FROM SONSOROL TO TRUK:

A DIALECT CHAIN

by
Edward Miller Quackenbush

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in
The University of Michigan
1968

Doctoral Committee:

Assistant Professor Peter Fodale, Chairman
Professor William J. Gedney
Associate Professor Harold V. King
Professor Joseph K. Yamagiwa

INTRODUCTION

The research reported here is an attempt to answer some very general questions about the internal classification of the Trukic group of languages. The conclusions are based almost entirely upon analysis of lexical data and upon the inventories and correspondences of segmental phonèmes. This is a broad initial survey, and it inevitably leaves many important questions unanswered--for example, a study of the suprasegmentals or the morphophonemics (to say nothing of syntax) might disclose a different dimension to the relationships among the languages. Unfortunately, it was also not practical to attempt any sort of formal experimental approach to the whole matter of mutual intelligibility among the islands. Recent attempts to apply a quantitative measure to this elusive concept are found in Voegelin and Harris (1951), Wolff (1959), and Yamagiwa (1967); the Trukic languages, comprising as they do a rather neat example of a dialect chain, would appear to be an apt testing-ground for further refinement of the techniques of measuring mutual intelligibility.

The field work was supported in part by the Office of International Programs of the University of Hawaii in conjunction with its Peace Corps training program for Micronesia,

in part by the Pacific and Asian Linguistics Institute of the University of Hawaii, and by a National Defense Foreign Language fellowship at The University of Michigan. The writing was done under a grant from the Department of Linguistics of The University of Michigan and during time generously made available to me by the Department of Languages and Linguistics of the University of Rochester.

The field work was begun in Hawaii, but most of the interviews were conducted on Palau, Yap, Saipan, and Truk. While in Micronesia, I was helped in ways too numerous to detail by friends, both old and new, too numerous to name individually. These people have my sincere gratitude, as do those who were most inconvenienced during the time this work was in progress--my informants, of course, but more especially my family.

A B S T R A C T

FROM SONSOROL TO TRUK:

A DIALECT CHAIN

by

Edward Miller Quackenbush

Chairman: Peter Fodale

Most of the sixty-odd small islands and atolls from Truk westward in the Central and West Caroline Islands have languages about which little else has been known excepting that they are closely related with Trukese. This study is a linguistic survey of the area, intended to determine how many different languages there are, where their boundaries are located, and what kind of relationships exist among them. Linguistic information was elicited directly from informants from each of seventeen locations selected as representative. The questionnaire consisted of the 200 word Swadesh list for lexicostatistics and nearly 400 more items from general and cultural vocabulary.

While differing greatly on the phonetic level, the languages were found to have highly comparable phonological structures with clear and regular patterns of sound correspondence in cognate vocabulary, especially in the consonants. The isoglosses drawn on this basis tend to be lines which run straight north and south at scattered intervals rather

than in bundles. Each of the dialect areas thus delimited shares sets of features with the other such areas to its east which are different from the sets which it shares with the dialects to its west; thus each distinct dialect area can be viewed as a transition zone between the dialects on either side of it.

A comparison of the basic vocabularies of the various dialects discloses a comparable patterning: languages which are close together geographically have higher percentages of cognate vocabulary and those which are separated by larger expanses of ocean have smaller percentages. The islands are connected by a chain of percentages of seventy-eight or higher. Analysis of exclusively-shared lexical items gives results which conform closely to the other findings.

The conclusion to be drawn from the linguistic data is that these islands form an exceptionally well-defined example of a dialect chain, and this conclusion is strongly supported by non-linguistic, anecdotal, data.

An appendix contains the complete set of word lists used in the analysis.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

1. BACKGROUND

1.0 The aims and results of the study. The aims of this study are comparative and descriptive. It is a linguistic survey of a very obscure group of languages, the Trukic subgroup of nuclear Micronesian. It is the first study to demonstrate the essential linguistic unity of the group and to provide a description of the chief features of diversity which set off one of its languages or dialects from another. It thus provides an empirical basis for locating language boundaries in the Central and West Caroline Islands, at the same time showing that the Trukic languages constitute an exceptionally well-defined example of a linguistic continuum, or dialect chain.

1.1 The need for a survey of the Trukic subgroup. Most of the inhabitants of the United States Trust Territory of the Pacific Islands speak languages which are commonly classified as nuclear Micronesian. This term excludes the languages of Yap (Yapese), Palau (Palauan), the Marianas (Chamorro), and the two Polynesian outliers, Kapingamarangi and Nukuoro; it includes Gilbertese, Nauruan, Marshallese, Kusaiean, Ponapean, and the Trukic subgroup. The latter is made up of Trukese with its dialects and all the languages and dialects spoken on some thirty-five atolls and isolated islands to the north and south of Truk and scattered across

the ocean for about 1,500 miles to the west (see Figure 1).[1]

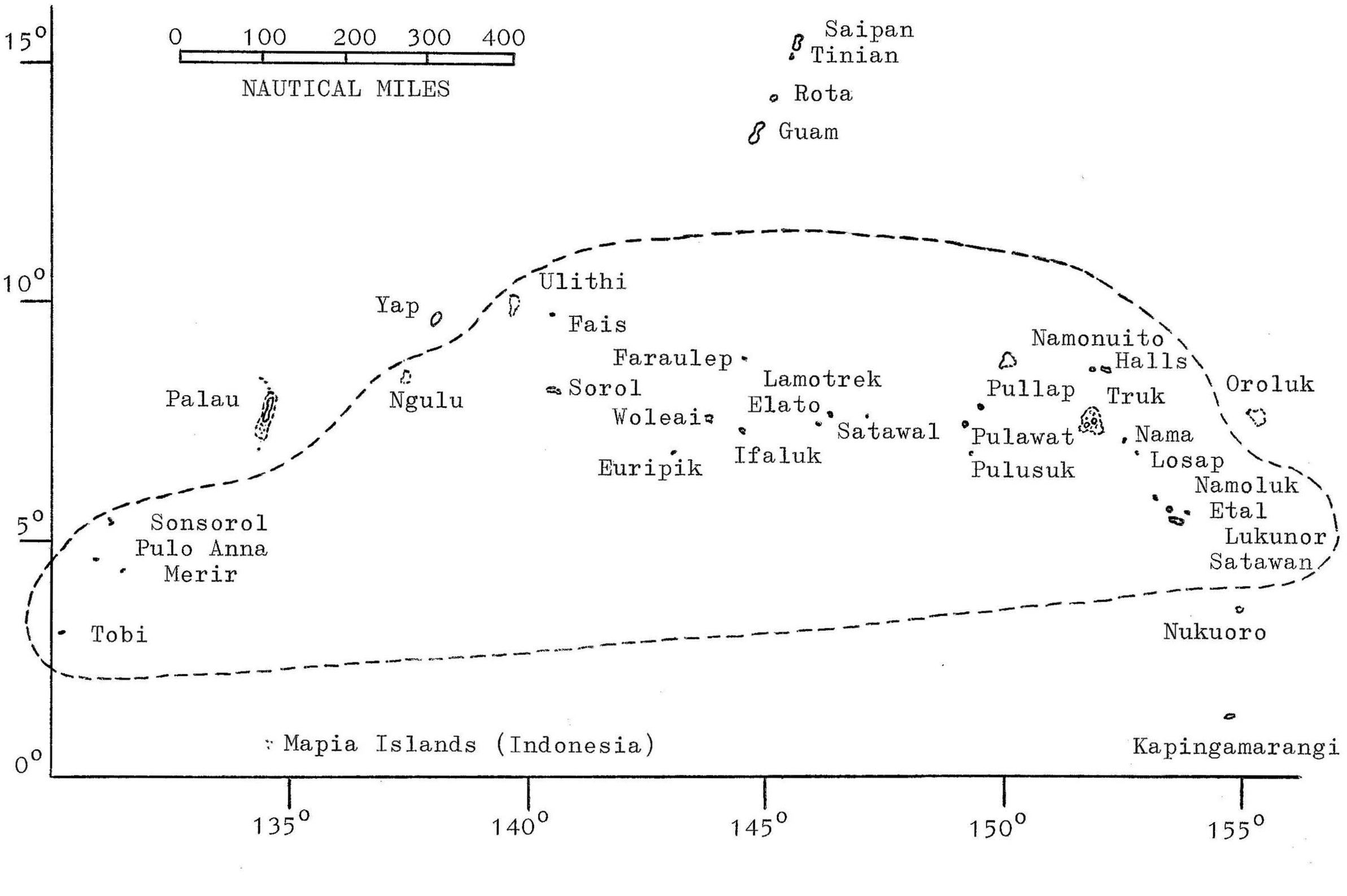
The total number of separate inhabited islands with Trukic languages is about sixty-six. Even on relatively small atolls such as Woleai, native speakers are aware of dialect differences from islet to islet, and there is often recognizable, if minor, dialect differentiation between some villages on the same island. On Moen and Tol in Truk, the two largest and most populous islands in the area covered by this survey, each of the four or five main villages on each island has its own dialectal peculiarities, and Alkire (1965: 72) even reports such differences for Lamotrek, an island of only 154 acres, where the two villages are scarcely 150 yards apart. Thus there are probably at least sixty distinct dialects in the subgroup, and there are possibly many more.

Information about these languages has been so scarce that even though there have been many published attempts to summarize the linguistic situation in the Trust Territory, they all suffer from inaccuracy, or incompleteness, or both. Publications of the Trust Territory Government invariably distort the language picture, partly because of confusion

---

[1]For purposes of this work the term "Trukic" will be used in reference to the languages and dialects which belong to the subgroup, and the term "Caroline" in linguistic contexts will be used in an ad hoc sense to refer to the islands where the people speak Trukic languages. This usage excludes Yap, Palau, Kusaie, Ponape, and the Polynesian outliers, all of which are geographically Caroline but linguistically non-Trukic, and it includes Saipan, which is geographically a part of the Marianas but has a sizable minority (about 2,000, or one-fourth of the population) of Carolinians who speak several Trukic dialects.

Figure 1.--Limits of the Trukic subgroup (dotted line).



between administrative and linguistic boundaries.[2] For example, because Ulithi and Satawal happen to be in the same administrative district, they are officially considered to have the same language, even though in reality their languages are not mutually intelligible. Articles and books in the popular press tend to repeat the misinformation they pick up from government sources.[3] Equally lacking in reliability are linguistic sources. Smith (1951:33) takes the untenable position that all the dialects west of Namonuito are mutually intelligible, differing only "in some phonemic shifts and in some minor changes in vocabulary." Voegelin and Voegelin (1964:101-6), who got most of their information from Dyen (1965a), adopt a more cautious attitude but their account of Micronesian languages is as unenlightening as any. The need for research in the field is stated directly by Dyen in the preface to his grammar of Trukese (1965b:x):

> A brief contact with a native of Ulithi, whom I met on Guam, led me to conclude that the language spoken there is closely related with Trukese, but it was also clear that Ulithians and Trukese could not possibly understand each other's language. This leads to the interesting question: What is the linguistic relationship of the languages or dialects lying between Truk and Ulithi? Is there only a gradual increase of differentiating features in the languages or dialects as one progresses in one direction through the islands lying between those two? Is the gradual increase of differentiating features only such that the languages or dialects which are somewhat

---

[2]See 13th Annual Report to the United Nations on the Administration of the Trust Territory of the Pacific Islands, Department of State Publication 7183, Washington, D.C., 1961. pp. 4-5.

[3]For a recent example, see the June 18, 1966 issue of The New Yorker.

> remote from each other are mutually intelligible while those which are geographically neighbors are always mutually comprehensible or nearly so? In either case, how many different languages are there?

That these are, indeed, questions which are both interesting and worth seeking answers to was the motivation for this study.

1.2 The setting.

1.21 The geographical setting. The islands and atolls covered in this study extend from Tobi Island at about 131° east longitude to Lukunor Atoll at about 154° east longitude, a distance of roughly 1,600 statute miles. Excepting for Saipan, which is just north of the 15th parallel, the islands lie in a band between about 3° and 10° north latitude. Truk is a cluster of volcanic islands surrounded by an enormous coral reef. All the other islands covered in this study are classified geologically as coral islands, raised-coral islands, or coral atolls. Hereafter, the term "island" will be used exclusively excepting in contexts where it is necessary to distinguish between islands and atolls. The names by which these islands are identified on the maps and in the text are the ones commonly used in navigation. These are also the names ordinarily used by Micronesians when speaking English, although in some cases they bear little resemblance to the local-language names: for example, Tobi is known as gatogobwej to its inhabitants, and Pulusuk is known as hook.

All of these islands, with the exception of two or

three inside Truk lagoon, are exceedingly small--their areas are measured in acres. Populations vary from less than ten to more than 1,000. The climate is marine-tropical and there is heavy rainfall; temperature and humidity are high at all times. The economy is basically subsistence agriculture which is utterly dependent upon the coconut palm. Much of the inter-island travel, even over distances of several hundred miles, is still done by outrigger canoe. On most of the islands, the social structure, the dress, the architecture, and many other important aspects of the culture are basically the same as they were at the time of the first contact.

1.22 The historical setting. The history of the discovery and early contact of these islands is covered very thoroughly in the reports of the Hamburg Expedition. The facts which are relevant to this study can be briefly summarized as follows.

Sonsorol, Pulo Anna, Merir, and Tobi, which all lie to the southwest of Palau, were extremely isolated until the late nineteenth century, not only from Ulithi, Woleai, and other linguistically related areas, but also from Palau and even from each other (to say nothing about being isolated from foreign contact). An American seaman who was stranded on Tobi from 1832 until 1834 reported that a Palauan chief who was with him had not even known of Tobi's existence (Holden 1835). While this seems doubtful, there was for all purposes no contact between these islands and the outside world.

The islands from Ulithi to Namonuito inclusive have traditionally been considered as Yap's empire, Yap having exercised suzerainty over them by means of an intricate system of religious, political, and economic ties. Yap's influence persists in some measure to this day as far east as Satawal, fortified by Yap's position as a district center.

As early as 1526 Ulithi had been sighted by Portuguese explorers, but many of the other islands were not to be "discovered" until well into the nineteenth century. Few of them had had more than very occasional direct contact with foreigners prior to the time Spain extended political control over the Carolines. This occurred in the latter half of the nineteenth century, and during the same period missions were established in some places by speakers of English, Spanish, and German. The influence of missionaries has been strong, although mission stations have generally been confined to the more populous islands.

During the last quarter of the nineteenth century Germany gradually acquired control over trade in the area; in 1899 her economic control became political as well. The period of German administration lasted until the outbreak of World War I, at which time Japan took possession of the undefended islands. While the Spanish and the Germans had been content to run the islands with a handful of administrators and traders, the Japanese set about energetically to impose direct and complete colonial rule. Education through the elementary grades was provided (in Japanese) for the Micro-

nesians, and by 1945 when the United States assumed control of the islands, the Japanese language had become firmly established as the first viable lingua franca to cover the biggest part of Micronesia. Since 1945 the influence of English has, of course, been much greater than that of any other foreign language.

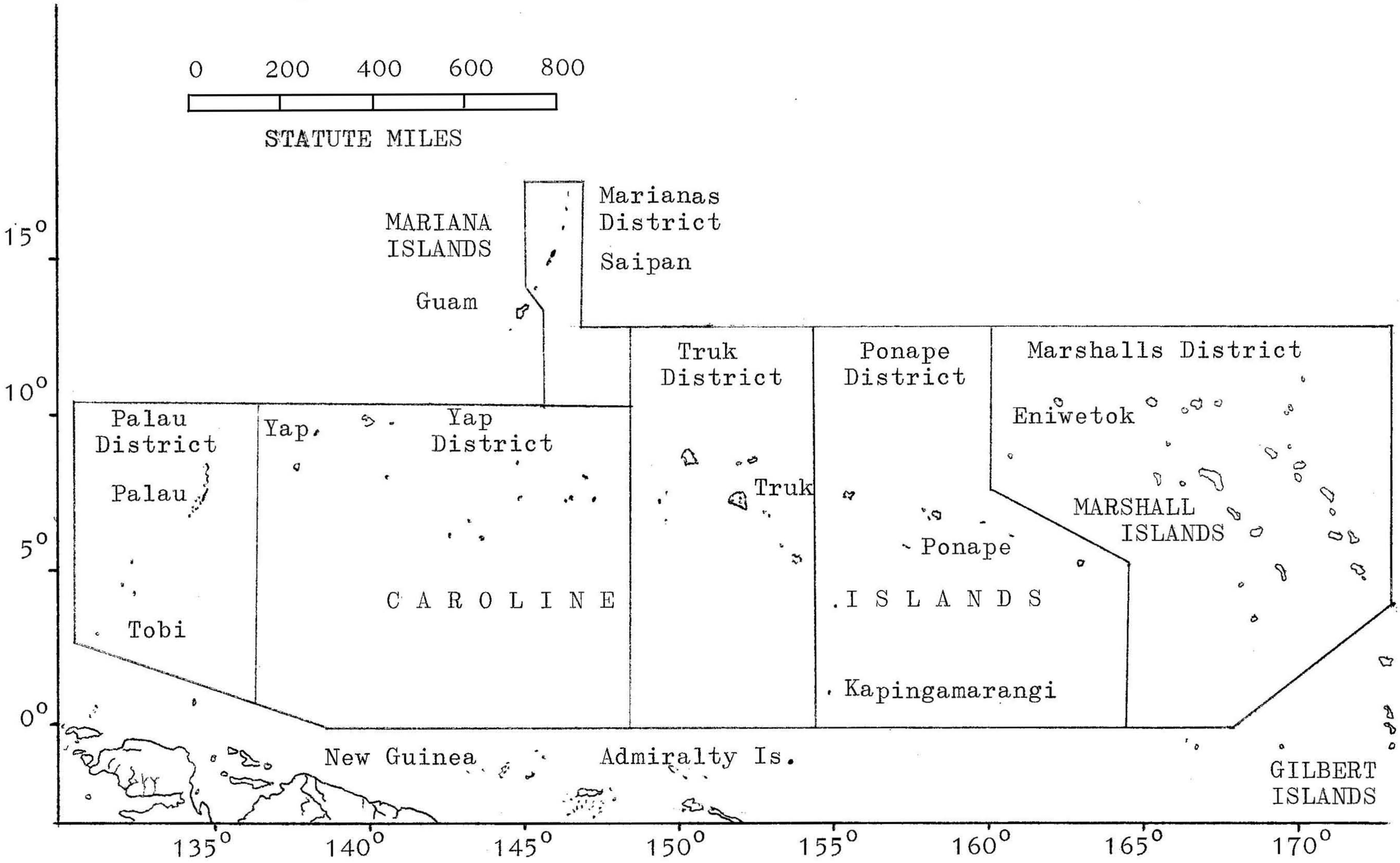
The total effect of foreign linguistic contact upon the Trukic languages should not be overestimated, however. It is almost entirely limited to new vocabulary--a small number from German, a few more from Spanish, but many from Japanese and English. The latter are in two strata, one dating from the days of the American whalers and early missionaries (Trukese ketinaas 'sword') and one from the current period (Ulithi muufi 'the movies'). The most significant influence of modern civilization upon these languages has been indirect: the establishment of public services such as hospitals and centrally-located schools, which bring together people of diverse dialects, and the vastly increased mobility of the population made possible by the steamship have created the conditions which are conducive to the rapid leveling of dialect differences.

The Carolinians on Saipan are the descendants of immigrants who arrived in several waves beginning in 1815 (Fritz 1911:7). They are said to have come from Truk, the Mortlocks, Namonuito, Pulusuk, Satawal, Lamotrek, Elato, Woleai, Merir, and Sonsorol. The present-day Saipanese Carolinians speak several mutually intelligible dialects

which are evidently an accommodation of the original mutually unintelligible languages which their forebears took with them.

1.23 The administrative setting. Under American administration, the seat of government is at Saipan, and the entire territory is divided into six administrative districts, in four of which there are Trukic languages (see Figure 2). Government programs such as education and public health are somewhat autonomous at the district level, and islands which are not at or very near a district center are serviced by regular intra-district field-trip vessels. The basic purpose of the field-trips is to give the outer-islanders an opportunity to sell their copra and to buy trade goods with the proceeds, but they also serve as a means of transportation for those who wish to visit the district center or another island. The effect of this arrangement is that there are frequent contacts among the outer islands within a district, but very few contacts between islands which do not happen to be in the same district. A resident of Satawal, for example, will be admitted to the hospital at Yap or send his children to the high school on Ulithi, but his cousin who lives on nearby Pulawat must go to Truk for these same services. Direct inter-district travel is available only between district centers, and then not all of the possible routes are covered. It is impossible, for example, to travel directly from Truk to Yap or Palau. A person wishing to make the 100-mile trip from Satawal to Pulawat would have to spend from four to eight weeks traveling by ship and aircraft via Yap, Guam,

Figure 2.--Administrative districts of the Trust Territory.



Saipan, and Truk--a distance of over 2,000 miles. The only other way to go (and the way which is, in fact, the only one used) is by canoe.

The recent expansion of public services and their concentration near district centers has greatly increased the incidence of "languages in contact." There are on Yap at any given time at least 100 outer-islanders making up a permanent colony whose membership shifts slightly every time the field-trip ship departs for or returns from the outer islands. The Yap District Outer Islands High School (founded in 1962) on Ulithi has grown to the point where it has upwards of 300 students from Fais, Woleai, and the other islands in the Yap District. Nearly half the native speakers of Sonsorol and Tobi, and all the native speakers of Pulo Anna and Merir, live together near Koror in Palau. Within the Truk District there is a great deal of movement back and forth between Truk and the outer islands. The isolation that existed for many centuries and which created the linguistic diversity which is the subject of this study has been profoundly altered. There is evidence that rapid leveling is taking place within those areas whose boundaries are those of the administrative districts; one hybrid language--Saipanese Carolinian--is already a reality, and the day is foreseeable when it will be joined by Palauan Carolinian, Yapese Carolinian, and Trukese Carolinian.

1.24 The population.

1.241 Population distribution. Table 1 shows the

TABLE 1

POPULATIONS OF ISLANDS HAVING TRUKIC LANGUAGES
(Speakers of other languages not included)

Palau District	
Sonsorol Area	
Sonsorol Islands	88
Merir Island	--
Pulo Anna Island	12
Tobi Island	67
Palau Islands	140
Yap District	
Ulithi Area	
Ulithi Atoll	525
Fais Island	275
Sorol Atoll	12
Ngulu Atoll	50
Woleai Area	
Woleai Atoll	575
Euripik Atoll	150
Faraulep Atoll	150
Ifaluk Atoll	350
Lamotrek Atoll	200
Elato Atoll	45
Satawal Island	350
Yap Islands	100
Truk District	
Hall Islands	
Murilo Atoll	500
Nomwin Atoll	500
Western Islands	
Namonuito Atoll	500
Pullap Atoll	400
Pulawat Atoll	400
Pulusuk Island	300
Mortlock Islands	
Upper Mortlocks	
Nama Island	1,000
Losap Atoll	900
Lower Mortlocks	
Namoluk Atoll	350
Etal Atoll	350
Satawan Atoll	2,000
Lukunor Atoll	1,200
Truk Islands	
Eastern Dialect Area	11,000
Western Dialect Area	6,000
Marianas District	
Saipan Island	2,000

populations of the islands subsumed in this survey. The figures for the Palau District are exact as of January, 1967. For the Yap and Truk Districts, they are projections from the latest available exact figures--these date variously from 1959 to 1964. The figure for the Carolinians on Saipan is only an approximation.

1.242 Acquisition of language. Typically a person acquires and retains productive control of only one Trukic language in his lifetime, although many Carolinians learn to speak one or more foreign languages. Of course there are exceptions, particularly in the Truk District, where many outer-islanders have moved more or less permanently to Truk. If a Ulithian, for example, were to marry a woman of Satawal and go to live there for many years, he would probably learn to speak the Satawal language as opposed to merely learning to understand it. But if he were to live on Yap even for only a relatively short time such as two or three years, he would most likely learn Yapese and perhaps some English, but he would probably not learn to speak the Woleai or Satawal languages even though these are the ones with which he would have the most contact. This description is typical of those actual cases with which I am familiar.

Most of the low-islanders from the Palau District who live permanently on Palau have at least some command of the Palauan language. Many low-islanders in the Yap District who have spent time on Yap can speak Yapese, although recently there has been an increasing tendency for young people to

learn English, rather than Yapese, as a second language.

Throughout the Carolines, knowledge of Japanese is common among those born before about 1930--that is, those who were of school age or above during the Japanese period. A very few old people have a smattering of Spanish or German. Among the younger generation, English is the only foreign language of importance, and knowledge of it is increasing year by year. For nearly two decades after World War II, the development programs of the American administration were a low-budget effort more in the tradition of the Germans than the Japanese, and a broad-based knowledge of English comparable to that of Japanese was slow in developing. But in 1963 the Trust Territory changed its policy and began to hire Americans to teach in some of the elementary schools, and the Peace Corps sent hundreds of volunteers into the area beginning in 1966; the result has been a dramatic increase in the amount of contact elementary-age children have with speakers of English. Of course some of the smaller islands have no resident schoolteacher or Peace Corps volunteer as yet, and the knowledge of English on these islands is correspondingly less than that on Truk, Ulithi, or one of the other places where there has been more contact with English.

1.3 Previous work on Caroline languages. No unified dialect survey of the Trukic languages has ever before been undertaken. There have been a number of minor studies of individual languages, but practically no comparative word-lists have been published. The number of titles in Western

languages is impressive, but in fact the total published output on the subject of Trukic languages is meager, and most of it is quite irrelevant to this study. Published work including that in Japanese can be divided into three categories: (a) word-lists and dictionaries compiled first by early explorers and later by missionaries and ethnographers, (b) pre-structural grammars, and (c) structural grammars.

1.31 Word-lists and dictionaries.

1.311 The early explorers. As early as the sixteenth century, Spanish and Portuguese explorers had sighted some of the islands in the Caroline group.[4] If any significant linguistic observations were made during those early exploratory voyages, the most careful investigations--by the Hamburg Expedition--failed to turn up evidence of them. None of the islands in this group had significant contact with outsiders until the very end of the eighteenth century, but beginning with the voyage of the Englishman James Wilson (Wilson 1799), who stopped at Lamotrek and Ifaluk in 1797, there was a sudden increase in the number of contacts. There is evidence that some of the islands were visited in the early decades of the nineteenth century by commercial ships with no interest in scientific observation (Fischer 1957:24), but by 1830 there had been at least two French and two Russian expeditions which had come into the area exclusively to

---

[4]The Marianas were missionized by the Spanish in the early 1500's and descriptions of Chamorro go back 300 years; the Carolinian immigrants did not reach Saipan, of course, until much later.

collect scientific data. Wilson had collected some words, and word-lists were also obtained on the Mortlocks (von Kotzebue 1821), Satawal (d'Urville 1834), and several other places in the Woleai area (Lütke 1835). The American sailor Horace Holden, who unintentionally spent two years in slavery on Tobi and barely escaped with his life, learned some of the language during his stay, and a short word-list and some fragments of dialogue were published as a scientific curiosity (Pickering 1845). Needless to say, none of these early adventurers were either primarily interested in language or especially skilled at phonetic observation, and their attempts at transcription are highly impressionistic. These early lists would be of great interest for historical studies, but their relevance to the present work is minimal.

1.312 The Hamburg Expedition. Twice the Caroline Islands have been included in large-scale anthropological research projects (not counting the vast research activities conducted during the Japanese administration), and both times the scientists who participated recorded native words and in some cases made grammatical notes. The first such project was the Hamburg Expedition of 1908-10. No linguistic specialists accompanied the party, but word-lists, a few of them quite long, were gathered by scientists in other fields. These word-lists and the sketchy grammar notes that sometimes accompany them all fail to measure up to the high scholarly standard established by the other sections of the ethnography. Both the phonetic orthographies and the word-lists used by

the various researchers are lacking in uniformity, but in spite of the haphazard way in which the language notes were taken, the records of the Hamburg Expedition contain a wealth of information about these languages as they were spoken some sixty years ago, and they would be invaluable to the study of the Trukic subgroup in its historical aspect.

1.313 The CIMA project. The other large research program which covered the Caroline Islands was the Coordinated Investigation of Micronesian Anthropology (CIMA) under the joint sponsorship of the Office of Naval Research and the Pacific Science Board of the National Research Council. CIMA was the largest of several such programs which were conducted in the years following the close of the Pacific war. Among the scientists who made extended research visits to the Carolines were several linguists whose contributions are discussed below. Among the non-linguists were a few ethnographers who, like their German predecessors, included the gathering of a small amount of linguistic data in their field-work. In this manner, a few more short word-lists were published for the Trukic languages--e.g. Ifaluk (Burrows and Spiro 1953) and Ulithi (Lessa 1950).

Other post-war work of importance was that of Samuel Elbert. He spent a few days on Ulithi and later published a short word-list with a few notes on the grammar (1947a). A much more important work was his Trukese dictionary (Elbert 1947b), which remains the best dictionary available for any language in American Micronesia. Because of its unusual

organization (Elbert used what he called an ethnological approach in the arrangement of the entries in the English-Trukese section in the dictionary and an etymological approach in the Trukese-English section) the dictionary has implicit within it much more linguistic and cultural information than its modest size of 5,000 words would indicate. The pronunciation and glosses are oriented toward the usage of the eastern dialects of lagoon Trukese although some dialect variants are recorded and labeled. The shortcomings of the phonology in Elbert's dictionary have been noted by Dyen (1965b:x), but this weakness is to be corrected in a revised edition which is currently being prepared by Ward H. Goodenough.

Krämer (1932:29) refers to a manuscript copy of a 10,000 word dictionary of Trukese by a German Capuchin missionary, Laurentius Bollig, but the work has apparently never been published.

1.32 Pre-structural grammars. Three short grammars of Trukic languages by German authors have come to my attention. One (Schmidt 1899) is a sketch of a Mortlock dialect based upon secondary sources and one (Fritz 1911) is a brief description of Saipanese Carolinian valuable more for its examples than for the grammatical analysis. The third was included as a 29-page supplement to a general study of Trukese culture by Bollig (1927). This grammar was translated into Spanish (Hernandez 1939) and into English (Bollig 1945). Suffice it to say that this work has been rendered obsolete

by Dyen's grammar (see below).

Most of the Japanese work has been impossible to obtain and it is therefore difficult to assess. But at least the following can be safely said: (a) the published results of Japanese research on the languages of the area is voluminous in comparison to the total output in other languages, and (b) there was evidently no extensive dialect survey anywhere in Micronesia. There are two full-length studies of "the language of the Central Carolines," a term which implies that the field-work was done on Saipan under the (essentially correct) assumption that Saipanese Carolinian is somehow representative of all the dialects used on the islands west of Truk. One of these books (Tanaka 1921) has not been seen. The other (Matsuoka 1928) is one of a series of grammars of Micronesian languages written by Shizuo Matsuoka, a prolific and apparently indefatigable field-worker who resigned his post as colonial administrator of Ponape in 1918 in order to devote the rest of his life to scholarly research and writing. In less than twenty years he wrote a large number of major descriptive-comparative works in the field of Malayo-Polynesian languages and many philological studies of Japanese. He also wrote several lengthy general ethnographic descriptions of the Pacific islands, and in addition to the aforementioned grammar of Saipanese Carolinian, he wrote an immensely detailed comparative study of the Micronesian languages (Matsuoka 1935) and full-length grammars of Ponapean, Marshallese, Chamorro, Yapese, and Palauan. In his spare

time he prepared annotated editions of Japanese classics.

It is no wonder that Matsuoka's descriptions of Micronesian languages show evidence of hasty workmanship. His work is severely marred by his use of katakana to transcribe linguistic data and by his totally inadequate phonetic descriptions. Worse, when phonemic distinctions could not be conveniently represented in kana, Matsuoka simply wished them out of existence. If his transcriptions are rendered directly into rōmaji, the result is mildly chaotic, with the loss of phonemic oppositions, inconsistent representation of consonants, and the addition of final vowels in numerous places where there are none in the original data. In spite of the difficulty of recovering the data from the transcription, Matsuoka's work remains by all odds the amplest repository of information on Micronesian languages.

It is likely that there are other Japanese studies in Micronesian linguistics that have remained unpublished.

In the postwar period the first grammar of a Trukic language to be published was the description by Capell (1948) of Sonsorol-Tobi. This work is a valuable source of data, especially variant dialect forms, but the grammatical section is less useful than the word-list, being cast essentially in the mold of the familiar Indo-European categories.

Here also should be mentioned a mimeographed publication (Smith 1951) of the Trust Territory Department of Education intended to provide an orthography for Woleai. The author disdains the use of diacritics, employing sequences

of vowel letters for the vowel phonemes that cannot be written with the usual five plain letters, and the writing system makes several unnecessary distinctions. The title of the book--Gamwoelhaelhi Ishilh Weleeya--will serve as an example of the formidable appearance which results. To no one's surprise, Smith's orthography was not enthusiastically accepted by the people of the islands.

1.33 Structural grammars. To date, the only really adequate linguistic description of a Trukic language is Dyen's grammar of Trukese (1965b). The field-work was done in 1947 as part of the CIMA project but the grammar was not published in printed form until 1965; however, typewritten and mimeographed copies of it have been circulating among students of Trukese for years. It is a study of the western dialect of lagoon Trukese, specifically that of Romonum Island. In general, Professor Dyen's grammatical scheme for Romonum characterizes all the languages covered in this study, but there are, of course, many differences in detail. My very great dependence upon Dyen for my understanding of Trukic structure will be apparent throughout this work.

1.4 Gathering the data. The basic aim of the data-gathering stage of this research was to collect in the relatively small amount of informant time that was available as much information as possible relevant to the establishment of language and dialect boundaries. To this end, careful attention was paid to selection of locations and informants, to working method, and to the questionnaire. Herzog (1965)

provides full discussion of the problems which arise in these connections, and in the following sections, only those aspects of method which are unique to this study are treated.

1.41 Selection of locations. Interviewing an informant from every inhabited island suspected of having a Trukic language is rendered virtually impossible by the physical isolation of the islands themselves. Nor would such thoroughness be necessary, because it can be established by other means that certain of the islands speak languages which are identical or nearly so to the languages of other nearby islands. Careful consideration was given to direct statements of opinion from informants, and where the evidence seemed to be clear-cut and agreement among informants was unanimous, tentative dialect boundaries were set up. All the informants consulted, for example, concurred with Capell's judgment that Pulo Anna, Merir, and Sonsorol are very nearly identical in speech (especially as opposed to Tobi) and accordingly an informant from Sonsorol was selected to be representative of these islands.

Fifteen dialect areas were thus tentatively identified. These are listed in Table 2 together with the names of the islands chosen as samples. Mogmog and Ifaluk were added for additional perspective. The numerical ordering of these dialect areas is based upon linguistic criteria but corresponds quite closely with the geographical positions of the islands. Saipanese Carolinian is not well integrated into the continuum but the partial data collected on Saipan is

TABLE 2

DIALECT AREAS STUDIED

Number	Island	Islands included in the area
1	Sonsorol	Sonsorol, Pulo Anna, Merir.
2	Tobi	Tobi.
3	Falalap, Ulithi	Ulithi area: Ulithi, Fais, Ngulu,[a] Sorol.
4	(Mogmog, Ulithi)	
5	Falalap, Woleai	Woleai area: Woleai, Euripik, Lamotrek, Faraulep, Elato, Ifaluk.
6	(Ifaluk)	
7	Satawal	Satawal.
8	Saipan	All Saipan dialects.
9	Pulawat	Pulawat.
10	Pulusuk	Pulusuk.
11	Pullap	Pullap.
12	Ulul, Namonuito	Namonuito.
13	Murilo	Hall Islands.
14	Nama	Upper Mortlocks.
15	Moc, Satawan	Lower Mortlocks.
16	Fanapanges	Western Truk dialects.
17	Moen	Eastern Truk dialects.

[a]Ngulu is Yapese in culture, but nearly every person is bilingual with Ulithian as a second language.

included as a matter of interest. Hereafter, in order to avoid endless repetition of the phrase "language or dialect," the term "language" will be used except where "dialect" is required by the context. The language of each of these areas is referred to both by name and by number, and we sometimes use collective designations, such as "Truk (16-17)" or "the Yap District languages (3-7)." Figure 3 is a map of the actual geographic relationships of the sample islands, and the map in Figure 4 is a slightly idealized version used for mapping the phonological isoglosses.

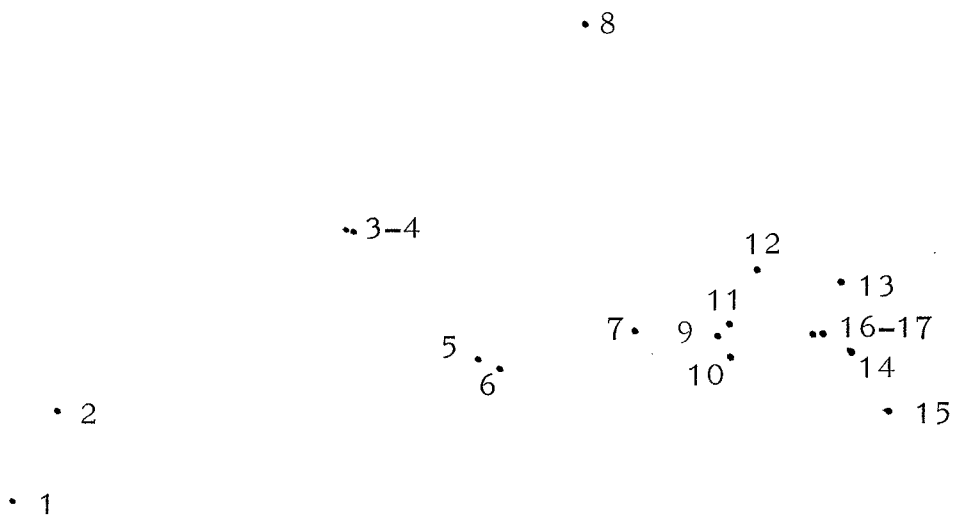


Figure 3.--The true geographical relationships of the sample islands.

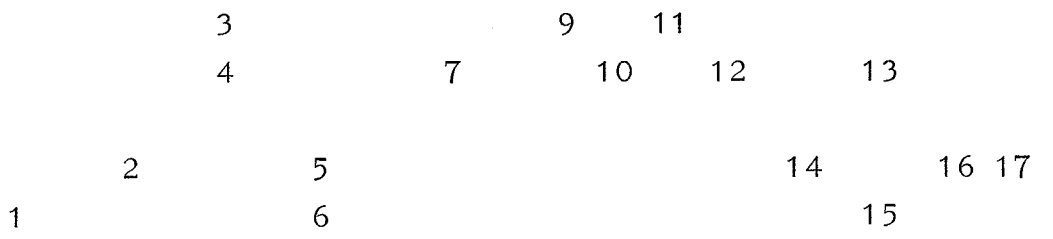


Figure 4.--Idealized map of the Trukic dialect areas.

1.42 Selection of informants. In general, it was possible to interview only one informant for each of the languages, but every effort was made to select informants whose speech was truly typical of their islands. After the interview with the Moen (17) informant had been completed and it was too late to repeat the work, it was discovered that his speech is considered by other native speakers of Trukese to be a mixed dialect not typical of Moen Island, and therefore the Moen data should be used with suitable caution. The informant for Namonuito (12) often used a voiceless interdental fricative for the t phoneme, but when I was completely convinced that this allophone was idiosyncratic and in no way representative of his language, I stopped recording it.

It cannot be emphasized too much that throughout this work, all statements of the form "language A has x feature" are abbreviations of statements of the form "in the opinion of the informant for language A, his own speech has x feature." In actuality, almost every such "language A" can be divided into subdialects of which the informant's speech is one. Only regional dialect differences are considered; differences based upon sex, age, social standing, etc., must be left for later research. All informants were males aged twenty to thirty-five. All had had some experience living away from the island of their birth, but only two of them had spent more than two consecutive years away from their childhood homes--these were the informants for Pullap (11) and Moen (17). Most of the informants were competent speakers of

English.

1.43 Working method. The interviews were conducted in English (in one case both English and Japanese were used). Linguistic material elicited was taken down initially in phonetic transcription which was changed to phonemic transcription as soon as the phonemic system had been fairly well established. At the last minute it turned out to be impossible to obtain a reliable portable tape recorder, so the interviews were not recorded.

1.44 The questionnaire. It was assumed that a fairly large body of well-chosen vocabulary items would provide the best dialect evidence as well as elicit automatically all or nearly all of the phonemic contrasts. Accordingly, a vocabulary list of nearly 600 items was assembled from a variety of sources: (a) the 215-word Swadesh list for glottochronology: "ice," "fog," and a few more irrelevant items were dropped; (b) an adaptation of the Swadesh list used by Samuel Elbert;[5] (c) general and specialized items chosen from the linguistic questionnaire of the Tri-Institutional Pacific Program (TRIPP); (d) a few items, principally plant names, which seemed likely to elicit cognates (from Byron Bender). At the suggestion of Samuel Elbert, the list was rounded out by the addition of a few words so that it would contain all the words cited in Dyen's important article "On the history of the Trukese vowels" (Dyen 1949).

---

[5] I am indebted to Byron Bender for drawing my attention to this list.

Grammatical information collected included the independent and subject pronouns, the demonstratives, the local stems, and two counting classifiers.

1.5 Plan of the dissertation. The central hypothesis of this study is that the languages in the Truk subgroup form a dialect chain, and we now turn to the evidence to see in what manner and to what extent it supports the hypothesis. Section 2 describes the segmental phonemes for each language and the dialect boundaries which may be set up on the basis of phonemic patterning and sound correspondences. Section 3 describes the patternings that emerge from analysis of the lexical and grammatical data. The last section summarizes the dialect areas set up on the basis of linguistic criteria and examines the relationship between linguistic and non-linguistic evidence in regard to mutual intelligibility between languages.

