Ipulo Orthography Guide

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This article concerns the Ipulo language, spoken in Manyu Division, Akwaya Subdivision, in the South West Region of Cameroon

ISO 639-3 language code: [ass]

ALCAM [897]

Abbreviations

1 first person
2 second person
3 third person
ADV adverb
CONN connector
CONT continuous
CV consonant-vowel sequence
DUR durative
GPS Global Positioning System
HL high-low tone
IMP imperative
IMPF imperfective
INDEF indefinite article

LH low-high tone
NC**1**...NC**14** noun class prefix numbers
NEG negation
PL plural
PREP preposition
PRO pronoun
PTCP participle
Q question
REL relative pronoun
SC subordinate clause
SG singular
TBU tone bearing unit

Acknowledgments

TABLE OF CONTENTS

IPULO ORTHOGRAPHY GUIDE

by Anna G. Tuinstra

1 Introduction

This paper proposes an orthography for Ipulo, a Southern Bantoid language spoken by about 2,500 people in Akwaya Subdivision, Manyu Division, South West Region, Republic of Cameroon (Starr and Regnier 2008). This orthography conforms to the guidelines adopted in 1979 by the National Committee for the Unification and Harmonization of the Alphabets of Cameroon Languages (Tadajeu and Sadembouo 1979). As far as the author knows, the only previous research on Ipulo has been that of the author, an anthropological study in 2011 (Gallant 2011) and a phonological sketch in 2015 (Tuinstra 2015).

The following three maps depict the geographic setting of the Ipulo language area, at the regional and divisional, sub-divisional, and village levels respectively. The first map indicates the divisions of the South West Region, with Manyu being the northernmost. In the inset map the South West Region in Cameroon is indicated by the square box. The map is taken from:
http://maps.thefullwiki.org/Southwest_Region_%28Cameroon%29

Divisions of the South West Region of Cameroon
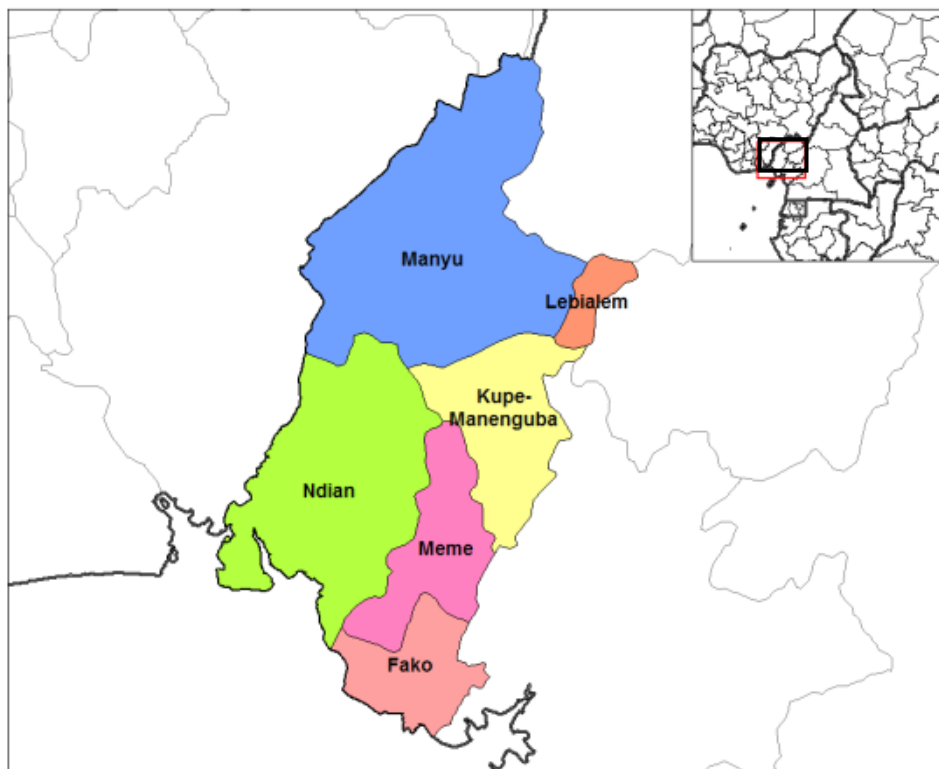
The second map shows the subdivisions of the Manyu division. Akwaya is the northernmost subdivision, and Akwaya town is the headquarters of the Akwaya subdivision. The Ipulo language area is slightly southeast of Akwaya town. The map is taken from: *Carte Administrative République du Cameroun*. 1984. Centre Géographique and IMA, Yaoundé:

Subdivisions of the Manyu Division
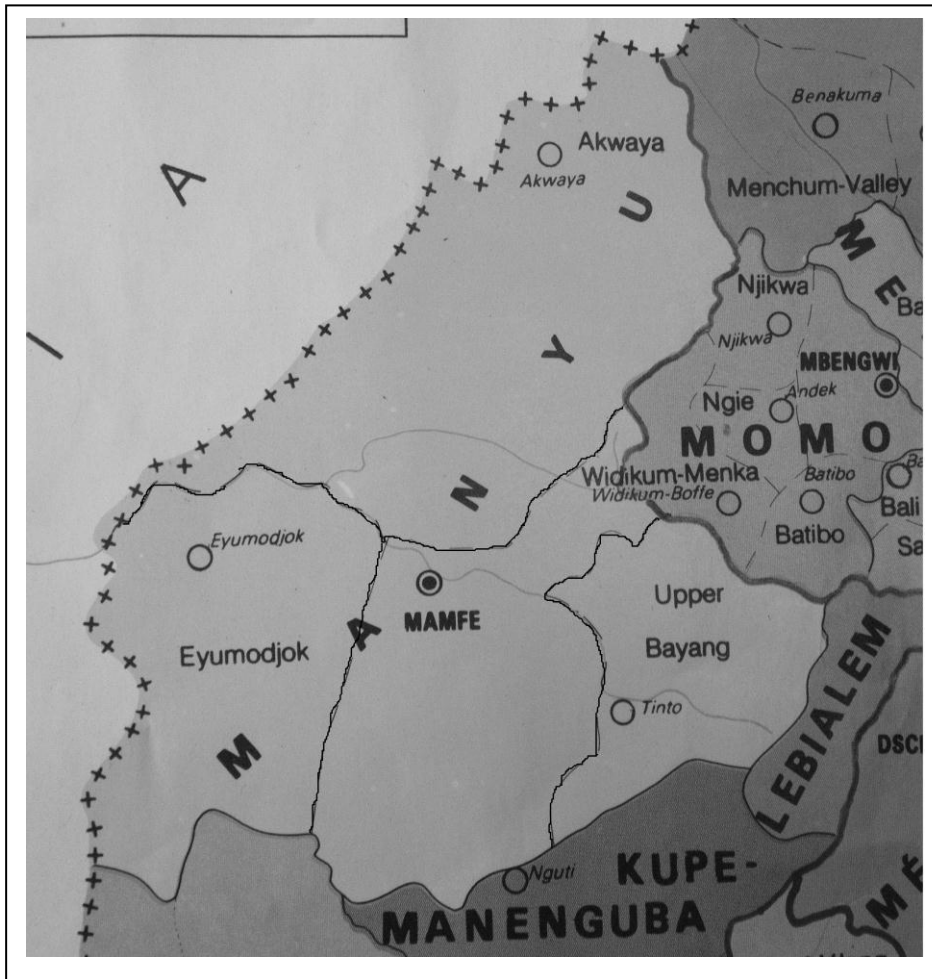
The third map shows the Ipulo villages and hamlets, with Akwaya town as the reference point. The map was created from GPS data gathered by the author between October 2010 and January 2011, and the boundary of the language community has been sketched but not verified with GPS points:

