur ke air, basahlah semua kami itu.
So we got dumped in the water, we both got soaked.

24. a, βatayç tola.
a, batas itulah.
The end.

References

Adelaar, K. Alexander. 1985. Proto-Malayic: the reconstruction of its phonology and parts of its lexicon and morphology. Ph.D. dissertation. University of Leiden.

Adelaar, K. Alexander. 1992. *Proto-Malayic: the reconstruction of its phonology and parts of its lexicon and morphology*. Pacific Linguistics C-119. Canberra: Australian National University.

Adelaar, K. Alexander. 1993. The internal classification of the Malayic subgroup. *Bulletin of the School of Oriental and African Studies* **61**:566–581.

Adelaar, K. Alexander. 1995a. Borneo as a cross-roads for comparative Austronesian linguistics. In Peter Bellwood, James J. Fox, and Darrell T. Tryon (eds.). *The Austronesians: Historical and Comparative Perspectives*, pp. 75–95. Canberra: Australian National University.

Adelaar, K. Alexander. 1995b. Minangkabau. In Darrell T. Tryon (ed.). *Comparative Austronesian dictionary: an introduction to Austronesian studies* (Trends in Linguistics, Documentation 10), part 1, pp. 433–441. Berlin: Mouton de Gruyter.

Adelaar, K. Alexander. 2000. Malay: a short history. *Oriente Moderno* **2**:225–242.

Adelaar, K. Alexander. 2001. The genetic affiliations of Balinese, Sasak and Sumbawanese with other West Malayo-Polynesian languages. Paper presented at the International Symposium on Malay/Indonesian Linguistics. Max Planck Institute for Evolutionary Anthropology, Leipzig, 16–17 June.

Agr. 2002. 'Big foot' dari hutan Jambi. *Tempo*, 28 April: 70–71.

Andaya, Barbara Watson. 1993. *To live as brothers – southeast Sumatra in the seventeenth and eighteenth centuries*. Honolulu: University of Hawaii Press.

Anderbeck, Kristen. 2003. Language use and attitudes among the Jambi Malays of Sumatra. Masters thesis. Bangi: Universiti Kebangsaan Malaysia.

Arifin, Siti Salamah, Tarmizi Abubakar, Ernalida, Ansori Z.A. & Marzuan. 1998. *Fonologi dan morfologi bahasa Ranau*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Arifudin & Akhyaruddin. 2000. *Struktur nomina bahasa Melayu Jambi*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Asmah Haji Omar. 1977. *Kepelbagian fonologi dialek-dialek Melayu.* Kuala Lumpur: Dewan Bahasa dan Pustaka.

Bellwood, Peter. 1985. *Prehistory of the Indo-Malaysian archipelago*. Orlando: Academic Press.

Bellwood, Peter. 1997. *Prehistory of the Indo-Malaysian archipelago*. 2nd ed. Honolulu: University of Hawai'i Press.

Bloomfield, Leonard. 1933. *Language.* New York: Holt, Rinehart and Winston.

Blust, Robert A. 1981. Variation in retention rate among Austronesian languages. Paper presented at the Third International Conference on Austronesian Linguistics. Bali, January.

Blust, Robert A. 1984. On the history of Rejang vowels and diphthongs. *Bijdragen tot de Taal-, Land- en Volkenkunde* **140**(4): 422–450.

Blust, Robert A. 1997. Nasals and nasalization in Borneo. *Oceanic Linguistics* **36**(1): 149–179.

Blust, Robert A. 1999. Subgrouping, circularity and extinction: Some issues in Austronesian comparative linguistics. In Elizabeth Zeitoun and Paul Jen-kuei Li (eds.). *Selected Papers from the Eighth International Conference on Austronesian Linguistics*, pp. 31–94. Taipei: Academia Sinica.