2.0 PHONOLOGY

2.0 Introduction: the unity of the Trukic subgroup.

From auditory impression alone it is not immediately obvious even to native speakers that the languages in the Trukic subgroup are closely related to one another. The speech differs greatly from island to island, even in the case of sentences that are composed entirely of cognate morphemes, and Dyen's observation that a speaker of Ulithi (3-4) and a speaker of Trukese (16-17) could not possibly understand one another's language is entirely correct. The three detailed phonological descriptions available for Trukic languages (Dyen 1965b for Truk, Smith 1951 for Woleai, and Capell 1947 for Sonsorol and Tobi) manage to make them appear almost as if they were unrelated. (Smith reported nearly twice as many phonemes for Woleai as Dyen did for Truk.) It was for these reasons that the original research plan for this study emphasized lexicon, being based upon the assumption that it would be the area of vocabulary that would disclose the most regular and clearly structured basis for locating linguistic boundaries. Perhaps the most significant result of this project was the discovery that the phonology (in particular, the consonants) affords dialect evidence that is much more regularly patterned than that which one would expect to find in a study of comparative vocabulary.

What turned up was a large core of common vocabulary showing identical syllable structure and obeying simple and direct rules of phonological correspondence. Of the 585 lexical items that make up our data, 159 are cognate in all 17 languages. Including items which are discontinuously distributed, a total of 272, or 47%, of the vocabulary collected was found to occur from one end to the other of the language area, and the biggest part of this vocabulary is quite regular in the correspondences involved, especially in the single consonants.

Even discounting the effect of our having packed the questionnaire with items likely to be especially productive of cognates, it is clear that much of the high-frequency vocabulary is uniform. The two most distantly-related languages, Sonsorol (1) and Moen (17), have a shared retention of 58%, sufficiently high to enable us properly to speak of the "Trukic subgroup." Furthermore there is very little evidence that any of these languages has been modified significantly by outside influence, at least not since the time when they began to drift apart. To put it another way, the dialect differences which now exist are primarily the result of normal language change, the product not of outside contact, but of isolation.

A sentence which illustrates both the unity and the diversity within the Trukic subgroup is "Our (incl.) mother's ears are big" in each of the languages. The word for "big" is characteristic of words which are near the maximum in the

range of lexical diversity encountered, and the rest of the vocabulary is cognate.[1] The transcriptions are phonemic, excepting that word boundaries, which are not marked in speech, are indicated by space. Excrescent vowels, where they occur, are arbitrarily written in final position. Very considerable cross-language differences can be seen despite the fact that prosodic features are not marked and the transcriptions employed conceal a great deal of diverse sub-phonemic detail:

	'it'	'big'	'ears-of'	'our mother'
(1)	je	tarapara	taringeri	thiras
(2)	je	rapa	taringeri	sirac
(3)	je	pallėngė	talangala	selec
(4)	je	pållenge	tålengela	silac
(5)	je	farigita	talingela	silash
(6)	je	farigita	talingeli	silash
(7)	je	tėmwȯga	sålingån	inaṙ
(8)	e	tėmwȯga	selingål	inash
(9)	e	likkåpå	hålingån	inaṙ
(10)	e	likkåpå	hålingån	inaṙ
(11)	e	likkepe	helingen	inaṙ
(12)	e	jattemmȯnga	helingen	inaṙ
(13)	e	watte	selingen	inaṙ
(14)	e	shapwyra	selyngen	inash
(15)	e	lokkopa	salėngen	inac
(16)	e	watte	seningen	inac
(17)	e	watte	seningen	inac

[1] Among the words for "big," pallėng, farigit, and likkåp, for example, are possible cognates, but their relationship, if any, must go far back into the pre-history of the Micronesian languages: our use of the word "cognate" here refers to cognates of an obviously much later stratum.

Assuming that these similarities evidence a common origin, a further assumption can be made--that there is, in some sense, an overall linguistic structure for the Truk subgroup, a structure which includes a phonological component. It is the purpose of this chapter neither to discuss the nature of such a phonology in terms of linguistic theory nor to attempt a full description of such a system. Rather, we shall describe here, within the limits imposed by the amount and kind of data available, the main features of diversity in speech which set off one language from another.

This comparison is based upon a body of data which consists of a large number of vocabulary words in each of the languages. There is not enough detailed information about the positional allophones and the sandhi alternations to make possible a description of any of the languages as complete as, say, Dyen's description of Trukese. However, for each of the languages there is enough data to provide a general sketch of the sound system--the syllable structure, the segmental phonemes and their chief allophones, and most important of all, the incidence of phonemes in specific vocabulary items.

This amounts to a large and complex body of linguistic information, and merely to display it effectively creates problems in organization. Here are seventeen phonological systems which are enough alike that to describe each one in a separate statement would involve an intolerable amount of repetition. Yet the differences among the languages are great enough that it would probably be even more awkward to

attempt to frame a general statement accompanied by a list of the exceptions. The approach taken here is but one of a number of alternative methods that might have been used. It pursues two ideals--to emphasize the contrastive nature of this report by juxtaposing the descriptions of the counterpart features of the phonologies of the languages, and to avoid needless repetition.

2.1 General characteristics of the sound systems.

Dyen's description of the phonemics and morphophonemics of the Romonum dialect of Trukese (Dyen 1965b) could apply, excepting for details, to any of the seventeen languages, because typologically they are highly similar. The CV type of syllable structure is universal, and both internal and external sandhi operate extensively to preserve it: Woleai (5) shygyl 'basket-of', gal 'food', shygyligal 'stomach'; rong 'to hear', rongorong 'is hearing'. Much of the sandhi involves deletion of semivowels in both initial and final positions with vowel assimilation operating upon the resulting hiatus: Murilo (13) si 'we (incl.)', pwe 'incompleted action', jattaw 'to fish': si pwa attaw 'We're going fishing'.

Alternative sandhi rules are apparently sometimes the basis of dialect differences: Woleai (5), Ifaluk (6) jisel 'to put', -tiw 'down': Woleai (5) jisettiw, Ifaluk (6) jiselitiw 'to put down'. It seems reasonable to assume that a close examination of the morphophonemics of each of these languages would disclose a patterned basis for dialect bound-

aries. However, within any given language the sandhi rules are complex and there are numerous optional rules; even a set of descriptions with only modest claims to thoroughness would be impossible without many weeks of observation of the actual speech of each language. We have of necessity concentrated our attention upon the sound segments, which for these languages afford a highly structured and regular basis upon which to compare dialects.

For the same reasons that a complete study of morphophonemics is outside the scope of this survey, it was not possible to make a full study of phonotactics. However, it is apparent from the data at hand that positional restrictions on the occurrence of phonemes do not play a large role in the structure of these languages. Every consonant phoneme was found to occur initially, medially, and finally in morphemes in each language, with the single exception that h does not occur finally in Namonuito (12): Pullap (11) marah, Namonuito (12) maraha 'bitter'. Furthermore it appears that there are few restrictions on CV sequences, the only exception being that in some of the languages the semivowels j and w are neutralized (becoming w) before y, u, or o: Ulithi (3) juuth, Moen (17) wuut 'rain'.

Geminate consonants occur both within morphs and across morph boundaries, sometimes as the result of consonant assimilation. In native vocabulary there are essentially no sequences of non-identical consonants, but in borrowed words they are common, especially when the consonants are homor-

ganic: Satawal (7) mangko 'mango'. In Ulithi (3-4) the stricture against consonant clusters is often broken even in native vocabulary: Ulithi (3-4) walsu 'tomorrow' (cf. Sonsorol (1) warathy). At morph boundaries, consonants tend either to assimilate or to be separated by an excrescent vowel, but here the restriction on consonant clusters is not so rigid.

All the languages have long and short vowel distinctions. Most long vowels come about through compensatory lengthening: Tobi (2) matar 'eye-of' but maat 'eye'. However some vowels in every language are inherently long: Tobi (2) maatar 'garden-of', maat 'garden'. Compensatory lengthening may be optional in Sonsorol (1), Tobi (2), and Saipan (8), (the details are not clear), but inherent length is clear and unequivocal in all the languages. In general, if a word is found to have an inherently long vowel in one language, its cognates will also have either a long vowel or an extra syllable: Ulithi (3) bwóóthél, Moen (17) pwéétyn, Tobi (2) bwawutur 'nose-of'. An occasional exception is noted: Pullap (11) kyywen, Namonuito (12) kywen 'porpoise-of'.

Most of the linguistic data were elicited in the context of short sentences, but it proved to be impossible to obtain all counterpart data consistently in the same or similar phonological contexts. All examples are cited in a form which is as neutral as possible in regard to morphophonemic rules, that is, in the form they assume before the operation of these rules, such as the one that deletes post-pausal j in

some of the languages. Geminate consonants, which are sometimes hard to hear out of context, are written where they are inherent. Thus our citations are about as near to being morphophonemic as is possible in the absence of a full-blown grammatical study of each language. When for any reason it is desirable to quote a form in phonemic transcription, the the citation is both underlined and enclosed in slashes. Other citations are merely underlined. English and other foreign language examples are in standard orthography and underlined, while English glosses are enclosed in single quotes.

2.2 The phonemes: phonetic nature and phonemic status of the sounds of each language. In describing the sound systems of these languages it is convenient to recognize regular and marginal phonemes. The main source of marginal phonemes is foreign vocabulary, including that borrowed from other Trukic languages. For example, Ulithi (3-4) has n as in monijan 'devil' (from Yapese), but it occurs in no native words. Therefore it would be very misleading to imply that Ulithi has n and l in contrast in the same sense as has, for example Satawan (15), where these two sounds contrast in numerous native words in which Ulithi (3-4) has only l. The difference in the status of n as a phoneme in Ulithi (3-4) and in Satawan (15) is an important linguistic difference between these two islands, and the description of this difference is facilitated by labeling the n of Ulithi a marginal phoneme.

The problem of marginal phonemes could be avoided completely by ignoring non-native words excepting that native words have them as well. Several of the languages have common sounds which are almost always in free variation or complementary distribution with a phonetically similar sound but which nevertheless contrast in a few pairs. Sonsorol (1) has a back unrounded mid-vowel ė which is phonetically identical to the corresponding vowel in the other languages. But in Sonsorol (1) this vowel is in almost perfect complementation with o. (ė occurs principally in words that end in the voiceless vowel Y, while o rarely does; but ė is found in a handful of words ending in A, so that there are contrasts like tėėtA 'a little' and woosA 'reef'.) In cases analogous to this, one of the phonemes is clearly marginal to the system, and is so labeled.

2.21 The consonants. The consonant phonemes provide the conspicuous and regular criteria for the location of dialect boundaries.

As noted previously, consonant clusters are the exception, but geminate consonants occur frequently. There are two sources for these--some are created at morph boundaries through the juxtaposition of like consonants or through (usually) regressive consonant assimilation, and some are inherent in morphemes. Following are a few examples of the first type:

Moen (17) jitan 'his name', caan 'John'
/itaccaan/ 'His name is John'

jiten 'name-of', recuk 'a Trukese'

/iterrecuk/ 'a Trukese name'

Ulithi (3) jital 'to put', -thi 'down', -long 'in', -wej 'out'

/jitetthi/ 'to put down'

/jitallong/ 'to put in'

/jitowwej/ 'to put out'

Virtually all consonants are observed to double across morph boundaries, and all the languages showed at least some of this kind of doubling. However, this phenomenon is a part of morphophonemics and was not systematically incorporated into our study. From here on, unless otherwise specified, the term "double consonant" will be used in reference to the inherent type only. These are often seen in noun-verb pairs in which the initial consonant of the noun is doubled in the verb: Satawan (15) pwaat 'scar', je ppwat 'he has a scar'. Such doubling is not automatic: cf. Ulithi (3-4) maas 'death' je mas 'he dies', in which the initial consonant of the verb mas is not doubled. Double consonants both before and after pause are often difficult to hear, and it is usually necessary to hear a word in context to be sure whether or not it has an initial or final double consonant.

Generally if a word has a double consonant in one of the languages, so will its cognates, but there are exceptions and there is no discernible patterning to these irregularities. There are other reasons that the single consonants offer better dialect evidence. For one, the double consonants

appear in fewer cognate sets, and such sets as there are show considerable irregularity. On the other hand, the double consonants are more uniform phonetically than the single ones. For example, if we examine in Moen (17) the cognates of the Ulithi (3) words which have the single consonant g, we find some with k, some with j, some with s, and some in which the consonant has disappeared:

Ulithi (3)	Moen (17)	
fethėg	fytuk	'meat'
waag	waa	'vein'
gatam	jasam	'doorway'
giil	siin	'skin'

But words which have kk in Ulithi (3) quite uniformly have kk in Moen (17) (as well as in all the other languages): Ulithi (3) kkang, Moen (17) kken 'sharp'. For these reasons our dialect boundaries in the phonological area are based primarily upon the distribution of single consonants; however, the descriptions which follow cover both the single and the double consonants. The absence of any mention of double consonants under a heading below indicates that that phoneme was not observed to occur inherently doubled in any morpheme.

Table 3 is a list of the symbols which are used for writing the regular and marginal consonant phonemes of the seventeen languages in phonemic transcription. The symbols were chosen to suggest the central allophone of the phoneme for which they stand, and they are grouped in the table somewhat according to their phonetic characteristics. However,

labels in terms of articulatory phonetics are intentionally omitted from the table, which is a composite of the phonemic symbols from many different languages; some of these symbols (especially r and l) apply to a wide spectrum of different sounds, and to include articulatory labels would be to imply misleadingly oversimplified definitions.

It must also be noted that these symbols have no systematic status as a group--in particular, Table 3 is not an "overall pattern" of consonant phonemes.

TABLE 3

CONSONANT PHONEME SYMBOLS

pw	p	t	c	k	(ʔ)
bw	(b)	(d)		g	
	f	th	s		h
			sh		
			ṙ		
mw	m	n		ng	
		r	l(ɬ)		
	w	j			

Table 4 lists the consonant phoneme inventories for the seventeen languages. The letter (x) in a box indicates a regular phoneme; a dash indicates that the phoneme is marginal or that it occurs mainly doubled; an empty box, of course, indicates that the associated symbol is not required for the language of that column. Following Table 4, the consonant phonemes are briefly defined.

TABLE 4

CONSONANT PHONEME INVENTORIES

	1	2	3/4	5/6	7	8	9	10	11	12	13	14	15	16/17
pw	-	-	-	-	-	-	x	x	x	x	x	x	x	x
p	x	x	x	x	x	x	x	x	x	x	x	x	x	x
t	x	x	x	x	x	x	x	x	x	x	x	x	x	x
k	-	-	-	-	-	-	x	x	x	x	x	x	x	x
f	x	x	x	x	x	x	x	x	x	x	x	x	x	x
s	x	x	x	x	x	x	x	x	x	x	x	x	x	x
mw	x	x	x	x	x	x	x	x	x	x	x	x	x	x
m	x	x	x	x	x	x	x	x	x	x	x	x	x	x
ng	x	x	x	x	x	x	x	x	x	x	x	x	x	x
r	x	x	x	x	x	x	x	x	x	x	x	x	x	x
w	x	x	x	x	x	x	x	x	x	x	x	x	x	x
j	x	x	x	x	x	x	x	x	x	x	x	x	x	x
c		x	x	-	-	-	-	-	-	-	-	-	x	x
l	x	-	x	x	x	x	x	x	x	x	x	x	x	
n	-	-	-	-	-	-	x	x	x	x	x	x	x	x
bw	x	x	x	x	x	x								
g	x	x	x	x	x	x								
th	x		x											
h						x	x	x	x	x				
sh				x		x						x		
ṙ					x		x	x	x	x	x			
b			-			-								
d			-			-								
?							-		-					

pw

(1-8) In these languages, where bw is a separate phoneme, pw is always an unaspirated tense voiceless velarized bilabial stop; it usually, but not always, occurs as a variant of ppw, which differs from pw only in duration.

(9-17) pw is an unaspirated voiceless velarized bilabial stop after pause, but in other positions it is frequently voiced and sometimes fricative. ppw is always a tense voiceless stop and is usually longer than pw.

p

(1-17) p is an unaspirated bilabial stop, voiceless and tense after pause, frequently lax and voiced in other positions (but in Mogmog (4), Saipan (8), and probably in other languages in the west, p contrasts with the marginal phoneme b). pp is always tense and voiceless and is usually longer than p.

t

(1-17) t is an unaspirated dental stop, voiceless and tense after pause; in other positions it is frequently lax and voiced (but in Mogmog (4), Saipan (8), and probably in other languages in the west, t contrasts with the marginal phoneme d). tt is always tense and voiceless and is usually longer than t.

k

(1-8) In these languages, where g is a separate phoneme,

k is always an unaspirated tense voiceless velar stop. It sometimes occurs as a free variant of kk, which differs from k by being longer.

(9-17) In these languages k is an unaspirated tense voiceless stop after pause, frequently voiced and sometimes fricative in other positions. kk is always a voiceless stop and is usually longer than k.[2]

f

(1-17) f is a voiceless labiodental fricative. ff is always longer than f.

s

(1-17) s is a voiceless alveolar groove fricative in all positions. ss is uniformly longer than s. In the languages which have h, s is fairly rare, occurring mainly in loans.

mw

(1-17) mw is a voiced velarized bilabial nasal continuant; the velarization is difficult to discern before pause and before back vowels. mmw is about twice as long as mw. In Truk (16-17) mw, even when doubled, is nearly always denasalized, so that it is difficult to

---

[2]There is one marginal exception to the rule that g is not phonemic: several of the languages around Truk have manggo 'mango' instead of the more common (and regular) mangko. This kind of unassimilated loan word is very atypical of the languages to the east, and this exception is perhaps to be explained by past reluctance of speakers to pronounce mangko because it is practically homophonous to an obscenity in Japanese.

distinguish from the voiced allophone of pw.

m

(1-17) m is a voiced bilabial nasal continuant. mm is about twice as long as m. In Truk (16-17) m, even when doubled, is nearly always denasalized, so that it is difficult to distinguish from the voiced allophone of p.

ng

(1-17) ng is a voiced velar nasal continuant. nng is about twice as long as ng. In Truk (16-17) ng is nearly always denasalized, so that it is easily mistaken for the voiced allophone of k.

r

(1-17) r is an alveolar tap or trill made with the tongue tip, but its exact manner of articulation, and hence the acoustic effect, varies widely from language to language;

(1-2) r is a voiced tap;

(3-4) r is voiced and strongly trilled;

(5-6) r is a voiced tap, sometimes articulated so lightly that only resonance is heard;

(7-15) r is most commonly a voiced tap, but some speakers use a light trill;

(16) r is voiced intervocalically and is always strongly trilled, but in initial and final position it is

almost completely devoiced and accompanied by friction noise;

(17) r is a voiced tap which is very difficult to distinguish from the denasalized allophone of n.

j

Looking at the Trukic subgroup as a whole, the most variable and elusive (and hence controversial) feature of the phonology is the semivowel j. It is present and in contrast in all the languages, but in some of them, particularly in the east, it is very inconspicuous and it is deleted in many phonological contexts. The two extremes with regard to j are represented by Mogmog (4) and Moen (17).

In Mogmog (4), j in all positions is a voiced semivowel not unlike English y in yellow. j and w are in contrast before all vowels, and j is plainly audible even after pause and before high-front vowels. The general requirement of these languages that every form must begin with a consonant or a semivowel (a requirement which is frequently relaxed in the case of loan words which begin with a vowel in the source language) is strikingly illustrated by a word like Mogmog (4) jöófis 'office', where the j is plain even when the word is pronounced in isolation and is retained in all phonological contexts. j is preserved, at least sometimes, in contexts in which it is deleted in every other language, e.g. between identical high vowels: Mogmog (4) semel 'one-animate' jiig 'fish', semelijiig 'one fish'.

At the other extreme, j in Moen (17) is so ephemeral that it can be said almost not to exist at all, and almost every practical orthography that has been suggested for the language (correctly, perhaps) makes no provision for it. j never occurs after pause, and in context it is deleted by sandhi rules more often than not, and even when it is not deleted, it is seldom conspicuous. j in Moen (17) is perhaps best described as a manner of transition between vowels that involves raising the tongue slightly higher than the higher of the two vowels. It is most clearly heard between mid or low vowels: cf. the alternant /si pwe jattaw/ (alongside the more common /si pwa attaw/) 'We're going fishing'; jääjä 'liver', where the second j is unmistakable. Were it not for instances like these, the writing of j in Moen would be no more than an orthographic device introduced in order to obviate the writing of diphthongs.

In respect to j, Woleai (5) and the rest of the islands in the west tend towards the Ulithi model, while the islands in the east, especially Namonuito (12), tend to be more like Moen. In other words, the phoneme j tends to become less and less conspicuous the further east one goes. The deletion of post-pausal j is invariable in Saipan (8) as well as Namonuito (12) and Moen (17), but at least sometimes initial j is vaguely audible in all the other languages.

w

To some extent, and for the same reasons, the phoneme

w is indeterminate, like j.

w is a semivowel sounding like a weakly-articulated English pre-vocalic w as in wash, but it is rounded only when next to back vowels. Like j, w is frequently deleted in context and is sometimes difficult to hear, particularly before back vowels and y. In some cases of correspondence between j and w, as in Woleai (5) faajy and Ifaluk (6) faawy 'rock', the difference is probably due more to idiolect than to dialect. Other cases are more certain: Ulithi (3) wuuc, Mogmog (4) juuc 'banana'. Again, note Ulithi (3-4) ẇóós 'horse' (from Yapese ʔos) and the fact that Ulithi (3) was the only language in which w was observed to double: jitowwej 'to put out'.

c

(2-17) c is an unaspirated tense voiceless alveolar affricate sounding much like the ch in child. cc is regularly longer than c. In Ulithi (3) and in Moen (17) a very common alternant is a dental affricate sounding like the first sound of German zehn. In (5-14), i.e., the languages which have as separate phonemes sh and ṙ, which do not double except in Nama (14), c is a fairly infrequent phoneme which usually, but not always, occurs doubled in native vocabulary. In Nama (14) c and cc occur almost exclusively as occasional alternants of sh and ssh.

l

(1) Sonsorol has two l-like sounds, a voiced laterally-released pre-velar stop somewhat like the gl in aglow, and a voiced apico-alveolar continuant. Because the former is a native phoneme occurring in numerous words, we reserve the plain l symbol to write it, for the sake of convenience; because the latter is a rare and marginal phoneme occurring in only a few loans such as kampala 'bell', we write it with the special symbol ɬ, despite the fact that it is phonetically similar to the l phonemes of the other languages in the subgroup. The native orthography does not distinguish these two phonemes.

(2) Tobi has a very rare marginal l which, in our data, occurs only in the loan word leprosii with the l being pronounced exactly as in the English leprosy. (Loan words in Tobi usually have r for an l in the source language: soor 'salt', jikereesija 'church'.)

(3-4) l is a regular phoneme, a voiced apico-alveolar lateral with positional allophones corresponding to "clear" l (contiguous to front vowels) and "dark" l (in other environments).

(5-6) l after pause and when doubled is usually like the l of (3-4); intervocalically and before pause or a final voiceless vowel, it is frequently a voiceless lateral alveolar tap.

(7-15) l is as in (3-4).

n

(1-17) n is a voiced dental or alveolar nasal continuant in all the languages, but its status as a phoneme varies considerably:

(1-2) n is a marginal phoneme. Its occurrence in our data is limited mostly to the following:

a) foreign words: Sonsorol singin 'to sing'.

b) the bound morpheme ni- 'an, at': nifagaafI 'at night'.

c) n or nn often occur (under conditions which cannot be fully stated) where rr or rVr are indicated: Sonsorol (1) mwaarE 'man', mwanni thongosaaro 'man-of Sonsorol', where *mwareri would be expected.

(3-4, 8) n is a marginal phoneme occurring exclusively in loan words: Mogmog (4) sukuun 'school'; Saipan (8) kagun 'box'.

(5-7) n is a common phone with marginal phonemic status. It usually occurs in free variation with l, but there are many words in which n cannot be substituted for l: Woleai (5) galong 'body', Satawal jylyyl 'pillow'. And there are a few words in which most speakers appear to use n exclusively: Woleai (5) nibwėgybwėg 'butterfly'. But the distribution of n and l in these words is not systematic with regard to their distribution in languages (9-15) (in which they are not only regular phonemes, but also systematic with regard to *n and *l in Proto Malayo-Polynesian).

(9-17) n is a regular phoneme. In Truk (16-17) it is regularly denasalized when single, and in Moen (17) it is easily confused with r.

bw

(1-2) bw is a voiced velarized bilabial fricative, so weakly articulated as to be easily confused with w.

(3-4) bw is a fricative as in (1-2) but more clearly articulated; it also has stop allophones. This sound does not occur inherently doubled, but when doubled across morph boundaries, it is always a stop: Mogmog (4) seew 'one', bwėl 'flame', /sebbwėl/ 'It's a flame'.

(5-8) bw is most commonly a stop, but also has fricative allophones.

g

(1-4) g is a voiced velar fricative in all positions, but it is sometimes voiceless after pause and sometimes is a voiced stop.

(5-6) g is a voiced velar fricative, sometimes (especially in final position) so weakly articulated as to be nearly inaudible. It is sometimes voiceless after pause, and has voiced stop allophones.

(7-8) g is most commonly a very lenis voiced velar stop, but it has fricative allophones as well.

th

(1, 3-4) th is an interdental fricative, always voiceless

after pause, frequently voiced in other positions. No inherently doubled instances of this phoneme were recorded in Sonsorol (1), but in Ulithi (3-4) tth occurs and is longer than th.

h

(8-12) h is a voiceless glottal fricative. On Saipan (8), this phoneme did not occur in the speech of the principal informant, but it does occur in the Tanapag dialect, constituting one of the main differences between that dialect and the Woleai village dialect of Saipan, which is the one spoken by the principal informant.

sh

(5-6, 8) sh is a voiceless retroflex palatal fricative sounding like the sh of shrewd, but with more r-color.

(14) sh is a voiceless palatal fricative (without retroflexion) sounding somewhat like the sh of push. When double, it is approximately twice as long as sh.

ṙ

(7, 9-13) ṙ is a voiced retroflex sonorant sounding like a strong mid-west American English post-vocalic r but with even greater resonance.

b

(3-4, 8) b is a voiced bilabial stop which occurs only in loan words of recent origin: Mogmog (4) beenito

'Benito', sabeedo 'Saturday'.

d

(3-4, 8) d is a voiced dental stop occurring only in loan words: Mogmog (4) sabeedo 'Saturday', Saipan (8) kėlood 'color'.

ʔ

(9, 11) Glottal stop occurs only in these two languages, where it is a marginal phoneme. In our data it occurs only in a few words: Pulawat (9) limeʔ '50', woneʔ '60', tiweʔ '90', jȧʔȧ 'trunk (of a tree)' and in Pulawat (9) and Pullap (11) jȧʔȧȧn 'trunk-of'. Strictly speaking it cannot be treated as an allophone of k despite the fact that it is obviously to be associated with k: there are no conditioning factors in the phonology to account for its occurrence in these words, and k cannot be substituted for it. But because of the very small amount of vocabulary which is involved (informants were unable to furnish additional examples except from onomatopoeia), we simply treat glottal stop as an exception and consider it no further.

2.22 The voiced vowels. The voiced vowels are much more nearly uniform than the consonants. Table 5 is a list of the principal voiced vowel phones. All vowels have both short and long occurrences, excepting for the ø phoneme

TABLE 5

VOICED VOWEL PHONES

	front unrounded	front rounded	back unrounded	back rounded
high	i	ɨ	y	u
mid	e	ø	ė	o
low	ȧ		a	ȯ

of Ulithi (3-4), which occurs only long.

Table 6 lists the inventories of voiced vowel phonemes for each of the languages. Rare and marginal phonemes are indicated by asterisk. The ø phoneme of Ulithi (3-4) is rare because the phone itself is rare; whenever it does occur, however, it is in contrast. The other vowel phonemes which are asterisked are marginal because, while the phones involved are of frequent occurrence, they are only occasionally in contrast. Note the following pairs:

(1) tėėtA 'a little', woosA 'reef'

(2) wėėr 'turtle', woor 'to lie down'

jȧȧpw 'species of fish', taap 'cheek'

(2, 5-6) waamw 'your canoe', wȯȯmw 'on you'

(3-4) tøøs 'porcupine fish', tėės 'truth'

(5-6) metȧmi 'your (pl.) eyes,

gapejami 'your (pl.) top-knot'

The phonemic distinction between ȧ and a in Woleai

TABLE 6

INVENTORIES OF VOICED VOWEL PHONEMES

Sonsorol (1)			Tobi (2)		
i	y	u	i	y	u
e	*ė	o	e	*ė	o
a			*ȧ	a	*ȯ
[ȧ,a]					

Ulithi (3)				Mogmog (4)			
i	*y		u	i			u
e	*ø	ė	o	e	*ø	ė	o
ȧ		a	ȯ	ȧ		a	ȯ

Woleai (5-6)			Languages (7-17)		
i	y	u	i	y	u
	[ɣ,y]				
e	ė	o	e	ė	o
*ȧ	a	*ȯ	ȧ	a	ȯ

(5-6) is established only in the most tenuous fashion by a few words such as the last two examples, where the informants would accept neither *metami nor *gapejámi.

2.23 Voiceless vowels. Of all the types of diversity that disunite the Trukic languages, the most significant, or at any rate the most interesting, is the fact that some of the languages have (i.e. preserve) final vowels that are lacking in the other languages. In all seventeen languages, there are forms that end in vowels, e.g. (1-17) ngii 'tooth', but in most, a large majority of forms end in consonants, and final stops are typically unreleased, especially in the east. However in Sonsorol (1) and to a lesser extent in Tobi (2), Woleai (5), and Ifaluk (6) (as well as the other Woleai dialects, of course) there are few final consonants but instead most forms terminate in what we shall here refer to as voiceless vowels.

Sonsorol (1) waagA 'vein', wagarI 'vein-of'

Ulithi (3) waag wagal

The A and I in the Sonsorol (1) words are segments which have been lost in Ulithi (3) (this is known from comparison with other Malayo-Polynesian languages). The stem-vowels (e.g. the second -a- of Ulithi (3) wagal) in all the Trukic languages tend to preserve the old final vowels, but they do so very inconsistently: Sonsorol (1) bwoongI 'night', Ulithi (3) bwongol 'night-of', where *bwongil might have been expected.

Phonetically, the voiceless vowels range from

completely voiceless to very slightly devoiced, as in Sonsorol (1) maatA 'eye' and maangO 'forehead' respectively. Unless otherwise noted, Sonsorol (1) is the subject of the following discussion and the source of examples. There are in this language seven voiced vowels which occur as the main vowel in "monosyllabic" words such as waagA 'vein', and six vowels which occur as the pre-pausal voiceless vowels. There are vowel harmony rules that restrict the co-occurrence of the voiced and voiceless sets. The following list illustrates all the combinations that were recorded, but additional research might turn up a few more:

i:I	wiisI	'banana'		ė:Y	tėėthY	'truth'
O	riisO	'coconut syrup'		A	tėėtA	'a little'
A	jiitA	'name'				
E	thiirE	'mother'		o:O	mwoosO	'shortness'
				U	bwoothU	'body'
y:Y	ngyysY	'boredom'		I	bwoongI	'night'
A	wyytA	'rain'		A	thoongA	'anger'
				Y	mwoothY	'cut (rope)'
u:U	thuugU	'mountain'				
O	bwuugO	'fight'	a:A	jaafA	'swimming'
A	thuungA	'hunger'	E	mwaarE	'man'
E	bwuusE	'insanity'	I	jaafI	'fire'
I	mawurI	'war'	Y	faatY	'eyebrow'
			U	taabwU	'taboo'
e:E	bweesE	'lime'	O	gaatO	'basket'
I	geesI	'rat'			

Of the four languages that have voiceless vowels, it is Sonsorol (1) in which this feature most clearly and consistently operates as a system.[3] The voiceless vowels are phonetically conspicuous and for the most part they are readily identifiable. They are found regularly, sometimes even in loan words: kaatU 'card'. In the other languages in which voiceless vowels are found, they are much less determinate. In some words, they are clear and unambiguous, but in many words they are very difficult to hear, and the informants disagree with one another or have difficulty making up their minds as to what vowel occurs. For these languages, only the voiceless vowels which were determinable with some certainty are written; these, as might be expected, tend to correspond to their counterparts in Sonsorol (1).

Two words in Pulawat (9) were observed to retain a voiceless vowel: fitikO 'meat', and tȧjikO 'turmeric'; it is likely that there are more examples, perhaps even a few isolated ones in other languages, that were not noticed.

2.3 Sound correspondences. Section 2.2 is a summary description of the phonemes of the languages in the Trukic subgroup framed in a series of typological statements which can be paraphrased in the following form:

---

[3] In this respect, then, Sonsorol (1) can clearly be singled out as the most archaic of all the Trukic languages. The voiceless vowels on the whole are traceable to their origins in the parent language: Proto Malayo-Polynesian *ma-sakit, Sonsorol (1) matagI 'pain'. Sonsorol (1) with what is essentially a six-vowel system is but a step away from the five-vowel system which Dyen hypothesized for pre-Trukese (Dyen 1949).

Of the four languages that have voiceless vowels, it is Sonsorol (1) in which this feature most clearly and consistently operates as a system.[3] The voiceless vowels are phonetically conspicuous and for the most part they are readily identifiable. They are found regularly, sometimes even in loan words: kaatU 'card'. In the other languages in which voiceless vowels are found, they are much less determinate. In some words, they are clear and unambiguous, but in many words they are very difficult to hear, and the informants disagree with one another or have difficulty making up their minds as to what vowel occurs. For these languages, only the voiceless vowels which were determinable with some certainty are written; these, as might be expected, tend to correspond to their counterparts in Sonsorol (1).

Two words in Pulawat (9) were observed to retain a voiceless vowel: fitikO 'meat', and tȧjikO 'turmeric'; it is likely that there are more examples, perhaps even a few isolated ones in other languages, that were not noticed.

2.3 Sound correspondences. Section 2.2 is a summary description of the phonemes of the languages in the Trukic subgroup framed in a series of typological statements which can be paraphrased in the following form:

---

[3] In this respect, then, Sonsorol (1) can clearly be singled out as the most archaic of all the Trukic languages. The voiceless vowels on the whole are traceable to their origins in the parent language: Proto Malayo-Polynesian *ma-sakit, Sonsorol (1) matagI 'pain'. Sonsorol (1) with what is essentially a six-vowel system is but a step away from the five-vowel system which Dyen hypothesized for pre-Trukese (Dyen 1949).

a) Sonsorol (1) and Tobi (2) are partly alike in that each has a voiced bilabial nasal continuant sound that functions as a phoneme m.

b) Sonsorol (1) and Tobi (2) are partly dissimilar in that Sonsorol (1) has an interdental fricative sound that functions as a phoneme th, but Tobi (2) has no such sound.

c) Sonsorol (1) and Tobi (2) are partly dissimilar in that whereas both languages have [a̤] and [a], these two sounds are allophones of the same phoneme in Sonsorol (1) but different phonemes in Tobi (2).

Individually, such statements tell us very little about the languages (the names of almost any of the world's languages could be substituted for "Sonsorol" and "Tobi" in (a) without affecting the truth of the statement). But the many thousands of such statements implicit in 2.2 collectively constitute a description which is valid as far as it goes.

Now consider statements of the following type:

(Given an appreciable amount of cognate vocabulary)

d) the f of Sonsorol (1) always (or almost always) corresponds in Ulithi (3) to f and never (or almost never)to any other phoneme;

e) the th of Sonsorol (1) always (or almost always) corresponds in Ulithi (3) to s and never (or almost never) to any other phoneme, and particularly not to th;

f) the correspondences of the th of Sonsorol (1) in Moen (17) are s or (unaccountably or under conditions which cannot be fully stated from the data at hand) j or w or ∅.

Almost any statement of correspondences between two languages gives more information about their relationship than statements like (a), (b), and (c) above, which are purely typological. In particular, statements like (d) and (e) say a great deal about this relationship very efficiently. The number of statements of correspondence that are like (d) could be expected to correlate somehow with the degree of intelligibility between the two languages; the number that are like (e) or (f) could be expected to correlate with the interference or mutual unintelligibility between the languages. Finally, both (e) and (f) state the kind of linguistic facts that underlie the drawing of one type of phonological isogloss.

2.31 Consonant correspondences. Table 7 lists the correspondences of the single consonants. In effect, it makes some 4,000 statements like (d), (e), and (f) above. The numbers across the top indicate the languages, and the left-most column is a series of labels for correspondences. These are sometimes referred to in the discussion which follows as if they were reconstructions, which they do in fact resemble. In any numbered column, two or more occurrences of the same symbol refer, of course, to the same phoneme. For example, the set of words which attest N and the set of

TABLE 7

CONSONANT CORRESPONDENCES

	1	2	$\frac{3}{4}$	$\frac{5}{6}$	7	8	$\frac{9}{12}$	13	14	15	$\frac{16}{17}$
PW	bw	bw	bw	bw	bw	bw	pw	pw	pw	pw	pw
P	p	p	p	p	p	p	p	p	p	p	p
TH	t	t	th	th	t	t	t	t	t	t	t
K	g	g	g	g	g	g	k	k	k	k	k
K-j(w)	g	g	g	g	j	j	j	j	j	j	j
K-Ø	g	g	g	g	Ø	Ø	Ø	Ø	Ø	Ø	Ø
K-s	g	g	g	g	g	g	k	s	k	k	s
F	f	f	f	f	f	f	f	f	f	f	f
T	t	t	t	t	s	s	h	s	s	s	s
S	th	s	s	s	s	s	h	s	s	s	s
S-j(w)	th	s	s	s	j	j	j	j	j	j	j
S-Ø	th	s	s	s	Ø	Ø	Ø	Ø	Ø	Ø	Ø
C	s	c	c	sh	ṙ	sh	ṙ	ṙ	sh	c	c
MW	mw	mw	mw	mw	mw	mw	mw	mw	mw	mw	mw
M	m	m	m	m	m	m	m	m	m	m	m
NG	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
NG-n	ng	ng	ng	ng	ng	ng	ng	n	ng	ng	n
N	r	r	l	l	l	l	n	n	n	n	n
L	r	r	l	l	l	l	l	l	l	l	n
R	l	g	r	r	r	r	r	r	r	r	r
J	j	j	j	j	j	j	j	j	j	j	j
W	w	w	w	w	w	w	w	w	w	w	w

words which attest L both have l in Ulithi (3), or to phrase it in historical terms, n and l have merged in Ulithi (3).

Each of these correspondences is attested by numerous vocabulary words, and an overwhelming percentage of the cognates are regular with respect to them. The number of exceptions is small, and many of these are explainable on the basis of independent evidence as due to dialect diffusion and the like. In the following section, the consonant correspondences are listed and discussed. At the heads of the subsections, examples are given (where they are available) attesting the correspondence in initial, medial, and final position, together with references to Appendix 1, where the complete data for each word can be found.

		PW		
(1)	bwawytY	(17) pwėėt	1	'nose'
	wubwut0	wupwut	479	'unopened coconut leaf'
	gijobwU	kijopw, siipw	468	'spider lily'

The isogloss which divides the bw area from the pw area is discrete phonemically, but the actual pronunciation changes in a smooth continuum from a voiced fricative in the west to a voiceless stop in the east. Even as far east as Truk (16-17) pw is sometimes a voiced fricative in intervocalic position, but the voiceless stop can always be substituted without change of meaning; but this is not true of (1-8), and that is one of the main reasons for setting up

<u>bw</u> and <u>pw</u> as separate phonemes in these languages.

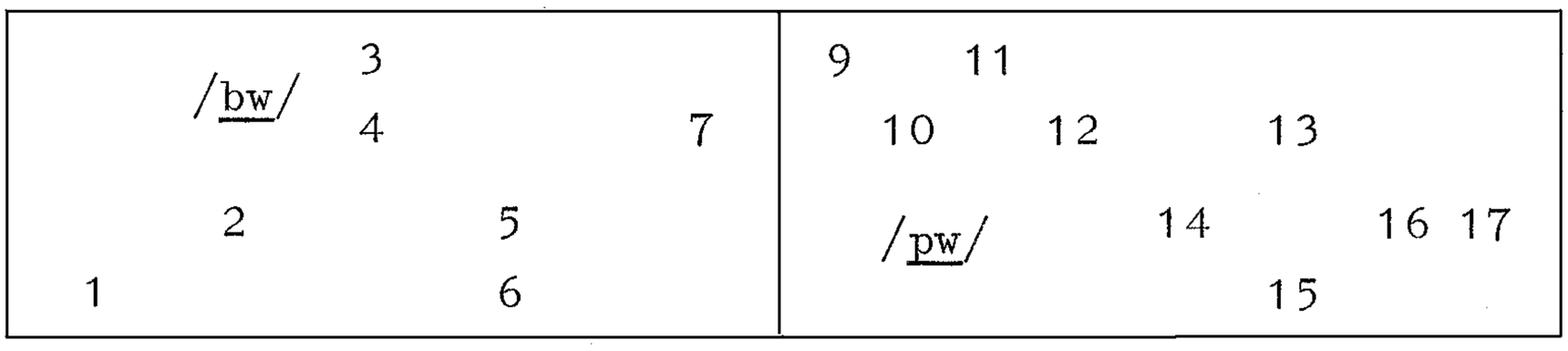


Figure 5.--Map PW.

P

(1) <u>paapA</u> (17) <u>paap</u> 393 'board'

<u>paperI</u> <u>papen</u> 393 'board-of'

P is uniformly <u>p</u>. 6 'elbow' is apparently a case of correspondence between <u>p</u> and <u>f</u>: (13) <u>japilipil</u>, (14-15) <u>jafilifil</u>.