Ipulo villages and hamlets
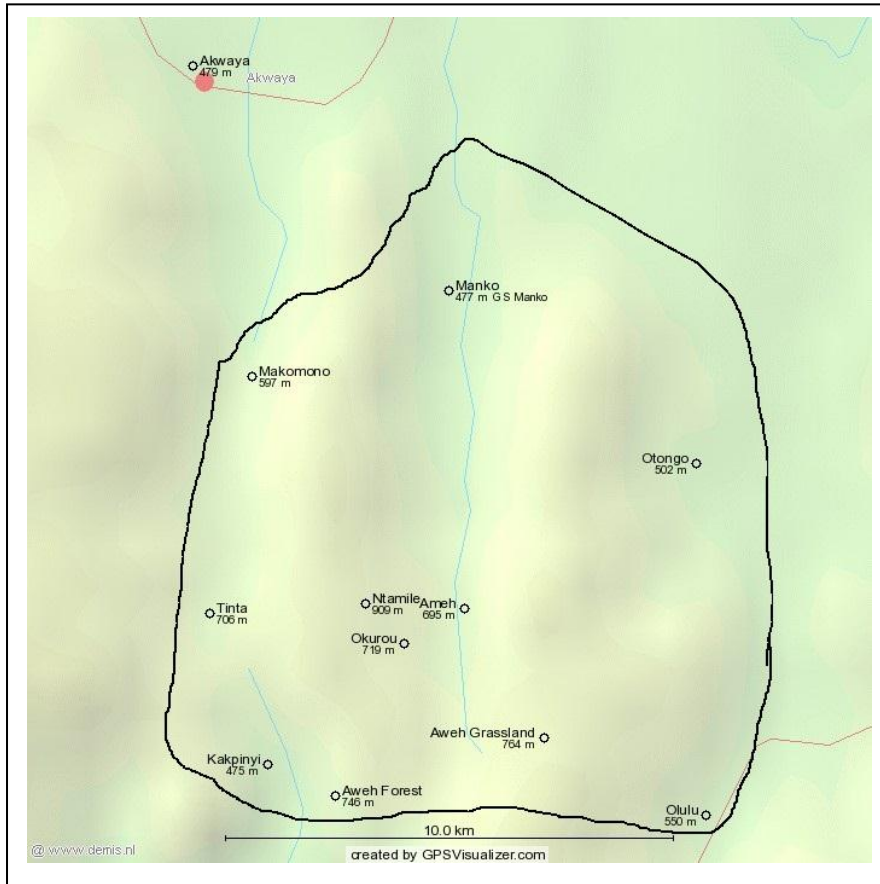
2 Alphabet

The Ipulo segmental alphabet is made up of 22 consonants and 6 vowels. They are represented below in upper and lower cases:

A a, E e, Ə ə, F f, Gb gb, Gh gh, H h, I i, K k, Kp kp, L l, Mm, Mb mb, N n, Nd nd, Ny ny, Nz, nz, Ŋ ŋ, Ŋg ŋg, O o, P p, S s, Sh sh, T t, U u, V v, W w, Y y

2.1 Consonants

The consonant phonemes, their allophones and graphemes are presented in the following table. We also show their use in various word positions.

3

Phoneme	Allophone	Grapheme	Initial position	Medial position	Final position
/p/	[p]	P p	**piti** *slowly*	**épu** *farm*	**úpə́p** *dove*
/t/	[t]	T t	**tə́nzələ́** *ram*	**útín** *waist*	**ísot** *a journey*
/k/	[k]	K k	**kusút** *calf of leg*	**ukúh** *widow*	**úyîk** *smoke*
/mb/	[mb] [1]	Mb mb	**mbo** *always*	**umbél** *garden*	—
	[mb̥]		—	—	**elámb** *gourd variety*
/nd/	[nd] [1]	Nd nd	**ndí** *many*	**tíndye** *guitar*	—
	[nd̥]		—	—	**évând** *breast*
/ŋg/	[ŋg] [1]	Ŋg ŋg	**ŋga** *really*	**iŋgwe** *book*	—
	[ŋg̥]		—	—	**áyíŋg** *blood*
/kp/	[kp]	Kp kp	**kpáp** *always*	**ukpe** *lizard*	—
/gb/	[gb]	Gb gb	**gba** *no*	**agbugbu** *towel*	—
/f/	[f]	F f	**fís** *completely*	**ifé** *glass*	—

Phoneme	Allophone	Grapheme	Initial position	Medial position	Final position
/s/	[s]	S s	**sem** *straight*	**ésihá** *fin*	**úvés** *large rock*
/ʃ/	[ʃ]	Sh sh	**shíshí** *morning*	**ishi** *path*	**iwish** *louse*
/v/	[v]	V v	**véwa** *necklace*	**áva** *broom*	**wútyév** *cave*
/nz/	[nz]	Nz nz	**nzwóhó** *poorly*	**onza** *net basket*	**enz** *gums*
	[nd͡ʒ] [2]		—	**inzeŋ** *cricket*	—
/ɣ/	[ɣ]	Gh gh	**Ghe!** *Weep!* (SG IMP)	**úghe** *creek*	**ílîgh** *kola nut*
/h/	[h]	H h	**hítíhít** *truly*	**ihú** *fish*	**ukúh** *widow*
	[x] [3]				**óyah** *cheek*
/m/	[m]	M m	**mol** *water*	**ómi** *neck*	**ótím** *heart*
/n/	[n]	N n	**ni** *and*	**únut** *bottom*	**ukón** *stranger*
/ɲ/	[ɲ]	Ny ny	**nyaknyák** *potato*	**ónyó** *cocoyam*	**ówôny** *hail*
/ŋ/	[ŋ]	Ŋ ŋ	**ŋolihíhí** *praying mantis*	**énzuŋá** *horse*	**wáŋ** *open*