Blust, Robert A. 2000a. Why lexicostatistics doesn't work: the 'universal constant' hypothesis and the Austronesian languages. In C. Renfrew, A. McMahon & R.L. Trask (eds.). *Time depth in historical linguistics,* pp. 311–331. Cambridge: The McDonald Institute for Archaeological Research.

Blust, Robert A. 2000b. Whence the Malays? Paper presented at the seminar Pulau Borneo Sebagai Tanah Asli Bahasa Melayu: Implikasi Untuk Penelitian. Universiti Kebangsaan Malaysia, Institute Alam Dan Tamadun Melayu, 10–11 April.

Bronson, Bennet. 1977. Exchange at the upstream and downstream ends: notes toward a functional model of the coastal state in Southeast Asia. In Karl L. Hutterer (ed.). *Economic exchange and social interaction in Southeast Asia: perspectives from prehistory, history and ethnography*, pp. 39–52. Ann Arbor: Center for South and Southeast Asian Studies, The University of Michigan.

de Casparis, J.G. 1997. *Sanskrit loan-words in Indonesian: an annotated check-list of words from Sanskrit in Indonesian and Traditional Malay* (NUSA Linguistic Studies of Indonesian and Other Languages in Indonesia, 41). Jakarta: Lembaga Bahasa, Universitas Katolik Indonesia Atma Jaya.

Chambers, J.K. & Peter Trudgill. 1998. *Dialectology,* 2nd edition. Cambridge: Cambridge University Press.

Coady, James, & Richard McGinn. 1982. On the so-called implosive nasals of Rejang. In Rainer Carle *et al*. (eds.). *GAVA: studies in Austronesian languages and cultures*, pp. 437–449. Berlin: Dietrich Reimer Verlag.

Collins, James T. 1976. Vokal sengau di dalam bahasa Melayu Kedah (Langkawi). *Dewan Bahasa* **20**: 9–31.

Collins, James T. 1983. *Dialek Ulu Terengganu*. Monograf 8, FSKK, UKM. Bangi: Penerbit Universiti Kebangsaan Malaysia.

Collins, James T. 1987. *Dialek Melayu Sarawak*. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Collins, James T. 1989. Malay dialect research in Malaysia: the issue of perspective. *Bijdragen tot de Taal-, Land- en Volkenkunde* **145**: 235–264.

Collins, James T. 1991. Bahasa Melayu di sungai Mahakam: siasatan fonologi dialek Kutai. *Sari* **10**: 3–24.

Collins, James T. 1993. Istilah 'Melayu proto': takrif etnografi, linguistik dan arkeologi. In Nik Safiah Karim (ed.). *Tinta kenangan. Bingkisan untuk Profesor Datuk Dr. Haji Mohd Taib Osman sempena persaraannya dan perlantikannya sebagai naib canselor Universiti Malaya*, pp. 71–85. Kuala Lumpur: Jabatan Pengajian Melayu, Universiti Malaya.

Collins, James T. 1994. Sumbangan dialek Brunei dalam pengkajian sejarah bahasa Melayu: strategi menuju abad ke-21. In *Tinggal landas ke abad 21. Kumpulan kertas kerja yang dibentangkan dalam Kongres Bahasa, Sastera dan Budaya 1993*, pp. 62–75. Bandar Seri Begawan: Dewan Bahasa dan Pustaka Brunei Darussalam.

Collins, James T. 1995. *Bibliografi dialek Melayu di Pulau Sumatera*. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Collins, James T. 1996. *Khazanah dialek Melayu.* Bangi: Penerbit Universiti Kebangsaan Malaysia.

Collins, James T. 1998a. Bahasa Melayu di Hulu Tembeling: menjejaki sejarah Semenanjung. *Jurnal Dewan Bahasa* **42**:145–157.

Collins, James T. 1998b. *Malay world language: a short history*. Second ed. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Crystal, David. 2003. *A dictionary of linguistics and phonetics*. Fifth edition. Oxford: Blackwell Publishers Ltd.