TH

(3) <u>thuwoow</u> (17) <u>tiwuuw</u> 528 '9'

<u>mathaw</u> <u>mataw</u> 295 'ocean'

<u>fȧȧth</u> <u>fėėt</u> 40 'eyebrow'

This correspondence is very consistent. There are three words which may be exceptions: 73 'spittle', 237 'to hit', 325 'to sew it'.

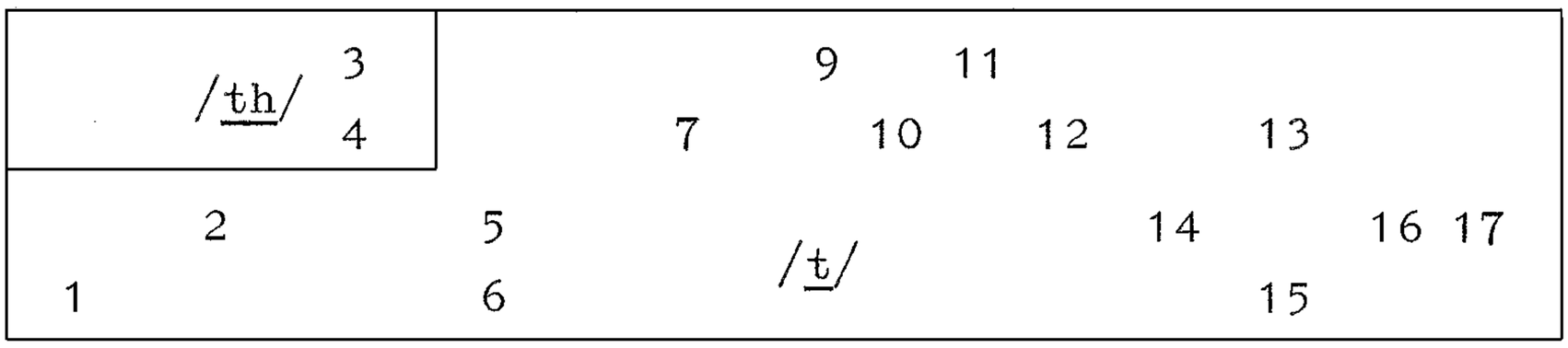


Figure 6.--Map TH.

K

(1) gumwusU	(17) kumwuc	2	'hand'
(3) tagyr	sėkyr	45	'back'
(1) jiigA	jiik	437	'fish'

This correspondence has many parallels to PW. Here, too, the discrete line between (7) and (9) reflects a difference in phonemic structure rather than a sharp border between two different pronunciations. The final consonant in the word for "fish" varies continuously from a fricative in the west to predominantly stop articulations in the east.

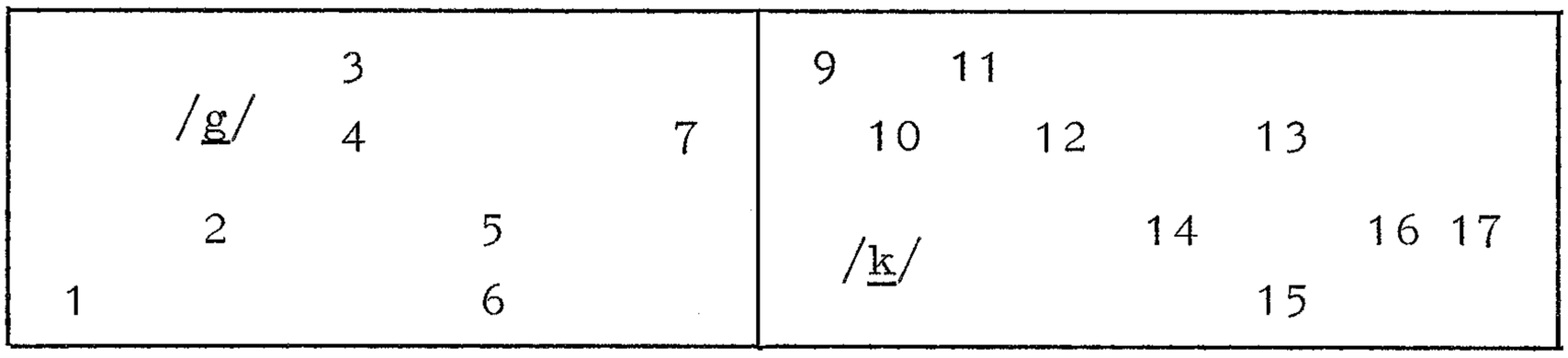


Figure 7.--Map K.

K-j(w)

(1) gatamA	(17) jasam	347	'root'

East of Ifaluk (6) (in actuality, of course, east of Lamotrek Atoll), initial k frequently becomes a semivowel (which, for some of the languages, is tantamount to saying that it disappears). Examples are 6 'elbow', 13 'thigh', 73 'spittle', 249 'sweetheart', 322 'sarong', 390 'doorway', 427 'palm toddy', 433 'mast', 513-17 'Monday-Friday', 413 'food; to-be-eaten object' (but note the retention of g (k) in the same morpheme in 56 'stomach').

Examples with sporadic retention of g (k) east of

the Woleai area are 132 'boredom', 134 'green', 184 'to scratch', 261 'to hold it', 382 'cloud', 440 'fish-hook', 508 'rat', and 'you (sg. subject pronoun)'.

K-Ø

(3)	wagar	(17) waar	347 'root'
(1)	ragO	nȯ	274 'to go'

Medial and final k are sometimes lost east of the Woleai area. The words affected by this change are consistent in our data--that is, there are no sporadic retentions of g (k) east of the line. Examples of this correspondence are 28 'vein', 274 'to go', 324 'sennit', 347 'root', 353 'pebble', 471 'taro', 477 'coconut shell', 513 'Monday'.

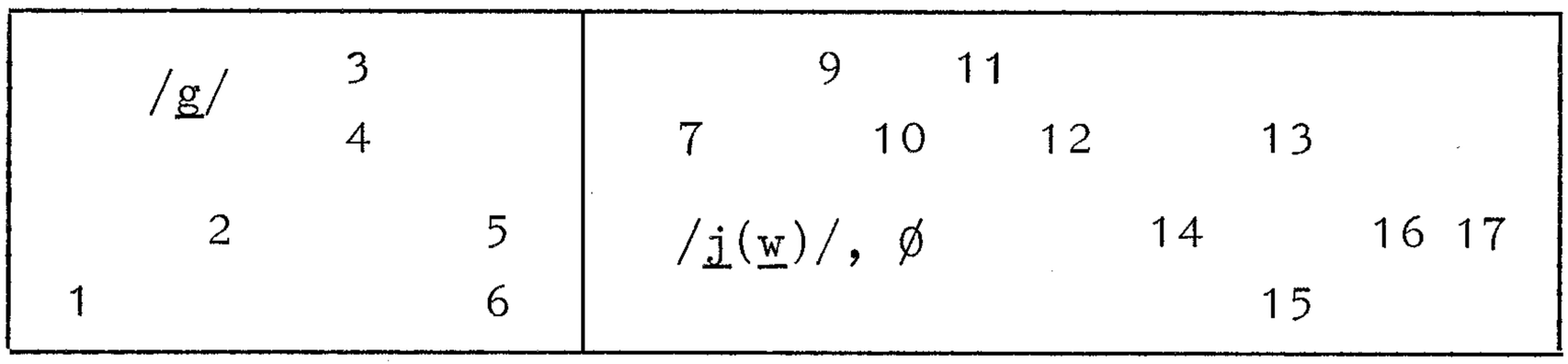


Figure 8.--Composite of K-j(w), K-Ø.

K-s

(1)	giirI	(17) siin	15 'skin'
(3)	meceråg	meceres	131 'easy'

k before i or y (in every case where it is possible to determine the vowel) frequently changes to s in Murilo (13) and Truk (16-17). Examples are 1 'body', 15 'skin', 131 'easy', 167 'to know', 170 'to forget', 196 'to ask', 289 'to burn', 309 'to pound', 313 'to braid', 318 'to open',

456 'hibiscus' (same morpheme as 'skin'), 468 'spider lily', 500 'butterfly'. Examples where this change shows up in other Truk District languages are 320 'mat', 430 'outrigger boom', and 77 'to blow on it' (with h). The languages which have this change sporadically are Pullap (11), Namonuito (12), and the Mortlocks (14-15), i.e., just those languages which are nearest Truk geographically and thus most likely to have been influenced by Truk in the past (it is no longer necessarily true that the more distant islands Pulawat (9) and Pulusuk (10) are less likely to be influenced linguistically by Truk than is, say, Pullap). Therefore these exceptional cases are almost certainly to be ascribed to dialect diffusion outward from Truk.

A puzzling change, which is just the converse of K-s, appears in four words in the Mortlocks (14-15). These are 130 'difficult', 217 'spear', 316 'help', and 317 'coconut "cloth"'. Cf. Mortlock wejirâk 'difficult', Truk wejires. It is conceivable that the Mortlock word came about through false analogy with 131 'easy': that is, by the equation

Truk meceres : Mortlock mycarak 'easy'

=Truk wejires : Mortlock x 'difficult'

resulting in wejirâk. Because of the semantic connection between these two words, this explanation seems plausible, but it is admittedly a weak hypothesis to account for the same change in so many words.

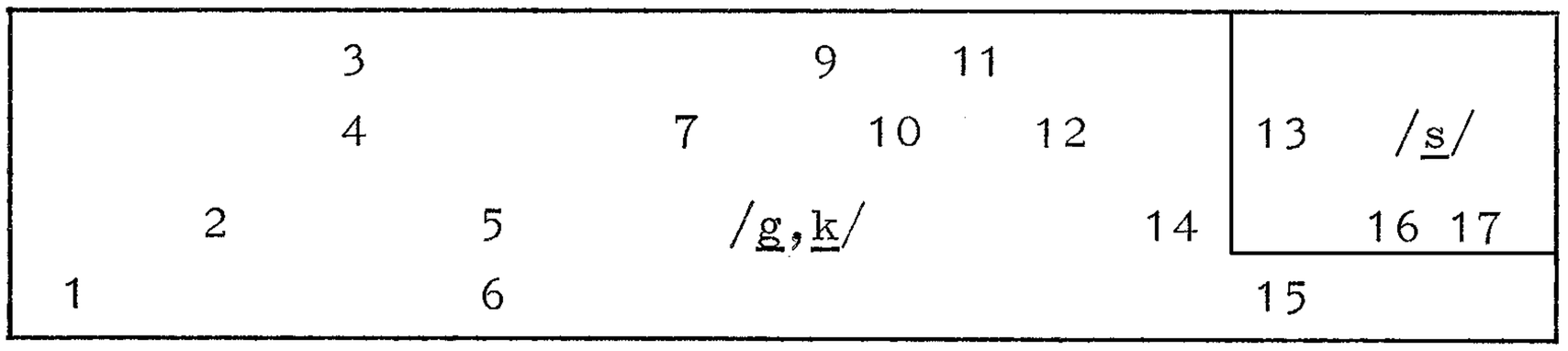


Figure 9.--Map K-s

F

(1) fythuw	(17) fisuuw	526	'7'
jijefangI	jàféng	374	'north'
gutufA	jattof	73	'spittle'

F is uniformly f (but see P).

T

(1) taringA	(9) hàling	(17) sening	38	'ear'
gatamA	jaham	jasam	390	'doorway'
maatA	maah	maas	39	'eye'

The correspondence of t in (1-6) with s or h in (7-17) is quite consistent excepting that there are four words in which the languages in the Woleai area have the eastern s rather than t. These words are 245 'boy', 317 'to put', 481 'barracuda', and 493 'octopus'. The correspondence of h and s is also consistent. The exceptions in this data are loans: 216 'sword', 217 'spear'. (See also S).

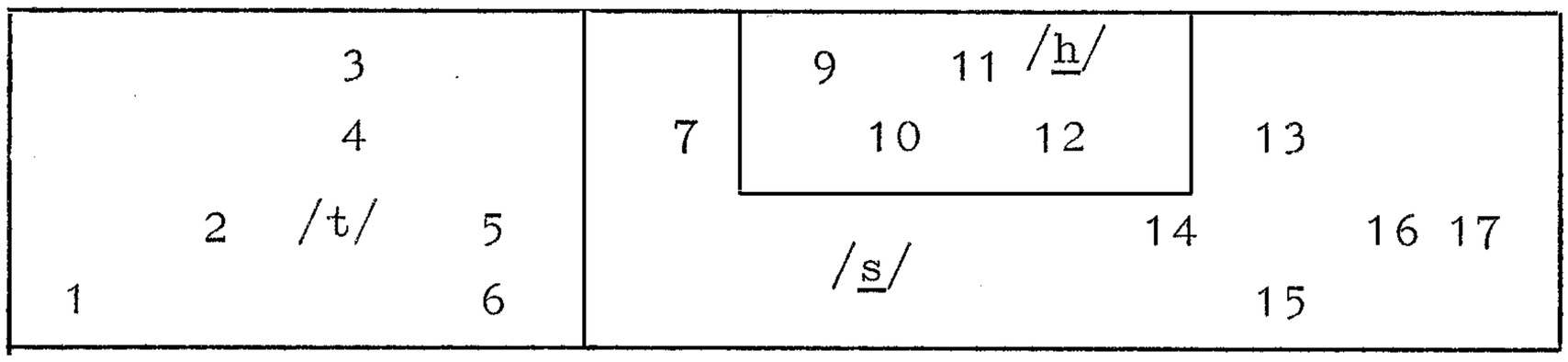


Figure 10.--Map T.

S

(1) thoongA (9) hoong (17) soong 178 'anger'

jaath0 jo̊o̊h jo̊o̊s 389 'roof'

This correspondence is unattested in our data in morpheme-medial position. The one example of a medial th in Sonsorol (1) which does not participate in the correspondence S-j(w) or S-Ø--fythuw '7'--has s irregularly in the h-area languages (9-12). But since there is no reason to believe otherwise, the lack of a clear-cut attestation for medial S is probably accidental.

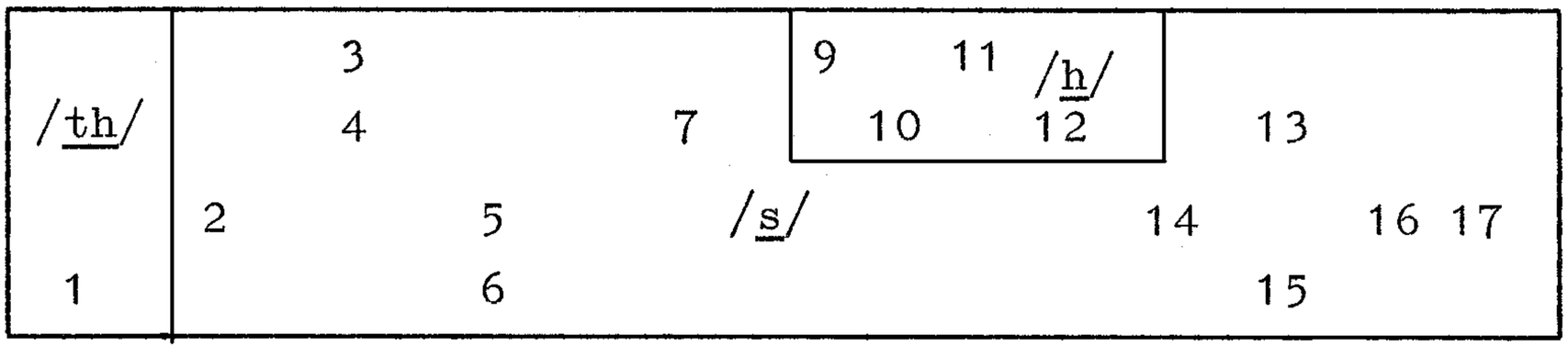


Figure 11.--Map S.

S-j(w)

(1) thiirE (6) siilE (17) jiin 251 'mother'

mathylY mȧsyr mėwyr 163 'to sleep'

laath0 raas0 raaw 497 'whale'

East of a line which separates the Woleai area (5-6) from Satawal (7), the reflexes of (1-6) th(s) are frequently a semivowel. The words in our data which attest this change are more numerous than those which attest S. In several words the isogloss irregularly runs between Ulithi (3-4) and Woleai (5-6): 314 'to plait', 353 'pebble', and 354 'rock'.

S-Ø

(1) fithiig (6) fisiig (17) fiik 535 '70'

gawythY gawys jawy 433 'mast'

In a few cases the th(s) of (1-6) disappears east of the Woleai area (5-6) when in medial or final position. These are somewhat irregular: 506 'louse' (sporadic), 535 '70' (with the s irregularly retained in (7-8)). Regular are 146 'to die', 252 'brother', 381 'star', 433 'mast'.

			3				9		11							
/th/			4			7		10		12		13				
	2	/s/	5			/j(w)/, Ø				14				16	17	
1			6									15				

Figure 12.--Composite of S-j(w), S-Ø.

C

(1) sii (5) shyy (13) ṙyy (17) cyy 54 'bone'

sisi shishi ṙiṙi cici 465 'polypodium phymatodes'

faasA faash faaṙ faac 461 'pandanus'

Because of its high frequency in words and in grammatical inflections, and because of the wide range covered phonetically by the phonemes that make up this correspondence, it is one of the most conspicuous differences among the languages (to native speakers as well as to foreigners). It is perfectly regular, excepting that some speakers in the Woleai area use c in free variation with sh in all words, and some words in (13-14) have c--or, we might say the use of c is spreading outward from Ulithi and Truk.

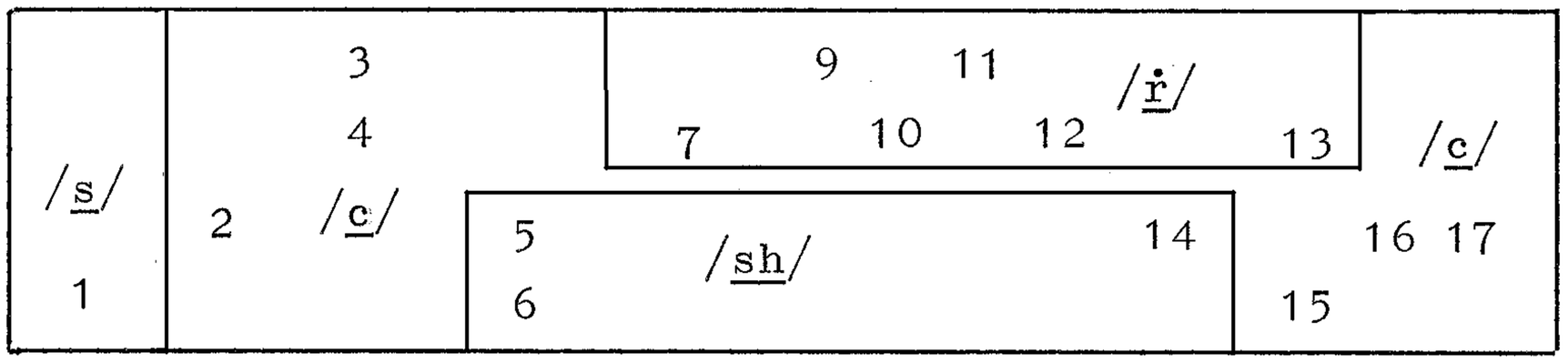


Figure 13.--Map C.

MW

(1)	mwaarE	(17)	mwȧȧn	241 'man, male'
	gumwusU		kumwuc	2 'hand'
	jiimwA		jiimw	388 'house'

There is sporadic correspondence between mw and m. The words involved are 353 'pebble', 161 'to sit', 80 'to eat'.

M

(1)	matawA	(17)	mataw	295 'ocean'
	rimow		niimuw	524 '5'
	malamA		maram	378 'moon'

This correspondence is almost perfectly regular (but see MW).

NG

(1)	ngėėrY	(17)	ngyyn	400 'soul'
	mangalY		menger	484 'flying fish'
	wuungA		wuung	392 'ridge-pole'

There are very few exceptions to the uniform correspondence of ng aside from those covered under NG-n below. In the independent (cardinal) pronouns, Tobi (2) has

ngaamem and ngaami ('we, exclusive', 'you, plural) where all the other languages have gaami, jääami, or the like. Conversely, Woleai (5-6) is unique in having gaang ('I') where all the other languages have ngaang (see page 209).

NG-n

(1) bwoongI (17) pwiin 264 'night'

In the same three languages which have the K-s correspondence, n sometimes appears before a (former) final i where all the other languages have ng. The words in our data which have this correspondence are 67 'to smell it', 103 'deaf', 179 'to quarrel', 225 'sharp', 264 'night', 279 'to turn it over', 283 'to push it', 289 'to burn it', 374 'north', and 439 'dorsal fin'. In 496 'turtle' and 569 'when', the correspondences of ng and n are very irregular.

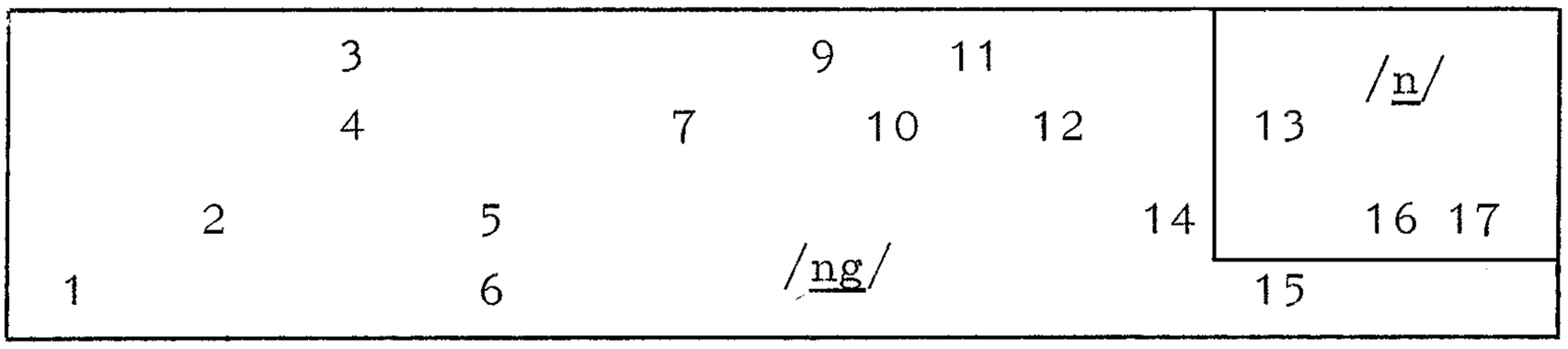


Figure 14.--NG-n.

N

(1) raawO	(3) laaw	(9) nȯȯ	(17) nȯȯ	367	'wave'
worow	woloow	wonoow	wonuuw	525	'6'
ttarA	tthal	ttan	ttan	166	'dream'

The correspondences subsumed under N are regular.

L

(1) rag0 (3) lȯg (9) lȯ (17) nȯ 274 'to go'

gyra golȧ kylej sinej 167 'to know'

pparE ppal ppȧl ppȧn 142 'light'

These correspondences are highly regular. Note that l and n are in contrast only in (9-15).

/r/ 1 2	3 4 /l/	7 /l/ 5 6 [l ~ n]	9 11 10 12 13 /l//n/ 14 15	/n/ 16 17

Figure 15.--Composite of N and L.

R

(1) long0 (2) gong0 (17) rong 68 'to hear'

malamA magam maram 378 'moon'

thyylA syyg wyyr 391 'house pillar'

Tobi (2) has r where g would be expected in 68 wor 'to exist' and in 457 gurugur 'lemon'. Otherwise this correspondence is regular.

/l/ 1	/g/ 2	3 4		5 6		7 /r/		9 10	11	12		13 15	14		16	17

Figure 16.--Map R.

J

(1)	jiitA	(17) jiit	396	'name'
	gijawO	kijȯ	430	'outrigger boom'
	maajI	maaj	451	'breadfruit'

As noted earlier (p. 44), j is subject to a certain instability which is also characteristic, to a lesser extent, of w. Excluding this factor and some neutralization of j and w, this correspondence is regular.

W

(1)	waari	(17) wȧȧn	429	'canoe-of'
	jawari	jawen	32	'mouth-of'
	ssaw	ccow	143	'heavy'

Like j, w is regular excepting for a good deal of alternation between j and w that is difficult to pin down to regular patterns.

Tobi (2) sometimes has g where all the other languages have a semivowel: Tobi (2) wyyg, Mogmog (4) juuj 'neck (30). The other examples in our data are 371 'reef', 436 'sail', 450 'betel nut', 498 'ant', 530 '20', 541 'two-animate', and -tig, the adverbial suffix which is -tiw in most of the other languages. Probably also relevant in this context is the anomalous Tobi (2) ryyg 'coconut' (475), where all the other languages lack a final vowel.

This completes the description of the consonant correspondences, and we turn next to the vowels.

2.32 Vowel correspondences. The correspondences of the vowels are simpler but subject to much more irregularity than the correspondences of the consonants. The main patterns are clear:

a) in those languages in which ȧ and ȯ are not regular phonemes (1-2, 5-6) a followed after an intervening consonant by I or E usually corresponds to ȧ, and a so followed by O usually corresponds to ȯ, in the other languages;[4]

b) in those languages in which y and u are not regular phonemes (3-4), the y of other languages is i, y, or u. Mogmog (4) (and probably other dialects of Ulithi) has no y even phonetically;

c) øø in Ulithi (3-4) corresponds to ajy or awy in the other languages;

d) all other vowels tend to correspond directly.

While these rules have many exceptions, they do account for a good share of the vowel correspondences in our data. These are illustrated by the following list of cognates.

	Sonsorol (1)	Satawan (15)		
i	giirI	kiil	15	'skin'
	jiimwA	jiimw	388	'house'
	thiirE	jiin	251	'mother'
e	geesI	jeec	508	'rat'

[4]This rule may also be interpreted diachronically: a has split into the three phonemes a, ȧ, and ȯ.

	bweesE	pweec	138	'lime'
y	gyythY	kyy	506	'louse'
	thyylA	wyyr	391	'house pillar'
ė	ngėėrY	ngėėn	400	'soul'
a	maatA	maas	39	'eye'
	faatY	faat	40	'eyebrow'
	jaatI	jȧȧt	57	'gall bladder'
	jaatE	jȧȧt	44	'chin'
	raangI	lȧȧng	379	'sky'
	maat0	mȯȯt	161	'to sit'
	jaath0	jȯȯs	389	'roof'
	raang0	lȯȯng	504	'fly'
u	guurU	kuul	449	'Barringtonia'
	wul0	wur	100	'full'
	wuungA	wuung	392	'ridge-pole'
	mawurI	mawun	182	'war'
o	tamwoorU	samwool	397	'chief'
	mwos0	mwoc	113	'short'
	bwoongI	pwoong	264	'night'
	thoongA	soong	178	'anger'

Sonsorol (1)	Mogmog (4)		
pawyrI	pøøl	5	'arm-of'
tajythY	tøøs	485	'porcupine fish'
thyylA	suur	391	'house pillar'
tyyty	thuuthu	259	'to bathe'

2.4 Summary. In this chapter we have tried to describe the differences and similarities in the sounds of the languages. To this end, the concept of phonemic contrast has proven to be a valuable analytic and descriptive tool, the utility of which is not vitiated by the fact that it is sometimes neither possible nor desirable to distinguish sharply between phonemic and "merely" phonetic differences. To overlook, for example, the denasalization of nasal consonants in Truk (16-17) simply because it is a completely subphonemic phenomenon, would be to miss one of the most conspicuous differences between Truk and the rest of the languages, a difference that can and does interfere with communication. Or consider the sounds n and l: in Pulawat (9) they are in regular contrast, but in Woleai (5) they are in (essentially) free variation. From the point of view of the speaker of Pulawat (9), the difference is a phonemic one which is a quite likely source of interference; but to a speaker of Woleai (5), the difference between his language and the other is a phonetic one of which he may not even be aware.

Such problems abound in this group of languages, and it is obvious that when features like these are mapped, the isoglosses can be interpreted in several ways. This kind of complication increases the difficulty of applying a quantitative measure to phonological differences: there is always the danger of the researcher allowing his methods and results to be biased by what he expects to find. Yet the phonological correspondences of the consonants provide sufficiently

unambiguous dialect criteria that the main outlines are clear.

Most of the phonological isoglosses mapped in 2.31 are what could be called "sharp": that is, in a map such as the one for the K-Ø line (Figure 8), the isogloss neatly splits the whole language area into two parts, each of which is consistent within itself. The line represent not only the easternmost extension of g in the words involved, but also the westernmost extension of Ø--it is in a sense, two lines--and there is in respect to this feature no transitional zone, or area of divided usage. In effect, no island is a transition zone in regard to any one feature. But on the other hand, these isoglosses are more or less evenly dispersed from one end of the area to the other, so that every island can be considered to be a transition zone in that the set of features it shares with the islands to the west of it differs from the set of features it shares with the islands to the east of it. Perhaps no metaphor describes this kind of situation better than that of a "chain."

Figure 17 is a composite map of the chief phonological isoglosses. In addition to the features mapped in 2.31, this map has the following lines:

(a) separates those languages (1-2, 5-6) which have voiceless vowels from those which do not;

(b) separates those languages (7-17) which have a full nine-vowel system from those which do not;

(c) separates those languages which regularly have denasalization of nasal consonants (16-17) from the rest.

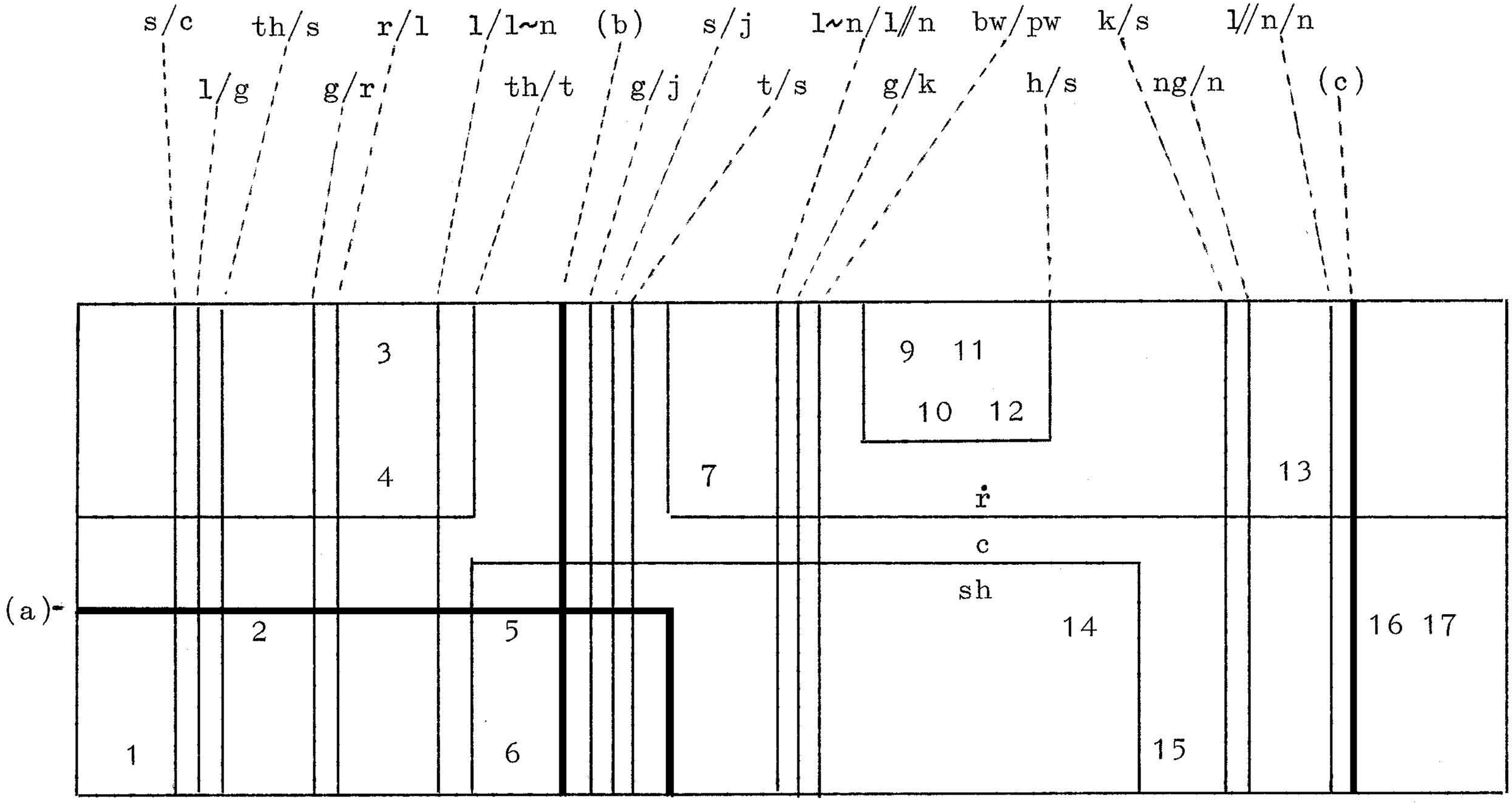


Figure 17.--Chief phonological isoglosses (not to scale).

3. LEXICON AND GRAMMAR

3.0 Introduction: patterns of lexical similarity.

Analysis of the lexical and grammatical data corroborates the findings of the phonological comparison: the areas with the highest percentages of shared vocabulary are joined in a chain-like configuration. Another result of the study of cognates is the discovery that exclusively-shared vocabulary items are in two concentrations that may be likened to focal areas.

3.1 The lexicon.

3.11 Securing the data. In any linguistic study, total accuracy is probably unattainable, and nowhere more so than in a broad survey like this one. Comparison of two or more lexical systems is full of pitfalls, such as overlapping areas of meaning, apparent synonyms which differ in connotation or social acceptability, the biases and fallibility of the informants and the linguist, and so on. These problems have been the subject of much discussion in the linguistic literature and require scant attention here. Although some inaccuracy is unavoidable, it can be kept within tolerable limits. The effects of inaccuracy upon conclusions can be minimized by securing a sufficiently large body of data characterized by a high level of comparability. Such has been our aim.

The linguistic forms which make up our data are mostly responses to questions of the type "How do you say X?", where X is a word or phrase in English. These responses sometimes imply further questions. For example, consider 407 'bird'. In Satawan (15) it is mansyysy, which is apparently derived from maan 'animal', and syy 'to fly'. The equivalent in Moen (17) is maccang, which is probably derived from maan and -cang, an allomorph of a morpheme of undetermined meaning. The Moen (17) informant volunteered that maccang "also means insect." One might now ask: What is the entire semantic range covered by maccang? Does it include all insects, or perhaps only ones which fly? What does mansyysy mean, aside from 'bird'? Does it include bats? How about flying fish? Is a native speaker of Moen (17) aware of separate meanings for the constituent morphemes of maccang? In any case, what are they? Does Satawan (15) have a cognate to maccang? If so, what does it mean? How do these words relate to Pulawat (10) manyn leemal (lit. animal-of the land), which is the word for 'bird' in that language, but which also applies to all other non-marine fauna? These are interesting questions, but our method requires that we resist the temptation to follow them down an "implicational chain," seeking answers first to these questions, then to the questions implied by those answers, and so on. Our approach is what has been called the onomasiological one, as opposed to the semasiological (Herzog 1965:49). By thus carefully circumscribing our objectives, we sacrifice depth but we promote uniformity.

Since lack of time precluded the luxury of a more indirect approach, data were for the most part elicited by asking the informant directly to translate a word, phrase, or short sentence from English into his own language. Gesture, pantomime, and pictures were used as much as possible. Only when every other method failed to produce a usable response (as when the informant could not think of a word or was unsure of his English) did it become necessary to resort to priming the informant with the equivalent form in another Trukic language.

For every word, after the elicitation of what appeared to be a reliable response, the informant was asked for other commonly used words with the same or similar meaning; sometimes his memory was jogged by giving him the word from another dialect. It is significant that this process was much more productive of synonyms in Saipan (8) and in the Truk District languages (9-17) than in languages (1-7). Typically, a Ulithi (3-4) informant upon being prompted with a word from another language would reply, "That's a Woleai word, but we never say it." On the other hand, a speaker of, say, Nama (14) would be more likely to reply, "Oh, we use that word, too" or "Young people from my island use that word often, but old people don't know it," and the like. Independent evidence--settlement history--establishes that the reason for this effect on Saipan (8) is dialect mixture, and the same explanation doubtless holds for the Truk District.

In the appendix, a single slash (/) precedes synonyms

which the informant judged to be less common or less central to the meaning of the English gloss. Double slashes (//) precede synonyms about which the informant was unable to make this discrimination.

3.12 Evaluating the data. The lexical items in our data range from the perfectly cognate (269 'yesterday') through those which show diverse, but cleanly distributed forms (198 'truth') to those which are hopelessly skewed (84 'perspiration'). And there are many items which are cognate everywhere except for one or two discontinuities (327 'head garland'). There is naturally a great temptation to throw out some of the less tractable data, since part of the skewing must certainly be attributed to inaccuracy. During the early stages of the field-work, a few items were dropped from the questionnaire because it proved impossible to find reasonably close equivalents for them which were comparable in all the languages--examples are 'other', 'how', 'to give', 'fog', and 'slave'. There are perhaps two dozen more which could be dropped with good justification: some of these are 169 'to remember', 219 'bow', 220 'arrow', 289 'to burn', and 360 'harbor'. However, such tampering with the data is not prerequisite to finding clear patterns of lexical distribution, and so we have retained all of it.

3.13 Analyzing the data. Out of the almost limitless variety of revealing ways in which the shared vocabulary might be classified and counted, we have chosen for description here two which disclose different but compatible

patternings of vocabulary. Both appear to be much more revealing than a mere counting and mapping of isoglosses.

3.131 Exclusively-shared items. One measure of the degree to which a language or dialect differs from all others is the amount of vocabulary which is unique to it: thus Tobi (2) is to be distinguished from all the other languages in the Trukic chain by, among other things, the fact that in Tobi (2) the common everyday word for 'to climb' as in 'to climb a coconut tree' is gaga-, whereas all the other languages use a word which is cognate to Sonsorol (1) tawy-. Similarly, a measure of the degree to which two or more languages or dialects are united in opposition to all others is the amount of vocabulary they share to the exclusion of other languages: Sonsorol (1) and Tobi (2) are similar to one another and different from (3-17) in that they exclusively share the item fitegI in the meaning of 'to work'. (Semasiologically speaking, the cognate word in the other languages means 'to fight'.) Conversely, languages (3-17) are united by the fact that they exclusively share the form jengaang in the meaning 'to work'. (It means 'to measure' in Sonsorol (1) and Tobi (2).)

For purposes of this count, two items are considered to be alike if they have the same meaning and if any of their constituent morphemes are adjudged to be cognate, and they are considered to be different if any of their constituent morphemes are adjudged not to be cognate. According to this rule, mansyysy and maccang 'bird' are counted once as alike

because of the cognation of /man-/ and /mac-/ and once as different because of the non-cognation of /-syysy/ and /-cang/. Synonyms were given full recognition: thus since both Pullap (11) and Namonuito (12) have both piik and siilo for 509 'pig', each language is included in two blocks, one which covers (5-12) siilo and one which covers (11-17) piik. However, the fact that (11) and (12) are the only languages that have both words does not in itself meet the definition of an exclusively-shared item, and so this does not count as a link between these two languages alone.

Saipan (8) was not included in the calculations.

Without some presumptions as to what the results might be, a straight sorting procedure would be called for. That is, we would first count the items unique to each language, then those shared by adjacent pairs of languages, then those shared by non-adjacent pairs, and after that the items shared by three contiguous languages, by three non-contiguous ones, and so on in ever-larger groups of languages. Table 7 gives the results of the first two steps in this procedure. A significant fact is immediately apparent from this table: there are three pairs of languages which show a very high ratio (10:1 or higher) between the number of the pair's exclusively-shared items and the numbers of the items unique to the member languages of the pair. For example, for (9-10) this ratio is 16:1. The other pairs are (3-4) and (5-6). This result confirms what was known before--that Mogmog (4) is strongly linked to Falalap, Ulithi (3), and that Ifaluk (6)

TABLE 8

UNIQUE ITEMS AND THOSE EXCLUSIVELY SHARED BY TWO ADJACENT LANGUAGES

Language	Unique Items	Adjacent Pairs
Sonsorol (1)	78	
		67
Tobi (2)	68	
		0
Ulithi (3)	2	
		83
Mogmog (4)	3	
		0
Woleai (5)	4	
		44
Ifaluk (6)	4	
		3
Satawal (7)	39	
		0
Pulawat (9)	1	
		16
Pulusuk (10)	1	
		0
Pullap (11)	9	
		6
Namonuito (12)	11	
		2
Murilo (13)	19	
		2
Nama (14)	10	
		20
Satawan (15)	13	
		3
Fanapanges (16)	8	
		23
Moen (17)	5	

is likewise strongly linked to Woleai (5). It also shows that a comparable relationship exists between Pulawat (9) and Pulusuk (10) and suggests the advisability of henceforth considering these three pairs to be one language each, rather than two. Accordingly, for purposes of further lexical

analysis, we shall drop independent consideration of the data from languages (4), (6), and (9).

Proceeding to the counting of items shared by non-adjacent pairs of languages, we make another discovery: of the seventy-eight such pairs (i.e., 1/3, 1/5, etc.) only two have a significant number of shared items. This result adds another bit of supporting evidence to the chain hypothesis. The two pairs are (13/16) and (13/17), which have eight and seven exclusively-shared items respectively. This fact suggests a minor reordering of the languages in the Truk District, so that for purposes of the remainder of the counting process, we adopt the following order of languages:

1 2 3 5 7 10 11 12 13 16 17 14 15

From this point on, single discontinuities were disregarded. The results of the completed count are given in Figure 18. Some conclusions, not all of which are evident in Figure 18, may be made on the basis of this count.