Phoneme	Allophone	Grapheme	Initial position	Medial position	Final position
/ŋm/	[ŋm]	Ŋm ŋm	—	éŋmáŋ *mould*	—
/l/	[l]	L l	ləm *good*	velatum *six*	eŋgal *hot pepper*
	[ɾ][4]		—	velatum *six*	eŋgal *hot pepper*
/w/	[w]	W w	wásomb *plum tree*	éwúl *rain*	éyów *weeds*
/j/	[j]	Y y	yum *husband*	eyu *fence*	—

[1] Prenasalized stops devoice word-finally.
[2] Consonant phone [ⁿd͡ʒ] occurs in only one word.
[3] Consonant phone [x] occurs word-finally after any vowel except /u/.
[4] The consonant phone [l] varies freely with [ɾ] intervocalically and word-finally.

2.1.1 Nasal-Consonant complexes

One kind of consonant complex found in Ipulo is one in which the first consonant is a nasal that is pronounced at the same place of articulation as the following consonant. With one exception, all occur only in word-medial position. Quite a few consonants may be preceded by such homorganic nasal consonants, as the following table indicates:

Consonant complex	Allophone	Grapheme	Initial position	Medial position	Final position
/Np/	[mp]	Mp mp	—	wúmpi *color*	—
/Nt/	[nt]	Nt nt	—	untúfú *casting net*	—
/Nk/	[ŋk]	Ŋk ŋk	—	uŋkó *cup*	—

Consonant complex	Allophone	Grapheme	Initial position	Medial position	Final position
/Ngb/	[ŋmgb]	**Mgb mgb**	**mgbáŋgálá** *clearing*	**umgbe** *mother*	—
/Ns/	[ns]	**Ns ns**	—	**mansá** *comb*	—

2.1.2 Consonants plus 'y'

Another kind of consonant complex is one in which the second element is the palatal glide [j], which is always written in Ipulo as **"y"**. As with the nasal complexes, with one exception all of the consonant plus glide clusters occur word-medially. Quite a few consonants may be followed by this glide, as the following table indicates:

Consonant complex	Allophone	Grapheme	Initial position	Medial position	Final position
/tj/	[tj]	**ty**	—	**ítyé** *small stone*	—
/kj/	[kj]	**ky**	—	**íkye** *basket*	—
/ndj/	[ndj]	**ndy**	—	**tíndye** *guitar*	—
/kpj/	[kpj]	**kpy**	—	**ökpya**[1] *He was tending (the animals).*	—
/fj/	[fj]	**fy**	—	**vífya** *spy*	—
/ʃj/	[ʃj]	**shy**	**shya** *expression of displeasure*	**üshyo**[2] *He was strumming.*	—

Consonant complex	Allophone	Grapheme	Initial position	Medial position	Final position
/vj/	[vj]	**vy**	—	**ávyá** *chatter*	—
/mj/	[mj]	**my**	—	**ömya**[3] *He was swallowing.*	—
/wj/	[wj]	**wy**		**öwya**[4] *He was knocking down.*	—

[1] Derived from the verb ökpí-a.
[2] Derived from the verb üshi-a.
[3] Derived from the verb ömi-a.
[4] Derived from the verb öwi-a.

2.1.3 Consonants plus 'w'

The last kind of consonant complex is where the second element is the labiovelar glide [w], which is written in Ipulo as **"w"**. These clusters occur more frequently in word-initial position than the previous two. Quite a few consonants may be followed by the labiovelar glide, as the following table indicates:

Consonant complex	Allophone	Grapheme	Initial position	Medial position	Final position
/tw/	[tw]	**Tw tw**	**twon** *together*	**ítwónd** *lip*	—
/kw/	[kw]	**Kw kw**	**Kwólu!** *Hold tightly!* (SG IMP)	**ekwot** *forest*	—

Consonant complex	Allophone	Grapheme	Initial position	Medial position	Final position
/mbw/	[mbw]	**Mbw mbw**	__	**umbwó** *master*	__
/ndw/	[ndw]	**Ndw ndw**	**Ndwási!** *Undress!* (SG IMP)	**undwo** *nothing*	__
/ŋgw/	[ŋgw]	**Ŋgw ŋgw**	__	**eŋgwol** *money*	__
/fw/	[fw]	**Fw fw**	__	**úfwáŋánz** *umbrella*	__
/sw/	[sw]	**Sw sw**	**Swólu!** *Go down!* (SG IMP)	**úswó** *bag*	__
/nzw/	[nzw]	**Nzw nzw**	**nzwóhó** *poorly*	**enzwo** *cliff*	__
/hw/	[hw]	**Hw hw**	**hwem** *resolved*	**óhwoŋg** *river*	__
/mw/	[mw]	**Mw mw**	__	**ímwə́nyémwe** *star*	__
/nw/	[nw]	**Nw nw**	__	**ínwón** *bird*	__
/ŋw/	[ŋw]	**Ŋw ŋw**	__	**aŋwa** *cat*	__
/lw/	[lw]	**Lw lw**	**lwə** *who*	**olwə** *chimpanzee*	

2.1.4 Consonant orthography rules

1. If you hear **"u"** or **"w"** after a consonant, always write **"w"**.

2. If you hear **"i"** or **"y"** after a consonant, always write **"y"**.

3. If you hear a nasal consonant before **"gb"**, always write **"mgb"**.

2.2 Vowels

The Ipulo language has six vowel phonemes, presented with their allophones and proposed graphemes in the table below. The sounds are shown as they occur in different positions of the word.