Diffloth, Gérard. 1976. Jah Hut, an Austroasiatic language of Malaysia. In Nguyen Dang Liem (ed.). *Southeast Asian Linguistic Studies,* vol. II, pp. 73–118. Pacific Linguistics C-42. Canberra: Australian National University.

Djambi. 1912. Rapporten betreffende Boven-Djambi (1907–1909). *Adadrechtbundels* **5**:288–297.

Dunggio, P.D., Zainin Wahab, Zainal Abidin Naning, Noor Indones & Bambang Apriay Luneto. 1985. *Struktur bahasa Kubu*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Durie, Mark. 1995. Acehnese. In Darrell T. Tryon (ed.). *Comparative Austronesian dictionary: an introduction to Austronesian studies* (Trends in Linguistics, Documentation 10), part 1, pp. 407–420. Berlin: Mouton de Gruyter.

Durie, Mark & Malcolm Ross (eds.). 1996. *The comparative method reviewed: regularity and irregularity in language change*. Oxford: Oxford University Press.

Echols, John M. & Hassan Shadily. 1989. *An Indonesian-English dictionary*. John U. Wolff & James T. Collins (eds.). 3rd ed. Ithaca: Cornell University Press.

Erizal Gani, Amris Nura & Nazurti. 2000. *Tata bahasa Melayu Jambi*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa, Departamen Pendidikan Nasional.

Farid M. Onn. 1980. *Aspects of Malay phonology and morphology.* Bangi: Penerbit Universiti Kebangsaan Malaysia.

Francis, W.N. 1983. *Dialectology – an introduction*. Essex: Longman Group Limited.

Gil, David. 1994. The structure of Riau Indonesian. *Nordic Journal of Linguistics* **17**:179–200.

Gil, David. 2002. Siak Malay: A Preliminary Overview. Paper presented at the Sixth International Symposium on Malay and Indonesian Linguistics. Bintan, Riau, Indonesia, 5 August.

Gil, David and Uri Tadmor. 1997. Towards a typology of Malay/Indonesian dialects. Paper presented at the First International Symposium on Malay and Indonesian Linguistics. Penang: Universiti Sains Malaysia, 14 January.

Glover, Ian C. 1981. The late Stone Age in eastern Indonesia. *World Archaeology* **9**(1): 42–61.

Gordon, Raymond G., Jr, 2005. *Ethnologue: Languages of the world*. Fifteenth edition. Dallas: SIL International.

Gray, Russell & Fiona Jordan. 2000. Language trees support the express-train sequence of Austronesian expansion. *Nature* **405**:1052–1055.

Hakim Usman. 1988. Fonologi dan morfologi bahasa Kerinci dialek Sungai Penuh. Ph.D dissertation. Universitas Indonesia.

Horne, Elinor Clark. 1974. *Javanese-English dictionary*. New Haven: Yale University Press.

Hudson, Alfred B. 1967. *The Barito isolects of Borneo*. Southeast Asia Program (Dept. of Asian Studies), Data Paper no. 68. Ithaca: Cornell University Press.

Jones, Russell. 1978. *Arabic loanwords in Indonesian.* London: School of Oriental and African Studies.

Kalipke, Hans & Mohamad Agar Kalipke. 2001. *Wörterbuch Sakai-Indonesisch-Deutsch*. Hamburg: Buske.

Kamus Perwira. 1998. Seri Kembangan: Penerbitan Daya.

Kern, H. 1917. Taalkundige gegevens ter bepaling van het stamland der Maleisch-Polynesische volkeren. In H. Kern (ed.) *Verspreide geschriften VI*, pp. 105–120. The Hague: Nijhoff.

Labov, William. 1966. *The social stratification of English in New York City*. Washington D.C.: Center for Applied Linguistics.

Loebis, Ali Basja. 1957. *Azas-azas ilmu bangsa-bangsa*. Jakarta: Erlangga.

Maryono, Albertus Sinaga, Agus Setyonegoro & Ade Kusmana. 1997. Dialektologi bahasa Kubu: laporan penelitian. Manuscript.