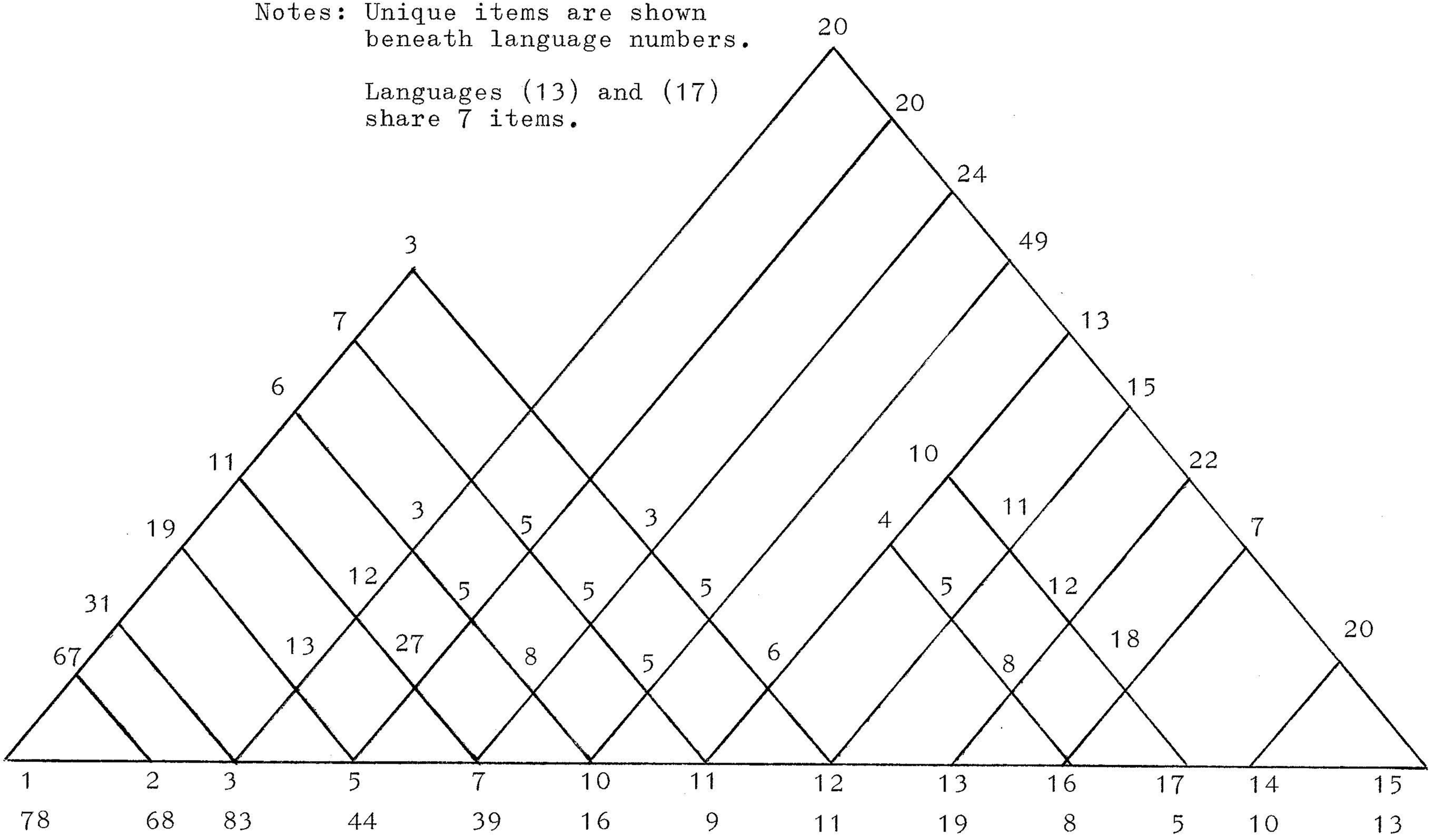
1) Virtually all of the significant blocks of exclusively-shared vocabulary are contiguous.

2) There are two important exceptions to the immediately preceding statement: a) there are about twenty words (e.g. 49 'abdomen') which show a link between the Mortlocks (14-15) and certain languages to the west, particularly those in the Woleai area, and b) there is a group of twenty-one words which are cognate from Sonsorol (1) through Moen (17) excepting for one or more languages in the Yap District (3-7). A clear example is 228 'box': what is apparently the

Figure 18.--Unique and exclusively shared items.

Notes: Unique items are shown beneath language numbers.

Languages (13) and (17) share 7 items.



native word (Sonsorol (1) bwaalO, etc.) has been replaced in the three Yap District languages by a loan word kagol (ultimately from Spanish, probably by way of Yapese). This word, and others that fit the same pattern, are evidence that Satawal (7) is being drawn out of the orbit of Trukese, to which it clearly belongs. Yap, as an important commercial center (in fact the only one) for the islands in the Yap District, can be seen operating as a kind of focal area, even though its language is not part of the Trukic chain. There are a few cases like 242 'woman', 296 'salt', and 491 'moray eel', where such bands through the middle of a homogeneous area overlap the Yap and Truk Districts.

3) Greater by far than any single group of exclusively shared items is the number of items which are cognate in all the languages. Perfectly cognate items number 159; including the partially cognate (like mansyysy and maccang) and those with single discontinuities raises the total to 228; when all discontinuities are disregarded, a total of 272 vocabulary items occur throughout the chain.

4) The figure of forty-nine exclusively-shared items for languages (9-17) is probably inflated by relatively recent diffusion outward from Truk, and to this extent the eastern concentration may be considered a focal area.

3.132 Shared retentions. The percentages of shared retentions were calculated for 175 of the words on the 200 word Swadesh list (Swadesh 1952). The percentages are given in Table 9. The judgments of cognation were made according

TABLE 9

PERCENTAGES OF SHARED RETENTIONS OF BASIC VOCABULARY

	2 Tobi	3 Ulithi	5 Woleai	7 Stwl.	10 Plsk.	11 Pllp.	12 Nmto.	14 Nama	15 Stwn.	13 Murilo	16 Fan.	17 Moen
Sons.	87	78	69	66	64	63	62	60	61	60	58	58
Tobi		78	69	65	63	63	62	61	61	60	57	58
Ulithi			82	75	70	67	64	62	63	61	59	59
Woleai				86	77	72	68	67	67	64	62	62
Satawal				88	81	73	71	69	68	67	67	67
Pulusuk					92	83	80	80	78	75	75	75
Pullap						91	85	85	85	80	80	80
Namonuito							87	87	90	85	85	85
Nama								94	90	84	87	87
Satawan									88	84	83	83
Murilo										91	93	93
Fanapanges											97	97

to the procedures described in Gudschinsky (1956).

The conclusions to be drawn from these figures are self-evident. Islands which are close together geographically tend to to have higher percentages than those which are at a greater distance, and all the languages are connected by a chain of percentages which are in excess of 80 with the exception of the link between Tobi (2) and Ulithi (3), which is 78%.

3.2 Grammar. The grammatical phase of this survey is much more restricted in aim than the other phases. An informal comparison of a few sentences from each of the languages was sufficient to establish that the principal features of syntax and morphology are uniform. As in the case of phonology, Dyen's description of Trukese grammar could apply in general outline to all the languages. The parts of speech and their subclasses, the overall structure of sentences, the main features of the verb phrase, the highly structured system of demonstratives, the obligatory counting classifiers--all of these were found to differ in detail only. This section is restricted to a brief listing of several representative examples of these differences.

3.21 Demonstratives and locatives. In its fullest form, the demonstrative system of the Trukic languages distinguishes six degrees of physical or abstract proximity to the speaker and listener. Demonstratives are both predicative and attributive; the latter are both proclitic (preceding the modified noun) and enclitic (following the noun). Paral-

lel to the demonstratives is a system of locatives. The full set of six degrees of proximity can be illustrated by those of Satawan (15). The glosses merely suggest the range of meaning.

I. jikeej 'here, closest to the speaker, most closely associated with the speaker'

II. jikaan 'here, close to the speaker'

III. jikana 'there, closest to the listener'

IV. jikomwun 'there, close to the listener'

V. jikėwe 'there, out of sight, invisible, past'

VI. jikanaan 'there, remote from speaker and listener'

The demonstratives are illustrated by the following, also from Satawan (15):

proclitic:	/jee cȯȯpwėt/	'this woman'
enclitic:	/cȯȯpwėt eej/	'this woman'
predicative:	/jijee cȯȯpwėt/	'This is a woman'

The following kinds of differences occur in the demonstrative paradigms.

a) There are differences in form; most of these are merely regular phonological differences, but some are not: Woleai (5) gesh kaal, Ulithi (3) gec ka 'these rats' (where kaal and ka are the demonstratives).

b) Some languages distinguish only four or five of the six degrees of proximity.

c) Only languages (12-17) have proclitic demonstratives.

d) Some languages distinguish more degrees of proximity in the locatives than in the demonstratives.

Differences (b) through (d) are summarized in Table 10.

TABLE 10

DEMONSTRATIVES AND LOCATIVES

Language	Proclitics	Degrees of proximity distinguished	
		Demonstratives	Locatives
(1)	no	4[a]	4[a]
(2)	no	4[b]	4[b]
(3-4)	no	4[a]	4[a]
(5-7)	no	5[c]	6
(8-11)	no	6	6
(12)	yes	6	6
(13)	yes	5[d]	5[d]
(14-16)	yes	6	6
(17)	yes	5[d]	5[d]

[a] II, III, V, VI. [b] I, III, V, VI. [c] II-VI.
[d] I-III, V, VI.

3.22 Local stems. The local stems, or adverbial suffixes, typically form compounds with verbs and express direction. The system at its fullest numbers seven forms,

illustrated from Satawan (15). The citations are not morphophonemic, but are in the form assumed before pause.

I. -la 'away from speaker, completely, absolutely'

II. -to 'toward speaker, in this direction'

III. -tȧ 'up, towards the east'

IV. -tėw 'down, towards the west'

V. -lȯng 'in, into, towards the beach (lagoon) side of an atoll island'

VI. -wėwu 'out, towards the ocean side of an atoll island'

VII. -wėwy 'toward the listener (from any direction)'

Differences in distribution probably exist, but it is apparent from some of the examples collected that there are at least some verbs that can take these suffixes in every language (e.g., 231 'to fall'). A few languages do not distinguish VII from VI. Most of the formal differences are regular phonological correspondences. In some (or perhaps all) of the languages, the vowels in some of the local stems are variable according to vowel harmony rules that have not been worked out. Table 11 shows the forms for each language as they appear suffixed to the verb meaning 'to crawl'; since the various languages have different verbs in this meaning, the phonological contexts in which these forms were recorded were not uniform, a fact which may account for a few of the vowel differences.

TABLE 11

LOCAL STEMS

Language	I	II	III	IV	V	VI	VII
(1)	rag0	tog	tegE	tiw0	rang0	wowu	wowu
(2)	rȯg	tog	tȧg	tig0[a]	rȯng	wȯwy	wȯwy
(3)	lȯg	thog	thag	thi	lȯng	weji	weji
(4)	lȯg	thog	thag	thi	lȯng	waji	waji
(5)	lȯg	tog	tag	tiw	lȯng	waji	wėji
(6)	lȯg	tog	tag	tiw	lȯng	wėwy	wėwy
(7)	lȯ[b]	to	tȧ[c]	tiw	lȯng	wowu	wowu
(8)	lȯ	to	tȧ	tiw	lȯng	wowu	wowu
(9–10)	lȯ	to	tȧ	tiw	lȯng	wowu	wȯwu
(11)	lȯ	to	tȧ	tiw	lȯng	wowu	wowu
(12)	lȯ	to	ta	tyw	lȯng	wowu	wowu
(13)	lȧ	te	tis	tyw	lȯng	wuu	wowu
(14)	lȯ	to	tȧ	tyw	lȯng	wėwy	wėwy
(15)	la	to	tȧ	tėw	lȯng	wėwu	wėwy
(16–17)	nȯ	to	tȧ	tiw	nȯng	wuu	wowu

[a]Also tiw0. [b]Also lȯg. [c]Also tȧg.

3.23 Personal morphemes. The personal morphemes, which occur as the possessive suffixes and in the independent pronouns, are highly uniform. Aside from regular phonological correspondences, the only difference is in the first person plural exclusive. Table 12 lists the forms; consonants are underlying forms from Table 7.

TABLE 12

PERSONAL MORPHEMES

Language	Singular			Plural			
	1	2	3	1 Inc.	1 Exc.	2	3
(1-6)	-J	-MW	-N	-C	-MaM	-Mi	-R
(7-10)	-J	-MW	-N	-C	-MȧM	-Mi	-R
(11-17)	-J	-MW	-N	-C	-M	-Mi	-R

3.24 Summary. Although the grammatical data discussed is fragmentary, further research is unlikely to disclose isoglosses of greater fundamental importance than those described here. These grammatical isoglosses, like the phonological and lexical ones, exhibit the defining characteristics of a dialect chain--that is, they (a) tend to split the language area into two parts, everything west of the line being alike and everything east of the line being alike, and (b) they tend not to coincide but instead are found to occur at scattered places.

4. LANGUAGE DIFFERENCES AND COMMUNICATION

4.0 Preliminary considerations. This chapter adds a few linguistic facts and some details about the relationships among the languages in the Trukic chain; it also attempts some conclusions about language boundaries through a synthesis of linguistic data and certain non-linguistic, anecdotal, evidence. In this chapter, the terminology, the schematism, and the view of mutual intelligibility and of language versus dialect are for the most part derived from Hockett (1958:321ff.).

4.01 Mutual intelligibility. If a speaker of A, by virtue of his competence in A, and for no other reason (such as bilingualism), can carry on a conversation on ordinary matters with a speaker of B or can understand such a conversation between two speakers of B, with no more than slight difficulty, then A and B may be said to be mutually intelligible. If these same acts are possible only with extreme difficulty or not at all, then A and B are mutually unintelligible. Most of the pairs of languages in the Trukic chain clearly fall within one of the ranges thus delimited, that is, at or near one of the two ends of the spectrum which ranges from absolute mutual intelligibility to absolute mutual unintelligibility. But some pairs of languages just as clearly fall into an intermediate range, thus necessitating

the recognition of partial mutual intelligibility; we shall refer to these pairs simply as borderline cases. A more minute quantification is not practicable.

4.02 Language versus dialect. If two differing forms of speech are mutually intelligible, they are dialects of the same language; if not, they are dialects of different languages. This definition of a language as a set of mutually intelligible dialects has a corollary which is not necessarily unacceptable in the present context: because two forms of speech may be mutually intelligible with a third but not with each other, it follows that one form of speech may be a dialect of more than one language.

4.03 Multilingualism. Our definition of mutual intelligibility excludes the factors of learning and multilingualism. The result is that the status of certain pairs of the languages as borderline cases is more hypothetical than real. For example, nearly every speaker of Ulithi (3) is receptively bilingual with Woleai (5) and vice-versa, and therefore to native speakers the two languages function as one. Nevertheless for certain practical purposes such as the preparation of educational materials (whether for the island schools or for teaching the island languages to foreigners) it must be taken into account that these two languages are not really closely mutually intelligible.

Besides extensive semi-bilingualism, as in the Ulithi and Woleai case, bilingualism of the usual sort is also found. This is determined by local conditions, including

differences in the prestige of languages; the result is that some speech communities have many bilinguals and some have few. In the Truk District, for example, speakers of the western island languages (9-12) frequently visit Truk, sometimes for long periods; it is safe to say that those who do all manage to learn to understand Trukese, and most of them learn to speak it. But few Trukese have either the opportunity or the inclination to learn the western island languages and so there are not many Trukese who can be said to be either bilingual or semi-bilingual with, say, Pullap (11).[1]

4.04 The interpretation of anecdotal evidence.

A really definitive description of mutual intelligibility among the languages of the Trukic chain would have to be based upon a carefully designed and executed series of experiments. It would probably be necessary to use very young children as subjects. No such experiments were conducted and therefore the non-linguistic evidence is derived from observation of actual communication situations and upon direct statements of informants. Such evidence is not necessarily unreliable, provided it is used with appropriate caution.

It is much easier to establish that two forms of speech are not mutually intelligible than that they are.

---

[1] There is no evidence that there are features of the Pullap language that make it harder for a Trukese to learn than Trukese is for a speaker of Pullap. While non-mutual intelligibility (as opposed to mutual unintelligibility) doubtless exists in the languages of the world and may have a linguistic base (see O'Neil 1967), it does not seem to figure in the Trukic chain.

If we observe two people trying unsuccessfully to carry on a conversation or having to call upon an interpreter in order to communicate, we may reasonably conclude that they lack control of a common language, that whatever languages they do control must be mutually unintelligible. A man from Mars watching an American tourist try to make a Tokyo taxi-driver understand where he wants to go would probably come to the correct conclusion--that English and Japanese are so dissimilar that they fall into the class of mutually unintelligible languages. Similarly, the fact that an interpreter may be needed when a government official who happens to be a speaker of Ulithi (3) wishes to hold a conference with the chief of Satawal (7) is evidence of the highest order that these two languages are sufficiently diverse that a speaker of one cannot understand the other unless he has learned to.

But the mere fact that two people are able to carry on a dialogue does not establish that their languages are mutually intelligible in any useful sense of the term. The man from Mars watching what appears to be an effortless conversation between a Frenchman and a Russian at the United Nations might jump to the conclusion that French and Russian are mutually intelligible, not realizing that each of the speakers may be able to understand, but unable--or unwilling--to speak, the other's language. In parts of the Caroline Islands, communication on a regular basis takes place among speakers of mutually unintelligible languages. At the high school on Ulithi, for example, where speakers of several

languages and numerous dialects are in close daily contact, it appears that anyone can communicate with anyone else with no difficulty at all; in this case, the man from Mars might be forgiven for believing that Ulithi (3) and Satawal (7) are mutually intelligible, since a considerable number of men from Earth have come to the same mistaken conclusion. Thus we may formulate the principle that direct observation of speech behavior can give reliable negative evidence as to mutual intelligibility, but affirmative evidence thus derived is apt to be misleading.

The same distinction must be observed in the interpretation of direct statements made by informants about relationships among the languages. If a speaker of Satawal (7) says that he cannot understand a conversation between two speakers of Trukese (16-17), he is making as assertion about his own linguistic competence which can safely be generalized to include all speakers of his language (excepting, obviously, any who may have learned to understand Trukese); we can conclude that Satawal (7) and Truk (16-17) are not mutually intelligible. But when the same speaker claims to be able to understand the speech of Ulithi (3) perfectly, we cannot automatically conclude that all speakers of his language share the same ability, even if he evinces a sincere belief that the two languages are mutually intelligible; he is very likely to have lost sight of the fact that his ability to understand Ulithi is a skill which he acquired through much experience with the language. A speaker of

Pullap (11) once told me that his language and Trukese (16-17) are mutually intelligible, but on another occasion he said that when he first went to Truk as an intermediate school student it took him over a year to learn to understand Trukese well and even longer to learn to speak it. It seems to be a common trait of Trukic speakers that, being fully aware of a deep-structural identity within the chain, they tend to underestimate the surface differences among the languages with which they happen to have had a lot of contact.[2]

4.1 <u>The correlation of linguistic diversity and the ability to communicate</u>. As preceding chapters have shown, the linguistic data firmly support the chain hypothesis. This section examines systematically the non-linguistic evidence in relation to the linguistic and shows that it, too, confirms the existence of a chain of mutually intelligible dialects from Sonsorol (1) through and beyond Namonuito (12); from Murilo (13) on, the dialects are all mutually intelligible and can therefore be safely called Trukese, but their interrelationships are so close, and so complex, that the chain metaphor is no longer appropriate.

The reader who is not interested in the detailed anecdotal evidence will find the conclusions of this section summarized in Figure 19.

Sonsorol (1) is spoken by the inhabitants of Sonsorol

---

[2]It was apparently uncritical acceptance of informants' opinions that led Smith (1951) to conclude that all the languages from Sonsorol (1) through Namonuito (12) are mutually intelligible, an assertion that is patently untrue.

Island and by a small part of the population of Palau, those who trace their ancestry to Sonsorol, Pulo Anna, and Merir. The latter two groups speak dialects which are still distinct even though the migration of the native populations of these two islands, which began several generations ago, is now apparently complete and permanent. Merir is currently uninhabited, and the twelve residents of Pulo Anna are speakers of Tobi. From about 1885 until 1957, Sonsorolese made up most of the population of Mapia, an Indonesian island to the southeast of Tobi (see Figure 1). The language spoken by the other inhabitants of the island during that period is not a Micronesian language; there are no speakers of Sonsorol (1) on Mapia now.[3]

Sonsorol (1) is mutually intelligible with Tobi (2), which is spoken only by the natives of Tobi Island, many of whom live on Palau. These two languages exclusively share several important phonological features and many lexical ones, so they obviously constitute a subgroup within the chain. Yet there are three crucial phonological isoglosses between the two languages, and many lexical ones. The differences which these isoglosses represent are quite obvious in the surface forms of sentences, so much so that the ease with which speakers of Sonsorol (1) and Tobi (2) understand each other seems attributable in part to semi-bilingualism; recent levelling must also be a factor.

---

[3] I am indebted to Donald M. Topping for clarifying these points.

There is almost no contact between speakers of Sonsorol and Tobi and speakers of Ulithi (3-4), Woleai (5-6), or any of the other languages further east, and at present there is little reason to predict that the linguistic gap between languages (2) and (3) will do other than continue to widen. In regard to the question as to whether it is Ulithi or Woleai which is more closely related to Sonsorol and Tobi, the linguistic evidence is a little inconsistent. Woleai shares slightly more phonological features than does Ulithi, but Ulithi is clearly more closely related in respect to lexicon, both in exclusively shared items and in percentages of shared vocabulary. In any case, the non-linguistic evidence is clear: Ulithi is barely mutually intelligible with Tobi but probably not with Sonsorol, while Woleai is not mutually intelligible with either. When asked to characterize his ability to understand Sonsorol, one speaker of Ulithi who has worked for many years aboard the ship which makes the field-trips to Sonsorol replied that he could understand "about 60%" of a conversation between two speakers of that language. Another Ulithian, who had heard Tobi spoken only a few times, told me that aside from being able to recognize a few words, he was essentially unable to understand any of a conversation between two speakers of Tobi. However, one incident illustrates that in case of necessity it is possible for a speaker of Tobi (2) and Ulithi (3) to communicate even though neither has had previous experience with the other's language. A Ulithian who happened to be on Guam was recently called upon

to interpret for an old man from Tobi who was in the hospital and could not communicate at all in English. It proved to be difficult and tedious, but not impossible. It seems clear, both on linguistic grounds (the 78% shared retention between Tobi and Ulithi is the weakest link, in these terms) and on the basis of these other observations, that the link between Tobi and Ulithi is one of the most tenuous ones in the chain. It is redundant to point out that Sonsorol and Tobi are not mutually intelligible with Truk and the other languages at the eastern end of the chain, but some notion of the degree of difference between the extremes in the chain can be inferred from the experience of the Sonsorol informant on Truk: he spent a year on Moen Island attending a parochial high school (in which classes are conducted in English), and although he made no effort to learn the Trukese language, he was inevitably exposed to it a great deal. Yet even at the end of the year Trukese remained as foreign-sounding to him as it was at the beginning, and he never did learn to understand it. He also told me that his ability to understand the speech of the Pulusuk (10) area was negligible.

The principal dialects of Ulithi are Falalap, Mogmog, (also spoken on Asor), and Fassarai, all in Ulithi Atoll, and the somewhat more distant dialect of Fais Island. Ulithi is also spoken by the one family living on Sorol Atoll and by most of the population of Ngulu Atoll. There are slight differences among the Ulithi dialects. For example, Falalap (the Ulithi informant speaks this dialect) has [ts] for <u>c</u>

where the other dialects have [tʃ]; there are also numerous minor grammatical differences: cf. Falalap bwȯȯthej, Mogmog bwȯȯthuj 'my nose'.

Although there is much communication between speakers of Ulithi and Satawal (7), it is almost always dependent upon the bilingualism of the Satawalese partner to the conversation. Ulithian high school students say that they cannot understand two Satawal students when they are talking to each other, and as noted before, as interpreter may be needed to assist a Ulithian field-trip officer on Satawal.

By contrast, the similarity between Ulithi and Woleai is close enough that conversation is possible, but it is dependent upon both parties being semi-bilingual. The differences, especially at the phonetic level, are so great that it is very difficult for a speaker of Ulithi to generate original sentences in Woleai, and vice-versa. A Woleai informant told me that he knew of only one Ulithian who could speak Woleai, a woman who had married a man from Lamotrek and had lived on that island for many years. But semi-bilingualism appears to be nearly universal among younger speakers of both languages. Although Ulithi and Woleai are now closely associated and can be expected to level at an ever-increasing rate, they do not form a clear-cut subgroup as do Sonsorol (1) and Tobi (2). They have no exclusively shared phonological features and only thirteen lexical ones.

Woleai is spoken in an undetermined number of slightly differing dialects and subdialects on Woleai, Elato,

Ifaluk, Lamotrek, Faraulep, and Euripik. The differences are insufficient to cause even the slightest difficulty in communication yet they are great enough that a native speaker can spot another's home island almost immediately from his speech. The Woleai dialects are less distinct than those of Ulithi and of course the differences that separate Woleai from Ulithi on the one side and from Satawal on the other are much greater than any differences within the Woleai area itself. Even so, there is one remarkable example of a major isogloss cutting through the Woleai area rather than to one side of it or the other: the S-j line, which runs between Lamotrek and Satawal (i.e., between languages (6) and (7)), irregularly runs to the west of Lamotrek in the perfectic (past tense) particle, so Lamotrek has ja where the other Woleai dialects have sa. Cf. Woleai re sa lóg, Lamotrek re ja lóg 'They have gone'.

Woleai (5-6) and Satawal (7) are another pair of adjacent languages which appear to function as one in spite of differences sufficient to make them virtually unintelligible to each other. Two islands in the Woleai speech area, Lamotrek and Elato, have long had close social and economic ties with Satawal, and this relationship has undoubtedly fostered much levelling of vocabulary. This is reflected in the shared retention of lexical items, which at 86% is disproportionately high when considered in relation to the really fundamental phonological differences which separate the two languages. Despite the high percentage of shared

vocabulary, it is clear that for a speaker of Woleai and and speaker of Satawal to communicate, each must have learned to understand the other's language, or else one of them must be bilingual. The same must of course be said of a speaker of Woleai and a speaker of the languages further east. I once heard a speaker of Pullap (11) and a speaker of Woleai (5), who were both competent speakers of English, trying to carry on a conversation. The Woleai speaker had had no previous experience with languages east of Satawal, and what success they had at communicating was mainly to be attributed to the efforts of the Pullap speaker to alter his own speech by using pronunciations and vocabulary that he knew, or thought, to be Woleai forms. With obvious difficulty and painful slowness, they talked for perhaps four or five minutes before they gave up and switched back to English. The Carolinians have a term for this kind of speech--gasel mataw (to use the Woleai form) 'language-of the ocean'--although if it is a language, then it is one that truly has no fixed grammar, phonology, or lexicon. What gasel mataw means ultimately is that if a canoe goes adrift from the Truk District and washes up on, say Ulithi, the survivors (if there are any) can somehow manage to communicate with the Ulithians. The term gasel mataw (or its equivalent) was not known to any of the informants outside the languages from (3) to (12).

From Satawal (7) east to Namonuito (12)the chain continues, but with smaller links; or, to switch metaphors

temporarily, it is as if the languages from (1) through (12) were a ladder, with the rungs representing (7), (9-10), (11), and (12) set closer together so that the upper part of the ladder may be taken two rungs at a time. Satawal (7) is intelligible with Pulawat/Pụlusuk (9-10), but borderline in its relationship with Pullap (11). Pulawat (9) and Pulusuk (10), which are virtually identical, are closely intelligible with (11) but much less so with Namonuito (12). (11) is intelligible with (12), barely so with the Halls (13) and the Mortlocks (14-15), but unintelligible with lagoon Trukese (16-17). The languages from (12) to (17) are all mutually intelligible to varying degrees which are not easily ascertained. Clearly Namonuito (12) is more of a western island language, to be identified with Pullap (11) and the others in that area, than it is Trukese; on the other hand, it has a very high (91) percentage of shared vocabulary with Murilo (13) and it is tied in with the higher-numbered languages grammatically by having proclitic demonstratives (see 3.21). No other language except Satawal (7) so clearly straddles two language areas.

The facts of intelligibility as they have been recounted here may be illustrated graphically as in Figure 19. In this diagram, one solid line connects languages which are mutually intelligible, while a broken line or a sequence of two solid lines connects the borderline pairs. Any other combination of lines joins pairs of languages which are mutually unintelligible.

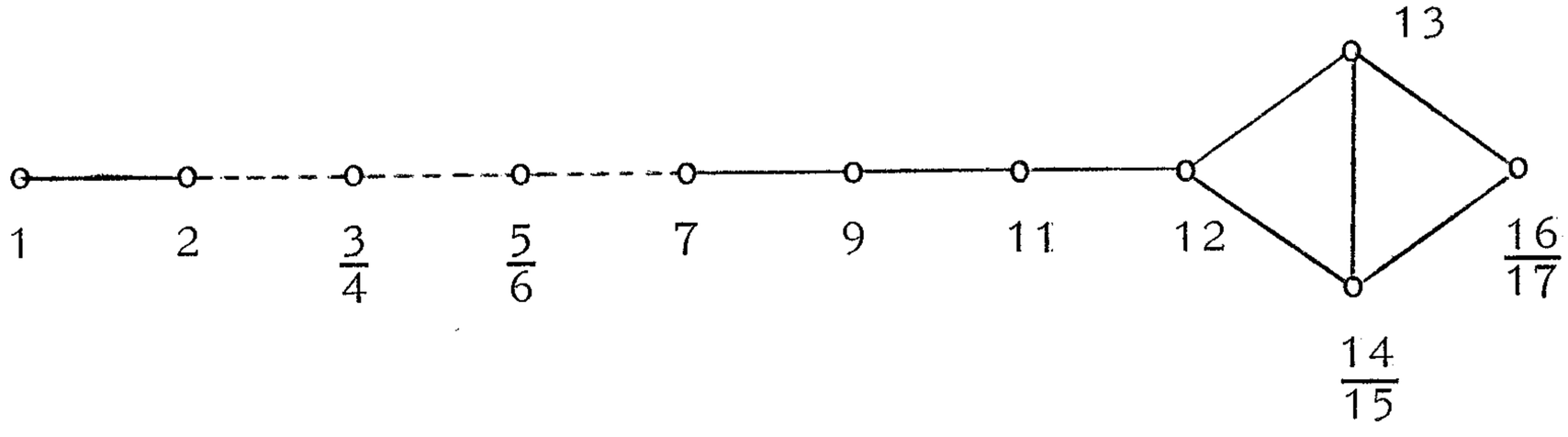


Figure 19.--The Trukic L-complex.

Figure 20 shows an alternative method of diagramming the relationships among the languages; the boxes join pairs of languages that are mutually intelligible. While it is more vivid than the L-complex diagram of Figure 19, it contains less information since it does not distinguish between borderline pairs and those that are mutually intelligible.

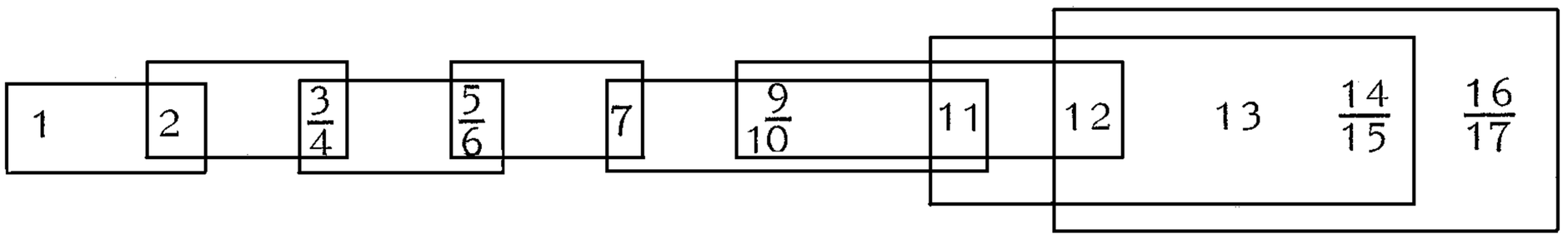


Figure 20.--The Trukic chain.

It is also possible to use the percentages of shared retentions in Table 9 to construct a diagram similar to Figure 20. The number and the locations of the dialect boundaries thus arrived at are, of course, determined entirely by the constant chosen as the criterion for the grouping of dialects into languages. If we follow the

recommendation of Swadesh (1954:326) that dialects sharing 81% or more of their basic vocabulary be considered to belong to the same language, we can diagram the results as in Figure 21. It will be seen that Figure 21 is exactly the same as Figure 20 with one difference--Tobi (2) and Ulithi (3-4) are not joined, as their percentage of shared vocabulary at 78 falls below the constant of 81. In other words, judging strictly from lexical evidence, the chain is broken in this one place. Comparison of Figures 20 and 21 can be taken to indicate that evidence from the area of vocabulary, when properly handled, may yield results of high reliability.

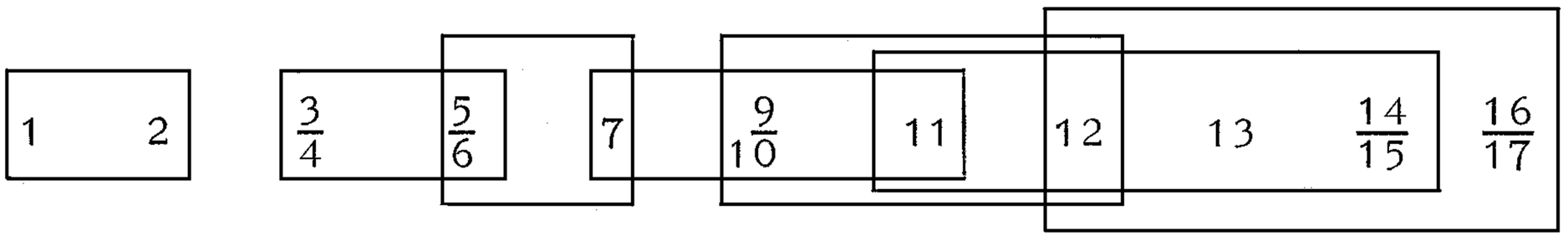


Figure 21.--Dialects linked by 81% rate of shared retention.

APPENDIX 1

Comparative word lists

Several abbreviatory devices are employed in these word lists. A missing language number indicates that the word indicated was simply not collected; (-) in place of a word indicates that the informant felt that no reasonably close equivalent exists; (,) separates alternate pronunciations. (/) separates synonyms of which the first is the preferred, while (//) separates synonyms which the informant judged to be both very similar in meaning and about equally common in his own speech; (") repeats the entire entry above it; (*) indicates that the form which can be inferred in that position is, in the opinion of the informant, ungrammatical: e.g., 567-5 lajyl 'child-of', but no *laaj 'child'.

(9) is to be read (9-10) excepting where there is a separate entry for (10).

Construct forms are indicated for many words. Where the construct form is not written out in full, it is to be added directly to the word excepting that voiceless vowels are dropped: 2-1 gumwusU -uri is to be read gumwus gumwusuri, and the vowel shortens in the construct form if the word is of the pattern CVVC: gaap gapel is written as gaap -el.