Phoneme	Allophone	Grapheme	Initial position	Medial position	Final position
/i/	[i]	**I i**	**íti** *grinding stone*	**étíná** *machete*	**ivi** *goat*
	[i̥][1]		—	—	**úuni** *honey*
/e/	[ɛ]	**E e**	**étí** *tree*	**íswéndé** *meaning*	**ikyé** *crab*
	[e][2]		**éyup** *sky*	—	—
/ə/	[ə]	**Ə ə**	**ə́pə́p** doves	**ihəv** *bed*	**wə** *you* (SG)
	[ɤ][3]	**əə**	—	—	**wəə** *leavetaking particle*
/a/	[a]	**A a**	**álím** *tears*	**wáŋ** *open*	**tata** *long ago*
	[æ][4]		—	**óyând** *funeral*	—

Phoneme	Allophone	Grapheme	Initial position	Medial position	Final position
/u/	[u]	U u	**únut** *bottom*	**wun** *you (pl)*	**íwu** *tree bark*
	[u̥][1]		—	—	**éetu** *billy goat*
	[o][5]		—	—	**u** *ending a phrase when calling out from a distance*
/ɔ/	[ɔ]	O o	**ótu** *ear*	**úlóló** *beard*	**ówo** *arm*

[1] High vowels word-finally devoice when preceded by a long vowel.

[2] The phoneme /ɛ/ can be realized as /e/ word-initially before the palatal glide.

[3] The phoneme /ə/ is often pronounced farther back when spoken at the end of a leavetaking.

[4] The phoneme /a/ is often pronounced farther forward in closed syllables following a labial or palatal consonant.

[5] The phoneme /u/ is often pronounced lower when spoken at the end of a phrase that is called out from a distance.

2.2.1 Vowel length

Ipulo has phonetically long vowels, written as a sequence of two vowels. They seem to be conditioned by a contour tone at a morpheme boundary, and do not contrast in the main stem vowel position. It could be that a root-initial consonant existed at one time and has since been lost. Further study in vowel length is needed. Also, further testing of this orthography is needed in order to determine if sufficient distinction has been made between vowel length and tone pattern.

Examples of these vowels and the contrasting short vowels are given below:

áámu	*fat* (noun)	**âmb**	*shins*
éetu	*billy goat*	**étu**	*fireplace*
əətu	*all* (NC**6**)	**ə́ku**	*valleys*
ootu	*person*	**ótu**	*ear*

11

úuni	*honey*	**únut**	*bottom*

2.2.2 Vowel orthography rules

1. Never write **"au"** or **"ou"**. If you hear **"au"** or **"ou"**, write **"aw"** or **"ow"**.

2. Do not delete vowels in writing when they are contracted in speech.

3. Always write the prepositions **"hi"**, **"ki"**, **"ni"**, **"wi"** and never **"hu"**, **"ku"**, **"nu"**, **"wu"**. **"Nu"** can be part of another word, **nuwoŋgo** or **nuwe**, but never as a preposition on its own.

4. The vowel **"ə"** is the plural prefix form of the singular **"u"**, but when there is an **"e"** in the root of the word, then the plural prefix vowel is also **"e"**.

5. If there is a voiceless **"u"** or **"i"** at the end of a word, there is a long vowel earlier in the word: **ootu, éetu, úuni, iíndi**.

3   Tone

We have identified two phonemic tones in Ipulo: high and low, as is common in Niger-Congo languages (Yip 2002). Tones associate from left to right, and both high and low tones can spread rightward. The interaction between high and low tones results in three levels of surface pitch as well as surface contours, HL and LH.

A pitch between low and high is a downstepped high tone. This downstep is either automatic or non-automatic. Automatic downstep is caused by a low tone immediately preceding a high tone. With non-automatic downstep, a floating low tone causes a following high tone to be pronounced at a lower pitch than the preceding high.

Surface contours are the result of a high and low tone associated to the same TBU, which in Ipulo is the mora. A short vowel contains one mora and a long vowel contains two moras. If two tones are associated to one mora, the result is a contour. This happens through the process of low tone spread or when a word does not have enough TBUs to accommodate all of the tones in the tone pattern. When a high tone spreads, the previously associated low tone is delinked, resulting in a high followed by a floating low rather than a contour fall. See Tuinstra (2015) for further information regarding tone behavior in Ipulo.

3.1 Lexical tone contrasts marked by diacritics

At this point in time, we have discovered numerous minimal tone pairs for words that contrast between high and low tone, such as the examples below. Therefore a decision was made to mark only one of these, and the choice was to mark high tone.

Some words have a phonetic rising pitch due to the rightward spread of low tone, as in the word for *crab* in the table below. The rising pitch is lexically a high tone and so the vowel is marked for high tone.

12

eyu	[ɛ̀jù]	*fence*	íkye	[íkjɛ̀]	*basket*	ikyé	[ikjɛ̌] /ìkjɛ́/	*crab*
eyú	[ɛ̀jú]	*bumblebee*	ikyé	[ìkjɛ̌] /ìkjɛ́/	*crab*	íkyé	[íkjɛ́]	*crabs*
osá	[ɔ̀sá]	*he took*	ohú	[ɔ̀hú]	*he arrived*	ombát	[ɔ̀mbát]	*he followed*
osa	[ɔ́sà]	*he wrote*	ohu	[ɔ́hù]	*he washed*	ombat	[ɔ́mbàt]	*he made (something) dirty*

There is also contrast between high, low and falling tone on nouns:

ekúnd	[ɛ̀kǔnd]	*baby sling*
ékúnd	[ékúnd]	*baby slings*
ékund	[ékùnd]	*roasted yam*
ékûnd	[ékûnd]	*stopper/plug*

After comparing vowel length with falling tone, we concluded that root vowels with falling tone seem to be short, such as in **ékûnd** above. Long vowels usually occur where a prefix or suffix has been added to a word. Therefore, falling tones on both long and short vowels are marked. A long vowel with falling tone has a high tone mark over the first vowel and the second vowel is unmarked. The reason a long vowel with falling tone is not marked with a circumflex accent is because the high tone that makes up the HL sequence of tones is typically a high tone prefix.

Rising tones do not contrast with high, low, and falling tones. Therefore, we tested to see if they could be left unmarked. The difficulty in reading comes when a vowel is long. Long vowels in Ipulo have contrastive tones. It helps readers to have a clue from the marking as to whether the long vowel is a rise or a fall. Otherwise they need context to disambiguate the meaning. Therefore short vowels with a rising tone are left unmarked but long vowels with a rising tone are marked. In such long vowel rising tone words, the first vowel is unmarked and the second vowel has a high tone mark. Thus there are only two diacritics used for lexical tone in syllables with long vowels.