Mitani, Yasuyuki. 1980. "Languages of South Sumatra." In Tsubouchi (ed.). *South Sumatra: man and agriculture,* pp.1–16. Kyoto: The Center for Southeast Asian Studies, Kyoto University.

Moussay, Gerard. 1998. *Tata bahasa Minangkabau.* Trans. Jakarta: Gramedia.

Mühlhäusler, Peter. 1996. *Linguistic ecology: language change and linguistic imperialism in the Pacific region.* London: Routledge.

Nasruddin Hars (ed). 1992. *Profil propinsi Republik Indonesia: Jambi*. Jakarta: Yayasan Bhakti Wawasan Nusantara.

Newman, Randy. 1989. Some notes on phonological description, with special reference to Sarawak Malay. *Sari* **7**: 73–86.

Nothofer, Bernd. 1988. A discussion of two Austronesian subgroups: Proto-Malay and Proto-Malayic. In M.T. Ahmad & Z.M. Zaim (eds.). *Rekonstruksi dan cabang-cabang bahasa Melayu induk,* pp. 34–58. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Nothofer, Bernd. 1995. The history of Jakarta Malay. *Oceanic Linguistics* **34**(1): 86–97.

Nothofer, Bernd. 1996. Migrasi orang Melayu Purba: kajian awal. *Sari* **14**: 33–52.

Nothofer, Bernd. 1997. *Dialek Melayu Bangka*. Bangi: Penerbit Universiti Kebangsaan Malaysia.

Nurzuir Husin, Zailoet, M. Atar Semi, Isma Nasrul Karim, Desmawati Radjab & Djurip. 1985. *Struktur bahasa Melayu Jambi*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Nurzuir Husin. 1986. *Morfosintaksis bahasa Melayu Jambi*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Osthoff, Hermann & Karl Brugmann. 1878. *Morphologische Untersuchungen auf dem Gebiete der indogermanischen Sprachen*. 2 vols. Leipzig: Verlag von S. Hirzel.

Prentice, D.J. & Hakim Usman. 1978. Kerinci sound-changes and phonotactics. In S.A. Wurm & Lois Carrington (eds.). *Second International Conference on Austronesian Linguistics: proceedings.* Fascicle I: *Western Austronesian*, pp. 121–163. *Pacific Linguistics,* C-61. Canberra: Australian National University.

Putra, Seno H. 2001. Talang Mamak wordlist. Manuscript.

Ross, Malcolm. 1988. *Proto-Oceanic*. Pacific Linguistics C-98. Canberra: Australian National University.

Sagimun, M.D. (ed.). 1985. *Adat istiadat daerah Jambi*. Jakarta: Departemen Pendidikan dan Kebudayaan.

Saidat Dahlan, Anwar Syair, Abdullah Mana, Ilyas Jakub, Amrin Sabrin, Abdul Razak, Mujiono & Yulisma. 1985. *Pemetaan bahasa daerah Riau dan Jambi*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Seidlitz, Eric W. 2005. A study of Jakun Malay: Some aspects of its phonology. Masters thesis. Bangi: Universiti Kebangsaan Malaysia.

Slametmuljana. 1964. *Asal bangsa dan bahasa Nusantara*. Jakarta: PN Balai Pustaka.

Slametmuljana. 1975. *Asal bangsa dan bahasa Nusantara*. 2nd ed. Jakarta: PN Balai Pustaka.

Smedal, Olaf H. 1987. *Lom-Indonesian-English and English-Lom wordlists* (NUSA Linguistic Studies of Indonesian and Other Languages in Indonesia, 28/29). Jakarta: Lembaga Bahasa, Universitas Katolik Indonesia Atma Jaya.

Steinhauer, Hein. 2002. More (on) Kerinci sound changes. In K. Alexander Adelaar, & Robert A. Blust (eds.). *Between Worlds: linguistic papers in memory of David John Prentice*, pp. 149–176. Canberra: Pacific Linguistics, Research School of Pacific and Asian Studies, Australian National University.