1...body

1 bwoothU -uri
2 bwoos -ur
3 galȯng -ȯl
4 galȯng -ȯl
5 galong -ol
6 galong -ol
7 jalong -al
8 jilig -il
9 jinek -in
11 jinek -in
12 jinek -in
13 jinis -in
14 * jajinėkkyn/ jinis -in
15 jajoon -en/ jinis -in
16 jinis -in
17 jinis -in

2...hand (from wrist down)

1 gumwusU -uri
2 gumwėc -yr
3 gumwėc -ėl
4 gumwoc -ėl
5 gumwush -ul
6 gumwush -yl
7 gumwyṙ -yl
8 gumwysh -yl
9 kumwyṙ -yn 10 kymwyṙ -yn
11 kymwyṙ -yn
12 kumwyṙ -yn
13 kumwyṙ -yn
14 kumwėsh -yn
15 kumwėc -yn
16 kumwuc -un
17 kumwuc -un

3...left (side)

1 guruseegirI
2 goroceegir
3 gilceegel
4 gilceegel
5 pegitakkof
6 pegitakkof
7 pejigṙȯȯbwut
8 peegishȯȯbwut
9 pȧliṙȯȯpwut
11 peliiṙȯȯpwut
12 pelijeṙȯȯpwut/ kicco
13 pelijefeefin/ kycco
14 pelijefeefin/ kycco
15 pelijanngaw/ kycco
16 penijefeefin
17 penijefeefin

4...right (side)

1 gurumaala
2 goromaaga
3 gileemara
4 gilȧȧmara
5 pegikkof
6 pegikkof
7 pejigmwaal
8 peegimwȧȧl
9 pȧliimwȧȧn
11 peliijemwȧȧn
12 pelijemwȧȧn/ jiifiṙ
13 pelijemwȧȧn/ jiiser/ jiikac
14 pelijemwaan/ jiifysh
15 jiifyc
16 penijemwȧȧn/ jiijėėc
17 penijemwȧȧn

5...arm, wing

1	paawy	pawyri
2	paawy	pawyr
3	pøø	pøøl
4	pøø	pøøl
5	paajy	pajul
6	paawy	pawul
7	paaj	pajyl
8	paj	pajy
9	paajy	pajyn
11	paaj	pajyn
12	paaj	pajyn
13	paawy	pawyn
14	paaw	pėwyn
15	paawy	pėwyn
16	paaw	pėwyn
17	paaw	pėwyn

6...elbow

1	gapiripinnipėwy
2	gapiripinnipėwy
3	gapilipøø
4	gapilipøø
5	gapilipinnipaajy
6	sugulypaawy
7	jåpilipilinipaaj
8	jåpilipaj
9	jåpilipil
11	japilipil
12	jåpilipil
13	japilipil
14	jafilifil
15	jafilifil
16	jåpinipin
17	jepinipin

7...finger

1	gaatY	gaatyri// gattY -yri
2	gaat	gaatyr // gatt -yr
3	gatth	-el
4	gatth	-ul
5	gatt	-yl
6	gatt	-yl
7	jajyt	-yn
8	jajytt	-yl
9	jajyt	-yn
11	jawyt	-yn
12	jajyt	-yn
13	jawyt	-yn
14	jawut	-yn
15	jawut	-ėn
16	jėwyt	-yn/ jåcef -en
17	jėwyt	-yn

8...(finger-, toe-) nail

1	kky	-ri
2	kky	-r
3	kky	-l
4	kku	-l
5	kky	-l
6	kky	-l
7	kky	-l
8	jykk	-yl
9	kky	-n 10 * kywyn
11	*	kkyn
12	*	kkyn
13	*	kkyn/ wykk wykkyn
14	*	kkyn
15	kkyk	kkėn
16	wykk	-yn
17	wykk	-yn

9...leg

1 guubwA -eri
2 guubw -er
3 peec peceel
4 pece peceel
5 peshe pesheel
6 peesh pesheel
7 piṙe piṙeel
8 pishe pishel
9 peṙe peṙeen
10 pėṙe pėṙeen
11 pėṙe pėṙeen
12 taang -en/ peṙe peṙeen
13 taang -en/ peṙe peṙeen
14 peshe pesheen
15 pece peceen
16 taang -en/ pece peceen
17 pece peceen/ taang -en

10...foot

1 pasapasarigubwA -eri
2 capacaparigubw -er
3 pacapacalepeec -peceel
4 pece peceel
5 pashapashalpeesh -pėsheel
6 pashapashalpėshe -el
7 piṙipiṙilipiṙe -el
8 pishe -l
9 pėṙėpėṙanpėṙe -en
11 pėṙpėṙenpėṙe -en
17 japacapacenpece

11...ankle-bone

1 'foot'
2 'foot'
3 micyngyl peec
4 micungul pece
5 gurubw -ul
6 gurubw -ul
7 gurubw -ul
8 gurubw -ul
9 kurupw -un
11 kurupw -un
12 kipwilipwil -in
13 kypwil -yn
14 kurupw -un
15 kurupw -un
16 kipwin -in
17 kipwin -in

12...knee

1 simweripugujA -eri
2 pogomoj -ir
3 cimwelpugyj -el
4 cimwelpuguj -el
5 puguw -el
6 mangolipėshe -el
7 puguw -al
8 puguw -ål
9 pykyw -ån
11 pykyw -en
12 pyky -wen
13 pykyw -en
14 * pykywen
15 pėkaw pykywen
16 pyky -wen
17 pyky -wen

13...thigh

1 sapirigubwA
2 capirigubw
3 capilipeec
4 capilipece
5 gėfo -ol
6 gofo -ol
7 jefo -on
8 -
9 jėėfė -ėn
11 jaafė -ėn
12 jaafė -ėn
13 -
14 jaafė -ėn
15 -
16 jaafė -ėn
17 jaafė -ėn

14...buttocks

1 mattongA -eri/ gaapI -iri
2 gaap -ir
3 gaap -el
4 gaap -el
5 gaap -il
6 gaap -il
7 jååp -il
8 jåp -il
9 jååp -in
11 jååp -in
12 jååp -in/ liwet -in
13 likenmwòòt -yn
14 luwet -in
15 luu -n
16 jeep -in/ fėwynmwòòt -yn
17 jeep -in

15...bark (of a tree)

1 giirI gin
2 giin gin
3 giil gil
4 giil gil
5 giil ginn
6 giil ginn
7 giil -in
8 gil -il
9 kiil -in
11 kiil -in
12 kiil -in
13 siil -in
14 kiil -in
15 kiil kėlėn
16 siin -in
17 siin -in

16...skin

1 'bark'
2 ryyg -yr
3 'bark'
4 "
5 "
6 "
7 "
8 "
9 "
11 "
12 "
13 "
14 "
15 "
16 "
17 wynycc -en

17...blood

1 ssa saari
2 cca caar
3 cca caal
4 cca caal
5 cca caal
6 cca caal
7 cca cåån
8 cca cål
9 cca cåån
11 cca cåån
12 cca cåån, caan
13 cca caan
14 ssha shaan
15 cca caan
16 cca caan
17 cca caan

18...body hair

1 matalE -eri
2 mogog0 -ori
3 jyyl -el
4 juul -al
5 jyyl -el
6 wyyl -el
7 jylajyl -ål
8 jilajil -el
9 jyyn -ån
11 jyyn -en
12 wyyn -en
13 wyyn -en
14 wyyn -en
15 wyyn -en
16 wyyn -en
17 wyyn -en

19...to remove hair, feathers	20...hair (of the head)
1 wyrefi	1 siimwA -eri
2 wyrefi	2 jancimw -er
	3 jållicėmw// jållicumw
	4 jållicėmw
5 wylefi	5 jånnishymw -el
6 wylefi	6 jånnishymw -el
	7 jylajylåŕymw -ån
8 terajili	8 jililishimw -ål
9 wynefi	9 wėėn (-ån makyr)
11 teraawyna	11 meet (-en makyr)
12 jynėfi	12 meetan makyr
13 wynefi	13 meetan måkyr
14 wynefi	14 meetan mėkyr
15 wynėfi	15 meetan mėkyr
16 wynefi	16 mėkyr
17 wynefi	17 meeten mėkyr

21...pubic hair	22...feather	23...beard
1 goolO -ori	1 wyygY// wyyrA	1 leebwE -eri
2 goog -or	2 wyyr	2 reebwE -er
3 goor -ol	3 'body hair'	3 reebw -el
4 goor -ol	4 bwȯȯl -ul	4 reebw -el
5 goor -ol	5 'body hair'	5 reebw -el
6 goor -ol	6 "	6 reebw -el
7 kkor -ol	7 "	7 jålys -ål
8 gor -ol	8 "	8 jålys -ål
9 kkor -ån	9 "	9 jalyh -ån
11 kkor -en	11 "	11 jålyh -en
12 kkor -en	12 "	12 jalyhy jalyhen
13 kkor -en	13 "	13 jalys -en
14 kkor -en	14 "	14 jalys -en
15 kkor koren	15 "	15 jalys, jelis -en
16 kkor -en	16 "	16 jėnys -en
17 kkor -en	17 "	17 jenis -en

24...sideburns	25...wattles	26...comb (chicken)
1 jarythA -eri	1 leebwE -eri	1 siimwA -eri
2 jarys -er	2 -	2 -
3 jales -el	3 reebw -el	3 jaal -al
4 jålus -ol	4 reebw -el	4 jaal -al
5 jålys -el	5 reebw -el	5 wool -el
6 jålys -el	6 reebw -el	6 -
7 -	7 reebw -el	7 reebw -el
8 jålys -ål	8 wool -ål	8 wool -ål
9 pėwynarông -ôn	9 wool -ån	9 reepw -ån
11 'beard'	11 wool -ån	11 wool -en
12 "	12 reepw -en	12 wool -en
13 "	13 raapw -en	13 wool -en
14 "	14 raapw -en	14 tool -en
15 "	15 reepw -en	15 tool -en
16 "	16 raapw -en	16 woon -en
17 pėwynarong -un	17 woon -en	17 woon -en

27...top-knot	28...vein	29...head
1 gapejA -ari	1 waagA -ari	1 fathygY -yri
2 gapejA -ar	2 waag -ar	2 ciimw -er
3 gapej -al	3 waag -al	3 ciimw cėmwal
4 gapej -al	4 waag -al	4 ciimw cėmwal
5 gapej -al	5 waag -al	5 shiimw shymwel
6 cėėt cėėtyl	6 waag -al	6 shiimw shymwel
7 fajigapej -ån	7 waa wåål	7 pėėpė -ėn
8 -	8 wa wål	8 shiimw -el
9 rėėt rėėtån	9 waa wåån	9 makyr -en
11 rėėt rėėtėn	11 waa wåån	11 makyr -en
12 rėėt rėėtyn	12 waa wåån	12 makyr -en
13 rėėt rėėtan, -yn	13 waa wåån	13 makyr -en
14 rėėt rėėten	14 waa wåån	14 mėkyr -en
15 rėėt rėėten	15 waa wåån	15 makyr -en
16 rėėt rėėtyn	16 waa waan	16 caamw -en
17 rėėt rėėtyn	17 waa waan	17 mėkyr -en

30...neck

1 wyyjA -eri
2 wyyg -er
3 jyyj -el
4 juuj -el
5 jyyw -el
6 wyyw -el
7 jyyw -ål
8 * jiwål
9 jyyw -ån
11 wyyw -en
12 wyyw -en
13 wyyw -en
14 wyyw -en
15 jyyw -en
16 jyyw -en
17 jyyw -en

31...nose

1 bwawytY -yri
2 bwawutU -uri
3 bwȯȯth bwȯȯthėl
4 bwȯȯth bwȯȯthėl
5 bwėėt bwėėtil
6 bwoot bwootil
7 bwȯȯt bwȯȯtul
8 bwoot bwootyl
9 pwoot pwootun
11 pwoot pwootun
12 pwoot pwootun
13 pwėėt pwėėtyn
14 pwoot pwootyn
15 pwoot pwootyn/ pwaat pwaatyn
16 pwėėt pwėėtyn
17 pwėėt pwėėtyn

32...mouth

1 jaawA -ari
2 jaaw -ar
3 jaaw jåwel
4 jaaw jewel
5 jaaw jewal
6 jaaw jewal
7 jaaw jewål
8 jaaw jåwål
9 jaaw jewån
11 jaaw jewen
12 jaaw jawen
13 jaaw jawen
14 jaaw jawen
15 jaaw jawen
16 jaaw jawen
17 jaaw jawen

33...tooth

1 ngii -ri
2 ngii -r
3 ngii -l
4 ngii -l
5 ngii -l
6 ngii -l
7 ngii -l
8 ngii -l
9 ngii -n
11 ngii -n
12 ngii -n
13 ngii -n
14 ngii -n
15 ngii -n
16 ngii -n
17 ngii -n/ nii -n

34...tongue

1 jararigarA jararigeni/ reewE -eri
2 reew -er
3 leew -el
4 leew -el
5 leew -el
6 leew -el
7 ṙėėliw -ål
8 * shyygylål
9 ṙėėnikan -ån
10 leew -en
11 leew -en
12 mėngynaaw mėngynawen
13 cėėnakan -en
14 * shėėlewen
15 cėėnmongoj -en
16 cėėnnaaw cėėnnawen
17 cennaaw cennaawen

35...lip

1 tyrijaawA tyrijawari
2 tirijaaw tirijawar
3 thylijaaw thylijåwel
4 tthulijaaw tthulijewel
5 ttylijaaw ttylijewal
6 tylyw tylijewal
7 tyyl tylewån
8 -
9 ttynaaw -an
11 tynaaw tynawen
12 tynaaw tynawen
13 tynaaw tynawen// tynnaaw tynnawen
14 tynaaw tynawen
15 tynnaaw tynnawen
16 tynaaw tynawen
17 tynnaaw tynnawen

36...throat

1 sygyrigarA sygyrigeni
2 wagang -ar
3 jarongolgal
5 jòòlikkė -ėl
6 -
7 worǿng -ål
8 wòròng -ål
9 jòòni fawyror
11 ṙijor -en
12 ṙijor -en
13 ṙijor -en
14 shijor -en
15 cijor -en
16 cijor -en
17 cijor -en

37...forehead

1 maang0 -ori
2 mòòng mėngor
3 maang -ol
4 maang -ol
5 maang0 -ol
6 maang0 -ol
7 mòòng -òl
8 mong -òl
9 ṙaamw ṙėmwån
11 ṙaamw -en
12 ṙaamw -en
13 ṙaamw -en
14 shaamw -en
15 caamw -en
16 caamw -en
17 caamw -en

38...ear

1 taringA -eri
2 taring -er
3 talang -al
4 taleng tålengel
5 tåling -el
6 tåling -el
7 såling -ål
8 seling -ål
9 håling -ån
11 heling -en
12 heling -en
13 seling, silyng -en
14 selyng -en
15 salėng, selyng -en
16 sening -en
17 sening -en

39...eye

1 maatA matari
2 maat matar
3 maat matal
4 maat metal
5 maat metål
6 maat metål
7 maas mesål
8 maas mesål
9 maah mehån
11 maah mehen
12 maha mehen
13 maas mesen
14 maas mesen
15 maas mesen
16 maas mesen
17 maas mesen

40...eyebrow	41...eyelashes	42...face
1 faatY -yri	1 matal (eri mat)	1 waawO -ori
2 faat -yr	2 pagyng (ari mat)	2 wȯȯ -r
3 fȧȧth -ėl	3 mether (il maat)	3 wȯȯlmat
4 fȧȧth -ėl	4 mether (il maat)	4 wȯȯlmat
5 faat fȧtyl	5 mȧter (ili maat)	5 welimat
6 faat fȧtyl	6 mȧter (ili maat)	6 welimat
7 faat -yn	7 mȧtitter (ili maas)	7 wȯȯlmaas
8 faat -yl	8 jappal (yl maas)	8 maas
9 faat -yn	9 metetȧr (in maah)	9 wȯȯnmaah
11 faat -yn	10 myytytȧr (in maah)	11 wȯȯnmaah
12 faat -yn	11 metȧttȧr (in maah)	12 wȯȯnmaha
13 faat -yn	12 mȧtȧttȧr (in maha)	13 wȯȯnmaas
14 * fėtyn	13 mȧtȧtȧr (in maas)	14 wȯȯnmaas
15 faat -yn	14 mȧtȧr (in maas)	15 wȯȯnymȧs
16 fėėt -yn	15 mȧtȧr (in maas)	16 wȯȯnmaas
17 fėėt -yn	16-17 mȧtȧr (in maas)	17 wȯȯnmȧȧs

43...cheek	44...chin	45...back
1 taapA -ari	1 jaatE -eri	1 talygY -yri
2 taap -ar	2 jeet -er	2 tagygY -yr
3 taap -al	3 jaath -el	3 tagyr -ėl
4 taap tepal	4 jaath jȧthel	4 tagur -ėl
5 taap tepȧl	5 jaat -el	5 tagyr -yl
6 taap tipal	6 jaat -el	6 tagyr -yl
7 saap sepȧn	7 jȧȧt -el	7 sagyr -yl
8 jawysap jawysepȧl	8 jȧȧt -el	8 sagyr -yl
9 jawyhap jawyhepȧn	9 jȧȧt -en	9 hakyr -yn
11 jahȯp -en	11 jȧȧt -en	11 hakyr -yn
12 jawyhap -en	12 jȧȧt -en	12 hakyr -yn
13 jawysap -en	13 jȧȧt -en	13 sakyr -yn
14 saap -en	14 jȧȧt -yn	14 sekyr -yn
15 saap -en	15 jȧȧt -yn	15 sekyr -yn
16 saap -en	16 jėėt jetin	16 sėkyr -yn
17 saap -en	17 jeet -in	17 sėkyr -yn

46...shoulder

1 jafalA -ari
2 jafag -ar
3 jafar -al
4 jafar -al
5 jefar -al
6 jefar -al
7 jefar -ål
8 * jajifarål
9 jefar -ån
11 jåfår -ån
12 jajuwefar -en
13 jafar -en
14 jawufar -en
15 jawufar -en
16 jafar -en
17 jafar -en

47...chest

1 mataringėryngėrY mataringėryngėni
2 wuubwA -er
3 wuubw -el
4 wuubw -el
5 wuubw -el
6 wuubw -el
7 mwaramwar -en
8 -
9 jajyng -ål
17 newung -en

48...rib

1 sirijėėwY -yri
2 cirijėėw -yr
3 cilfalragarag -al
4 cilfalragarag -al
5 ragarag -al
6 ragarag -al
7 raara raråål
8 raara -al
9 ṙyyniråårå -ån
10 ṙyyråårå -ån
11 ṙyynfåjiråårå -ån
12 ṙyyråårå -ån
13 ṙyyraara -an
14 shyynleeraara -an
15 cyynleeraara -an
16-17 cyyråårå -ån

49...belly, abdomen

1 wuubwA -eri
2 siij -er
3 siij -el
4 siij -el
5 saag segal
6 saag segal
7 wuubw -ån
8 * wubwål
9 wuupw -ån
11 wuupw -en
12 wuupw -en
13 wuupw -en
14 saa -n
15 saa -n
16 wuupw -en
17 wuupw -en

50...pubic area

1 gaperuubwA -eri
2 ppyyng
3 bwoos -ol
4 bwoos -ol
5 bwuur -ul// paas -ol
6 bwuur -ul// paas -ol
7 bwaar -ål
8 taang -ål
9 jåpenuupw -ån
11 jåpinuupw -en
12 jåpinuupw -en
13 jåpinuupw -en
14 japynuupw -en
15 jåpilisa -an
16 jepinuupw -en
17 jepinnuuk -en

51...navel

1 bwuut0 -ori
2 wubwut -er
3 mmwut -el
5 bwoos -el
6 bwuush -el
7 bwuug -ol
8 bwuug -ol
9 pwuuk -on
11 pwuuw pwuken
12 pwuuk pwuken
13 pwuuw pwuwen
14 pwuuw pwuwen
15 pwuuw pwuwen
16 pwuuw pwuwen
17 pwuuw pwuwen

52...bald

1 tawungA
2 bwyyr
3 tawung
5 mwoor
6 mwoor
7 mwoor
8 gurufash
9 makyrypal
11 makyrypal
12 makyrypȧl
13 ṙamwėkyl
14 mėkyrapal
15 camwėpal
16 makyrypȧn
17 camwėkyn -en

53...brain

1 gabwubwu -uri
2 gabwubwu -ur
3 fagabwull
4 fagabwull
5 fagabwujobw
6 gabwujobw
7 faabwijobw
9 tupwuw
11 tupwuw
12 tupwuw
13 tupwuw
14 tumwutumw
15 tupwuw
16 tupwuw
17 tupwu

54...bone

1 sii -ri
2 cii -r
3 cii -l
4 cii -l
5 shyy -l
6 shyy -l
7 ṙyy -l
8 shyy -l
9 ṙyy -n
11 ṙyy -n
12 ṙyy -n
13 ṙyyw ṙyyn
14 shyyw shyyn
15 cyy -n
16 cyy -n
17 cyy -n

55...viscera

1 teej teejiri
2 taar taan
3 lefara -l
4 lefara -l
5 taa -l
6 taa -l
7 taa tȧȧn
8 taa tȧȧl
9 taa -n
10 taa tȧȧn
11 taa tȧȧn
12 taa tȧȧn
13-15 taa taan
16 taar taaren
17 jaaf jaffen

56...stomach

1 bwuug0 -ori
2 cygyrymangaw
3 cygylygal
4 cugulgal
5 shygyligal shygyligann
6 shygyligal shygyligalal
7 ṙygylygal -ȧl
8 wuubw -ȧl
9 ṙykynȧn -ȧn
10 ṙykynykan -ȧn
11 ṙykynykan -en
12 pwoorosa/ ṙykynykan -en
13 ṙykynykan
14 shykynykan
15-17 cykynykan

57...gall bladder

1 jaatI -iri
2 jaat -ir
3 jaath -ėl
4 jȧȧth -el
5 jaat -il
6 jaat -il
7 jȧȧt -il
8 * jȧtil
9 jȧȧt -in
11 jȧȧt -in
12 jeet -in
13 maras -en
14 jeet -in
15 jȧȧt -en
16 jeet -in
17 jett -in

58...liver

1 jaathE -eri
2 jees -er
3 jaas -ėl
4 jåås -el
5 jaas jåsel
6 jaas jåsel
7 jåås -en
8 * jåsen
9 jååj -ån
11 jååjå (no construct)
12 jååjå -ån
13 jååjå -ån
14 jåån jåånen
15 jåån jåånen
16 jammyn -yn
17 jååjå -ån

59...lungs

1 falewa -ari
2 fagaw -ar
3 farawa farawel
4 farawa farawal
5 fariiwa -al
6 fariiwa -al
7 fåriwa fåriwåån
8 farewa farewåål
9 fårwa fårwåån
11 fårawa fårawåån
12 farawa farawåån (turtles)
jappål (humans, dogs, pigs)
13 jammil -en
14 jåån jåånen
15-16 farawa farawåån
17 jėmmyn -yn

60...heart

1 warugurU waruguni
2 warugur waruguni
3 bwull -al
4 bwull -al
5 bwunn -el
6 bwunn -el
7 bwull -on
8 bwull -ol
9 pwull -en
10 pwill -en
11 fawyn ngahangah
12 fawyn ngahangaha
13 fėwyn ngasangas
14 fėwyn ngasangas
15 fėwynyppwo
16 fėwyn ngasangas
17 ngasangas

61...to breathe

1 ngathA
2 ngas
3 "
4 "
5 nngas
6 "
7 ngasangas
8 nganngas
9 ngahangah
11 "
12 ngahaangaha
13 ngasangas
14 "
15 "
16 "
17 "

62...(female) breast	63...milk	64...boil (n.)
1 tyytY tyytyri	1 sanityytY	1 luubwU -uri
2 tyyt tyytyr	2 cantyyt	2 guubw -ur
3 thyyth thyl	3 calthyyth	3 loos -ol
4 thuuth thėl	4 calthuuth	4 "
5 ttyt ttyl	5 shannytyyt	5 noos -ol
6 tyyt tyyl	6 shallityyt	6 loos -ol
7 tyyt tyyl	7 ṙallityyt	7 mmaṙ mmėṙål
8 tyyt ttyl	8 shalilityyt	8 -
9 tyyt tyyn	9 ṙanityyt	9 loo -n
11 tyyt tyyn	11 ṙanyntyyt	11 "
12 tyyt ttyn	12 tyyt/ ṙanyntyyt	12 "
13 tyyt ttyn	13 ṙanynawupw	13 "
14 tyyt ttyn	14 tyyt/shėnyntyyt	14 pwoo -n
15 tyyt ttėn	15 cėnyntyyt	15 pwo -on
16 tyyt ttyn	16 "	16 mmac -en
17 jowupw -un/ tyyt tyyten	17 cėnynowupw	17 mmac -en

65...scar	66...leprosy	67...to smell it
1 bwaatY -yri	1 pagus -uri	1 tėėngy
2 bwatybwaat -yr	2 leprosii	2 "
3 bwååth -ėl	3 gilpeekel	3 jathangy
4 "	4 "	4 jathangu
5 bwaat -yl	5 kalapaaj	5 ngyyri
6 "	6 kalepaaj	6 "
7 bwaat bwetan	7 kåålipaaj	7 nguuri
8 bwaat bwatål	8 -	8 tyyngy
9 pwaat -yn ('yaws')	9 kajilpaajy	9 tengyyw
11 pwaat -yn	11 kajilepaaj	10 tėngy
12 pwaat -en	12 kajilepaan	11-14 tėngyw
13 pwaat -yn	13 "	
14 pweet -in	14 "	
15 pwaat -yn	15 "	15 tėngėw// tangėw
16 pwėt -yn	16 kajinepaan	16 tini
17 pwėėt -yn	17 "	17 tini/ fårini

68...to hear	69...to see it	70...to laugh
1 longO	1 gapajyygY/	1 mmari
2 gongO	kakanne	2 màmàri
3 rong	2 mwej/ gakàne	3 mèmmàl
4 "	3-4 weri	4 mèmmàl
5 "	5 "	5 ffàs
6 "	6 "	6 "
7 "	7 wèri	7 kèkkaj
8 "	8 wuri	8 gykkaj
9 "	9 weri	9 kkàj
11 "	11 "	11 kkej
12 "	12 "	12 takyr
13 "	13 wiri	13 "
14 "	14 weri	14 kkèj
15 "	15 werej	15 kkaj
16 "	16 kyna	16 takyr
17 "	17 "	17 takir

71...to cry	72...tear	73...spittle
1 taangI -iri	1 sanitengI	1 gutufA
2 tààtàng -ir	2 canimat	2 gutuf
3 taang -il	3 callemat	3 gytof
4 taang -il	4 "	4 gutof
5 taang -il	5 shannemàt	5 gattuf
6 taang -il	6 "	6 "
7 sààng -il	7 ṙallimàs	7 jòttuf
8 "	8 shalylysàng	8 jattuf
9 hààng -in	9 ṙanynyhààng	9 jòttuf
11 "	10 ṙanynmaah	10-12 jattuf
12 heeng -in	11 "	13 jattif//
13 seeng -in	12 ṙanynyhàng	jattof
14 saang sengin	13 cènynmaas	14 jattyf
15 saang sengin	14-17 "	15 jàttef
16 keciw -en		16 jattuf
17 "		17 jattof

74...to vomit	75...to belch	76...to hiccup
1 mmwutA	1 gyrėlY	1 matelY
2 mmwut	2 gygėg	2 muteg
3 mwommwut	3 kylėr	
4 "	4 kulėr	
5 "	5 gurėr	5 mątėr
6 "	6 "	6 "
7 mmwus	7 kyrėr	7 "
8 "	8 gyrėr	8 "
9 mmwyh	9 kyrėr	9 "
11 mmwuh	11 maky	11 matėr
12 mwuhu	12 "	12 "
13 mmwus	13 "	13 ssyk
14 "	14 kyrėr	14 "
15 mmwos	15 "	15 "
16 "	16 mėky	16 "
17 mmwus	17 "	17 "

77...blow on it	78...to cough	79...to drink
1 wuugu	1 tolotagE/ fagafagA	1 wyyrY
2 "	2 fagafag	2 ryyr
	3-4 "	3 jyyl
		4 juul
5 wugu	5 "	5 jyyl
6 "	6 "	6 wyyl
	7 lillaw	7 jyyl
8 wuguuw	8 llaw	8 "
9 wiikij	9 nnaw	9 wyyn
11 wuhi	11 "	11 "
12 "	12 "	12 "
13 wusi	13 "	13 "
14 wukyj	14 "	14 "
15 wokej	15 "	15 "
16 wusi	16 fagafag	16 "
17 "	17 nnaw	17 "

80...to eat	81...to bite it	82...to suck
1 mangawY	1 gythy	1 thothol0
2 mangaw	2 gysy	2 gaamit
3 mwongoj	3 gysuw	3 sosor
4 mwongay	4 gusuw	4 "
5 mwongȯ	5 guuw	5 syssor
6 "	6 gyyw	6 "
7 "	7 kyyw	7 sossor
8 " // jangi	8 gyyw	8 "
9 mwėngė	9 kyyw	9 jȯttumw// mowur
11 "	11 "	10 mowur
12 mwongė	12 "	11 jattum
13 mwėngė	13 "	12 mowur
14 "	14 "	13 mitiri
15 mwongȯ	15 "	14-15 jammyt
16 mwėngė	16 "	16 kuumi
17 "	17 "	17 jottumw

83...to swallow it	84...perspiration	85...anus
1 gapyngy	1 maworawor	1 pagatA -ari
2 "	2 mȯrȯr	2 pygyg -er
3 jårongu	3 llės	3 tiwith -il/ liwith -il// puruj
4 "	4 "	4 tiwith -il
5 woromi	5 mwij	5 ngatel puruw
6 "	6 "	6 natel puruw
7 "	7 mȯȯlijȯl	7 puruw -ål
8 wurumi	8 mȯljȯl	8 natalejååp
9 woromi	9 mȯȯnejȯn	9-11 liwet -in
11 "	11 håriwicc	12 panganallo
12 "	12 wic	13 lywyt -yn
13 "	13 moonol	14 liwet -in
14 woromyj	14 pweshykkar	15 kȯllo
15 woromej	15 pwic	16 faco
16 woromi	16 ffag	17 niwit -in
17 "	17 moonon	

86...excrement

1 paagA -ari
2 paag -ar
3 pijag -al
4 * pagal
5 paag -al
6 "
7 paa pȧȧl
8 "
9 paa pȧȧn
11 "
12 paa pȧȧn/ pwihe, jallow
13 pȧȧ pȧȧn
14 jallow -en/ pȧȧ -n
15 jallow -on
16 ffen -in/ pȧȧ -n
17 pwuse

87...penis

1 kuulA -eri/ raagA -ari
2 gaaj -ir
3 faas -al
4 faas -al
5 gaaj -il
6 gaaj -il
7 see -l
8 see -l
9 taa tȧȧn
11 hee -n
12 hee -n
13 tto -n
14 see -n
15 see -n
16 tȧȧng tengin
17 tȧȧng tengin

88...testicles

1 thėėrY thėėni
2 sėėr sėėn
3 mwuur -ul
4 mwuur -ul
5 fajylimwoor
6 fawylimwuur
7 sėėn sėėlyl
8 syyl sylyl
9 fajihėėl -yn
11 hėėl hėėlyn
12 hėėl hėėlyn
13 suul suulun
14 sool soolon
15 sool soolon
16 suun suunun
17 suun suunun

89...urine

1 garėwyrėwy
2 "
3 galėėlė
4 "
5 "
6 "
7 siir
8 "
9 jamejaaw
10-11 hiir
12 hiir/ jamejaw
13 cuucu
14 siir/ jamejaw
15 jamejaw/ siir
16 cuucu
17 "

90...vagina

1 bwaangA -ari
2 bwiij -er
3 liis -el
4 "
5 tingij -al
6 "
7 "
8 "
9 tingij -ȧn
11 mwaa -n
12 tipis
13 tyyw
14 tipis
15 cȧȧp
16 tyy
17 cȧȧp

91...to break wind	92...fat (adj.)	93...thin (not fat)
1 thingI	1 bwataj	1 rangiita
2 sing0	2 "	2 "
3 sing	3 bwethåj	3 pejaja
4 "	4 "	4 "
5 "	5 bwetaj	5 ppwat
6 "	6 "	6 "
7 "	7 "	7 ṙyyṙy
8 "	8 bwutåj	8 shykkyr
9 hing	9 pwėtåj	9 jåtėppwah/ ṙyyṙy
11 "	11 pwėtej	10-11 ṙyyṙy
12 "	12 jajymenaw	12 "
13 pwir	13 pyrėwatte	13 pyrenngaw
14 "	14 jėwysha	14 shyyshy
15 jalloomac	15 jėwyca	15 cyycy
16 pwir	16 kitinnupw	16 cykkyr
17 sing	17 "	17 cyycy

94...thick (object)	95...thick (liquid)	96...thin (object)
1 mathėrY	1 mathėrY	1 marifI
2 masėėsėr	2 jeppit0	2 marifirif
3 måsėsséél	3 mwethåthå	3 målifilif
4 "	4 "	4 "
5 maalyjėly	5 maalyjėly	5 målif
6 "	6 "	6 "
7 måålijéél	7 ligijóójó	7 måleng
8 måáljél	8 meshejshej	8 -
9 maalijéél	9 kónow	9 måneng
10 "	11 ngytangyt	11 ṙeccååk
11 "	12 mecyccel	12 céccååk
12 "	13 ngytangyt	13 "
13 maanyyl	14 "	14 seseerish
14 maaliwél	15 "	15 sasaaric
15 "	16 "	16 céccååk
16 maanyyn	17 "	17 "
17 "		

97...hungry	98...thirsty	99...full (stomach)
1 thuungA	1 bwesifaruubwA	1 matY
2 suung	2 magawygawy	2 mat
3 kkolȯg/ suung	3 bwatabwat	3 math
4 kkolȯg	4 "	4 "
5 peccaajy	5 "	5 mȧt
6 peccaawy	6 "	6 "
7 peccaaj	7 mȯȯr	7 "
8 "	8 "	8 mat
9 killilȯ	9 "	9 "
11 mwȯȯr	11 palakka	11 "
12 jȧṙik/ killilȯ	12 mȯȯr/ palakka	12 "
13 jaṙyk	13 kka	13 "
14 jashyk/ pwunguruk	14 "	14 mėt
15 jacek	15 mȯȯr	15 "
16 jecik/ fijoon	16 kka/ mmat	16 "
17 jecik	17 kaaka	17 "

100..full (box)	101..empty	102..blind
1 wul0	1 pėwyrY	1 taabwU
2 wug	2 pėwyr	2 ceecabw
3 ssėg	3 pėėl	3 metafės
4 "	4 "	
5 "	5 "	5 mȧtemȧsyyr
6 "	6 "	6 "
7 "	7 pėė	7 mȧsepaṙ
8 ssog	8 "	8 pash
9 wur	9 "	9 mahapaṙ
11 "	11 "	11 "
12 "	12 pėėn	12 mahapaṙ
13 "	13 "	13 mesepaṙ
14 "	14 "	14 masapwon
15 "	15 "	15 masapwon
16 "	16 "	16 cuun/ mesecun
17 "	17 "	17 cuun

103..deaf	104..sleepy	105..taste (n.)
1 taringypyngY	1 gatėrY	1 nnarA
2 pyyng	2 gatar	2 nnar
3 talangabwat	3 gathėl	3 llal
4 "	4 "	4 "
5 talingabwat	5 gatėl	5 nnal
6 talingebwat	6 gatėl	6 "
7 selingabwas	7 ccȯw	7 "
8 pyng	8 jatėl	8 llal lallal
9 hålingapyng	9 ccȯw	9 nnan nėnnan
11 helingapyng	11 jatėl	11 nnan nennan
12 helingėpyng	12 "	12 nnėn nėnnan
13 selingapyn	13 jatil	13 * nėnnan
14 selingapyng	14 jatel	14 nnen nėnnan
15 selingapyng	15 "	15 * nėnnan
16 seningepin	16 mwocenatyn	16 nnen nennan
17 seningappyng	17 "	17 nnen nennan

106..bitter	107..sour	108..sweet
1 malatA	1 mwannE	1 gaalA
2 magat	2 mwaan	2 gaag/ nnaw
3 marat	3 mmwal	3 calagar/ llaj
4 "	4 mmwål	4 llȯj
5 merat	5 mwann	5 nnė
6 "	6 "	6 nnė
7 mėrås	7 mmwan	7 måm
8 maras	8 mwåll	8 "
9 mėrah	9 mmwål	9 "
11 merah	11 "	11 mmem
12 maraha	12 "	12 jarar
13 maras	13 "	13 ngar// jarar
14 "	14 mmwel	14 ngar
15 "	15 mmwal	15 ngar
16 maras/kipwin	16 mmwån	16 jarar
17 kipwin/ maras	17 mmwan	17 ngar

109..wet	110..dry	111..small
1 wubwobwU/ mylytegI	1 pparE	1 gapparA
2 nnėw	2 ppȧr	2 paacig
3 llȯj	3 ppal	3 wȧcic
4 lloj	4 ppal	4 wȧcic
5-6 ccog	5 pȧl	5 ciil
7 ccȯg	6 pȧl	6 ccil
8 ccog	7 pȧl	7 mwyttig
9 ṙeccan	8 pȧl	8 gitigiit/ laccel, mwittig
11 "	9 pwah	9 kitikiit
12 caccan	10 pwah	11 lȧccin
13 cėccėn	11 pwah	12 kifetin/ jappanan, kummwėt
14 "	12 pwaha	13 jappanan/ kymwetin
15 "	13 pwas	14 kisikis/ jappanan, kymwetin
16 "	14 pwas	15 kyfėtyn, jappanan, kisikis
17 "	15 pwas	16 jappanan/ mekkyn
	16-17 pwas	17 kykkyn/ kis, jappanan

112..big	113..short	114..long
1 taraparA/ gogotI	1 mwosO	1 kaamesE/ jaṙaj
2 rap	2 mwoc	2 jaraj
3 pallėng	3 mwoococ	3 lėllaaj
4 pȧlleng	4 "	4 "
5-6 farigit	5 mwosh	5 nennaaj
7 tėmwȯg	6 "	6 farymwosh/ nėnnaay
8 tėmwog	7 mwoṙ	7 lȧlȧȧj
9 likkȧp	8 mwosh	8 "
11 likkep	9 mwoṙ	9 jilȧȧlȧȧj
12 jatemmȯng/ likkėp	11 "	11 jelȧȧlȧȧj
13 watte/ likkėp	12 mmwoṙ	12 langatam/ jalȧȧlȧȧj
14 shapwyr/ wasapw	13 mwoṙ	13 ttam/ jellej
15 likkop	14 mwosh	14 leejilȧȧj
16 watte/ wacepw	15 mwoc	15 lȧȧjilȧȧj
17 watte	16 mmwoc	16 ttam// nangattam
	17 mwoc	17 jännej/ ttam, nangattam

115..narrow

1 sawysigI
2 cawycig
3 jòòcigicig
4 jààcigicig
5 shèègit
6 shòògit
7 rèègit
8 shèègit
9 rèèkit
11 "
12 rèèkymwàn/ rèèkyfetin
13 wàapenaan
14 shèèkisikis
15 cèèkisikis
16-17 cèèmwakkyn

116..wide

1 sawyrapA
2 cawyrap
3 còòlepelep
4 cøølapalap
5 shèèlàp
6 shòòlàp
7 rèèlàp
8 shèèlàp
9 rèèlàp
11 "
12 "
13 rèwatte// wàwatte
14 shèèsha
15 cèèca
16 cèèwatte
17 " //cèèmòng

117..straight

1 wuwerE
2 wuuwer
3 wèl
4 wuwèl
5 "
6 "
7 "
8 "
9 wèneccar
10 wènecar
11-12 waneccar
13 "
14 wan// waneshar
15 waneccar
16 "
17 wen// weneccar

118..crooked

1 mwaangI
2 toforofor
3 copwcopw
4 "
5 ppwòr
6 ppwarO
7 ppwòr
8 "
9 "
11 " //likiràfittek
12 "
13 kopàj
14 kopaj
15 "
16 "
17 ppwòr

119..fast

1 mmalA/ gamatang
2 reg
3 mmith// mèra// ttir
4 "
5 ttir
6 "
7 kkaj
8 mwatamwat// langalang// ssit
9 kkaj/ màra
10 kkaj/ mèra
11 kkàj
12 kkaj
13 mwyttir/ kkaj
14 mwyttir
15 mwyttir
16-17 mwaat

120..slow	121..old	122..new
1 sawasawA	1 pwethE	1 tajifėwy
2 tarag	2 pwes	2 "
3-4 temmith//	3 ssuloj	3 tåfėj
temėra// tettir	4 ssulȯj	4 tåfȯj
5 sėkkyt	5 tugofaaj	5 ffė
6 "	6 "	6 "
7 mmwaj	7 togufaj	7 "
8 mwetėmmway	8 tuufåj	8 "
9 ṙaaw	9 måh	9 hėėfė
10-11 ccaw	11 meh	11 "
12 ccaw	12 lȯȯmw	12 "
13 mmang	13 "	13 minifė
14 "	14 mmos	14 sėėfė
15 "	15 mmes	15 sėėfė
16 "	16 nȯȯmw	16 minifė
17 "	17 "	17 fė

123..good	124..bad	125..ancient
1 mmag0	1 tamwaawy	1 mothuwe
2 mmȯg	2 "	2 mosuwe
3 mommwaje	3 tajikof//	3 musuwe
4 mommaj	tajikkof	4 "
5 gacc	4 tajekkof	5 "
6 "	5-6 nngaw	6 "
7 "	7 "	7 mȯjuwe
8 "	8 "	8 lȯȯmw
9 kacc	9 nngaw/ jållew	9 "
11 kacc/ ffiṙ	10-11 "	11 "
12 kacc/ wėtik	12 nngaw/ putak	12 "
13 kacc	13 "	13 "
14 kaash	14 nngaw	14 "
15 jallem	15 "	15 "
16 murinė	16 "	16 nȯȯmw
17 murinnė	17 "	17 "

126..strong

1 pow
2 "
3 kkel
4 kkel, kkål
5 mmåsow/ kkajil
6 mmåsow
7 mamaaw
8 mamaw
9 kkel/ peṙakkyl
11 kkel
12 "
13 pėṙakkyl
14 pėcėkkyn
15 "
16 "
17 "

127..weak

1 mangysA
2 mangyc
3 faalag
4 "
5 maaluw
6 "
7 waṙėnngaw
8 pirånngaw// pisånngaw
9 wåṙynngaw
11 waṙanngaw
12 kyṙynngaw
13 waṙėnngaw
14 kyshynngaw
15 walanngaw
16-17 japwangapwang

128..hard

1 poow
2 gomosow
3 masow
4 "
5 cėfås
6 ccėfås
7 ccėmaaw
8 ccėmaaw// nngyt
9 ccėmaaw
11 maaw
12 ccėmaw
13 pėṙakylåkyl
14 pėcėkkyn
15 "
16 "
17 "

129..soft

1 mysossol0
2 mycagycag
3 macėgcėg
4 "
5 meshagysheg
6 måshawyshėg
7 mecеccòòr
8 meshėccòòr
9 mėtawutòw
10 mėṙėcor
11 matowutow
12-13 macėccòl
14 pweteete
15 "
16 "
17 "

130..difficult

1 gamwaarI
2 gamwaar
3 wååres
4 wåjires
5 wajires
6 "
7 "
8 ccòw/ wåjiras
9 wajiråh
10 wåjiråh
11 wejireh
12 wejirehe
13 wajires
14 wejirėk
15 wejiråk
16-17 wejires

131..easy

1 tajigamwaarI
2 tågamwaar
3 meceråg
4 "
5 masherag
6 "
7 meṙerag
8 ppål
9 mėṙeråk
11 miṙerek
12 miṙeerek
13 miṙeeres
14 mesherek
15 mycarak
16 meceres
17 meceres

132..boredom	133..color	134..blue, green
1 ngyysY	1 taal0 -ori	1 galawalawA
2 ngyyc	2 toog -or	2 gawagaw
3 "	3 tthėl thėlel	3 garaaraw
4 nguuc	4 thėėl -ėl	4 garowraw
5 ngyysh	5 tyyl -ål	5 garawaraw
6 nguush	6 "	6 garawaraw
7 ngyyṙ	7 wuluul -ul	7 garawaraw
8 kkåshig	8 kėlood	8 jarawaraw
9 jåṙik	9 jånyw -an	9 "
11 kuu	11 janyjan janywen	11 jaraw
12 nny	12 * janywan	12 "
13 nyweféėw	13 jany janywan	13 "
14 kuu	14 * janywan	14 "
15 "	15 "	15 "
16 nny	16 "	16 "
17 "	17 "	17 "

135..black	136..red	137..white
1 losolos0	1 losaasa	1 bwesebwesE
2 gocogoc	2 gangagang	2 bwecebwec
3 rucuppung	3 cca	3 pwec
4 rucuppung	4 cėcca	4 "
5 cėccól	5 "	5 pwesh
6 cėcca10	6 "	6 "
7 ṙóleppung	7 cca	7 pwėṙ
8 shól/ shóccėl	8 par	8 pwesh
9 ṙól	10 ppar	9 ppweṙ
11 "	11 pwulopwul	11 pweṙ
12 "	12 ppar	12 pweṙ
13 "	13 "	13 "
14 shól	14 "	14 pwesh
15 cól	15 "	15 pwec
16 cón	16 "	16 "
17 cón	17 "	17 "

138..(coral) lime	139..yellow	140..smooth (wood)
1 bweesE	1 talotoowA	1 mmithI
2 bweec	2 cȧnjȯngocig	2 mmis
3 "	3-4 rangarang//	3 cȧl
4 "	parangarang	4 "
5 bweesh	5 rangarang	5 majisis
6 "	6 "	6 "
7 bweeṙ	7 "	7 ṙall
8 bweesh	8 jȯljȯl	8 fiino
9 pweeṙ	9 jȧllėjȯl	9 mwėtowutow
11 "	10 jȧlijȯl	10 ṙal
12 "	11 jȯlejȯl	11 ṙel
13 "	12 jȯng	12 ṙal
14 pweesh	13 jȯl	13 mwėtowutow
15 pweec	14 ram	14 sshėl
16 "	15 jȯl	15 ccėl
17 "	16-17 jȯn	16-17 mwėtowutow

141..rough	142..light	143..heavy
1 bwatutu	1 pparE	1 ssaw
2 mwotogaga	2 pȧr	2 caw
3 tȧrȧngȧrȧng	3 ppal	3 ccȯw
	4 "	4 ccȯw
5 tarumwurumw	5 ppȧl	5 ccaw
6 "	6 "	6 "
7 taromwurumw	7 "	7 ccȯw
8 marangarang	8 "	8 "
9 tȯrupwurupw	9 "	9 "
11 "	11 "	11 "
12 "	12 "	12 ccow
13 "	13 ppȧl/ ppwas	13 cow
14 "	14 ppel	14 sshow
15 "	15 ppal	15 ccow
16 "	16 ppȧn	16 "
17 "	17 ppȧn/ ppwas	17 "

144..hot	145..cold	146..to die
1 bwesI// bwesikkal	1 fėėw	1 mathE
2 bwec	2 "	2 mes
3 bwec// bwicikkar	3 ffoj/ gallefang	3 mas
4 "	4 ffoj/ galefėng	4 "
5 bwesh//bwyshikkar	5 fėėjy/ galifėėjy	5 màs
6 "	6 fėėwy/ galifėėwy	6 "
7 bwėṙ	7 fėėj	7 mà
8 kkėr// bwishikkar	8 patapat/ fėėj	8 "
9 pweṙ// pweṙikkar	9 fėėj/ patapat	9 "
11 "	11 fėėw/ patapat	10 "
12 kkar// pweṙikar	12 patekyṙ/ fėėj	11 "
13 kkar// pwiṙikar	13 patapat/ fėėw	12 "
14 kkar	14 "	13 "
15 "	15 "	14 "
16 pwicikkar	16 "	15 "
17 "	17 "	16-17 "