13

The table below shows how lexical tone is currently marked in Ipulo:

Phonemic Tone	Phonetic Tone	Grapheme (Diacritic)	Examples	Frequency
High	[á]	á	**ákwá** *a lie*	very many nouns and verbs
	[ā][1]		**énzuŋá** [énzùŋā] *a horse*	many nouns, no verbs
Low	[à]	a	**ombala** *frog*	very many nouns and verbs
Low-High short	[ǎ]		**ómunz** *lightning*	some nouns, few verbs
Low-High long	[àá]	aá	**iíndí** *chest*	very few nouns
High-Low short	[â]	â	**úkwə̂l** *house*	many nouns, verbs uncertain
High-Low long	[áà]	áa	**éetu** *male goat*	some verbs, few nouns

[1] The register for high tones is automatically lowered after low tones, producing a pitch for underlying high tones at the same level as mid tones.

Our proposal is to write all Ipulo words as they occur in isolation (i.e., as they occur when pronounced by themselves), and it is these forms that will be written in the dictionary. This means that the goal of spelling is to provide a consistent word image. One challenge in teaching this orthography is the perceived change in lexical tone based on a change in grammatical tone, particularly with verb forms. The people need to be taught that lexical tone marking is part of the meaning of the word and should remain fixed, even if the pitch of the word in context changes due to grammatical tone.

Ipulo speakers should have no problem reading or pronouncing the actual phonetic pitch of entire sentences as long as they easily recognize the meanings of all the individual words that make up that sentence and any grammatical tone markings that might be required by the orthography (see following section).

One problem for word image consistency in the tone orthography is words that are affected by tone spread. The tone of a noun prefix spreads to the root vowel of an opposite tone in many words. If it is a low tone that has spread, the second tone becomes a rise. If it is a high tone that has spread, the second tone is also high, but there is then a floating low tone that follows the word and affects the next word spoken. The following example illustrates:

válamb hítíhít	[válámb hītīhīt]	*orphans indeed*

A low tone noun root with a high tone prefix that spreads onto the root sounds like a word with high tone. A slight fall can be detected at the end of the word, but the fall is not always evident, or at least does not seem to consistently be in the consciousness of native speakers. When that same noun root is in the singular form and has a low tone prefix, the entire word has low tone. The following example illustrates:

[ɔ̀làmb]	*orphan*
[válâmb]	*orphans*

Since these tone changes are at the lexical level, Ipulo speakers are aware of the change in tone from singular to plural. They also want to mark these plural noun forms for high tone. Below is an example:

singular	**olamb**	[ɔ̀làmb]	*orphan*
plural preferred	**válámb**	[válâmb]	*orphans*
plural with consistent word image	**válamb**	[válâmb]	*orphans*
plural form that is most transparent[1]	**válâmb**	[válâmb]	*orphans*

[1] To be transparent means the word is written in a way that shows all tone changes.

The current proposal is to write these words with a consistent word image, therefore changing only the prefix from singular to plural and leaving the root marking unchanged. This may be a challenge for beginning readers, but with practice the consistency of the word image will aid reading and writing fluency.

By contrast, Ipulo speakers do not seem aware of a spreading low tone from prefix to root, or at least see no need for it to be marked. By teaching the singular and plural forms together, people recognize that the noun root has a high and not rising tone. This same method might also be employed to teach spreading high tones, so that the people will learn that the noun root has a basic low rather than the derived tone they hear, either falling or high. As with spreading high tone, the proposal

with spreading low is to not mark these changes in phonetic pitch, thus preserving a consistent word image between singular and plural forms.

The following examples illustrate the relationship between singular and plural forms with a spreading low tone:

singular form with a consistent word image and also preferred	**eyú**	[èjǔ]	*bumblebee*
singular form that is most transparent	**eyuú**	[èjǔ]	*bumblebee*
plural	**éyú**	[éjú]	*bumblebee*

To write the more transparent form would involve doubling the vowel, which results in a significant change in the word image from the singular to the plural, and that is less appealing to the people.

There are certain words of different meanings that have the same tone pattern (i.e., homophones):

égh	[ɛ́ɣ]	*egg* (NC**7/6**)	**ívi**	[ívì]	*goats*
égh	[ɛ́ɣ]	*python* (NC**7/8**)	**ívi**	[ívì]	*those things* (NC**8**)

There are other words of different meaning that are written identically even though they have different tone patterns (i.e., homographs):

omo	[òmò]	*one* (NC**1**)	**emo**	[èmò]	*one* (NC**9**)
omo	[ómò]	*he remained*	**emo**	[ɛ́mò]	*it remained*

The words with different tone patterns have identical markings because of their grammatical categories. Verbs have a toneless subject-agreement marker that takes the polar tone of the verb root. The realized pitch of a subject-agreement marker on a low tone verb is high, but is unmarked for tone because it is lexically toneless. Noun modifiers have prefixes that have either high or low tone. If the modifiers above were modifying nouns of a high tone noun class, then the prefix would be marked for high tone, as in **úkûnd ómo**, *one hoe*.

It is our feeling that these words can be marked in the same way and that they will be disambiguated by how they are used in context, particularly if the words are of different grammatical categories. More of these pairs are likely to be found as research continues.

3.2 Grammatical meanings marked by diacritics

Many Bantoid languages need additional diacritics for specific grammatical meanings because these meanings are often signalled by various changes in pitch throughout the sentence. In Ipulo, adding prefixes and suffixes to verb roots usually changes the pitch of the entire word. The following examples illustrate:

mekáŋg	[mɛ̀káŋg]	*I roasted*
mikekáŋg	[mìkɛ́kàŋg]	*I do roast/am roasting*
mikekáŋga	[míkɛ̀kàŋgá]	*I am about to roast*
mekáŋga	[mɛ̀káŋgà]	*I was roasting*
mekáŋganá	[mɛ̀kàŋgánâ]	*I will roast*

The lexical tone of verbs needs to be marked because of the high frequency of minimal tone pairs. For example, with the above example, if the lexical tone of the root were not marked because of the change in pitch, the meaning of the word would change:

mikekáŋg	[mìkɛ́kàŋg]	*I am roasting*
mikekaŋg	[mìkɛ́kàŋg]	*I am closing*

The contrast between the root tones in the above example is neutralized because of grammatical tone. The words sound identical even though their root tones contrast.

In Ipulo, the consonants and vowels of the prefixes and suffixes by themselves are usually sufficient to indicate the conjugated form intended. Therefore, diacritics are not typically needed to indicate grammatical tone in Ipulo.