Steinhauer, Hein & Hakim Usman. 1978. Notes on the morphemics of Kerinci (Sumatra). In S.A. Wurm & Lois Carrington (eds.). *Second International Conference on Austronesian Linguistics: proceedings.* Fascicle I: *Western Austronesian*, pp. 483–502. *Pacific Linguistics,* C-61. Canberra: Australian National University.

Syahwin Nikelas, Asni Ayub, Zainil, Marah Rusmali & Syofyan Adam. 1986. *Struktur Bahasa Pekal*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Tadmor, Uri. 2000. Rekonstruksi aksen kata. In Bambang Kaswanti Purwo & Yassir Nasanius (eds.). *PELBBA 13*, pp. 153–171. Jakarta: Lembaga Bahasa, Universitas Katolik Indonesia Atma Jaya.

Tadmor, Uri. 2001. Palembang Malay: a historical linguistic treasure trove. Paper presented at the Fifth International Symposium on Malay and Indonesian Linguistics. Leiden, 16–17 June.

Tideman, J. 1938. *Djambi*. Koninklijke Vereeniging Kolonial Instituut Amsterdam, Mededeelingen 42. Amsterdam: Druk de Bussy.

Thurgood, Graham. 1999. *From ancient Chamic to modern dialects, 2000 years of language contact and change*. Oceanic Linguistics Special Series. Honolulu: University of Hawaii Press.

Tjia, Johnny. 1998. Inland Minangkabau wordlist. Manuscript.

Trask, R.L. 1996. *Historical linguistics*. London: Arnold.

Trudgill, Peter. 1986. *Dialects in contact*. Oxford: Basil Blackwell.

Umar Manan, Zainussin Amir, Nasroel Malano, Anas Syafei & Agustar Surin. 1986. *Struktur bahasa Muko-Muko*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Vlekke, Bernard H.M. 1965. *Nusantara: A history of Indonesia*. 2nd ed. The Hague: W. van Hoeve Ltd.

Wiboyo, Imam Suwardi, Maryono, Wawan Gunawan & Indiyah Prana A. 1996. *Struktur adjektiva dan adverbia bahasa Melayu Jambi*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Wilkinson, R.J. 1959. *A Malay-English dictionary*. 2 vols. London: Macmillan.

Wiryatmojo, Mujiyono. 1983. Prefiksasi bahasa Jambi Sebrang Kota. Manuscript.

Wiryatmojo, Mujiyono. 1992. *Konstruksi verba aktif pasif dalam bahasa Melayu Jambi.* Jakarta: Pusat Pembinaan dan Pengembangan Bahasa, Proyek Penelitian Bahasa dan Sastra Indonesia dan Daerah Sumatra Barat.

Wurm, S.A. & Siro Hattori (eds.). 1981. *Language atlas of the Pacific area*, part II, Japan area, Philippines and Formosa, mainland and insular South-East Asia. Canberra: The Australian Academy of the Humanities in collaboration with The Japan Academy.

Yulisma, Hartini Supadi, Haidas, Ahmad Ridha, Masnidar. 1997. *Kamus bahasa Indonesia – bahasa Jambi*. 2 vols. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Yuslizal Saleh, M. Lamsari & Abdul Madjid. 1984. *Struktur bahasa Rawas*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Zainal Abidin Gani, Mustanni Ahmad & Diemroh Ihsan. 1981. *Struktur bahasa Musi*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Zainul Arifin Aliana, Latifah Ratnawati, Suhardi & Soedjono Martojo. 1993. *Fonologi dan morfologi bahasa Muko-Muko*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.

Znoj, Heinzpeter. 2001. Heterarchy and domination in highland Jambi: the quest for community in a matrilinear society. Ph.D habilitation. University of Bern.

Znoj, Heinzpeter. n.d. Kamus bahasa Sungai Tenang - bahasa Indonesia - English. Manuscript.