147..to kill it	148..to live (reside)	149..to give birth
1 fajini/ riij	1 mirE	1 gafatha
2 fajini/ riij	2 mirE	2 metàg
3 llij	3 mel	3 thejimėlaw
4 "	4 "	4 "
5 "	5 lòg	5 melawagiri
6 "	6 "	6 "
7 liij	7 no	7 makky-lò
8 lii-lò	8 lo/ kello	8 makky-lò/ makk
9 niij	9 no	9 jawupwu
11 "	11 "	10 makky-lò
12 "	12 nòm	11-12 jawupwu
13 "	13 "	13 jawupwa
14 "	14 no	14 jawupwupw
15 "	15 "	15 janėwynėw
16 jawata	16 nòm	16 jawupwupw
17 niij	17 nòm	17 nejineji

150..to be born	151..alive	152..to exist
1 faathA	1 faathA	1 wol
2 fas	2 fas	2 wor
3 mėlaw	3 mėlaw	3 jor
4 "	4 "	4 "
5 melaw	5 melaw	5 "
6 "	6 "	6 "
7 -	7 "	7 "
8 melawlaw	8 "	8 "
9 wupwu-tiw	9 månaw	9 "
11 "	10 menaw	11 "
12 wupwu-tyw	11 månaw	12 wor
13 "	12 manaw	13 "
14 "	13 "	14 "
15 wupwu-tėw	14 "	15 "
16 wupwu-tiw	15 mėnaw	16 "
17 "	16-17 manaw	17 "

153..to walk	154..to run	155..to swim
1 fatarE	1 tall	1 jafA
2 fatar	2 gacåji	2 jaf
3 ther	3 tther	3 jaf
4 "	4 "	4 "
5 faarag	5 riig	5 jafA
6 "	6 "	6 "
7 mwet	7 fattabw	7 jaf
8 fååreg/ mwet	8 fåttabw	8 jåf
9 mwėt/ fåjil	9 hyyrikirik	9 jaf
11 fetål	11 sså	11 jåf
12 fėtål	12 sse	12 jaf
13 fėtal	13 sså	13 jå
14 fėtėl	14 jasyys/ jasyy	14 jå
15 fėtal	15 tyykal	15 jå
16 fåtan	16 sså	16 jå
17 "	17 "	17 jå

150..to be born	151..alive	152..to exist
1 faathA	1 faathA	1 wol
2 fas	2 fas	2 wor
3 mėlaw	3 mėlaw	3 jor
4 "	4 "	4 "
5 melaw	5 melaw	5 "
6 "	6 "	6 "
7 -	7 "	7 "
8 melawlaw	8 "	8 "
9 wupwu-tiw	9 månaw	9 "
11 "	10 menaw	11 "
12 wupwu-tyw	11 månaw	12 wor
13 "	12 manaw	13 "
14 "	13 "	14 "
15 wupwu-tėw	14 "	15 "
16 wupwu-tiw	15 mėnaw	16 "
17 "	16-17 manaw	17 "

153..to walk	154..to run	155..to swim
1 fatarE	1 tall	1 jafA
2 fatar	2 gacåji	2 jaf
3 ther	3 tther	3 jaf
4 "	4 "	4 "
5 faarag	5 riig	5 jafA
6 "	6 "	6 "
7 mwet	7 fattabw	7 jaf
8 fååreg/ mwet	8 fåttabw	8 jåf
9 mwėt/ fåjil	9 hyyrikirik	9 jaf
11 fetål	11 sså	11 jåf
12 fėtål	12 sse	12 jaf
13 fėtal	13 sså	13 jå
14 fėtėl	14 jasyys/ jasyy	14 jå
15 fėtal	15 tyykal	15 jå
16 fåtan	16 sså	16 jå
17 "	17 "	17 jå

156..to fly	157..to play	158..to sing
1 jarI	1 kakamwO	1 singin
2 jar	2 gokomw	2 mėwygarI
3 jȧl	3 kȯkȯmw	3 gammangėl
4 "	4 kȯkomw	4 wuuta
5 jal	5 wur	5 bwaryg
6 "	6 "	6 bwaryg
7 jȧl	7 "	7 bwaaj
8 jȧȧs	8 wurumwėt// wokkur	8 kkėėl
9 jȧȧh	9 wurumwėt	9 "
10 jȧȧs	11 "	11 "
11 jȧȧs// hy	12 "	12 "
12 hy	13 "	13 "
13 jaas	14 "	14 ngor/ kkėėl
14 sy	15 "	15 ngor/ kkėėl
15 "	16 "	16 kkėėn
16-17 jȧȧs	17 "	17 "

159..dance (n.)	160..to lie down	161..to sit
1 bwalygY -yri	1 woro (-tiw)	1 maatO
2 bwagyg -yr	2 woro (-tug)	2 maat
3 bwarėg -ėl	3 jol (-thi)	3 marowrow
4 bwarog -ol	4 jol (-thi	4 "
5 wuur wurul	5 wolo (-tiw)	5 mȧtt
6 wuur wurul	6 "	6 "
7 bwaaj bwaajyn	7 "	7 mȯȯt
8 "	8 "	8 "
9 pwaaj pwaajyn	9 wono (-tiw)	9 "
11 pwaryk -yn	11 won	11 "
12 pwaryj -yn	12 "	12 "
13 pwaryk -yn	13 jiwel/ kȯȯl	13 "
14 pwėryk -yn	14 jiwel	14 mwȯȯt// mȯȯt
15 pweryk -yn	15 "	15 mwȯȯt// mȯȯt
16 "	16 jejiwen/ jekkir	16 mȯȯt
17 pwėryk -yn	17 kkȯȯn	17 mwȯȯt

162..to stand	163..to sleep	164..to wake up
1 thyy	1 mathylY	1 ganne-ragO
2 syy	2 masyg	2 gannȧ-rȯg
3 "	3 mȧsėr	3 mmat/ cimwa-thag
4 suu	4 "	4 "
5 syy	5 mȧsyr	5 mmȧt
6 "	6 "	6 "
7 jyy	7 mȧjyr	7 mmȧs
8 jykky/ jyy	8 majyr/ gilam	8 mmas/ jamwy-tȧ
9 wyy	9 majyr	9 jamwy-tȧ
11 "	11 mawyr	11 mah
12 "	12 majyr	12 mahaa-lȯ
13 "	13 mėwyr	13 ne-lȧ
14 "	14 "	14 mė-lȯ
15 "	15 "	15 mejȧf
16 "	16 jannut	16 ne-nȯ
17 "	17 jannyt/ mėwyr	17 ne-nȯ

165..awaken (tr.)	166..to dream	167..to know (facts)
1 fangyry	1 ttarA	1 gyra
2 fangyry	2 ttar	2 "
3 fangaly	3 tthal	3 golȧ
4 fangalu	4 "	4 "
5 fangaly	5 ttalA	5 gyla
6 ffangyly	6 "	6 "
7 jȧmmesa	7 ttal	7 kylej
8 jammȧsȧ-tȧ/ fangalii-tȧ	8 "	8 gulej
9-11 fangani	9 ttan	9 kylej
12 fangani	11 "	11 kulej
13 "	12 "	12 "
14 "	13 "	13 silej
15 "	14 "	14 kylej
16 fėngyni	15 "	15 "
17 "/ jȧpwȧȧtȧji	16 "	16 kunej
	17 "	17 sinej

168..to think	169..to remember	170..to forget
1 mangimeng	1 mangiij	1 maryjeegI
2 mengimeng	2 mengiij	2 marygeeg
3 lilliwal	3 lilliwallej	3 måliglig
4 lilluwal	4 lilluwallej	4 "
5 ninnywannY	5 lywannaj	5 målywegi (-tog)
6 "	6 "	6 "
7 mångymång	7 kylej	7 målyweg
8 "	8 månge-to	8 mållyg
9 jekijek	9 cėcėmåni/ mångi	9 mallek
11 "	10 cėccėmåni	11 mållek
12 "	11-12 mengi	12 mållek
13 jåkijek	13 ceccemeni	13 målyysi
14 jakijek	14 shesshemeni	14 mellyyki
15 jåkijek	15 ceccemeni	15 mållyki
16 jekijek	16 mengi	16 mennyyki
17 "	17 ceccemeni	17 mėnnyyki

171..to count (tr.)	172..to count (int.)	173..to read
1 gagojagoja	1 gagojagoja	1 tapatapA
2 wetegi	2 wetewet	2 rawyrėw
3 paangi	3 paapa	3 jewawo
4 paangi	4 paapa	4 riith
5 "	5 watawat/ paapa	5 gėragi
6 "	6 "	6 jewaawa
7 påångi	7 pååpå	7 jarågaråg
8 "	8 "	8 melejitej
9 paapa	9 jålleja	9 jaråkaråk
11 påångi	11 påångi	11 'to count (int.)
12 jållejååni	12 jållijå	12 "
13 jålleja	13 jålleja	13 "
14 jålleja	14 jålleja	14 "
15 påångi	15 jålleja	15 "
16 påångi	16 janneja	16 "
17 jånneja	17 jånneja	17 "

174..to write	175..to fear	176..pain
1 faryfėrY	1 matagY -yri	1 matagI -iri
2 faryfėrY	2 matag -yr	2 matag -ir
3 taftaf	3 metag -ol	3 bwååreg -el
4 tėftaf	4 metȯg -ȯl	4 "
5 fåtofatY	5 metag0 -ol	5 metagI
6 fetyfatY	6 "	6 "
7 fatafat	7 mesag -yl	7 metåg
8 jiish	8 "	8 metag
9 mmak	9 mehak -yn	9 metåk
11 "	11 mahak -yn	11-12 metek
12 "	12 mehak -yn	13 mėtėk
13 "	13 mesak -yn	14 "
14 "	14 nyw	15 mėtek
15 "	15 nyw	16 ngiijȯw/
16 "	16 niw	metek
17 "	17 mesėk -yn/ niw -en	17 metek

177..craziness	178..anger	179..to quarrel
1 bwuusE -eri	1 thoongA	1 jaasI
2 bwuuc -er	2 soong	2 -
3 bwuuc -ol	3 "	3 jȯmasow
4 "	4 "	4 jȯmasow
5 bwuush0 -ol	5 "	5 gappåliwelI
6 "	6 "	6 "
7 mmang -ål	7 "	7 jåppåliwel
8 mmang -al	8 "	8 jåsh
9 pwuuṙ -on	9 hoong	9 jååṙ
11 "	11 "	11 jångiingi
12 "	12 "	12 "
13 wumwes	13 soong	13 janiini
14 "	14 "	14 jangiingi
15 "	15 "	15 likacapejaw
16 "	16 "	16 janiini
17 "	17 "	17 "

180..to argue	181..to fight	182..war
1 gaangiingi	1 bwuug0 -ori	1 mawurI -iri
2 -	2 bwuug -or	2 mawur -ur
	bwaang -er	3 mawul -ul
	3 fetheg -el	4 "
	4 fitheg -el	5 "
	5-6 fiteg -il	6 "
7 'to quarrel'	7 fiijow	7 "
8 "	8 "	8 "
9 janiini	9 "	9 mawun -un
11 'to quarrel'	11 "	11 "
12 wippin	12 "	12 "
13 'to quarrel'	13 "	13 "
14 "	14 "	14 "
15 "	15 "	15 "
16 wippin	16 fiijuw	16 "
17 "	17 "	17 "

183..itchy	184..to scratch	185..sick
1 geligeli	1 geligeli	1 matagI
2 bwajigeg	2 gejigeg	2 matåg
3 fåjing	3 gorgor	3 tėmwaaj
4 "	4 "	4 tėmwaaj
5 feffang	5 gėėri	5 tėmwaajy
6 fėfang/gėėt	6 gėėri	6 tėmwaawy
7 gėėt	7 gėrėger	7 semwaaj
8 gėėt	8 gereger	8 semwaaj
9 kėėt	9 jårikåår	9 hamwaaj
10 kėėt	10 kårikåår	10 hemwaaj
11 kėėt	11 kerikeri	11 hemwaaw
12 pwerik/ kėėt	12 jårikeeri	12 hamwaaj/ semmwen
13-14 kėėt	13-14 jakėrykėr	13 semmwan/ semwaaw
15 pwårėk	15 jajikår	14-15 samwaaw
16 kėėt/ pwerik	16 jårikeeri	16 semmwen/ samwaaw
17 "	17 jepwerika	17 samwaaw

186..to swell	187..to dig	188..a hole
1 gangytyyj	1 kkerI	1 riibwA -eri
2 bwo	2 kker	2 ramaram
3 "	3 kkil	3 liibw -el
4 "	4 kkel	4 "
5 "	5 kkelI	5 liibw -al
6 "	6 "	6 "
7 "	7 kkel	7 ngaat -en
8 "	8 "	8 liibw -el
9 pwo	9 "	9 naah nehen
11 "	11 ttow/ kkel	11 "
12 "	12 jålingi	12 ngaat
13 "	13 ttuw	13 pwaang
14 "	14 ttow	14 "
15 "	15 "	15 "
16 "	16 ttuw	16 " / ngaat/ naas
17 "	17 ttuw	17 pwaang

189..(local name for the language)	190..to say
1 ramari thongosaar0	1 thėėlY
2 ramari gatogobwej	2 tapa
3-4 jåløl juulithii	3 sėėr
gasel methaw	4 sėėr
5-6 kėpatåle wėleja	5 sėėrY
gasel metaw	6 "
7 kėpasen såtawan	7 jyra
8 kapasal falywash	8 jira
9 kapahån pwollowat	9 japaha
10 kapahån hook	10 japaha
11 kesen pwollap	11 japaha
12 kapahen wonoowun	12 japaha
13 fòòsėn murilė	13 wyrå
14 fòòsun nėmwė	14-15 japasa
15 fòòsun satawan	16 wyrå
16-17 fòòsun cuuk	17 japasa

191..to speak	192..to moan	193..to scream
1 tapa	1 bwawysyysY	1 tthėlY/ kkabwas
2 raam	2 ngyyngy	2 gacogong
3 kapatpat	3 ngėėngė	3 tawul
4 "	4 "	
5 kėpȧt	5 jawyrawyrY	5 gabwat
6 kėpat	6 "	6 "
7 kėpas	7 -	7 jakkabwas
8 kapas	8 ngyyngy	8 "
9 kapah	9 "	9 jakkapwah
11 "	11 "	11 jėėr/ mwejir
12 kapaha	12 janngy	12 jėėr
13 fȯȯs	13 ngyyngy	13 pwuṙėėr
14 kapȧs	14 "	14 pwushėėr
15 kapȧs	15 "	15 pwucėėr
16 fȯȯs	16 "	16 "
17 "	17 "	17 "

194..to call	195..to call him	196..to ask
1 fathefathE	1 fathangy	1 gatthija
2 fasafas	2 fasangy	2 gaasi
3 fasang	3 fasangu	3 kassi
4 fasang	4 "	4 kassi
5 fėffȧsh	5 fȧsangu	5 gassi
6 "	6 "	6 kassi
7 feffaj	7 fajingi	7 jajijeg
8 faffaj	8 fajingi	8 jȧjijeg
9 feffaj	9 "	9 jȧȧjek
10 ffaj	11 kkėri	11 "
11-12 kkė	12 kėėri	12 jakajijek
13 "	13 "	13 jajis
14 jasėssȯr	14 jasori	14 jajijek
15 "	15 jasorej	15 "
16 kkė	16 kėėri	16 jakkajijek
17 "	17 kėėri	17 jejis

197..voice	198..truth	199..a lie
1 raamA	1 ṫėėthY	1 thawutoongI
2 raam	2 gatėės	2 gȯkȯcow
3 * jȧlȯl	3 ṫėės	3-4 kacapar
4 "	4 "	5-6 gattig// misimis
5 tiig	5 nnet	7 misimis
6 "	6 "	8 miis
7 tigitig	7 llet	9 mehimih/ tittik
8 leefal	8 "	10 mehimih
9 ngiingi	9 "	11 mihillang
11 "	11 pwyyng	12 ṙofėnej/ jaṙyw/ mwakel
12 "	12 "	
13 * lėwylan	13 "	13 ṙofėnej/ mwakel/ miṙimiṙ
14 mangyyngy	14 "	
15 "	15 "	14-15 cofȯna
16 * nejywan	16 "	16 mwaken
17 ngiingi	17 "	17 "

200..lose something	201..to find	202..to search
1 pejita (-rag0)	1 weeli	1 gappawygY
2 pyngy (-rȯg)	2 weegi	2 gup
3 pyngy (-lȯg)	3 mwȧȧmwȧ/ ffag	3 mommwȧȧri
4 pungu (-lȯg)	4 "	4 "
5 pungu (-lȯg)	5 shuungi	5 ffag
6 "	6 ffag	6 "
7 mȧlywėėgi	7 wėri	7 gyyt
8 pungu (-lȯ)	8 shuungi	8 gyyt
9 "	9 weri	9 kytt
11 kullu (-lȯ)	11 pwȧ	11 "
12 pyngy (-lȯ)	12 weri	12 kajir
13 pėwyti (-lȧ)	13 wiri	13 kyyt
14 pėėty (-lȯ)	14 weri	14 kyyt
15 pėwyti (-lȧ)	15 werej	15 kyyt
16 pėwyty (-nȯ)	16 kyna	16 "
17 pėwytȯȯ(-nȯ)	17 "	17 "

203..to buy	204..to sell	205..to steal
1 paryjerI	1 gooraparyjerI	1 pilafA
2 paryger	2 gamwaaw	2 pigaf
3 cuwaaj	3 tȧpecuwaaj	3 paràf
4 "	4 "	4 "
5 "	5 faang	5 piraf
6 "	6 "	6 "
7 "	7 "	7 mwȯrȯo
8 kkamė	8 jamejowu(-lȯ)	8 mwȯsho
9 kamė	9 jamėėmė	9 hoolȧ
11 "	11 "	11 "
12 "	12 "	12 mwȯrȯo
13 "	13 "	13 "
14 "	14 "	14 soolȧ
15 "	15 "	15 soolȧ
16 "	16 "	16 soonȧ
17 "	17 "	17 "

206..to do	207..to work	208..to show
1 fawylY	1 fitegI	1 gannagA
2 fawyg	2 fiteg	2 gannag
3 fėėr	3 jengaang	3 kaware
4 "	4 "	4 kaware
5 "	5 jangaang	5 gawėri
6 "	6 "	6 "
7 "	7 "	7 jȧwėri
8 "	8 "	8 jabwȧȧri
9 "	9 "	9 jaweri/pwȧȧri
11 "	11 "	11 pwȧȧri
12 "	12 jangaang	12 jawyry/ pwȧȧry
13 "	13 "	13 "
14 "	14 "	14 "
15 "	15 "	15 "
16 "	16 "	16 "
17 "	17 "	17 "

209..to want

1 mwasari
2 tiperi
3 thepili
4 "
5 tipeli
6 "
7 "
8 mwushel/ tipeli
9 tipeli//mwėṙàn
11 mweṙen
12 "
13 "
14 mwoshen
15 mwocen
16 "
17 "

210..to choose

1 tiwerE
2 tiwer
3 thuwal
4 thuwal
5 ffil
6 ffil
7 jåffil
8 ffil
9 "
11 "
12 "
13 "
14 "
15 "
16 "
17 "

211..knife (butcher)

1 wathej
2 wuwasej
3 sȧȧr
4 saar
5 "
6 "
7 "
8 "
9 haar
11 "
12 "
13 saar
14 "
15 "
16 "
17 najif, nȧjif

212..machete

1 wathejitapA
2 mwatete
3 sisi
4 "
5 tapatap
6 tepetȧp
7 fȧtilȯbwu
8 sapysap
9 haar
11 "
12 laajif
13 took
14 saap
15 "
16 nȧȧjif
17 took

213..pocket-knife

1 gannofirang0
2 cifennajif
3 litėėfic
4 litoofic
5 bwajila
6 pėshannys
7 pȧṙennos
8 saar
9 pakiilȧjif
10 haarylos/ lėtoofiṙ
11 littoofiṙ
12 paṙillof/ litoofiṙ
13-14 saarkȯpw
15 metillof/ saarkȯpw
16 saarkȯpw
17 "

214..adze (small)

1 tȧraje
2 tȧrȧ
3 pucugul
4 "
5 tela
6 "
7 sile
8 siles
9 hele
11 hele
12 "
13 sele
14 tykėtyk
15 tikaatėk
16 fanafan/ sene
17 sene

215..adze handle

1 pwuungy taraje
2 pwyngyr tȧrȧ
3 møøl
4 "
5 majyl
6 mawyl
7 jiimw
8 -
9 jaaṙ, jėṙȧn hele
11 jȧȧṙ/ paaṙ
12 jiimw, jimwan hele
13 jiimw, jimwen sene
14 "
15 pwung, pwungyn sele
16 paac, pacan fanafan
17 jaac, jacan sene

216..sword

1 wathej
2 -
3 sajithen
4 "
5 sajiten
6 "
7 "
8 sabwule
9 kȧtilaas
11 ketilaas
12 ketilaas/ katana
13 "
14 katilaas/ katana
15 katilaas
16 ketinaas/ katana
17 ketinaas

217..spear (fighting)

1 gathigI
2 gasig
3 pėcoc
4 "
5 kkeje
6 pėshosh
7 wobwaj
8 -
9 hilȧh
11 siles
12 "
13 "
14 silek
15 "
16 sines
17 "

218..spear (fishing)

1 gathigI
2 gasig
3 piska
4 "
5 pisga
6 "
7 likappyṙ
8 pacingko/ fisiga
9 fisika
11 likappiṙ
12 likapiṙ
13 wȯȯk
14 wȯkun asafish
15 jasafic
16 nikappic
17 fisika

219..bow	220..arrow
1 gathigibwalobwal0	1 rawyrA
2 rėėrijang	2 -
3 walgasik	3 gasik
4 -	4 "
5 gasikk	5 jumi
6 gasik	6 "
7 jumi	7 "
8 -	8 -
9 likåppiṙ	9 fajyn likåppiṙ
10 likååpiṙ	10 fajyn likååpiṙ
11 "	11 "
12 jakur rejintijan	12 meṙewan awukur rejintijan
13 pisekin rejintijan	13 jawukun intijan
14 likappish	14 mecėw
15 japwarapwar	15 peel
16-17 -	16-17 wȯȯkun rejintijan

221..to cut	222..to split	223..to slice
1 taapA	1 tapagi	1 tajetaje
2 sepisep	2 tiretir	2 jėwjėwy
3 sapsap	3 thėtthėėl	3 tėftaf
4 sopsop	4 "	4 "
5 gopogop	5 tittil	5 tafataf
6 gopogop	6 "	6 "
7 gopogop	7 jåmakala	7 tipitip
8 gup	8 tilingi	8 wulekkitiij (tr.)
9 pakypak	9 tilångi	9 jataakit
11 pak	11 jaweti (-lȯ)	10 jataakit
12 pak	12 jahatta	11 rejireji
13 pak	13 tilengi	12 jicci
14 pėėk	14 tilangi	13 wuleji/ tiperi (tr.)
15 pėėk	15 tilangej	14 jȯmmwoji/ tipaki (tr.)
16 pėėk	16 tilengi	15 tipakej (tr.)
17 pėėk	17 kocopw	16 wuneji (tr.) 17 jåssåt

224..to saw	225..sharp	226..to sharpen it
1 leele	1 kkangI	1 kkangiij/ tajemi
2 geege	2 kkång	2 kkångiij// tajimi
3 reere	3 kkang	
4 "	4 "	
5 "	5 "	5 tajimi
6 "	6 "	6 tajemi
7 "	7 "	7 sajimi
8 "	8 kkång	8 sejimi
9 "	9 "	9 håjimi/ jåkkångiij
10 reere/ ngerenger	11 kkeng	11 hejimi
11 ngerenger	12 "	12 "
12-13 "	13 "	13 jakki/ sejimi
14 reere	14 kkèng	14 sejiki/ sejimi, jakkyj
15 "	15 "	15 sajekeji
16 ngerenger	16 kkeng	16 jekkeni
17 "	17 kken	17 jekkeni. sejimi

227..dull	228.. box	229..to jump
1 guw	1 bwaal0	1 rutU
2 "	2 bwaag	2 rut//nunut
3 gyj	3 kagol	3 lyt
4 guj	4 "	4 lut
5 guw	5 "	5 nnyt
6 "	6 "	6 nnut
7 kkòpw	7 "	7 llus
8 "	8 kagun/ bwòòr	8 llys
9 "	9 pwòòr	9 llyh
11 kkopw	11 "	11 mmwet
12 kopw	12 "	12 lyhyw
13 kopw	13 "	13 mwat
14 kopw	14 "	14 mwet
15 kuu	15 "	15 "
16 kopw	16 "	16 mmwet
17 "	17 "	17 mwet

230..to climb	231..to fall	232..to topple
1 tawy-	1 moo-tiw0	1 malo-rag0
2 gaga-	2 mogo-tiw	2 mogo-tug
3 thåå-	3 pyngy-thi/ mar-thi	3-4 mar-thi/
4 "	4 pungu-thi	ciparåg-thi
5 tėė	5 ppyngy-tiw	5 maccė-lòg
6 "	6 maceė-tiw	6 "
7 "	7 "	7 måjuw-tiw
8 "	8 pungu-tiw	8 mwaccė-lò
9 "	9 moro-tiw	9 majiwo-lò
11 "	11 toro-tiw	11 mwėwy-lò
12 "	12 jaṙamaṙa-tyw	12 mwocė-lò
13 "	13 turu-tuw	13 tur
14 "	14 kully-tyw	14 tur
15 "	15 kylly-tėw	15 tur
16 "	16 turu-tiw	16 mwocė-nò
17 "	17 turu-tiw	17 turu-nò

233..to drop (tr.)	234..to throw	235..to beat
1 pejita-tiw0	1 gatingI	1 wawuwowu
2 pungy-tug	2 pejita-rog	2 wòwuwowu
3 pathaa-thi	3 kėkkac	3 wawo
4 "	4 "	4 "
5-6 gashaje-tiw/	5 tettar	5 wawuwowu
pyngy-tiw	6 "	6 "
7 jåṙej	7 "	7 "
8 taråå-tiw	8 tattar	8 liij
9 jåṙeje-tiw	9 jaṙaje-lò	9 jepwili
10 pajitåå-tiw	10 jåkkåṙ/ peppajit	10 wiṙi
11 jatoråå-tiw	11 jaṙej	11 jopwuli
12 paji-tuw/ toro-tuw	12 jåkkaṙ	12 japwuli
13 tur	13 manej	13 "
14 jasheji-tyw	14-15 jacej	14-15 wopwuli
15 turå-tuw	16 jåkkåc	16 jawata
16-17 woturåå-tiw	17 mònej	17 wici

236..to break	237..to hit (int.)	to hit (tr.)
1 tawath	1 wawuwowu	wawutuw
2 ficingi	2 wȯwuwowu	wȯwutu
3 magȯp	3 tyyg	tygyj
4 "	4 tuug	tuguj
5 punnuw	5 tuug	tuguj
6 "	6 "	tuguw
7 gopogop	7 "	tuguj
8 pyllyw	8 "	tuguuw
9 "	9 tuuk	tukuuw
11 wypiij	11 "	"
12 pyllyw	12 "	"
13 kupi	13 japwollaw	japwollaw
14 pyllyw	14 jafel	jạfelu
15 kopij	15 jafal	jafalu
16 kupi	16 suuk	sukuw
17 pynny// kupi	17 -	jėfėnu

238..to shoot	239..to stab	240..person
1 pweethI	1 faatA	1 jalematA
2 pwesi	2 towutow	2 jagamat
3 pȧk	3 thow	3 jaramat/ ramta
4 pȧkk	4 "	4 "
5 "	5 ttow	5 jaramȧt
6 "	6 "	6 "
7 pakk	7 wubwu	7 jȧrȧmȧs
8 pȧkk	8 ttow	8 jaramas
9 "	9 ttow	9 jȧrȧmȧh
11 fiṙi	10 wupwu	11 jaramah
12 ttow	12 towukamwaṙ	12 jaramaha
13 pėkki	13 ppės	13 jaremȧs
14 pėkkyj	14 "	14 jaremys
15 ppės	15 ttow	15 jaramas
16 pekki	16 ppės	16 "
17 ppek	17 ppos	17 "

241..man, male

1 mwaarE mwaani
2 mwaar mwanni
3 mwaal -ėl
4 mwaal -ėl
5 mwaal mwanni
6 mwaal mwanni
7 mwaan -in
8 mwål -yl
9 mwåån mwanni
10 mwåån mwåånen
11 "
12 mwån -ån
13 mwaan mwaanyn
14 mwåån mwåånyn
15 mwaan mwaanan
16-17 mwåån mwåånin

242..woman

1 fåjifirE
2 fåjifir
3 fååfel
4 "
5 shȯȯbwut
6 "
7 ṙȯȯbwut
8 shȯbwut
9 ṙȯȯpwut
11 "
12 "
13 feefin
14 shȯȯpwut
15 cȯȯpwėt
16 feefin
17 feefin

243..child

1 riwejisI
2 gariwejic
3 jåliwec
4 jåliwic
5 saari
6 "
7 woonigåt
8 jåt/ wolygåt
9 jååt
11 jatekkit
12 hemirit
13 menykȯl
14 jatopwush
15 semirejit
16 semirit
17 "

244..baby

1 riwejisI
2 gaaga
3 jåliwecel lacyg
5 sawugaawA (male)
ligaawA (female)
6 gattu
7 jååt
8 malygȯl
9 manykȯl
11-12 manykȯl
13 "
14 "
15 "
16 manykȯn
17 mėnykȯn

245..boy

1 gappalamwaarE
2 gariwejic mwaar
3 tarmwaal
4 "
5 sarimwaal
6 "
7 woonigåtmwaan
8 jatamwåål
9 jååt
11 "
12 "
13 "
14 "
15 "
16 "
17 "

246..girl

1 gappalafajifirE
2 gariwejic fåjifir
3 lefeecyg
4 lefeecig
5 sarishȯȯbwut
6 "
7 woonigåt ṙȯȯbwut
8 jatashȯȯbwut
9 faapwyl
11 "
12 "
13 nėnngyn
14 lijarååt
15 lijarååtiw
16 nenngin
17 "

247..relative	248..spouse	249..sweetheart
1 malejalE	1 liili liiri	1 gamwalE -eri
2 magejag	2 giigi giir	2 gamwag -er
3 marejar	3 riiri riil	3 gamwar -el
4 mårejar	4 "	4 "
5 marejar	5 fitijeti fitijel	5 gėmwar -ėl
6 "	6 fitij -el	6 "
7 * pėrangjangaål	7 bwuppwuluw bwuluwål	7 jåmwar -en
8 bwii	8 shȯȯlimw -ål	8 -
9 mårjår	9 ṙȯȯnimw -ån	9 jåmwar -en
11 "	11 ṙȯȯnomw -en	11 "
12 peṙeri	12 pwupwuluw pwuluwen	12 kammwėt
13 mååraar	13 ṙȯȯnimw -en	13 "
14 mååråår	14 pwupwuluw pwuluwen	14 "
15 "	15 "	15 "
16 "	16 pwupwunuw pwunuwen	16 "
17 "	17 "	17 "

250..father	251..mother	252..sibling (same sex)
1 tamatamA tamari	1 thiirE	1 bwithibwithI bwithiri
2 taamA -ar	2 siir	2 bwisibwis bwisir
3 tamatam tamal	3 silsil	3 bwisibwis bwisil
4 "	4 "	4 bwisibwis bwisel
5 taam temal	5 siilE	5 bwiis bwisil
6 "	6 "	6 "
7 saam semål	7 jiin	7 bwiibwi bwiil
8 "	8 jiil	8 "
9 haam håmån	9 jiin	9 pwiipwi pwiin
10 haam hemån	11 "	11 "
11 haam hemen	12 "	12 "
12 haam heman	13 "	13 "
13 saam semen	14 "	14 "
14 saam saman	15 "	15 "
15 saam semen	16 "	16 "
16-17 saam semen	17 "	17 "

253..sibling (opposite sex)

1	mwejangang	mwejangari
2	mwȧjang	mwȧjangar
3	mwȧngejang	mwȧngal
4	mwȧngang	mwȧngal
5	mwangej	mwangejȧl
6	mwangaj	mwangejel
7	mwėngejan	mwengejȧn
8	*	mwangejȧl
9	mwangȧj	mwangejȧn
10	mwangej	mwangejȧn
11	mwongejang	mwangejen
12	mwėngejang	mwėngejen// rȯȯpwut (male speaker)
13	mwongejang	mwongejen// feefin (male speaker)
14	mwȯngejang	mwȯngajen
15	"	
16-17	mwongej	mwongejen// feefin (male speaker)

254..wash

1	wasA
2	was
3	soopw
4	"
5	wubwuu
6	"
7	wubwuubw
8	"
9	wupwuu
11	soopw
12	"
13	"
14	"
15	"
16	"
17	"

255..to clean, to tidy up

1	wasA
2	gaffagej
3	kkilili
4	"
5	wolag
6	"
7	llyw
8	jagasagas
9	limeti
11	"
12	"
13	"
14	"
15	"
16	nimeti
17	"

256..to wipe

1	jamwirA
2	jamwir
3	kkiliil
4	"
5	nnywa
6	"
7	tȯȯfi
8	"
9	"
11	taalyw
12	jatukuw
13	tukuw
14	jammata
15	jatuku
16	sopwuw
17	jammata

257..to rub briskly

1	jamwirA
2	jȧtijet
3	jige// fȧjija
4	"
5	nnyywa
6	"
7	llywa
8	gėrė-tiw
9	fajikȧr
11	jamȯȯji/ jȯnna
12	fajiker
13	fėwyngar
14	jalla/ soof
15	jafejikis
16	jefejikes
17	fėwyker

258..to rub gently	259..to bathe	260..to bring
1 jamwirA	1 tyyty	1 gathaa (-tog)
2 jȧtijet	2 "	2 gasi (-tog)
3 jithifi	3 thyythy	3 gasii (-thog)
4 "	4 thuuthu	4 "
5 nnyywa	5 tyyty	5 gasi (-tog)
6 "	6 "	6 "
7 llywa	7 "	7 bwugi (-to)
8 tȯȯf tȯȯfi	8 "	8 "
9 "	9 "	9 waa (-to)
11 "	11 "	11 wuweji (-to)
12 "	12 "	12 waa (-to)
13 "	13 "	13 ryyla
14 "	14 "	14 waa (-to)
15 "	15 "	15 "
16 "	16 "	16 "
17 "	17 "	17 "

261..to hold it	262..morning	263..evening
1 gamwasy	1 nimarijer	1 nigagaafI
2 gamwacy	2 "	2 nifagaaf
3 gėėly	3 limȧȧlijel	3 lifagaaf
4 goolu	4 "	4 "
5 bwuluuw	5 nisoor	5 raleej
6 "	6 "	6 "
7 jȧfiti	7 lejatosor	7 jatafȧȧf
8 jamwashy	8 leesor	8 -
9 jamwaṙy	9 lohoor	9 lahapwynijȯl
11 "	11 "	11 lahapwylijȯl// leefȧf
12 "	12 lesesoor	12 lehapwylijėl
13 jamwaṙy// kamwaṙy	13 soor	13 kunijȯl
14 jammwashy	14 lesesoor	14 lekunijėl
15 jammwacy	15 soor	15 kunijėl
16 jamwacy	16 nesesoor	16-17 nekkynijȯn
17 jėmwacy	17 "	

264..night		265..day		266..today	
1	bwoongI -iri	1	laarI lariri	1	lannejija
2	bwoong -ir	2	gaarI garir	2	gannej
3	bwoong -ol	3	raal raal	3	rȧlej// jigala
4	"	4	rȧȧl rȧȧl	4	"
5	"	5	rann rannėl	5	ralejija
6	"	6	"	6	"
7	bwoong -un	7	rȧȧn rȧȧnin	7	jigila
8	bwoong -il	8	rȧȧl rȧlyl	8	jigila// fȧȧfilijej
9	pwoong -in	9	rȧȧn rȧnyn		
11	"	11	rȧȧn rȧȧnin	9	jikana
12	pwoong -on	12	rȧȧn rȧnin	10	jikena
13	pwyyn -yn	13	raan ranyn	11-12	jikina
14	pwoong -yn	14	rȧȧn rȧnyn	13	jikinȧj
15	pwoong -on	15	"	14	jikaneej
16	pwiin -in	16	rȧȧn rȧnin	15	jikana
17	"	17	rȧȧn rȧȧnin	16-17	jikėnȧj

267..tomorrow		268..day after tomorrow		269..yesterday	
1	warathy	1	majithalaaniwarathy	1	rarowA
2	warasy	2	mijisaganwarasy	2	rarow
3	walsu	3	watalangel	3	lalow
4	"	4	"	4	"
5	najy	5	sėrangil	5	nalow
6	nawy	6	"	6	"
7	lajyw	7	rallelaan	7	lȧlėw
8	lajy	8	sapalal lajy	8	lȧlew
9	lajyw	9	rȧnnėna	9	nȧnew
11	lawy	11	rȧnnanah	11	nanew
12	lehor	12	pėllȯn lehor	12	"
13	leesor	13	pallan leesor	13	nanaw
14	neesor	14	pallȯn leesor	14	nanew
15	lėwy	15	palalaal leesor	15	nanėw
16	neesor	16	sorenȯn neesor	16	nanew
17	neesor	17	pannȯnyn neesor	17	nȧnew

270..day before yesterday

1 majithalaanirarowA
2 gannewe/ måjisaganrarow
3 talangal lalow
4 "
5 telangin nalow
6 "
7 såpelaal lålew
8 råållewe
9 rånnewe
10 rånnewe// pullòn nånew
11 rånnewe
12 pallaawe
13 pallan nanaw
14 kulòn nanew
15 kulòn nanèw
16 pannònyn nanew
17 pannònyn nånew

271..daytime

1 nilaarI
2 nigaar
3 leråål
4 leråål
5 lettèjiwat
6 "
7 leerål
8 "
9 leerån
11 "
12 "
13 "
14 "
15 "
16 neerån
17 "

272..age, year

1 mathirapA
2 masirap (year)
jaatO (age)
3-4 rååg -el
5 raag -yl
6 "
7 rååg -il
8 råg -il
9-11 rååk -in
jijer
12 jijèr
13 jijer
14 "
15 "
16 "
17 "

273..to come

1-2 bwii-tog
3 bwuu-thog
4 "
5 bwii-tog
6 "
7 jit-to
8 "
9 jit-to// fåjit-to
11 jit-to// fejit-to
12 fit-to
13 jet-to
14 fejit-to
15 fet-to
16-17 jet-to// fejit-to

274..to go

1 ragO
2 ròg
3 lòg
4 "
5 "
6 "
7 lò
8 lò
9 "
11 "
12 "
13 "
14 "
15 "
16 nò
17 "

275..to return

1 wegi
2 wègi
3 tafål
4 "
5 tefaal
6 "
7 sefål
8 "
9 hefål
11 hefal
12 håfal
13 liwin
14 liwyn
15 liwin
16 niwin
17 "

276..to turn around (tr.)

1 wegiti
2 sygyn
3 gatagolly
4 gatagollu
5 gatagunnu
6 "
7 soreej
8 sorej
9 jȯkullu
10 jakullu
11-12 hoorej
13 jakulluw
14 soorej
15 "
16 "
17 "

277..to turn around (int.)