However, there is one exception. One suffix, which we are calling the durative suffix, can be elided in certain contexts. In the above list, the durative form of the verb *to roast* is **mekáŋga**. However, if the verb root is CV and the vowel is not **"i"** or **"u"** then the durative suffix elides:

Phonemic				Orthographic
/mikúhù	mù	omà-a	íkóŋg/	**Mikuhu mu öma íkóŋg.**
1SG-come.upon	3SG.PRO	3SG-mould-DUR	NC7-pot	*When I came upon him he was moulding a pot.*

17

If the vowel of the CV verb is an **"i"** then it becomes **"y"** and if it is an **"u"** then it becomes **"w"**:

Phonemic	Orthographic
/mikúhù mù okpí-a/ 1SG-come.upon 3SG.PRO 3SG-tend-DUR	**Mikuhu mu ökpya.** *When I came upon him he was tending (the animals).*

| /mikúhù   mù   upù-o/
1SG-come.upon 3SG.PRO 3SG-do-DUR | **Mikuhu mu üpwo.**
When I came upon him he was doing (something). |

When the durative suffix is elided, the resulting form looks like a perfective if it remains unmarked for grammatical tone:

uwe	[úwɛ̀]	*he went away*
*****uwe**	[úwɛ̂]	*he was going away*

We believe that this kind of situation is best handled with the use of a diaeresis to indicate durative meaning. However, in order to preserve the important lexical tone marking for high tone verb roots, we recommend placing the diaeresis over the prefix vowel. Additionally, rather than use the diaeresis only when the root vowel has elided, we recommend that it is used for every verb written in durative aspect, to simplify the construction. The following examples illustrate:

uwe	[úwɛ̀]	*he went away*
üwe	[úwɛ̂]	*he was going away*
upu	[úpù]	*he made*
üpwo	[úpwɔ̀]	*he was making*
ukínd	[ùkînd]	*he ran away*
ükíndo	[úkìndɔ́]	*he was running away*

A verb with the durative suffix is commonly used with another verb in the same sentence, in order to explain that something was happening at the moment that something else occured. The something that was happening is given the durative suffix. The following two sentences show that without grammatical tone marking the consonants, vowels and word-level tone diacritics would not be enough to indicate the difference in meaning intended. Therefore the diaeresis is added to the prefix vowel of the durative verb in the second sentence:

18

Wavá	**kekpá**	**vəŋkú.**	[wàvâ kèkpâ və̀ŋkú]
you.came	CONN.pound	clothes	

You came to wash clothes.

Wavá	**këkpá**	**vəŋkú.**	[wàvá kékpâ və̀ŋkú]
you.came	we.pound.DUR	clothes	

When you came we were washing clothes.

We recognize that there is a need for more work on the subject of grammatical tone, particularly to study the potential need for additional diacritics to indicate grammatical categories wherever not marking them results in ambiguity. For the time being, Ipulo speakers should use the lexical tone marking rules and take note of any additional grammatical ambiguities.

3.3 Tone orthography rules

To teach the patterns of high tone and how to mark it, a list of provisional tone orthography rules have been written:

1. High tone is a high pitch that is part of the meaning of certain words. When you hear the high tone, you write a line slanting upward above the letter that carries high tone: á, é, ə́, í, ó, ú. Each word has one of the following tone patterns:

   A. No high tone: **ekwok** *chicken*

   B. High tone throughout the entire word: **vétám** *mushrooms*

   C. High tone only at the beginning: **ánil** *elephants*

   D. High tone only at the end: **mansá** *comb*

   E. High tone in the middle: **mumwə́nyémwe** *stars*

   F. High tone alternating with low throughout the word: **énzuŋá** *horse*

2. Always write the lexical high tone mark of high tone verbs on the root vowel. The realized pitch of verb roots can change when prefixes and suffixes are added. Even if the realized pitch of the root vowel changes when affixes are added, always write the high tone of a high tone verb root and leave other verb roots unmarked. This is to distinguish the important difference in the meaning of verb roots with high tone from the meaning of verb roots with low tone. This is illustrated in the following sentences with the verb meaning *roast*, which has high tone, and the verb meaning *close*, which has low tone. The realized pitch on the conjugated verb as pronounced is shown in phonetic brackets after the example sentence. Note that contrast is neutralized in the imperfective forms:

   A. **Mekáŋg ásomb.** ⌈ ‾⌋ *I roasted plums.*

   B. **Mekaŋg úkwə̂l.** ⌈‾ ⌋ *I closed the door.*

   C. **Mikekáŋg ásomb.** ⌈ ‾ ⌋ *I am roasting plums.*

19

D. **Mikekaŋg úkwə̂l.** ⌈ – ⌉ *I am closing the door.*
⌊ – – ⌋

3. One verbal affix is marked for high tone, **ná**. The reason for this is that it needs to be distinguished from the verb root **na**, meaning *give*. This suffix is also found in relative pronouns and at the beginning of a subordinate clause.

Vawo		**etwo**	**vekpés**	**vana**	**váatu.**
they-grind		thus	they-separate	they-give	people

They grind (the hot peppers) this way and they dish them out to the guests.

Və̂kawo		**etwo**	**vavaná.**
they-grind		thus	they-will.come

If they grind (the hot peppers) this way, they (the guests) will come.

Ná vawo		**etwo**	**ni**	**vekpés**	**vana**	**váatu.**
SC they-grind		thus	SC	they-separate	they-give	people

When they grind (the hot peppers) this way, they dish them out to the guests.

4. When writing a word to express an ongoing action, place a diaeresis above the first vowel of the word:

A. **Mikuhu mu öhúta úswó.** *When I came upon him he was filling his bag.*

B. **Mikuhu mu ühíko.** *When I came upon him he was farming.*

C. **Mikuhu mu öma íkóŋg.** *When I came upon him he was moulding a pot.*

4 Word division

Ipulo word division needs to be examined further at some later point in time. In the meantime, we make the following recommendations:

4.1 Nouns and their modifiers

We recommend that all the noun class prefixes be written as part of the nouns, as shown below:

Class	Noun	Gloss
1	**otávíní**	*elder*
2a	**vátávíní**	*elders*
2	**vagbugbu**	*towels*
3	**óhwoŋg**	*river*
6	**áhwoŋg**	*rivers*

6a1	**masomb**	*plum trees*
6a2	**munwón**	*birds*
7	**íwulə**	*cloth*
8	**víwulə**	*cloths*
9	**ihek**	*monkey*
10	**íhek**	*monkeys*
12	**ínwón**	*bird*
14	**wósomb**	*plum tree*

Further, all concord prefixes are also written with their modifying roots as single words:

Class	Adjective *sharp*	Example
1	**osa**	**opúl osa** *sharp knife*
2	**vása**	**vəkə́v vása** *sharp boxes*
3	**ósa**	**úkûnd ósa** *sharp hoe*
6	**ása**	**ápúl ásá** *sharp knives*
6a1	**masa**	**masá masa** *sharp edge*
6a2	**mosa**	**muŋanzílí mosa** *sharp jiggers*
7	**ísa**	**íŋ ísa** *sharp tooth*

8	**vísa**	**vétíná vísa** *sharp machetes*
9	**isa**	**enum isa** *sharp nail*
10	**ísa**	**énum ísa** *sharp nails*
12	**kása**	**íŋanzílí kása** *sharp jigger*
14	**wósa**	**úwûmb wósa** *sharp paddle*

4.2 Verbs

We recommend that verbal affixes be written as part of the verbs because of roundness harmony, prefix alternations and lexical tone that is neutralized with most prefixes and suffixes:

Verb form	Example	Gloss
perfective	**mekáŋ**	*I roasted (them).*
imperfective /ki, ke/	**mikekáŋ**	*I am roasting (them).*
surprised speaker with imperfective /pi, pe/ repetitive without imperfective	**wəkipekáŋ** **wəpekáŋ**	*You are roasting (them) (but I did not expect you to).* *You are frying (something) again.*
surprised hearer with durative /ti, te/	**mitekáŋga**	*I am going to roast (something) (even though it appears to you that I am not).*
durative /o, a/	**mekáŋga**	*I was roast (them).*
completive /ini/	**mekáŋgini**	*I was roasting (and have finished).*
conditional /ana/	**mekáŋgana**	*I will roast (them).*
interrogative /i/	**wakáŋgi**	*Did you roast (them)?*

4.3 Prepositions and pronouns

By contrast, we recommend that prepositions and the pronouns that follow as their objects be written as separate words, even though roundness harmony affects the pronunciation of the prepositions. The vowel orthography rules ensure that the prepositions are always written with "**i**" instead of the /u/ that results from roundness harmony, either from a rounded vowel or a rounded glide following the preposition:

Prepositions			
ki	**Ogh ki katya.**	[ɔɣ kì kàtjà]	*He put it into the hourglass basket.*
	Menzili ki mol.	[ménzìlì kù mɔ̀l]	*I moistened it with water.*
ni	**Mevá ni tíndye.**	[mèvâ ní tíndjĕ]	*I brought a guitar.*
	Mevá ni munwón.	[mèvâ nù mùnwɔ́n]	*I brought birds.*
wi	**Memak wi walawá.**	[mémàk wì wàlàwá]	*I placed it on the sand.*
	Memak wi kubo.	[mémàk wù kù[↓]bɔ̂]	*I placed it on the mat.*

Prepostitions and Pronouns				
Person/Noun class	**Pronoun**	**Prepositions with object pronouns**		**Translation**
1SG	**me**	**Ová ni me.**	[ɔ̀vâ nì mɛ̀]	*He came with me.*
1PL	**hu**	**Ová ni hu.**	[ɔ̀vâ nù hù]	*He came with us.*
2SG	**wə**	**Ová ni wə.**	[ɔ̀vâ nù wə̀]	*He came with you.*
2PL	**wun**	**Ová ni wun.**	[ɔ̀vâ nù wùn]	*He came with you.*
3SG, NC 1	**mu**	**Ová ni mu.**	[ɔ̀vâ nù mù]	*He came with her.*
3PL, NC 2	**wə́**	**Ová ni wə́.**	[ɔ̀vâ nú wə́]	*He came with them.*
NC 3	**yú**	**Ová ni yú.**	[ɔ̀vâ nú yú]	*He came with it.*
NC 6	**ywó**	**Ová ni ywó.**	[ɔ̀vâ ní ywɔ́]	*He came with them.*
NC 6A1, 6A2	**mó**	**Ová ni mó.**	[ɔ̀vâ nú mɔ́]	*He came with it/them.*

NC 7, 10	**yí**	**Ová ni yí.**	[ɔ̀vâ ní yí]	*He came with it/them.*
NC 8	**ví**	**Ová ni ví.**	[ɔ̀vâ ní ví]	*He came with them.*
NC 9	**ywo**	**Ová ni ywo.**	[ɔ̀vâ nì ywɔ̀]	*He came with it.*
NC 12	**kwó**	**Ová ni kwó.**	[ɔ̀vâ nú kwɔ́]	*He came with it.*
NC 14	**wú**	**Ová ni wú.**	[ɔ̀vâ nú wú]	*He came with it.*

5 Elision

In prepositional phrases and coordinate constructions with conjunctions, when the preposition or conjunction ends with **"i"** and the second word starts with a vowel, the first vowel is elided. However, in the orthography this vowel is still written.

Memak   ki   úswó.   [mɛ́màk kúswɔ́]

I.place   PREP   bag

I placed it in the bag.

Additionally, when elision occurs between two words, each word is written in its entirety. The following example illustrates this:

Uwe   óyu   ki   ótu   óhwoŋg.   [íwɛ̀ ɔ́yu kɔ̀tɔ́hwɔ̀ŋg]

he.left   there   PREP   ear   river

He went over to the river bank.

6 Punctuation and capitalisation

The punctuation marks and the rules that govern the Ipulo language are the same as those for English. The punctuation marks and capitalisation used for Ipulo are therefore as follows:

1. Full stop (.)

2. Question mark (?)

3. Exclamation mark (!)

4. Comma (,)

5. Colon (:)

6. Semicolon (;)

7. Quotation marks (" … ") and (' … ')

8. Capitalisation

9. Parentheses (brackets)

6.1 Full stop

The full stop (.) in Ipulo marks the end of a declarative sentence.

Meyám   wə   íwulə yenu.

I.bought   you   cloth   best

I bought you a new cloth.

6.2 Question mark

The question mark (?) marks the end of an interrogative sentence.

Mikishi   úvín   hi   wəvíni?

I.do.strum   dance   SC   you.dance.CONT

If I play a song will you dance?

6.3 Exclamation mark

The exclamation mark (!) is written at the end of a command, or it is placed following exclamatory words or phrases. It functions to express interjections, surprises, excitement, and forceful comments as well as simple commands.

Mili!

swim.IMP

Swim!

Miluk kewo   eŋgal   ni   emgbi   evá   etíŋ

I sat   CONN.grind   pepper   PREP   pig   came   took

íti!

grinding.stone

While I was grinding peppers, Pig came and took the grinding stone!

6.4 Comma

Commas (,) are used to separate clauses or parallel words within a clause.

Át   kokwól   étí,   íhú   kitó   kevá

woman   does.hold   stick   fish   CONN.begin   CONN.come

utóhi.

she.scoop.CONT

As the woman holds the stick and the fish begin to enter, she scoops them into the net.