1 wegitegI
2 wėgiteg
3 tagul
4 "
5 tagunn
6 "
7 wokitåg
8 togul
9 kull
11 "
12 "
13 "
14 "
15 "
16 kunn
17 kunn

278..to turn (change direction)

1 wegI
2 sygyn
3 sorofag
4 "
5 "
6 "
7 sygyl
8 sor
9 kull
11 kull/ rik
12 rik
13 "
14 "
15 "
16 "
17 "

279..turn it over

1 wegiti
2 sygyn
3 wugethi
4 "
5 wėgeti
6 "
7 woketi
8 sorej
9 jȯkullååtå
10 weliki
11 wėketi
12 jakullu
13 jaṙeppa
14 jashappa
15 lipėėngi
16 nupeni 17 jokunnu

280..pull it

1 jafithi
2 jåfis
3 jyryr
4 jurur
5 wuuru
6 "
7 tajuuw
8 jityrypa
9 wyyri
11 jafij
12 jåfi
13 jefi
14 "
15 jamėjå
16 jefi
17 wuuri

281..pull hand over hand

1 jafijefI
2 jåfijef
3 jafijef
4 "
5 tajyyw
6 tawyyw
7 sali
8 tajy
9 jåfiij
11 jafij
12 jåfi
13 "
14 "
15 "
16 jefi
17 "

282..to pluck	283..push it	284..rope, canoe rope
1 wuthuw	1 tiingi	1 taarI taniwa
2 wusuw	2 "	2 taar tảnwa
3 jysyj	3 thiingi	3 tảảl tảlwa
4 jusuw	4 "	4 "
5 wiij	5 "	5 taalI tảnniwaa
6 "	6 "	6 "
7 "	7 "	7 sảảl sảlinwaa
8 "	8 "	8 sảảl sảlilwaa
9 juttiij	9 "	9 hảảl hảlinwaa
11 wiij	11 "	11 jamej jamejinwaa
12 "	12 "	12 "
13 "	13 pwuus	13 sảảl selinwaa
14 "	14 "	14 "
15 wytti	15 "	15 "
16 wiij	16 tiini	16 sảản seninwaa
17 "	17 "	17 "

285..to tie	286..a knot	287..wrap it
1 gammwasY	1 bwugobwug0	1 tygytygyyjE
2 gėėgė	2 bwugobwug	2 tygytygyg
3 gỏỏgỏj	3 bwogbwog	3 lyllymi
4 "	4 bwugobwug	4 lullumi
5 gėėgė	5 "	5 limi
6 "	6 "	6 nynnym// tygymi
7 "	7 "	7 tygymi
8 pwug	8 bwuug	8 "
9 pwukooj	9 pwukopwuk	9 tykymi
11 kėėli	11 "	11 "
12 sarej	12 "	12 "
13 rii	13 pwuuk	13 ṙėėni
14 roow	14 "	14 tykymi
15 "	15 roworow	15 tykytyk
16 rii	16 riiri	16 tykymi
17 "	17 pwuuk	17 "

288..to burn (int)	289..burn (tr.)	290..ashes
1 jimagaawa (?)	1 kkalA	1 mwaritho
2 gyy	2 gyy	2 farang
3 gus		3 fėlang
4 gus		4 fėlang
5 fisngėg	5 mwush	5 felang
6 fisngeg	6 "	6 "
7 ppul	7 figi	7 "
8 "	8 fiigi// mwush	8 fėlang
9 "	9 jaky	9 felang
11 "	11 jatonga	11 "
12 kkar	12 fiiki	12 "
13 "	13 jaky/ kėėni	13 fėlang
14 "	14 kėėngi/ fiiki	14 pajas
15 "	15 kaangej	15 pejȧs
16 "	16 kkeni//fiisi	16 fanang
17 "	17 jakkara	17 "

291..fire	292..smoke	293..water
1 jaafI	1 bwulog0	1 saarY
2 jaafI	2 bwugog	2 caar
3 jȧȧf	3 bwuraag	3 cȧȧl
4 "	4 bwėraag	4 "
5 jaafI	5 bwuraag	5 shaal
6 "	6 "	6 shaal
7 jȧngat	7 bwurok// bwȯȯs	7 ṙaan
8 jȧngat// ppul fiigas	8 bwurat// bwurȯkk	8 sȟal
	9 pwurȯkk	9 ṙaan
9 jȧnget	11 jaat	11 ṙaan
11-12 jȧnget/ harew	12 jaat	12 "
13 jaaf jefin	13 jatywat	13 ṙaan/ jaliki
14 jȧȧf jefin	14 jatywėt	14 shaan
15 jȧȧf jȧfin	15 jėėt	15 caan
16 jettin -in	16 "	16 kȯnik
17 jekkej -in	17 "	17 "

294..the sea	295..ocean	296..salt
1 taatI -iri	1 matawA	1 soo±0
2 taat tattir	2 mataw	2 soor
3 tȧȧth -el	3 mathaw	3 gasiiga
4 "	4 "	4 "
5 taatI -il	5 metaw	5 gasiig
6 "	6 "	6 "
7 sȧȧt -in	7 "	7 jȧsiig
8 sȧȧt -il	8 "	8 gasiig
9 hȧȧt -in	9 mėtaw	9 jȧsiika
11 "	11 metaw	11 sȯȯl
12 hȧȧt hetin	12 mataw	12 "
13 saat setin	13 "	13 "
14 sȧȧt setin	14 "	14 "
15 "	15 "	15 "
16 "	16 "	16 sȯȯn
17 "	17 "	17 "

297..wind	298..to blow (wind)	299..correct
1 jaangI	1 firE	1 welI// bwyngY
2 jaangI	2 pagas	2 bwyng
3 jȧȧng	3 mmar	3 bwung, bwong
4 "	4 jangajang	4 bwung
5 jaangI	5-6 jangejang// filefil	5 paash/ bwung
6 "		6 "
7 jȧȧng/ jȧsebwȧn	7 wukuk	7 llet/ bwung
8 jȧng	8 jȧngijȧng	8 wel/ llet
9 jȧȧng	9 "	9 pwung
11 "	11 jȧngijeng	11 "
12 hȧpwȧl	12 ffil	12 "
13 jasapwal	13 ffil	13 "
14 jasapwȧn	14 jang	14 "
15 "	15 jangijȧng	15 "
16 "	16 jenijen	16 "
17 jȧsȧpwȧn	17 jȧngijeng	17 "

300..incorrect	301..near	302..far
1 "not correct"	1 jithelajE	1 taawA
2 "	2 gagep	2 "
3 "	3 garep	3 thaaw
4 "	4 "	4 "
5 "	5 garėp	5 taaw
6 "	6 "	6 "
7 "	7 jar-	7 "
8 "	8 "	8 "
9 mmwåål	9 jarap	9 toow
11 "	11 "	11 "
12 "	12 "	12 toowaw
13 "	13 wynykkyn	13 kukkulȯ
14 "	14 jarap/ kkan	14 toowaw
15 "	15 jarap	15 toow
16 mmwåån	16 jarap/ kkan	16 toowaw
17 "	17 "	17 "

303..to flow	304..to float	305..to sink
1 thelE	1 ppethI	1 thoogA
2 sag	2 mamaar	2 tuubw
3 ser	3 ppes	3 mwėės
4 "	4 "	4 "
5 "	5 "	5 shawul
6 "	6 "	6 "
7 måån	7 ppej	7 ṙawun
8 gurugur	8 "	8 shawul
9 pwu	9 "	9 ṙawul// koko-lȯ
11 pwu	11 "	11 mmo
12 pwu	12 "	12 ṙȯwul
13 pwu	13 pijaas	13 kkok, kok
14 pwu	14 ppej	14 mmo
15 fatal	15 "	15 mmo
16 pwu	16 pijaas	16 kkok/ koko-nȯ
17 "	17 ppi	17 moo-nȯ/ koko-nȯ

306..to drown	307..to squeeze	308..to wring it
1 thoogA	1 fijefijA	1 wėngyty
2 mabw	2 fijengi	2 wȯngyty
3 malomw, malamw	3 fiingi	3 wungthy
4 malomw	4 "	4 wungthi
5 maabw/ mȧlowm	5 fijengi	5 wunguti
6 manomw	6 "	6 "
7 mȯȯbw	7 fijefi	7 wongoti
8 mabw	8 fejingi	8 "
9 mȯpw/ mȯlėmw	9 fijȧfi	9 "
10 mȯpw (adults)	11 fijefi	11 wonguti
mȯlomw (children)	12 "	12 wunguti
11-12 mopw	13 "	13 wunguti
13 lomw	14 "	14 wongoti
14 tusijas	15 "	15 wongotej
15 malȯmw	16 "	16 womwuti
16-17 mopw	17 "	17 wunguti

309..to pound food	310..food-pounder	311..to string
1 thyythY	1 jathythyythY	1 faatA
2 syys	2 faar	2 faat
3 "	3 fȧȧl	3 faath
4 suus	4 fȧȧl	4 "
5 syys	5 fajysyys	5 faat
6 "	6 fawysyys	6 "
7 ppwo	7 fajylippwo	7 "
8 jugyyg	8 ppwo	8 fiif
9 wykyyk	9 fajynippwo	9 faat
11 ppwo	11 ppwo	11 ffaat
12 "	12 "	12 "
13 "	13 "	13 "
14 "	14 "	14 "
15 "	15 fawynyppwo	15 "
16 wusyys	16 ppwo	16 "
17 "	17 "	17 "

312..twist it	313..to braid	314..to plait
1 fingitegI	1 fiilA	1 fathyfėthY
2 fingifing	2 figeg	2 fasyfės
3 fėngfėng	3 fėrėg	3 fasėfas
4 fengfeng	4 fereg	4 "
5 jåpili	5 firėg	5 fajyfėjy
6 "	6 "	6 fawyfėwy
7 "	7 ppil	7 fajifaji
8 fittij	8 "	8 faji
9 jårååpini	9 firåk	9 fajifaji
11 jaråpini	11 firek	11 fawufawu
12 "	12 "	12 fawy
13 "	13 feres	13 fėwyfėwy
14 "	14 firėk	14 "
15 lakarapini	15 firåk	15 fėwy
16 jaråpini	16 fiires	16 fėwu
17 jårapinni	17 "	17 "

315..to weave	316..to help, to help him	
1 tėėlY	1 tapatapA	*
2 tėttėg	2 tapatap	*
3 thėėr	3 *	tipyngi
4 "	4 *	tipungi
5 tėėrU	5 *	tipangi
6 "	6 *	tipangi
7 tėėr	7 *	tipangi//ŕijåli
8 "	8	jacuuda/ shėėli
9 "	9 jålillih	jålihi
11 "	11 "	"
12 "	12 jalillihi	jålihi
13 -	13 jålillis	jålisi
14 -	14 jållek	jåleki
15 -	15 jålillis	jålisi
16 tyyr	16 jåninnin	jånisi
17 tyyr	17 "	"

317..to put, to put down		318..to open it	319..to close
1	jitarO jitet-tiw	1 thuugi	1 tiijA
2	jitar jitet-tig	2 suugi	2 piresi
3	jital jiteth-thi	3 syygy	3 pilta
4	jital jiteth-thi	4 suugu	4 piltå
5	jisel jiset-tiw	5 suugi	5 tiij
6	jisel jiseli-tiw	6 "	6 "
7	ngal ngat-tiw	7 "	7 tii-lȯ
8	jisel jiseli-tiw	8 "	
9	jihel jihet-tiw	9 huuki	9 japungaa-lȯ
11	" "	11 huuki	11 jappyngyw
12	" jihet-tyw	12 "	12 japyngy
13	jisel jiset-tyw	13 wuusi	13 japyngy
14	" "	14 suuki	14 japyngyw
15	" jiset-tėw	15 sookej	15 "
16	jisen jiset-tiw	16 suuki	16 jappyngy
17	" "	17 "	17 "

320..mat	321..loin-cloth	322..sarong (Carolinian type lava-lava)
1 soobwA	1 taalA	1 werija
2 coobw	2 måcij	2 jepp
3 coobw	3 gapal	3 gapalapal
4 "	4 "	4 "
5 gijagij	5 gapalapal	5 "
6 "	6 "	6 "
7 gijęgi	7 jåpåläpål	7 tėėr
9 håki	9 jåpal	9 tėėr
11 heki	11 "	11 japåläpål
12 "	12 jafittitå	12 jatyyty
13 kijeki/ siisi	13 riiri	13 jaccėk/ lopwolopw
14 kijekyj	14 jashawar	14 japelepel
15 kijekej	15 fityytå	15 jacawar
16 kijeki	16 jacawar	16 kosimaki
17 "	17 jacaawar	17 jaccėk/ nopwonopwa

323..hat	324..sennit	325..sew, sew it
1 pėlyngA	1 garogaro	1 tejiteji teejithi
2 pėgyng	2 gorogor	2 " teejis
3 cøølafac	3 gologol	3 thitth teeji
4 cøølafac	4 "	4 " "
5 gannur	5 "	5 teete "
6 parypar	6 "	6 " "
7 ṙėėlifaaṙ	7 jòlòòl	7 " "
		8 " "
9 parymem	9 "	9 " "
11 paar	11 "	11 " "
12 jakkaw/ paar	12 "	12 " "
13 jakkaw	13 lyyl	13 " "
14 "	14 "	14 " "
15 "	15 "	15 " "
16 "	16 nyyn	16 " "
17 "	17 "	17 " "

326..clothing	327..head garland	328..rotten
1 wyyfA	1 mwaalE	1 bwa
2 wyyf	2 mweeg, mwaag	2 "
3 mangaag	3 mwààr	3 "
4 "	4 "	4 "
5 mangaagO	5 mwaramwar	5 bwa/ mash
6 "	6 "	6 "
7 mangaag	7 mwaar	7 mar
8 mòngòòg		
9 mangaak (native)	9 mwààr	9 mar
jyyf (modern)	11 "	11 kirow
11-12 wyyf	12 "	12 "
13 "	13 mwaramwar	13 kurow
14 jawus	14 "	14 kurow
15 "	15 jakàlet	15 "
16 wyyf	16 mwaramwar	16 kirow
17 "	17 mwaramwar,mwàramwàr	17 nngaw

329..smelly

1 lowA
2 bwėwy
3 ppwò
4 ppwò
5 pwoongaw
6 "
7 ppwo

9 maR
11 "
12 "
13 "
14 "
15 "
16 "
17 "

330..fragrant

1 bwowytigitig
2 je mmòg bwėwyr
3 je mommaje bwoongas
4 "
5 pwoongas
6 ngas
7 ngas

9 pwoongah
11 pwoongah/ pwookkus
12 pwoongaha/ pwookus
13 pwookkus
14 pwookash/ pwėėwu
15 pwėėwy
16 pwookkus
17 "

331..beautiful (scenery)

1 mmagO
2 tajifėw
3 mommaje
4 mommaje
5 gacc
6 "
7 "

9 lling
11 "
12 "
13 "
14 lingash
15 lingac
16 nning/ ningėc
17 ningėc

332..beautiful (woman)

1 mmagO
2 tajifėw
3 gamwathijethi
4 "
5 kamwatijeti
6 "
7 gacc

9 lijekac
11 lijaac
12 lijewetik
13 lijėmwėrynnė
14 lijaash
15 lijaac
16 nijawutek
17 nijėc

333..variegated

1 mwageregerE
2 mwagereger

5 metemetal
6 metemetal
7 mwagelegel

9 mwakelekel
10 "
11 "
12 "
13 "
14 "
15 jamwara
16 mwakeneken
17 "

334..plant (general term)

1 warywėrY
2 fatog
3 walywėl
4 "
5 "
6 "
7 "

9 walywal
11 "
12 "
13 petewel
14 waliwel
15 "
16 petewen
17 wėnywėn

335..to plant it	336..mud	337..soil
1 fatogi	1 masaloppwirI	1 bwėėrY
2 "	2 bwitbwit	2 mecȯg/ bwėėr
3 fathagy	3 mȯcor	3 bwool
4 fathagi	4 "	4 "
5 fȧtogi	5 mesharO	5 bwėėl
6 "	6 "	6 "
7 fȯtėgi	7 ppwen	7 ppwen
9 fȯtyki	9 mėr̀or	9 pwėėl
11 fȯtoki	11 pwakak/ mėr̀or	11 ppwėl
12 fȯtėki	12 mėr̀or	12 ppwel
13 pwura	13 pwėtėrek	13 ppwil
14 fȯtėki	14 mėshor	14 pwell
15 "	15 mėcor	15 "
16 fȯtuki	16 pwakak	16 ppwyn
17 fatuki	17 "	17 "

338..garden	339..branch, tree-branch	340..thorn
1 maatA maatari	1 la,laari sirigetI	1 sii -ri
2 maat	2 ra,raari ciriget	2 cii -r
3 milaaj	3 raa,raal irȧ	3 "
4 "	4 " "	4 "
5 maat	5 raa, raali walywėl	5 mwėlag -al
6 "	6 " "	6 faal felal
7 "	7 rȧȧ, rȧȧn irȧ	7 faal falyl
9 jatake	9 " "	9 falyw -an
10 mmȧll	11 " "	10 falyfal -yn
11 jatake	12 " "	11 ffal falyn
12-13 "	13 " "	12-13 faal -yn
14 "	14 pal, palan waliwel	14 * felin
15 "	15 rȧȧ, rȧȧn irȧ	15 ffėl felin
16 "	16 pan, panan irȧ	16 ffėn fėnyn
17 "	17 " "	17 ffėn fėnyn

341..tree

1 sirigetI
2 ciriget
3 jirȧ
4 "
5 walywėl
6 "
7 jirȧ

9 jirȧ
11 jirȧ
12 "
13 "
14 weliwel, waliwel
15 jirȧ
16 "
17 "

342..trunk

1 saapI
2 * gagar
3 * gagal
4 * gagal
5 gaga gagal
6 "
7 bwȯȯbw -un
ṙaap ṙapil

9 jȧ?ȧ jȧ?ȧȧn
10 * jȧkȧȧn
11 * jȧ?ȧȧn
12 pwoopw -un
13-14 "
15 -
16 pwoopw -un
17 "

343..stick

1 jilajE
2 tebweriga
3 sogosog
4 "
5 jirȧ
6 "
7 "

9 "
11 wȯȯk
12 "
13 "
14 "
15 "
16 "
17 "

344..seed

1 fatogA
2 bwigir
3 fathag
4 "
5 fajyl (walywėl)
6 fawyl (walywėl)
7 fajyn (irȧ)

9 pwikil
10 pwykil
11 pwikil
12-13 kipwil
14 pwukil
15 pwukel
16 fėwyn(irȧ)
17 fėwyn (irȧ)

345..flower

1 bwyyngY -yri
2 bwyyng -yr
3 -
4 -
5 * pėėl
6 "
7 "

9 pėė pėėn
10 * pėėn
11-12 "
13 "
14 "
15 "
16 "
17 "

346..leaf

1 saawY -yri
2 wyyn wynni
3 cøø cøøl
4 "
5 shėė shėėl
6 "
7 ṙėė ṙėėl
8 shėė shėėl
9 ṙėė ṙėėn
11 "
12 "
13 "
14 shėė shėėn
15 cėė cėėn
16 "
17 "

347..root	348..fruit	349..grass
1 walagA -ari	1 wuwa	1 fatirI
2 wagag -ar	2 "	2 fatir
3 wagar -al	3 "	3 fathėl
4 wėgar -al//	4 "	4 fåthil
wėrag -al	5 "	5 bwugor
5-6 wėgar -al	6 "	6 "
7 waar -an	7 "	7 fåtil
9 waar -ån	9 "	9 "
11 "	11 faawy	11 fetil
12 waaraar waaran	12 "	12 "
13 waar waaran	13 fėėwy	13 fėtil
14 waarar waaran	14 wuwa	14 fetil
15 waar waaran	15 kytir	15 fėtil
16 "	16 fėwy	16 fetin
17 waar waaren	17 "	17 "

350..dirty	351..dust	352..rubbish, garbage
1 ppwėrY	1 galaatY	1 peethI
2 ppwėrY	2 ppwėrY	2 pees
3 ppwul, ppwėl	3 jewo	3 "
4 ppwėl	4 "	4 "
5 "	5 bwurȯk	5 pees/ sėlaapej
6 "	6 "	6 pees
7 "	7 "	7 peej
9 "	9 pejah	9 peej
11 "	11 topw	11 "
12 ppwel	12 "	12 "
13 ppwil	13 topw,tȯpw	13 pii
14 ppwel	14 tȯpw	14 peej
15 ppwel	15 topw	15 "
16 ppwyn	16 "	16 "
17 "	17 "	17 "

353..pebble	354..rock	355..sand
1 fathymagA	1 faathY fathyri	1 piijA pijeri
2 fasymwag	2 faas fasyri	2 piij pijer
3 fasamag	3 fåås fåsėl	3 ppi pijil
4 fasamwag	4 "	4 pii pijil
5 fajymwag	5 faajy fajyl	5 ppi pijil
6 fawymwag	6 faawy fawyl	6 "
7 fajimwȯ	7 faaj fajyn	7 piij pijen
	8 faj fajil	
9 fajymwȯ	9 faaj fajyn	9 ppij ppijån
11 fawumwȯ	11 faaw fawyn	10 ppi ppijån
12 fajimwȯ	12 faaj fajyn	11 ppi ppijen
13 fėwymwȯ	13 faawy fėwyn	12-13 ppi ppijan
14 "	14 faaw fėwyn	14 "
15 "	15 faawy fawyn	15 "
16 "	16 faaw fėwyn	16 ppi ppijen
17 "	17 "	17 "

356..mountain	357..road	358..river
1 thuugU -uri	1 jaarA	1 sarygilithI
2 suug -ur	2 jaarE	2 waaw
3 tajiit	3 jaal	3 meląąlyl
4 "	4 "	4 mėlȯȯlųl
5 shuug -ul	5 "	5 melawylyyl
6 "	6 jaan	6 "
7 ṙuug -ul	7 jaan	7 mylėėlul/ ṙalabwu
	8 jaal	
9 ṙuuk -un	9 "	9 pwuupwu
11 "	11 jąąl	10 -
12 "	12 jaal	11 pwuupwu
13 "	13 "	12 "
14 shuuk -un	14 "	13 "
15 cuuk -un	15 "	14 "
16 "	16 jaan	15 "
17 "	17 "	16-17 "

359..lagoon

1 ramwomatawA
2 -
3 laamw -ol
4 "
5 laamwO -ol
6 "
7 lòòmw -òl

9 nòòmw -on
11 nòòmw -on
12 nòòmw namwan, namwun
13 nòòmw -un
14 "
15 nòòmw -òn
16 nòòmw -on
17 nòòmw -un

360..harbor

1 woofA
2 pasec// goof
3 laamw
4 "
5-6 -
7 tawur

9 mwòòr
11 taaw
12 "
13 "
14 "
15 nòòmw
16 "
17 "

361..valley

1 -
2 romòròng
3 milèèlow
4 -
5 lipit
6 "
7 mwajirág

9 mòòl
11 leemòòl
12 "
13 "
14 "
15 mòòl
16 mmwòt
17 neewmòn

362..channel

1 taawA
2 pasec
3 thaaw
4 "
5 taaw
6 "
7 tawur

9 tòwur
11 towur
12 towur
13 saraata
14 -
15 saraata
16 jànyk
17 "

363..deep

1 torangO
2 ttO
3 joth
4 "
5 ttO
6 "
7 lèllòòl

9 "
11 "
12 "
13 "
14 lèl
15 lèllòòl
16 mwajinòn
17 janannòòn

364..shallow

1 petE
2 pet
3 peth
4 "
5 bwat
6 bwat
7 ppet

9 "
11 "
12 "
13 "
14 "
15 "
16 "
17 "

365..high tide	366..low tide	367..wave
1 bwuul0	1 mmatA	1 raaw0
2 sėgyrap	2 cingicing	2 raaw
3 bwuur	3 mmath	3 laaw
4 "	4 "	4 laaw
5 "	5 bwaat	5 lȯȯ
6 "	6 "	6 "
7 "	7 mmat	7 "
		8 "
9 pwuur	9 "	9 nȯȯ
11 kkyn	11 "	11 "
12 "	12 "	12 "
13 "	13 "	13 "
14 pwuur	14 "	14 "
15 "	15 mmat// keteket	15 "
16 kyyn	16 mmat// kkȯt	16 "
17 "	17 "	17 "

368..outside	369..island	370..land
1 ryygY	1 faryjA	1 gajirangA
2 ryyg	2 tagaw	2 faryg
3 lyyg	3 faly	3 tottȯl
4 luug	4 falu, fulu	4 "
5 luug	5 fåluwA	5 'island'
6 "	6 falu	6 "
7 "	7 falyw	7 bwugos
	8 faliw	
9 lyyk	9 fanyw	9 'island'
11 "	11 "	11 "
12 "	12 "	12 "
13 "	13 "	13 "
14 "	14 fėnyw	14 "
15 "	15 "	15 "
16 nyyk	16 "	16 "
17 "	17 fėny	17 "

371..reef	372..coral	373..earth (not heaven)
1 woosA -eri	1 maalY	1 faryherijalemat
2 gooc -or	2 rangit	2 farygyrjagamat
3 jooc -el	3 langath	3 fajileng
4 "	4 "	4 "
5 woosh -al	5 -	5 salop
6 "	6 -	6 "
7 wooṙ -ål	7 'reef'	7 falyfal
9 wooṙ -ån	9 -	9 likihanop
11 wooṙ -en	11 jåål	11 leehòn
12 wooṙ -an	12 "	12 hanyfaan
13 wooṙ -an	13 "	13 fènyfaan
14 woosh -an	14 "	14 "
15 wooc -èn	15 fawyrypw -yn	15 "
16 wooc -en	16 jåån	16 "
17 "	17 "	17 "

374..north	375..south	376..east
1 jijefangI	1 jijèwylY	1 gèè-tiwO
2 "	2 jijèwyg	2 jiryg
3 jiifang	3 jiijor	3 metaral, metarral
4 "	4 "	4 meteråål
5 "	5 jijèèr	5 gòò-tuw
6 "	6 jijèwyr	6 "
7 jefang	7 jèèr	7 jèè-tiw
9 jefång	9 "	9 "
11 jåfèng	11 "	11 "
12 "	12 "	12 "
13 jefen	13 "	13 "
14 jefèng	14 "	14 wèè-tiw
15 "	15 "	15 jèè-tyw
16 jefeng	16 "	16 jèè-tiw
17 jåfèng	17 "	17 "

377..west

1 jirotowA
2 "
3 mȧȧl-thow
4 "
5 jilitow
6 "
7 leetow

9 lotowu
11 "
12 "
13 "
14 "
15 "
16 notowu
17 "

378..moon

1 malamA
2 magam
3 maram
4 "
5 "
6 "
7 meram

9 maram
11 meram
12 maram
13 "
14 "
15 "
16 "
17 "

379..sky

1 raangI
2 jewygaar
3 lȧȧng
4 "
5 laangI
6 "
7 lȧȧng

9 "
11 "
12 "
13 "
14 "
15 "
16 nȧȧng
17 "

380..sun

1 jaarO
2 jaar
3 jaal
4 "
5 "
6 "
7 jȧlet

9 "
11 jȧlet
12 jȧlet
13 jakkar
14 jakkar
15 jȯȯl
16 jakkar
17 jakkar

381..star

1 fiithI
2 fiis
3 "
4 "
5 fyys
6 "
7 fyy

9 "
11 "
12 "
13 "
14 "
15 "
16 "
17 "

382..cloud

1 gosowU
2 gocow
3 tharami
4 "
5 langimaal
6 mannylȩng
7 toobw

9 worow
11 "
12 jarow
13 kuruw
14 woshow
15 wocow
16 kucuw kucuun
17 kucu kucuun

383..lightning	384..thunder	385..rain
1 marupE	1 paalA	1 wyytA
2 fisijer	2 paag	2 wyyt
3 ffis	3 parr	3 pėtȯg// wuuth
4 "	4 parr	4 pėtȯg// juuth
5 wėrėwėr	5 pacc	5 goshow
6 "	6 ppac	6 "
7 werewer	7 pacc	7 worow
9 mȧruweruw	9 manyyng	9 lȧȧng
11 meruweruw	11 "	11 "
12 fiifi	12 "	12 wyyt
13 "	13 paaŕ	13 raan
14 "	14 soweluw	14 wyyt
15 "	15 copwulȧp	15 "
16 "	16 copwonap	16 wyyt// rȧȧn
17 "	17 copwunap	17 wuut/ / rȧȧn

386..dew	387..pillow	388..house
1 worolawY	1 wyryngA -eri	1 jiimwA -eri
2 worogaw	2 wyryng -er	2 jiimw -er
3 jȯrȯrow	3 jilėėlȯng -ȯl	3 jiimw -el
4 "	4 "	4 " -el
5 serello	5 jylyyl -yl	5 " -el
6-7 ffej, ffejylibwȯng	6 "	6 " -el
	7 "	7 " -ȧn
9 jamwurenipwȯng		8 " -ȧl
11 jȯmwurenipwȯng	9 "	9 " -ȧn
12 jamwurenipwȯng//	11 pinnuw pinnuun//	11 " -en
sarello	pilluw pilluun	12 " -en
13 jamwurenipwin	12 pynnyw pynnuun	13 " -en
14 jamwurenipwȯng	13 pilluw pilluun	14 " -en
15 mwijac	14 wylyyl -yn	15 " -en
16 jomwurenipwin	15 "	16 " -en
17 jamwurenipwin	16-17 pinnu pinnuun	17 " -en

389..roof, thatch	390 doorway	391..house pillar
1 jaathO -ori	1 gatamA	1 thyylA -eri
2 jaasO -or	2 gatam	2 syyg -er
3 jaas -ol	3 "	3 syyr -el
4 "	4 "	4 suur -el
5 jaasO jåsėl	5 gėtam	5 syyr syyrel
6 jaasO jåsėl	6 "	6 "
7 jȯȯs -ȯn	7 jasam	7 jyyr jyyrån
9 jȯȯh jahȯn	9 jaham	9 jyyr -ån
11 jȯȯh -ȯn	11 "	11 wyyr wyyren
12 hȯȯ -n	12 "	12 "
13 jȯȯs jasun	13 jasam	13 wyyr wyran
14 jȯȯs jasȯn	14 "	14 wyyr wyran
15 jȯȯs -ȯn	15 "	15 wyyr wyran
16 jȯȯs -un/ jȯȯ -n	16 "	16 wyyr wyren
17 "	17 "	17 wyyr wyrėn

392..ridge-pole	393..plank	394..men's house (1-7) community building (8-17)
1 wuungA	1 paapA -eri	1 faarE
2 wuung	2 paap -er	2 faar
3 "	3 " -el	3-4 faal
4 "	4 " -el	5 "
5 "	5 " -el	6 "
6 "	6 " -el	7 wutt
7 "	7 " -ål	
9 "	9 " -ån	9 wutt
11 "	11 " paapen	11 "
12 "	12 " pappan	12 "
13 "	13 " -an	13 wuut
14 "	14 " -an	14 "
15 "	15 " -an, -en	15 fåål
16 "	16 " -en	16 wuut
17 "	17 " -en	17 "

395..menstrual house

1 jipėrY
2 jimweripėr
3 pââl
4 "
5 jimwetteeng//
jimwelipėl
6 jimwelipėl
7 jimweligât
9 jimwenikât
10 jimwòppwut
11 jimwenikat//
jimwòppwut
12 jimweppwut
13-14 -
15 jimwasòn
16 jimweppwut
17 jimwennònykyn

396..name

1 jiitA
2 jiit
3 jiith
4 "
5 "
6 "
7 "
8 "
9 "
11 "
12 "
13 "
14 "
15 "
16 "
17 "

397..chief

1 tamwoorU -uri
2 tamwoor -ur
3 tamwool -ul
4 tamwool -ul
5 " tamwonn
6 " tamwonn
7 samwoon -in
9 hamwool -un
11 hamwool -un
12 " -un
13 samwool -un
14 somwool -un
15 samwool -un
16 samwoon -un
17 samwoon -un, -en

398..taboo

1 taabwU
2 taabw
3 "
4 "
5 "
6 "
7 piin
8 "
9 "
11 "
12 "
13 rôông
14 ffel
15 pwaawy
16 pwaaw
17 piin

399..church

1 klesija
2 jikereesija
3 galesija
4 "
5 "
6 jimwelimejipil
7 jimwanipin
9 jimwanifââl
11 jimwenipin
12 fââl
13 "
14 "
15 feel
16 fâân
17 jimwenipin

400..soul

1 ngėėrY
2 ngėėr
3 ngėėl
4 "
5 "
6 "
7 "
8 "
9 ngėėn
11 "
12 "
13 "
14 "
15 "
16 "
17 "

401 ghost, god	402..shadow	403..image, doll
1 jarythY	1 jawyngA	1 rijos0
2 jarus	2 nyyg/ jawung	2 rijos
3 jålys	3 jòòng	3 lijos
4 jålus	4 "	4 "
5 "	5 nnyyr	5 "
6 "	6 "	6 "
7 jåålu	7 llyyr	7 nijoss
	8 llyr	
9 jaany	9 "	9 lijoss
11 jany	11 "	11 lijoss
12 "	12 ngyyn	12 "
13 "	13 "	13 "
14 "	14 likanyyny	14 "
15 "	15 nnyr	15 "
16 soope	16 ngyyn	16 nijoss
17 jèny	17 ngyyn	17 nijoss

404..a tattoo	405..a grave	406..animal
1 maakE	1 pejijA// riibwA	1 maarY
2 mååk	2 riibw	2 maar
3 makk	3 pejij	3 måål
4 måkk	4 pejij	4 måål
5 måkk	5 pejij	5 maalI
6 måkk	6 påjij	6 "
	7 påjij	7 maan
9 måkk		
11 mmakk	9 påjij	9 maan
12 makk	11 pejij	11 "
13 mmakk	12 pejij	12 "
14 mmakk	13 pejijas	13 "
15 mmakk	14 "	14 "
16 mmakk	15 "	15 "
17 mmakk	16 "	16 "
	17 "	17 "

407..bird	408..egg	409..tail
1 'animal'	1 sagaj	1 paasA
2 'animal'/maryjejer	2 cagaj	2 paac
3-4 'animal'/ måålijejål	3 fåthi	3 "
	4 "	4 "
5-6 'animal'/ månnylang	5 sygynn	5 gashijesh
	6 sygyll	6 "
7 'animal'	7 sagoll	7 jårijår
	8 sagoll	
9 'animal' manyn leemal	9 hakull	9 lukujåål
	11 hokull	11 * lowun
11-12 manhyyhy	12 "	12 * wykyn// * lykyhåål
13 mansyysy	13 jawyrys	13 wyyk
14 "	14 sokkull	14 "
15 "	15 "	15 "
16 maccang	16 sokunn	16 nisömmwut
17 "	17 "	17 "

410..nest	411..to hatch (int.)	412..hatch (tr.)
1 gafatA	1 gattawa	1 sawosawo
2 gafat	2 "	2 coco
3 "	3 towa	3 jopp
4 "	4 "	4 "
5 ffåt	5 jattewa	5 jattewa
6 "	6 "	6 "
7 faas	7 jåssewa	7 jåssewa
9 faah	9 pwuupwu	9 wonopi
11 jelifah/ fah	11 "	11 "
12 faha	12 "	12 wonopar
13 faas	13 jawetin	13 jawonopi
14-15 "	14 jammèk	14 pwor
16 "	15 jamaryp	15 wonopej
17 faas, fåås	16-17 jammèk// jèmmèk	16 wonepe
		17 wonoppi

413..food (classifier)	414..to cook	415..to boil
1-2 gar-	1 kuukU/ gamėėtA	1 gawalE
3 gal-	2 gaaw/ gamėėt	2 gabwec
4 "	3 gėmath	3 gawar
5 gėl-	4 "	4 "
6 "	5 gamėėt	5 bwug
7 jål-	6 "	6 "
8 "	7 jåmmoot	7 "
9 jån-	9 jòmmoot	9 jåwåcc
11 "	11 jamėėt	11 jawacc
12 jan-	12 jammòòt	12 "
13 "	13 kuuk	13 jamoota
14 "	14 jammoot	14 japwesh
15 "	15 "	15 japwic
16 jen-	16 jajipwėėt	16 jepwic
17 -	17 kuuk	17 jepwic

416..cooking house	417..plate, bowl	418..meat
1 mwarumwU	1 tagagY	1 fitig0
2 mwurumw	2 tapijE	2 fitigU
3 mwulumw	3 tåpi	3 fethėg
4 "	4 "	4 "
5 mwaluumw	5 tåpij	5 fityg
6 "	6 tåpi	6 "
7 "	7 såpi	7 fitug
	8 sepi	
9 mėhėraaw	9 håpi	9 fitik0
11 hamwėrów	11 hepi	10 fytyk
12 hamwėrò	12 "	11 fituk
13 jimwan kuuk	13 sepi	12 futuk
14 falang	14 sapi	13 fytyk
15 mwosėrò	15 sapej	14 futuk
16 fanang	16 sepi	15-16 "
17 fanang	17 sepi	17 fytuk

419..fat	420..to smoke (fish)	421..earth oven
1 giriis	1 fangifengI// thytthyrY	1 wuumw
2 kiriis	2 fang	2 "
3-4 kiriis, giriis	3 fangfeng	3 "
5 kiriis	4 "	4 "
6 "	5 fangféng	5 "
7 "	6 "	6 "
	7 fáng	7 "
9 mwatiika		9 "
11 jiwi	9 "	11 "
12 kiriis	11 jappwer̀	12 "
13 "	12 pajikang	13 "
14 kyriis	13 kapwir̀	14 "
15 "	14 jappwesh	15 "
16 kiriis	15-16 jappwec	16 "
17 "	17 pajikkang	17 "

422..coconut milk	423..coconut grater (stand type)	424..coconut husking stick
1 jaléngY	1 wejigengI	1 tajith
2 jéngég	2 perig	2 jawyfer
3 jaréng	3 wathangeg	3 gooth
4 "	4 "	4 "
5 járéng	5 wajikéng	5 goot
6 "	6 wajikang	6 "
7 járyng	7 bwajikar	7 "
9 jaryng	9 pwajikár	9 wókun oot
10 "	11 pwejiker	11 pakynyfál
11 "	12 "	12 wotomar̀
12 "	13 "	13 wotar̀o
13 "	14 "	14 jangat wókun otoot
14 "	15 "	
15 "	16 "	15 jangat
16 "	17 "	16 woot
17 "		17 wóók/ woot

425..coconut syrup	426..toddy (fermented)	427..toddy (sweet)
1 riis0	1 gasi/ gasimwaanE	1 gasi
2 riic0	2 gaci/ gacimwȧnn	2 gaci
3 lyyc	3 faluubwa	3 gaciimam
4 luuc	4 "	4 gaciimem
5 nuush	5 fȧluubwa	5 gashiimemm
6 lyysh	6 "	6 "
7 luuṙ	7 "	7 jȧṙiimamm
9 liiṙ	9 jȧṙi/ faluupwa	9 jȧṙiimȧm
10 lyyṙ	11 "	11 jȧṙiimem
11 jaṙiluuṙ	12 faluupwa	12 jaṙimem
12 jannipwaṙ	13 "	13 jaṙingar
13 malaasoos	14 jashi	14 jaci
14 -	15 jaci	15 jaciingar
15 malaases	16 jȧci	16 jaciijar
16 - 17 jȧci	17 "	17 jaciingar

428..ship	429..canoe	430..outrigger boom
1 wafaryjA	1 wa waari	1 gijaw0
2 wafaryg	2 wa waar	2 gijȯ
3 bwaarko	3 waa waal	3 gyjȯ
4 "	4 " "	4 gujȯ
5 wafalyw	5 " "	5 gijȯ
6 "	6 " "	6 "
7 wafȧlyw	7 waa wȧȧn	7 "
9 siipw siipwan	9 " "	9 kijȯ
11 siip */ * heejin	11 " "	11 "
12 siipw siipwen/ * heejin	12 " "	12 "
13 siipw siipwan	13 " "	13 "
14 siip siippan	14 " "	14 kyjȯ
15 "	15 " "	15 sija
16 siip siippwen	16 " "	16 sijȧ
17 siip siipwen	17 " "	17 kijȯ

431..outrigger float		432..paddle	433..mast
1	taamA -ari	1 fatyrA	1 gawythY -yri
2	taam -ar	2 fatyr	2 gawys -yr
3	thaam -al	3 fȧthėl	3 gȯȯs -ėl
4	" -al	4 "	4 gȯȯs -ėl
5	taamA temȧl	5 fȧtyl	5 gajys -il
6	" "	6 "	6 gawys -il
7	taam temȧn	7 "	7 jajy -yn
9	taam temȧn	9 fatyl	9 jajy -yn
11	taam tamen	11 "	11 jawy -yn
12	taam taman	12 "	12 "
13	" "	13 "	13 "
14	" "	14 fėtil	14 "
15	" "	15 fatėl	15 "
16	" tamen	16 fetyn	16 "
17	" "	17 fėtyn	17 "

434..bailer	435..conch-shell trumpet	436..sail
1	ryymA -eri	1 tawi tawiiri	1 wyyjA
2	riim -er	2 tawi tawijer	2 wyyg
3	liim -en	3 tawi	3 jyyj
4	liim -en	4 "	4 juuj
5	gėmmȧt	5 "	5 jyyw
6	gėmmȧt	6 "	6 wyyw
7	jammat		7 jyyw
9	niim -en// jammat	9 hawi hawiin	9 jamara
11	nuum -en// jammat	11 "	11 "
12	nuum -en	12 "	12 "
13	nuum -an	13 sawi sawiin	13 "
14	"	14 "	14 "
15	"	15 "	15 "
16	nuum -en	16 sewi sewiin	16 "
17	"	17 "	17 "

437..fish

1 jiigA -eri
2 jiig -er
3-4 jiig -il
5-6 jiig -al
7 jiig -an
9 jiik jikan jikinȧn
11 jiik jiken jikenen
12 jiik jiken
13 jiik -en
14 jiik jikan jikėn
15 jiik -en
16 jiik -en
17 jiik jikenen

438..to fish

1 thaji-ragO/ fita
2 saji-rȯg/ fita
3 fitȧ
4 fitȧ
5 fita
6 "
7 fita// neeset
9 wajilė// lehet
11 lehet/ wajilȧ
12 lehet
13 jattaw
14 jattaw
15 leeset
16 "
17 "

439..dorsal fin

1 jiingI
2 "
3 jiing
4 "
5 "
6 "
7 "
9 jiing
11 jiing/ peen
12 jiing
13 * jingin
14 * jingin
15 jiing
16 jiin
17 jiin

440..fish-hook

1 gaawy
2 "
3 gaaj
4 "
5 gėė
6 gėė, kėė
7 kėė
8 gėė
9 kėė
11 jėė
12 wėė
13 wėė
14 "
15 jėė
16 "
17 "

441..fish-line

1 jaawO
2 jaaw
3 jaaw
4 "
5 jȯȯ
6 "
7 "
9 "
11 "
12 "
13 "
14 "
15 "
16 "
17 "

442..fish-pole

1 bwaawU
2 bwaaw
3 bwaaw
4 "
5 "
6 "
7 "
9 pwaaw
10 pwȯȯw
11 pwaaw
12 pwȯȯw
13 pwoow
14 pwȯȯw
15 "
16 "
17 "

443..fish-bait	444..fish-trap	445..allophylus timorensis
1 ppa	1 bwejowu	1 ngėėwy
2 "	2 bwejowu	2 ngėėwy
3 paa	3 bwijoow	3 ngooj
4 "	4 "	4 "
5 "	5 wuu	5 ngėė
6 "	6 "	6 "
7 jamwȯn	7 "	7 "
9 jȯmwȯn	9 "	9 nngė
11 jamwȯn	11 "	10 ngėė
12 "	12 "	11-12 nngė
13 paa	13 "	13 ngėė
14 jammwȯn	14 "	14 nngė
15 jammwȯn	15 "	15 ngėė
16 jȯmwȯn// paa	16 "	16 -
17 paa	17 "	17 -

446..arrowroot	447..bamboo	448..banana
1 mwėgymwėgY	1 paabwu	1 fathol/ wiisI
2 mwėgymwėg	2 "	2 wiic
3 mwagmwȯg	3 bwobwaw	3 wuuc
4 "	4 "	4 juuc
5 mwogymwėg	5 bwaajy	5 wiish
6 "	6 bwaawy	6 "
7 mwagymwag	7 bwaaj	7 wiiṙ
9 mwakymwak	9 pwaaj	9 wuuṙ
11 "	11 likippwaaw	11 "
12 "	12 "	12 "
13 "	13 jiic	13 "
14 mwekymwėk	14 jiish	14 wuush
15 "	15 jiic	15 wuuc
16 "	16 "	16 "
17 "	17 "	17 "

449..Barringtonia	450..betel nut	451..breadfruit
1 guurU	1 bwuuwA	1 maaj
2 guur	2 bwug	2 maaj
3 guul	3 bwu	3 mȧȧj
4 "	4 bwu	4 mȧȧj
5 "	5 bwuw	5 maaj
6 "	6 "	6 "
7 guun	7 bwu	7 mȧȧj
		8 "
9 kuul	9 pwu	9 "
11 "	11 ppwu	11 "
12 "	12 "	12 "
13 "	13 "	13 maaj
14 "	14 "	14 mȧȧj
15 "	15 "	15 mȧȧj
16 kuun	16 "	16 maaj
17 "	17 "	17 "

452..Calophyllum inophyllum	453..cordia subcordata	454..clerodendrum inerme
1 -	1 -	1 -
2 -	2 -	2 -
3 rȧgėc	3 -	3 -
4 rȧgėc	4 -	4 -
5 -	5 -	5 -
6 -	6 -	6 -
7 rȧgiṙ	7 -	7 wulȯ
9 rȧkiṙ	9 jannė// jalyw	9 wulȯ
11 rekiṙ	11 jalyw	11 wulȯ
12 rėkyṙ	12 "	12 "
13 rakyṙ	13 jannė	13 japweṙ
14 rėkysh	14 jalẏw	14 -
15 rakyc	15 jalė	15 wulȯ
16 rekic	16 jannė	16 japwec
17 rekic	17 "	17 jaapwec

455..hernandia sonora	456..hibiscus tiliaceus	457..lemon
		1 gulugulU
	1 girifėwy	2 gurugur
	2 "	3 "
	3 gylyf̣ej	4 "
	4 gilifej	5 "
5 -	5 gilifė	6 "
6 -	6 gilifė	7 lijimis// leemon// lėėmwul
7 woṙan	7 gilifė	
9 woṙal	9 kilifė	9 lajimis/ lėėmwul
11 woṙál	11 "	10 lajimis// loomwul
12 woṙal	12 meleew	11 lajimis
13 jakyyrang	13 sàápwow	12 "
14 "	14 kilifė	13-14 "
15 "	15 "	15
16 "	16 sinifė	16 najimis// siitor
17 "	17 "	17 najimis

458..mango	459..mangrove	460..moss
1 mangka	1 gabwuurys	1 ruumwU
2 mangka	2 "	2 ruumw
3 mangga	3 soong// màlil	3 luumw
4 "	4 "	4 "
5 mangka	5 soong	5 "
6 mangga	6 "	6 "
7 mangka	7 meliin// ṙija	7 "
9 maloko	9 ṙija	9 "
10 malako	11 "	11 "
11 kanngit	12 "	12 "
12 kanngit	13 "	13 "
13-14 manggo	14 shiija	14 "
15 mangko, manggo	15 ciija	15 "
16 kanngit/ manggo	16 cija	16 nuumw
17 "	17 "	17 nuumw

461..pandanus

1 faasA
2 faac
3 "
4 "
5 faashA
6 "
7 faaṙ

9 faaṙ
11 faaṙ
12 "
13 "
14 faash
15 faac
16 faac
17 faac

462..papaya

1 bwabwaajA
2 bwabwaaj
3 bwebwaaj
4 "
5 bwajibwaaj
6 bwebwaaj
7 bwajibwaaj

9 pwȧjipwaaj
11 pwejipwaaj
12 "
13 kyppwaaw
14 lipwuupwaaw
15 momwejap
16 pwiipwaaj
17 kippwaw

463..pisonia grandis

1 mwėėgY
2 mwoog
3 "
4 "
5 mwėėg
6 "
7 "

9 mwėėk
11 "
12 "
13 "
14 "
15 "
16 mwaak
17 "

464..plumeria

1 jaɬiɬaj
2 moow
3 sėėjyr
4 sėėjur
5 sėėwyr
6 "
7 "

9 jėėjyr
11 jėėwyr
12 sėėwyr
13 seewyr
14 pumarija
15 "
16 seewyr
17 sėėwyr

465..polypodium phymatodes

1 sisi
2 cici
3 "
4 "
5 shishi
6 "
7 ṙiṙi

9 "
11 "
12 "
13 "
14 shishi
15 cici
16 "
17 "

466 premna corymbosa

1 jaal0
2 jaag
3 jaar
4 "
5 jaar0
6 "
7 jȯȯr

9 "
11 "
12 lijȯȯr
13 wumwukaw
14 lijȯȯr
15 jȯȯr
16-17 wumwukaw/ nijor

467..scaevola	468..spider-lily	469..sugar cane
1 nnatY	1 gijobwU	1 sukoo kejin
2 gamåg	2 "	2 sukoo kejin
3 llath	3 mwacyng	3 makil
4 "	4 mwacung	4 måkil
5 nnat	5 gijobw	5 woow
6 "	6 "	6 "
7 "	7 "	7 "
9 nnat	9 kijopw	9 woow
11 "	11 "	11 woow/ sapwyk
12 "	12 "	12 woow
13 "	13 siipw	13 "
14 nnėt	14 kyjopw	14 "
15 "	15 sijopw	15 "
16 "	16 sijopw	16 woow/ sapwyk
17 "	17 kijopw// siipw	17 woow

470..cythosperma	471..ipomea	472..turmeric plant
1 bwuragA	1 tumuso	1 galowA
2 bwuròg	2 tumuco	2 cawyrijòng
3 bwèlòg	3-4 kumèèti,	3 gocol
4 "	gamooti	4 "
5 bwulag	5-6 kamuuti	5 jangoshig
6 "	7 kòmooti	6 "
7 bwula		7 jåfan
	9 kòmuti,	
9 pwula	jòmuti	9 jåfån
11 "	11 kamu	11 jafan
12 pwulå	12 kòmu, jamuuti	12 "
13 "	13 kamu	13 -
14 "	14 "	14 jafèn
15 "	15 kòmu	15 jafan
16 pwuna	16 komu	16 jåfån
17 "	17 k*omu	17 jafan

473..turmeric powder	474..breadfruit sap	475 coconut tree
1 -	1 bwyyrY	1 ryy
2 gaang	2 bwyyr	2 ryyg
3 raang	3 bwuul	3 lyy
4 "	4 "	4 luu
5 "	5 bwilis	5 lyy
6 "	6 "	6 "
7 "	7 jappaṙ	7 "
		8 "
9 tåjik0	9 jappaṙ	9 nyy
10 tåjik	11 "	11 "
11-12 tejik	12 "	12 "
13 "	13 "	13 "
14 "	14 pwilis	14 "
15 tajak	15 pwȯles	15 "
16 tejik	16 jappac	16 "
17 tejuk	17 "	17 "

476..coconut "cloth"	477..coconut shell	478..coconut sponge
1 wyyrY	1 fathyrywan	1 faalA
2 wyyr	2 tagȯg	2 faag
3 jyyl	3 lyy	3 peel
4 juul	4 luu	4 "
5 jyyl	5 tegag	5 faar
6 wyyl	6 "	6 "
7 tugumaajyn	7 saag	7 "
9 wyyn	9 haak	9 jatton
11 jawutteh	11 haak/ pejihaak	11 jȯtt
12 jatihė	12 haak	12 jatton
13 jawuttis	13 pejisaak	13 "
14 jawuttėk	14 saak/ pewusaak	14 coofar
15 "	15 saak	15 farajico
16 jawuses	16 sėėk	16 jatton
17 "	17 sėėk	17 "

479..coconut leaf (unopened spear)	480..copra	481..barracuda
1 tapagaw0/ wubwut0	1 soo	1 talawA
2 wubwut	2 coow	2 bwawyg
3 wobwuth	3 coo	3 taraw
4 "	4 "	4 "
5 wubwut	5 shoo	5 seraw
6 "	6 "	6 "
7 "	7 ṙoo	7 "
9 wupwut	9 ṙoo	9 japwaj
11 wopwut	11 "	10 haraw/ jaapwaj
12 wupwut	12 "	11 heraw
13 "	13 taka	12 haraw
14 "	14 shoo	13-14 saraw
15 wopwut	15 coo	15 saraw
16 wopwut	16 taka	16 "
17 "	17 coo/ taka	17 "

482..bonito	483..crevalle	484..flying fish
1 galangaapA	1 rangyjA	1 mangalY
2 gangaap	2 ragyng	2 mangag
3 garangap	3 languj	3 mengar
4 "	4 "	4 "
5 "	5 languw	5 mėngar0
6 "	6 "	6 "
7 jarangap	7 "	7 mėngar
9 "	9 "	9 "
11 jangarap	11 pwejah	11 mengar
12 "	12 pweha	12 mangar
13 "	13 pwejas	13 "
14 "	14 pwajas	14 mėngėr
15 "	15 langėw	15 "
16 "	16 pwejas	16 mangar
17 "	17 pweejas	17 menger

485..porcupine fish	486..puffer fish	487..ray fish
1 tajythY	1 bwithitojythY	1 fajilA
2 tawys	2 wuus	2 fajija
3 tøøs	3 lėėc	3 faaje
4 "	4 "	4 "
5 tajys	5 lėėsh	5 fåji
6 tawys	6 "	6 "
7 tajys	7 lėėr	7 ffåji
9 hėėj	9 "	9 fåje
10 tajys	11 "	11 ffej
11 hėėw	12 "	12 "
12 sėėj	13 "	13 mårew
13-14 seew	14 lėėsh	14 ffej
15 "	15 lėėc	15 ffaj
16 seej	16 coopwo	16 sikac
17 sėėwy	17 "	17 "

488..red snapper	489..shark	490..yellow-fin tuna
1 mooth0	1 pagowA	1 taguwA
2 moos	2 pogow	2 taguw
3 "	3 pagow	3 "
4 "	4 "	4 "
5 "	5 "	5 tangyr
6 "	6 "	6 "
7 "	7 pååw	7 sångir
8 "		8 "
9 meew	9 "	9 hångir
11 "	11 "	11 hengir
12 "	12 peŕaw	12 "
13 "	13 "	13 sengyr
14 "	14 pacaw	14 sėngyr
15 "	15 pecaw	15 "
16 moos	16 "	16 sengir
17 meew	17 pacaw// pòkò	17 "

491..moray eel

1 rabwut0
2 rabwut
3 labwuth
4 labwoth
5 sawyfang
6 sawufang
7 "

9 hawufȧng
10 hawufėng
11 howufėng
12 hookulijaw
13-14 lopwut
15 lȯpwut
16 nopwut
17 "

492..lobster

1 wyylA
2 wyyg
3 jyyr
4 juur
5 jyyr
6 wyyr
7 jyyr

9 wyyr
10 jyyr
11-12 jawuuta
13 wyyr
14 "
15 "
16 "
17 "

493..octopus

1 giitA
2 garagiitA
3 giit
4 giit
5 gyys
6 "
7 "

9 kyyh
11 "
12 kyhyy
13 kyys
14 "
15 "
16 nippac/ kyys
17 "

494..porpoise

1 gyjesigI
2 jygecig
3 gyyj gyyjȯl
4 guuj guujȯl
5 gyywA gyywal
6 "
7 "

9 kyyw kyywȧn
11 kyyw kyywen
12 kyyw kywen
13 kyy kyyn
14 "
15 "
16 kyyw kyywen
17 kyyw kyyn, kywen

495..Portugese man-of-war

1 rimwatong0
2 rimwotong
3 jȧthijėth
4 "
5 nimwatȯng
6 "
7 limwatȯng

9 "
11 limwaatȯng
12 limwatȯng
13 "
14 limwutong
15 serekuto
16 niseew
17 niisėėw

496..turtle

1 woorY
2 wėėr
3 wool
4 "
5 woong
6 "
7 "
8 "
9 "
11 "
12 pwȧȧpwȧ
13 "
14 wiin
15 woon
16 pwȧȧpwȧ
17 pwȧȧpwȧ// wiin

497..whale	498..ant	499..cow, beef
1 laath0	1 wuges	1 garabwawu
2 gaas0	2 wuwec	2 karabwawu
3 raas	3 lėėng	3 karabwow
4 "	4 "	4 "
5 "	5 "	5 karabwaw
6 "	6 "	6 "
7 raaw	7 "	7 waakke
9 "	9 "	9 wakke
11 "	11 "	11 kaw
12 "	12 "	12 kaw
13 "	13 "	13 koow
14 "	14 "	14 "
15 "	15 "	15 "
16 "	16 nyyng	16 kȯw
17 "	17 nikukkutȯng	17 kow

500..butterfly	501..centipede	502..chicken
1 gijegija	1 mannibwongI	1 gajangA
2 gaabwyg	2 ripagaarI	2 kooko
3 tiibwėgybwėg	3 mȧllebwȯng	3 mȧlėg
4 "	4 "	4 "
5 nibwėgybwėg	5 mȧnnybwȯng	5 mȧlyg
6 "	6 "	6 "
7 libwėjibweg	7 mallibwȯng// mallylerȯṙ	7 "
9 lipwekipwek		9 malyk
11 "	9 lirȧṙȧȧnifaṙ// mannepwong	11 mȧlyk
12 lipwėkipwėk		12 malyk
13 lipwakypwėk	11-12 mannypwȯng	13 pwuṙȯ
14 lipwykypwyk	13 mannykėė	14 melik
15 "	14-15 mannypwȯng	15 malėk
16 nisipwisipw	16 nimennykėė// mennykam	16 manyk
17 nipwisipwis	17 mannykam	17 cykȯ// mėnyk

503..dog

1 pirisI
2 piris
3 pees
4 "
5 gėlaagO
6 "
7 golaag

9 kolaak
11 "
12 "
13 "
14 "
15 komwija
16 konaak
17 "

504..fly

1 raangO
2 raang
3 laang
4 "
5 làangO
6 "
7 lòòng

9 lòòng
11 "
12 "
13 manyfen
14 mashang
15 lòòng
16 nòòng
17 "

505..fruit-bat

1 warigI
2 warig
3 pawucėėj
4 "
5 pajushėj
6 pawushėw
7 pajiŕėėwi

9 pawyte
11 "
12 pajite
13 pėwyte
14 "
15 pwàà
16 pėwute
17 pėwyte

506..louse

1 gyythY
2 gyys
3 "
4 guus
5 gyys
6 guus
7 gyyw

9 kyyw
11 "
12 kyy
13 kyyw
14 "
15 kyy
16 "
17 "

507..mosquito

1 raamwU
2 raamw
3 laamw
4 "
5 "
6 "
7 nòòmw

9 "
11 "
12 likken
13 "
14 nòmwykkyk
15 nòmwykyyk
16 nikken
17 "

508..rat

1 geesI
2 geec
3 "
4 "
5 geesh
6 "
7 geeŕ

9 keeŕ
11 jeŕikeŕ, keŕikeŕ
12 nakkyŕ
13 lakkyŕ
14 keesh
15 jeec
16 nakkic
17 "

509..pig

1 pejigI
2 pejig
3 paabwi
4 "
5 siilo
6 "
7 siino

9 siilo
11 siilo/ piik
12 piik/ siilo
13 piik
14 "
15 "
16 piik/ pàás
17 piik

510..spider

1 rigatabwolaala
2 ritobwugaaga
3 limwathraara
4 limwathraara
libwathraara
5 nigysybwaraara
6 gasibwaraara
7 nitubwaràárà

9-11 litopwulàár
12 littupwulàár
13 littapwuuràár
14 litokoràár
15 licamwycamw
16 ninnà/ nitopwuràán
17 ninnim

511..maggot

1 jiir0
2 jiir0
3 jiil
4 jiil
5 jiil0
6 "
7 jileppyyr̀

9 jiil//
jiloppir̀
11 jiil
12 jileppir̀
13-14 wuul
15 wuul
16 wuun// mèttè
17 jiin

512..Sunday

1 lanisannE
2 gansàn
3 saanthe
4 "
5 sante
6 "
7 ralilifaan//
ralilipin

9 ràninifàál

12 raaninipin
13 raanynyfèl
14 ràánynyfèl
15 rannifál
16 raninifan

513..Monday

1 mwetagerifitegI
2 mwatagerifiteg
3 cipathaageljengaang
4 "
5 gaciitag
6 "
7 jaciità

9 hàrinifàál

12 harynfàán
13 sarynfàán
14 mystanfel
15 mastànfel
16 sàrenfàán

514..Tuesday

1 lalijelanifitegI
2 gagygegànfiteg
3 garuuraleljengaang
4 "
5 garywerán
6 garyyran
7 jarowoow

9 jòruwoow

12 jaruwoow
13 jaruuw
14 jaruuwowanràán
15 "
16 jaruwoow

515..Wednesday

1 gathėrylanifitegI
2 gasėrygånfiteg
3 gaselraleljengaang
4 "
5 gaselrån
6 gasylyran
7 jajelyran

9 jajelyngat

12 jajilyngat
13 jawylyngat
14 jajilyywan
15 jajilywan
16 jawynyngat

516..Thursday

1 gafalanifitegI
2 gafagånfiteg
3 gafaraleljengaang
4 "
5 gafaaran
6 "
7 jafaarån

9 jarywaany

12 jariwanny
13 jarywanny
14 jarywaanyn
15 jaryjaanyn
16 rywååny

517..Friday

1 garimelanifitegI
2 garimegånfiteg
3 galamaraleljengaang
4 "
5 galimerån
6 "
7 jålimėrån

9 jålimoow

12 jalimoow
13 jalimuw
14 jalymėėwan
15 jalimuwan
16 janimuw

518..Saturday

1 sabwatho
2 gånsabwor
3 sabwetho// sabeedo
4 sabwetho// sabeedo
5 sabwaato
6 "
7 jamòn

9 jammwal

12 jammwal
13 "
14 raanammwėl
15 ranammwal
16 råninimwan

519..a circle

1 ramataguunI
2 taguun
3 langabw
4 "
5 bwalijel
6 "
7 wuluul
9 fåålijel
11 "
12 "
13 kukkumwės
14 wuumwėshėsshel
15 wunumwòcėccel
16 kokkumwòs
17 fåånijen

520..one

1 theew
2 seew
3 "
4 "
5 "
6 "
7 jeew
8 "
9 "
11 "
12 "
13 "
14 "
15 "
16 "
17 "

521..two

1 luwow
2 guwow
3 ruwoow
4 "
5 "
6 "
7 "
8 "
9 "
11 rywoow
12 ruwoow
13 ruuw
14 ruwoow
15 ruuwow
16 ruuw
17 "

522..three

1 thėruw
2 sėruw
3 syloow
4 suloow
5 seluuw
6 "
7 ǰeluuw
8 "
9 "
11 "
12 "
13 wylingat
14 jeluuw
15 "
16 wynyngat
17 "

523..four

1 faaw
2 "
3 "
4 "
5 "
6 "
7 "
8 "
9 "
11 rywaany
12 "
13 "
14 rywååny
15 ryjaany
16 rywaany
17 "

524..five

1 rimow
2 rimow
3 limoow
4 "
5 "
6 "
7 "
8 "
9 "
11 "
12 "
13 limuuw
14 lymoow
15 limoow
16 nimuuw
17 "

525..six	526..seven	527..eight
1 worow	1 fythuw	1 waruw
2 worow	2 fisuw	2 "
3 woloow	3 fisuuw	3 waluuw
4 "	4 "	4 "
5 "	5 "	5 "
6 "	6 "	6 "
7 "	7 "	7 "
8 "	8 "	8 "
9 wonoow	9 fysuuw	9 "
11 "	11 fisuuw	11 "
12 "	12 "	12 "
13 wȯnuuw	13 "	13 "
14 wonoow	14 "	14 "
15 "	15 "	15 "
16 wȯnuuw	16 "	16 wanuuw
17 "	17 "	17 "

528..nine	529..ten	530..twenty
1 tiwow	1 thejig	1 lijejig
2 "	2 sejig	2 gygejig
3 thuwoow	3 seeg	3 ryyjeg
4 "	4 "	4 ruujeg
5 tiwoow	5 "	5 ruweeg
6 "	6 "	6 "
7 "	7 sejig	7 ruwejig
8 "	8 "	8 "
9 "	9 heejik	9 ruuwe
11 "	11 hejik	11 ryywe
12 "	12 jengȯl	12 ryywek
13 tiwuuw	13 jengȯȯl	13 ryywe
14 tuuwow	14 jengȯl	14 ryywa
15 tuwoow	15 jengol	15 rijȧ
16 tiwuuw	16 jengȯȯn	16 ryywe
17 "	17 jengȯn	17 ruwe

531..thirty	532..forty	533..fifty
1 thèriig	1 faajig	1 rimejig
2 seriig	2 "	2 "
3 siliig	3 faajeg	3 lemeeg
4 "	4 "	4 "
5 seliig	5 faajig	5 limeeg
6 "	6 "	6 "
7 jeliig	7 "	7 limejig
8 "	8 fåjiig	8 "
9 jeliik	9 fååjig	9 lime?
11 "	11 fajiik	10 lime
12 "	12 fajiik	11 lime
13 "	13 fåjiik	12-13 lime
14 "	14 fååjik	14 "
15 "	15 fåå	15 limåå
16 jeniik	16 fååjik	16 nime
17 "	17 "	17 "

534..sixty	535..seventy	536..eighty
1 worojig	1 fithiig	1 wariig
2 "	2 fisiig	2 "
3 weleeg	3 "	3 waliig
4 "	4 "	4 "
5 woleeg	5 "	5 "
6 "	6 "	6 "
7 wolejig	7 "	7 "
8 "	8 "	8 "
9 wone?	9 fiik	9 waliik
11 wone	11 "	11 "
12 "	12 "	12 "
13 "	13 "	13 "
14 "	14 "	14 "
15 wonaa	15 "	15 "
16 woone	16 "	16 waniik
17 wone	17 "	17 "

537..ninety	538..hundred	539..thousand
1 tiwojig	1 bwuguj	
2 tiwejig	2 "	
3 thuweeg	3 "	3 ngaras
4 "	4 "	4 "
5 tiweeg	5 bwuguw	5 "
6 "	6 "	6 "
7 tiwejig	7 "	7 "
8 "	8 "	8 "
9 tiwe?	9 pwukuw	9 ngaraj
10 tiwe	11 "	11 ngaraw
11-12 tiwe	12 pwuku	12 ngaraj
13 tywe	13 pwukyw	13 ngarėw
14 "	14 pwukuw	14 ngarew
15 tuwȧȧ	15 pwyky	15 ngarawy
16 tiwe	16 "	16 ngaraw
17 "	17 pwuku	17 ngėrėw

540..one-animate	541..two-animate	542..three-animate
1 themarY	1 lijemarY	1 thėrymėrY
2 samar	2 gygamar	2 sėrymėr
3 semel	3 ryymel	3 sėlėmėl
4 "	4 ruumel	4 "
5 "	5 "	5 sėlimėl
6 "	6 "	6 "
7 jeřaji	7 ruuřaj	7 jelyřaj
8 jeshaj	8 rushaj	8 jelyshaj
9 jeřaaj	9 ruweřaaj	9 jeleřaaj
11 jeřaw	11 ryyřaw	11 jelyřaw
12 jaři	12 ryweřej	12 jeliman
13 jemȧn	13 rywemȧn	13 wylimȧn
14 jemen	14 ruwemen	14 jelimen
15 "	15 rywemen	15 jelemen
16 "	16 ruwemen	16 wynyman

543..four-animate	544..five-animate	545..six-animate
1 faamarY	1 rimmarY	1 woromarY
2 faamar	2 riimar	2 woromar
3 fååmel	3 limmel	3 wolomel
4 "	4 "	4 "
5 faamal	5 "	5 wolomal
6 "	6 "	6 "
7 faaṙaj// faaman	7 limaṙaj// limman	7 woloṙaji// woloman
8 faamal	8 limmal	8 wolomal
9 faṙaaj	9 limman	9 wonoman
11 fėṙaw	11 "	11 wonoman
12 fėėman	12 "	12 "
13 fėėmȧn	13 limmȧn	13 wonomȧn
14 fėėmen	14 limmen	14 wonomen
15 "	15 "	15 wȯnȯmen
16 "	16 nimman	16 wonoman

546..seven-animate	547..eight-animate	548..nine-animate
1 fithimėrY	1 warymėrY	1 tiwomarY
2 fisimėr	2 warimėr	2 tiwėmar
3 fisimėl	3 walimėl	3 thėwmėl
4 "	4 "	4 "
5 fisymėl	5 "	5 tiwumal
6 "	6 "	6 "
7 fisuman	7 waliman	7 tiiman
8 fisimal	8 walamal	8 tiwumal
9 fyyman	9 walyman	9 tiweman
11 "	11 "	11 tiweman
12 "	12 waliman	12 tyweman
13 fyymȧn	13 walimȧn	13 tywemȧn
14 fyymen	14 walymen	14 tywemen
15 "	15 walemen	15 tuuwemen
16 "	16 wanyman	16 tiweman

549..ten-animate	550..on	551..among
1 'ten'	1 wuwawo-	1 wuwėry-
2 "	2 wȯ-	2 jiwėry-
3 "	3 wuwȯ-	3 luwul-
4 "	4 "	4 luwul-
5 "	5 wȯ-	5 rė-
6 "	6 "	6 "
7 "	7 "	7 leeji-
8 "	8 "	
9 "	9 "	9 "
11 "	11 "	11 "
12 hejik	12 "	12 "
13 'ten'	13 "	13 "
14 sejik	14 "	14 "
15 sejik	15 "	15 "
16 'ten'	16 "	16 neeji-
	17 "	17 "

552..at	553..in it	554..all
1 jijolo-	1 jiran	1 wuruta
2 jiryg-	2 ran	2 wuruto
3 jire-	3 lal	3 paanga
4 "	4 "	4 "
5 re-	5 lann0	5 "
6 "	6 "	6 "
7 "	7 lȯn	7 jalong
8 "	8 lȯl	
9 "	9 lȯn	9 meheejon
11 "	11 "	11 "
12 "	12 llȯ́n	12 mėccȯng
13 "	13 llȯn	13 mejinisin
14 "	14 llėn	14 "
15 "	15 lȯn	15 moonsėn
16 "	16 nȯn	16 "
17 "	17 "	17 mejinisin

555..because	556..if	557..no
1 bwanasag	1 jifiri	1 nawerI
2 bwanacag	2 wuun	2 nawer
3 bwo	3 garȧ	3 jȧȧbw
4 "	4 "	4 "
5 bwėnn	5 "	5 jeebw
6 "	6 "	6 "
7 bwȯllȯ	7 jȧrė	7 jaabw
9 pwė	9 "	9 jaapw
11 pwe	11 "	11 "
12 "	12 jikȧ	12 "
13 "	13 "	13 "
14 "	14 jare	14 "
15 paketan	15 "	15 jȧȧpw
16 poketen	16 jikȧ	16 jaapw
17 pwynn// pwyyn	17 "	17 "

558..yes	559..now	560..some
1 woo	1 jigira	1 tėėtA
2 wyynga	2 jigara	2 tėėtA
3 ngȯȯ	3 jigila	3 tėėt
4 "	4 "	4 "
5 ngyy	5 "	5 "
6 "	6 "	6 "
7 jȯȯ	7 "	7 jȧkkȧȧw
9 "	9 jikana//	9 jȧkkȧȧw
11 wȯȯ	jijeej	11 "
12 "	11 jijeej	12 jėkys
13 "	12-13 "	13 jekys
14 wėė	14 "	14 jėkys
15 ngėėw	15 "	15 jooc
16 ngėėw// wyy	16 "	16 jooc//jekis
17 wyy	17 "	17 jekis

561..many	562..who	563..what
1 pippijE	1 jitėj	1 meta
2 pippij	2 jitėw	2 "
3 cȯȯlėp	3 jiitej	3 metha
4 "	4 "	4 "
5 toolap	5 jiitėw	5 mettå
6 "	6 "	6 "
7 toolåp	7 jiijo	7 meet
9 heejon	9 jijė	9 meeta
11 ṙȯmmȯng	11 "	11 meet
12 "	12 "	12 "
13 cȯmmȯng	13 "	13 "
14 nyysha	14 "	14 "
15 nyyca	15 "	15 "
16 cȯmmȯng	16 "	16 "
17 "	17 "	17 "

564..where	565..adzed-object (classifier)	566..drink (classifier)
1 jija	1 faraj-	1 rym-
2 "	2 faraaj-	2 "
3 jifa// jiija	3 falaj-	3 lem-
4 "	4 "	4 "
5 jiifa// jiija	5 felaaj-	5 jylym-
6 "	6 "	6 wylym-
7 jiifa// jija	7 felååj-	7 jylym-
9 jifa// jija	9 felå-	9 jynym-
11 "	11 falej-	11 wynym-
12 "	12 "	12 wynym-// nym-
13 "	13 falaaj-	13 "
14 "	14 faleej-	14 "
15 "	15 "	15 wynym-
16 "	16 fanej-	16 "
17 "	17 fanaaj-	17 "

567..animate-object (classifier)

1	*	rawyri
2	*	rawyr
3	*	lȯȯl
4	*	lȯȯl
5	*	lajyl
6	*	lawyl
7	*	najyn
8	*	lajil
9	*	najyn
11	naaw	nawyn
12	naaj	nawyn
13	naawy	nėwyn
14	naaw	nėwyn
15	naawy	nėwyn
16	naaw	nėwyn
17	naaw	nėwyn

568..when

1	wangaajetA
2	jingȧȧt
3	jingȧȧth
4	"
5	jileet
6	"
7	"
9	jineet
11	"
12	"
13	"
14	jingėėt
15	jingeet
16	jineet
17	"

569..and (connecting items in a series): mė in all languages; vowel highly variable.

570..and (connecting clauses): ngė in all languages; vowel highly variable.

571..not (prefix): T- (see Table 7) in all languages; vowel varies with phonological context.

PRONOUNS

	Singular			Plural			
	1	2	3	1 Inc.	1 Exc.	2	3
Independent Pronouns							
1	ngaang	geer	jiij	giis	gaamemI	gaami	jiil
2	ngaang	geer	jiij	giic	ngaamem	ngaami	jiig
3-4	ngaang	geel	jiij	giic	gaamam	gaami	jiir
5-6	gaang	geel	jiij	giish	gaamam	gaami	jiir
7	ngaang	jeel	jiij	giiṙ	jȧȧmȧm	jȧȧmi	jiir
8	ngaang	jeel	jiij	giish	jȧȧmȧm	jȧȧmi	jiir
9	ngaang	jeen	jiij	kiiṙ	jȧȧmȧm	jȧȧmi	jiir
10	ngaang	jeen	jiij	kiiṙ	jȧȧmȧm	jȧȧmi	jiir
11-12	ngaang	jeen	jiij	kiiṙ	jȧȧm	jȧȧmi	jiir
13	ngaang	jeen	jiij	kiiṙ	jȧȧm	jȧȧmi	jiir
14	ngaang	jeen	jiij	kiish	jȧȧm	jȧȧmi	jiir
15	ngaang	jeen	jiij	kiic	jȧȧm	jȧȧmi	jiir
16	ngaang	jeen	jiij	kiic	jȧȧm	jȧȧmi	jiir
17	ngaang	jeen	jiij	kiic	jȧȧm	jȧȧmi	jiir
Subject Pronouns							
1	jij	go	je	thi	gaji	gawy	la
2	jij	go	je	si	gowu	gawy	ge
3-4	jij	go	je	si	ga	ga	re
5-6	jij	go	je	si	gaji	gaji	re
7	jij	wo	je	si	jȧ, ja	jȧ, ja	re
8	jij	wu	je	si	jȧji	jȯwu	re
9	jij	wo	je	hi	jȧji	jȯwu	re
10	jij	wo	je	hi	jȧji	jawu	re
11-12	jij	wo	je	hi	jaji	jawu	re
13	jij	ko	je	si	jawu	wo	re
14	jij	wo	je	si	jaji	jawu	re
15	jij	wo	je	si	jaji	jawu	re
16	wyw	ke	je	si	jowu	jȯwu	re
17	wyw	ke	je	si	jowu	jowu	re

APPENDIX 2

Informants

1. Mario Pedro: early twenties; one year high school; has lived most of his life on Sonsorol with extended visits on Palau and Truk.

2. Felix: late twenties; has lived entire life on Tobi with occasional short visits to Palau.

3. Thargos: late thirties; has lived his entire life on Falalap, Ulithi, with short visits to Yap.

4. Ythemar: early twenties; high school graduate; has lived his entire life on Mogmog, Ulithi, with short stays on Yap and Hawaii.

5. Garuwemai: early thirties; has lived his entire life on Falalap, Woleai, with short visits to Yap and Palau.

6. Fileut: early twenties; high school graduate; has lived his entire life on Ifaluk excepting for several years in school on Yap and Ulithi.

7. Tilur: late twenties; vocational school graduate; has lived most of his life on Satawal, with lengthy visits to Yap and Ponape.

8. Manuel Somorang: late twenties; has attended college; has lived on Saipan all his life, with extended stays on Guam.

9. Robert: early thirties; has lived entire life on Pulawat with extensive travel in the Truk District.

10. Basilio: early thirties; high school graduate; has lived his entire life on Pulusuk, with extended visits to Truk and Hawaii.

11. John Sandy: early thirties; high school graduate; reared on Pullap, but has spent most of his adult life on Truk.

12. Kalisto: early twenties; high school graduate; has spent his entire life on Uluul, Namonuito, excepting for the high school years on Truk.

13. Sepastian: early twenties; high school graduate; has lived his entire life on Murilo excepting for the high school years on Truk.

14. Ngas: early twenties; high school graduate; has spent his entire life on Nama excepting for the high school years on Truk.

15. Mike: early twenties; high school graduate; has spent his entire life on Moc, Satawan, excepting for the high school years on Truk.

16. Kirosi: early twenties; high school graduate; has lived mostly on Fanapanges in the Faichuk area of Truk, excepting for the high school years on Moen Island.

17. Sochiky: late thirties; high school graduate; has lived mostly on Moen, but also on other islands in Truk lagoon.

BIBLIOGRAPHY

Alkire, William H.

1965 Lamotrek Atoll and Inter-Island Socioeconomic Ties. Illinois Studies in Anthropology No. 5. Urbana.

Bollig, Laurentius

1927 Die Bewohner der Truk-Inseln. Religion, Leben und kurze Grammatik eines Mikrioneservolkes. Münster.

1945 Short Grammar of Trukese. District Intelligence Office, 14th Naval District.

Bowers, Neal M.

1950 Problems of Resettlement on Saipan, Tinian, and Rota, Mariana Islands. CIMA Report No. 31, Ann Arbor.

Burrows, Edwin G., and M.E. Spiro

1953 An Atoll Culture: Ethnography of Ifaluk in the Central Carolines. CIMA Report Nos. 16 and 18. New Haven.

Capell, Arthur

1948 Grammar and Vocabulary of the Language of Sonsorol-Tobi. CIMA Report No. 30. Pacific Science Board.

Chamisso, Adelbert von

1821 Bemerkungen und Ansichten auf einer Entdeckungsreise unternommen i.d.J. 1815/18. Weimar.

Damm, Hans

1938 Zentralkarolinen. (Part 2. Ifaluk, Aurepik, Faraulip.) Ergebnisse der Südsee-Expedition 1908-10. Hamburg.

Damm, Hans, and E. Sarfert

1935 Inseln um Truk. (Vol. 2. Polowat, Hok, Satowal.) Ergebnisse der Südsee-Expedition 1908-10. Hamburg.

Dyen, Isidore

1949 On the history of the Trukese vowels. Language 25.420-436.

1965a A Lexicostatistical Classification of the Austronesian Languages. Indiana University Publications in Anthropology and Linguistics, Memoir 19. Baltimore.

1965b A Sketch of Trukese Grammar. American Oriental Society, Essay No. 4. New Haven.

Eilers, Anneliese

1935 Westkarolinen. (Part 1. Songosor, Pulo Anna, Merir.) Ergebnisse der Südsee-Expedition 1908-10. Hamburg

1936 Westkarolinen. (Part 2. Tobi and Ngulu.) Ergebnisse der Südsee-Expedition 1908-10. Hamburg.

Elbert, Samuel H.

1947a Ulithi-English and English-Ulithi Word Lists (with notes on linguistic position, pronunciation, and grammar). U.S. Naval Military Government.

1947b Trukese-English and English-Trukese Dictionary. U.S. Naval Military Government.

1953 Internal relationships of Polynesian languages and dialects. Southwestern Journal of Anthropology 9.147-173.

Fischer, John L., and Ann M. Fischer

1957 The Eastern Carolines. Behaviour Science Monographs. New Haven.

Fritz, G.

1911 Die Zentralkarolinische Sprache. Grammatik, Übungen und Worterbuch der Mundart der Westlich von Truk liegenden atolle. Berlin.

Gudschinsky, Sarah C.

1956 The ABC's of lexicostatistics (glottochronology). Word 12:175-210.

Hernandez, Faustino

1939 Gramatica del idioma de los indigenas de Truk (manuscript). Truk, Caroline Islands.

Herzog, Marvin I.

1965 The Yiddish Language in Northern Poland. Indiana University Research Center in Anthropology, Folklore, and Linguistics, Publication 37. Bloomington, Indiana.

Hockett, Charles F.

1958 A Course in Modern Linguistics. New York.

Holden, Horace

1836 A Narrative of the Shipwreck, Captivity, and Sufferings of Horace Holden and Benjamin Nute. Boston.

Izui, Hisanosuke

1941 Nainañyō no gengo ni tsuite [On the languages of Micronesia]. Taiheiyō Kyōkai. Tokyo.

Kahn, E. J., Jr

1966 A Reporter in Micronesia. New York

Kotzebue, Otto von

1821 Entdeckungsreise in die Südsee und nach der Beringstrasse zur Erforschung der nordostlichen Durchfahrt. Weimar.

Krämer, Augustin

1932 Truk. Ergebnisse der Südsee-Expedition 1908-10. Hamburg.

1935 Inseln um Truk. (Vol. 1. Lukunór-Inseln und Námoluk; Lósap und Nama; Lemárafat, Namonuito oder Onóun; Pollap-Támatam.) Ergebnisse der Südsee-Expedition 1908-10. Hamburg.

1937 Zentralkarolinin. (Part 1. Lamotrek-Gruppe, Oleai, Feis.) Ergebnisse der Südsee-Expedition 1908-10. Hamburg.

Lessa, William A.

1950 The Ethnography of Ulithi Atoll. CIMA Report No. 28. Los Angeles.

Lütke, Fedor P.

1835 Voyage autour du monde sur la Corvette "Le Seniavine" dans les années 1826, 1827, 1828, et 1829. Partie Historique. Paris.

Matsuoka, Shizuo

1928 Chūō Karoringo no kenkyū [Study of the language of the Central Carolines]. Tokyo.

1935 Mikuronesiago no sōgō kenkyū [Collated study of the Micronesian languages]. Tokyo.

Matthews, W.K.

1950 Characteristics of Micronesian. Lingua 2.419-437.

O'Neil, Wayne A.

1967 Transformational dialectology: phonology and syntax. In Proceedings of the Second International Congress of Dialectologists. Wiesbaden.

Pickering, John

1845 Memoir on the language and inhabitants of Lord North's Island [Tobi]. Memoirs of the American Academy of Arts and Sciences. New Series, II. 205-247.

Pleyte, C.M.

1890 A Vocabulary of Ulia. Journal of the (Royal) Anthropological Institute of Great Britain and Ireland 19.494-500.

Schmidt, P.W.

1899 Zur grammatik der Sprache der Mortlock-insel in der Südsee. Wiener Z. fur die Kunde des Morgenlandes 13.330-343.

Smalley, William A.

1957 Finding out how close related dialects are. Part II: Conducting a dialect survey. The Bible Translator 8.114-126.

Smith, Alfred G.

1951 Gamwoelhaelhi Ishilh Weleeya [Guide to Woleai spelling]. Honolulu.

Swadesh, Morris

1952 Lexicostatistic dating of prehistoric ethnic contacts. Proceedings of the American Philo-

sophical Society 96.452-463.

1954 Perspectives and problems of Amerindian comparative linguistics. Word 10 (2-3).306-332.

Tanaka, Shizuhiko

1921 Chūbu Karorintōgo annai [Guide to the language of the Central Carolines]. Osaka.

d'Urville, Dumont, J.-S.-C.

1834 Vocabulaire de la langue des habitans de l'ile Satawal. (Pt. 2 - Philologie) of Voyage de découvertes de l'Astrolabe exécuté pendant les années 1826-1827-1828-1829. Paris.

Voegelin, C. F., and Z. S. Harris

1951 Methods for determining intelligibility among dialects of natural languages. Proceedings of the American Philosophical Society 45.322-329.

Voegelin, C. F., and F. M. Voegelin

1964 Languages of the World: Indo-Pacific Fascicle 1. Anthropological Linguistics, Vol. 6, No. 4.

Wolff, Hans

1959 Intelligibility and inter-ethnic attitudes. Anthropological linguistics 1 (3).34-41.

Yamagiwa, Joseph K.

1967 On dialect intelligibility in Japan. Anthropological Linguistics 9 (1).1-17.