Kölwa	**nowh**	**uŋgwo**	**sup,**	**ni**	**wume**	**ni.**
she.removes	down	inside	all	SC	CONN.finish	SC

When she has removed everything from inside (the pot), the meal is ready.

Vékan	**vekwólunu**	**íhú**	**ŋgó:**	**kaha,**	**untúfú,**
things	catch.PTCP	fish	there	long.net	casting.net

uhúŋg.
rimmed.net

We use these things to catch fish: a flat net, a casting net and a rimmed net.

6.5 Colon

Colons (:) are used to introduce a list of similar items.

Vékan	**vekwólunu**	**íhú**	**ŋgó:**	**kaha,**	**untúfú,**
things	catch.PTCP	fish	there	long.net	casting.net

uhúŋg.
rimmed.net

We use these things to catch fish: a flat net, a casting net and a rimmed net.

6.6 Semicolon

Semicolons (;) are used to separate longer clauses within a long sentence.

Mikiwe	**ki**	**úkwəl**	**ya;**	**káli.**
I.IMPF.go	PREP	house	NEG	ADV

I'm not going to the house; it's too far away.

6.7 Quotation marks

Quotation marks (" … ") occur at the beginning and end of direct speech.

Íkpókó	**esuku,**	**"Amo**	**mikiwe**	**ye?"**
turtle	say.CONT	maybe	I.IMPF.go	Q

Turtle said, "Maybe I could go?"

Note: In English and Ipulo, other punctuation marks always precede closing quotation marks when they occur next to each other.

6.8 Capitalisation

Capital letters are used at the beginning of sentences or titles, and for proper nouns.

First word in a sentence:

Át yomo uví wón evé.

woman INDEF.one gave.birth children her

A certain woman gave birth to her children.

First word in a title:

Vékan vekwólunu íhú

things catch.PTCP fish

Things that catch fish

Proper nouns:

Ilúk yiná Ekwot Omgba utək ni wón evé ni:

place PRO Ekwot Omgba began with children his SC

Upul Ekwot, Ulit Ekwot, Ovand Ekwot.

Upul Ekwot Ulit Ekwot Ovand Ekwot

This is the place where Ekwot Omgba settled with his children: Upul Ekwot, Ulit Ekwot, Ovand Ekwot.

After a colon IF what follows the colon is a complete sentence:

Yum yomo ni át uwe: "Wəyi át owam.

husband INDEF.one with wife his you.are wife mine

Meyám wə íwulə yenu."

I.bought you cloth best

A certain man with his wife: "You are my wife. I bought you a new cloth."

If what follows the colon is not a complete sentence, a capital is not used:

Vékan vekwólunu íhú ŋgó: kaha, untúfú,

things catch.PTCP fish there long.net casting.net

uhúŋg.

rimmed.net

We use these things to catch fish: a flat net, a casting net and a rimmed net.

6.9 Parentheses

Parentheses (brackets) are used to insert background information into a text.

Etiŋ	owutina	íti		eŋgal	yi	át
he.picked.up	instantly	grinding.stone		pepper	of	wife

yi	íkpókó.	Emal		nowh	iŋgi	(ná	emal
of	turtle	he.threw.away		down	out	SC	he.threw.away

etwo	ni	sáníŋgá	emal		íkpókó	yiŋgo).
thus	SC	ironically	he.threw.away		turtle	there

At that instant he grabbed the woman's grinding stone. He threw it outside (actually throwing Turtle away instead).

Vékan	ívi	kewún	(uhúlúkpa	ni	kokúl oyu),
things	these	IMPF.grow	corn	and	yams those

át	koondu	uwund	kokúl.
woman	IMPF.she.harvests	she.wants	yams

When these crops have matured (that is the corn and yams that were planted), a woman will come to harvest the yams.

7 Sample text

This text is from an explanation of how the Ipulo people have traditionally fished in the river. It was an oral teaching from Apit Philip, a native speaker of Ipulo, and revised into writing by members of an Ipulo transfer literacy class and the Ipulo Language Committee.

Vékan vekwólunu íhú ŋgó: kaha, untúfú, uhúŋg. Ékan yémo vəkavíl kaha yi ihú. Kikegh okul ki óhwoŋg. Kikelów áyáv énda. Keswóh oswóh oswóh kegh ki óhwoŋg. Kekpá okul. Ketiŋ kaha oyu. Kela wi étí. Kegh nowh uŋgwó. Ketiŋ esayi íhú ŋgó. Hu vámbútú ni kikipu eta ni kekwól étí yi kaha ki áwo. Ihú kevá kehám. Ketiŋ.

Étí këmo óŋánzá óŋánzá. Kegh uhúŋg esayi nohuwe. Át kokwól étí, íhú kitó kevá utóhi. Ihú etwot nowh uŋgwo. Otiŋ esayi. Vəkayí íhú vakund. Wəyí ki wúkwow.

Untúfú vəkaywoh van ki óhwoŋg. Kikipu élâv. Kikeswén kehúnd esayi. Kekpáliki ókpálíkí ókpálíkí kemak ki eyup. Eyúm. Kitó eyúmunu ketiŋ. Kihili esayi. Kihili ókál ghili ghil. Kume ketúl esayi. Kitúm untúfú ŋgó. Untúfú ni vəkaywóh van ki óhwoŋg ni taywóh. Kikitúm mu ki élâv. Íkúŋg ivili kevá ya.

English Translation

We use these things to catch fish: a long net, a casting net and a rimmed net. One of these things is called a long fish net. Before using the long net we put poison into the river. To make the poison we pick a certain leaf. We pound this leaf into a paste with a stone and put the paste into the river. We push the poison down with a stick. Then we bend a stick and attach it to the long net. We men do this, holding the net by the stick with our hands. When the fish come we position the net underneath them. Then we take up the fish in the net.

To make the rimmed net, we form a stick into a circle and attach a net to it. The women use these nets, holding the rim and scooping the fish into the net as they come near. The fish enter inside and the women take up the net. Once they have killed the fish they have caught, they cook them. You eat the fish with fufu.

A casting net is cast out over the river. To make the casting net, we cut down a certain type of vine. We strip it thoroughly and then place it in the sun. It dries out. Once it is dry, we roll it to form string. This process takes a long time. Once the rolling is finished, we weave the rolled strips into a casting net. This net is then cast out over the river. We used vines to weave the casting net when fishing lines had not yet come to us.

8 Need for further testing of the orthography

Any new orthography needs people to use it for a time before potential problems reveal themselves. It is our hope that this proposal will be a significant first step in allowing people to start reading and writing the Ipulo language.

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